From Black Board to White Board and Beyond: The Role of ICTs in Reforming English Language Classrooms in Tamil Nadu

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Abstract
This article examines the emerging role of ICTs in enhancing English language teaching-learning process from traditional blackboard-centric classrooms to borderless possibilities of information and knowledge with special reference to the success of digital education policies in Tamil Nadu. Though there are many studies that reflect the relationship between Information and Communication Technologies (ICTs) and English language teaching and learning processes, they restrict themselves to the impact of positives and/or negatives of online methods and they fail to coherently capture the complex possibilities of horizontal widening and vertical deepening of the traditional classroom settings due to technology. Based on a detailed examination of human-technology-language interaction in different spheres, this study finds that even though there are innovative outputs driven by technological aids, traditional face-to-face teaching and learning cannot be completely replaced in English language classrooms as technology is a means, and not an end.

Keywords: English language, ICTs, English classrooms, teaching-learning process

Introduction
Technology, inevitably permeated into our day-to-day lives, and has expedited almost everything from communication to artificial intelligence for ease, innovation, and efficiency. The booming technology sector that reports a substantial growth from 1.2 per cent in 1998 to 8 per cent in 2020
in contributing to India’s GDP indicates how technology has accelerated over these years proving to be a catalyst in the Indian economy (IBEF, 2021). The Information and Communication Technology (ICT) revolution has impacted and broadened the scope of a wide range of sectors such as business, finance, education, agriculture, medical science, and entertainment amongst several others. The educational sector is one of the interesting realms to observe the transformative effect of technology by envisaging a new relationship with the English language. Proficiency in English has smoothened the learning processes in most of the disciplines including Basic Sciences, Mathematics and Engineering. In addition to academic relevance, English plays a key role in employment sectors as the latest job markets have started to look beyond academic outputs to extra-curricular aspects, soft and communication skills. In a nutshell, the growth of English as an important aspect in an individual’s life is an indispensable fact today. Given this growing importance, significance and applicability of English language, it is worth examining the ways in which English teaching and learning processes can be improved. This study looks at the co-evolving nexus between English language and ICTs in ensuring the emergence of English as the language of technical communication along with increasing the spirit of digital learning. It also explores the role of ICTs in redefining the context, content and contours of English language and literature. Significantly, the advantages and disadvantages of these above mentioned factors in English language classrooms are explored with evidence from Tamil Nadu.

ICT in Education

Technology can “facilitate universal access to education, bridge learning divides, support the development of teachers, enhance the quality and relevance of learning, strengthen inclusion, and improve education administration and governance” (UNESCO, 2021, para. 3). The integration of Information and Communication Technology in the education sector in a developing country like India evinces the impact of globalization in fostering the process of learning and teaching. Since its slow but steady germination in the 1990s, the role of ICTs has been increasingly prioritized by the national and state governments. One of the initial developments to link English language and the scope of technology was under the auspices of the International Association of Teachers of English as a Foreign Language (IATEFL). In 2000, they conducted a conference
on CALL (Computer Assisted Language Learning) in Spain (Brett, 2001). This was further supported by governments and other private players. Realizing the necessity to frame the policy outlooks, the Government of India formulated ‘Digital India’ in 2015. Digital infrastructure as a core unity to every citizen, government and services on demand, and digital empowerment of citizens are the three core vision areas of the ‘Digital India’ programme (Government of India, 2021). One of the key areas of ‘Digital India’ is the predominant consideration for digital education and the overall reformation of the traditional education system in the country (Alam, 2020). The subsequent structural reforms introduced in the Indian educational system have incorporated the significant contributions of ICTs in innovating education. Consider for instance, the New Education Policy introduced in 2020 that rightly recognizes the indispensable connection between technology and education. According to the NEP,

The Digital India Campaign is helping to transform the entire nation into a digitally empowered society and knowledge economy. While education will play a critical role in this transformation, technology itself will play an important role in the improvement of educational processes and outcomes; thus, the relationship between technology and education (at all levels) is bi-directional. (MHRD, Government of India, 2020, para. 1)

This co-evolution of technology and education is highly required for developing countries like India with a huge share of young population (Pitroda, 2020). NEP further explains, “Every classroom will be developed into a smart classroom in a phased manner, for using digital pedagogy and thereby enriching the teaching-learning process, with online resources and collaborations” (MHRD, Government of India, 2020, para. 1). National Programme on Technology Enhanced Learning (NPTEL) can be cited as a suitable example for the successful integration of technology and education in India that has revamped traditional teaching and learning processes. In other words, through the successful integration of technology with educational practices, there is a visible behavioural change both in teaching and learning processes.

National policy initiatives in enhancing education through various ICT supported measures are actively supported by respective state governments. Tamil Nadu won the ‘Excellence in Digital Governance’
at the Digital India Award in 2020 for the exemplary initiatives in developing digital infrastructure in the state (The Hindu, December 31 2020). This can be considered as one of the successful outcomes of the Tamil Nadu ICT Policy launched in 2018 that has brought in a top-down policy direction to enhance digital infrastructure including e-learning. Tamil Nadu stands fourth in the national ranking of internet penetration among the population with 93 per cent in the urban areas and 40 per cent in the rural areas (Kabirdoss, 2021). This is a good sign that there is an increasing acceptance of information and communications technology tools among the urban as well as rural population of Tamil Nadu. On the impact of ICTs, education, similar to many other sectors, is also witnessing revolutionary changes due to the growing top-down policy support from the government as well as the bottom-up acceptance of the population. The upcoming section examines how these mutually reinforcing top-down and bottom-up ICT trends contribute to the evolution of technology-enabled learning with respect to the case of English language education in Tamil Nadu. It also examines how traditional methods such as black-board based classroom teaching and learning paves the way for new processes and practices.

**English, ICTs and the Changing Classroom Settings**

Within the educational system of India, English has come to the fore as the preferred language and a major ground for empowerment and progress. Tamil Nadu witnessed an increase in the number of Tamil-English bilinguals during the British reign in Madras. Since then, the power held by the English language as a medium of communication makes it a ‘must-learn’ language to gain access to mainstream developments. Equal right over the language hence becomes imperative to rectify socio-economic marginalization that prevails in the country. The parallel ascendancy of English as a global language of communication during globalization and beyond, further cemented this ‘must learn’ status. From a handful of English medium schools in Madras city, there witnessed a sharp increase in the number of English language training institutes across Tamil Nadu Presidency during the colonial period and decades of independent India. The next section examines how ICTs revolutionize the traditional ways of teaching and learning the English language.

1. **Emergence of English as the Language of Technology**

Technological advancements have offered several windows of
opportunities. Among many, the realm of communication holds greater significance. Since the very beginning of global interconnectedness among societies and the contemporary age of ICTs, growth in human communication is parallel with the growth of English as an international language. Without English as the common language, the growth of technology would have been slow. The changes in the communication process among humans have undergone rapid transformation with the advent of technology. According to Kurzweil, “human language does evolve, as do all forms of technology. Along with the evolving forms of language itself, technology has provided ever-improving means for recording and distributing human language” (1999, p. 15). In these processes of technology-enabled recording and distribution, the English language plays an unquestionable role. Over a period of time, from the era of enlightenment to the contemporary world order, the English language has now monopolized inter-societal and international communication processes by clearly marking its globalness (Crystal, 2003). In the field of education, this nexus between the English language and technology has now offered new means of communicative channels / measures (Nunan, 2003), such as online classes, online meetings, email services, digital data materials, digital writing and presentation, storing and transfer of information and many other digital services. A good command over English as well as updated information about ICTs is now necessary for everyone in the education sector. As stated in a textbook for teacher trainers titled Pedagogy of English (Part–I Methodology), “the development of Information and Communication Technology is reducing the chalkboard work” (TNTEU, 2017, p. 35). This corroborates the comprehensive realization of the contributions of technology in English language teaching.

2. Increasing the Spirit of Digital Learning

One of the most important contributions of technology to the field of education in general is the online platforms which promote learner centricity. Kurzweil (1999) predicted that much of the instructional time learners spend in an online classroom will consist of interaction with computers. In English language teaching, online courses and methods are being developed by the major publishers and providers of English language teaching (Kurzweil, 1999). Various aids such as films, mobile-based learning, multimedia presentations like power-point, and language laboratories facilitate teaching and learning processes
effortlessly. According to T.M. Gnanasoundari (2017), “Film provides students with examples of English used in ‘real situations outside the classroom, particularly the language of real-life conversation. Film exposes students to natural expressions and the natural flow of speech” (p. 113). Lena Lee (2015) finds that “Children use not only traditional, typical toys and materials such as blocks, dolls, balls, puzzles, sand, but also, they interact on a daily basis with technology like digital media” (p. 947), which opens up new terrains of thought. According to the study conducted by the India Cellular and Electronic Association (ICEA), Tamil Nadu today is one of the fifth largest android users in the country (ICEA, 2020). According to Ramya Gangaiamaran and Madhumathi Pasupathi of Vellore Institute of Technology Chennai (2017), Mobile Assisted Language Learning (MALL) provides new ways of acquisition of language skills such as listening, speaking, reading and writing skills. They also observe that MALL might overpower Computer Assisted Language Learning (CALL) in terms of portability and mobility, social connectivity, context sensitivity and individuality. A language laboratory is a specially designed room where students practise speaking and listening with the help of tape-recorders, earphones, microphones and/or other sound equipment chiefly as an audio-lingual supplement to the class work (Gnanasoundari, 2017). The laboratories were first introduced by the state government in 2005, in some selected schools across Tamil Nadu (Indian Express, 2009). The government has allocated Rs. 1445.03 lakhs solely for language development in schools across Tamil Nadu in the academic year 2018-19 alone (Department of School Education, Government of Tamil Nadu, 2018). According to the Vice-Chancellor of Tamil Nadu Agricultural University, the slew of pre-loaded self-learning software would enable students to sharpen their English language communication skills needed for placements and higher education in India and Abroad (The Hindu, 2021). It is also worth noting that language labs are effective not only for students, but teachers too. Consider for instance, Tamil Nadu State Council for Education Research and Training (SCERT), organized a five-day training programme for teaching practitioners on pronunciation. Besides focusing on pronunciation, vowels, consonants, and diphthongs, the training focused on word stress, sentence stress and intonation as well (School Education Department, Government of Tamil Nadu, 2018). Finally, Power Point presentations are used in the educational sector widely as visuals to supplement the teachers’ words. It is an
instructional tool that helps the teacher teach vocabulary, grammar and language games especially in schools (Gnanasoundari, 2017). Though online platforms promise to offer increasingly useful, affordable, and accessible applications and tools, P. Ganesan & P.C. Nagasubramanian (2017) warn that, “teachers using technology need to continue to provide opportunities for in-person interaction to promote English language and literacy development. Further research is needed on the impact of different uses of technology and how they promote English acquisition over time” (p. 10).

3. Redefining the Context, Content and Contours of English Language and Literature

With the co-evolution of technology and language as well as rapid proliferation of digital and other educational tools, the content and contours of English language are being redefined unprecedentedly. As a result, there is an increase in the number of English speakers in India and Tamil Nadu in particular (Sivakumar, 2018). In sectors such as education and employment, there is a significant trans-boundary communication happening in various capacities, surfaced predominantly due to ICTs. All the 53 universities in Tamil Nadu have Memorandum of Understandings (MoUs) with other universities across the globe which enable them to allow exchange of graduate, postgraduate, doctoral and postdoctoral students, conducting collaborative research, exchange of faculties for lectures and research. This not only contributes to the production of scientific knowledge, but also produces a layer of Tamil-English bilinguals in academia. Social media platforms are an excellent tool to maintain borderless communication with others. Social media networks are now considered sites of various academic as well as other kinds of debates which produce and reproduce knowledge among respective stakeholders. As a result of this, according to Drew P. Cingel & S. Shyam Sundar (2012), there is a modification to the “standard English words (i.e. word adaptation) using abbreviations (e.g. brb for be right back), omitted non-essential alphabets (i.e. wud for would), substituted homophones (gr8 for great), and de-emphasized appropriate punctuation and capitalization causing structural adaptations to the English language” (p. 1317). An associate professor of English from Chennai says,

Because of the over usage of social media among the students, even in examination papers they use the same language style. And if we look at
this from the broad history and evolution of English language, we cannot completely reject them. (Malathi, personal communication, July 15, 2021) She argues from a critical literacy perspective that without the value judgment, every communication should be taken into account as it signifies individual participation in society (Kaplan, 1995).

The increasing number of online writings is yet another aspect that affects existing English language learning and teaching. Due to the changing nature of technology enabled communication in English, the readers and audience have transcended national borders. The number of online bloggers, twitter handles, online story sites etc. keep increasing. Short digital stories are now considered a new literary genre with different formats such as flash fiction, mini-fiction, minute stories, sudden fiction, hint fiction, mobile phone fiction, and twitter fiction (Barnard, 2016). Micro-level penetration of communication technologies and grassroot English education co-jointly redefine the traditional notion on characters, story lines, narrations, relationships, birth, death and what not. More and more people started writing in English due to the above mentioned micro-level grassroot factors which diversified the existing literature. Subjective experiences of lower caste people, women and transgender have entered into the realm of English language due to the constructive contributions from micro-blogging and chat-handles. In addition to the issues of minorities, social issues such as protests against environmental pollution incidents are also supported by online media. The protest against the Kodaikkanal Mercury Poisoning which started in 2001 was successful only in 2015 because the protesters released a YouTube video (Kodaikkanal Wont) against the factory in 2015 that was viewed by millions of people in a short span of time. Both these incidents signify the grassroot penetration of the internet and a considerable layer of people with English proficiency in the state. In addition, whether we are addressing a regular classroom set-up or training professionals from diverse fields, teaching of the English language can be more effective if we introduce something which is not prescribed, rather something more unconventional to incorporate societal aspects (Viswamohan, 2004).

Finally the education sector itself is reaching out to the marginalized sections of the Tamil Nadu population due to the catalyzing effects of technology. For example, many children are faced with learning disabilities such as hearing impairment, speech impairment, visual impairment and cognitive impairment. In addition to ICT-based
specialized vocational training to perform functions within abilities, specialized keyboards, such as Braille, Braille printer, conversion of local language to Braille, screen readers, touch screens, eye tracking, talking word processors, screen magnifiers, etc. are the major ICT tools used to make education more inclusive (Mishra, Sharma & Tripathi, 2010). A sound proficiency in English is mandatory to ensure the effective learning and teaching through ICT-enabled teaching and learning aids. Every 10 out of 100 students in Chennai have some kind of Special Learning Disability (SLD) when compared to the national average 5 out of 100 (The Hindu, January 2020). According to the Department of Educational Planning and Administration, Government of Tamil Nadu, the use of ICT-enabled tools would be promoted in schools as it is an effective tool in reducing students’ learning disabilities and ensuring inclusive education (DEPA, 2018).

Conclusion

One of the major drawbacks in the increasing role of technology in the teaching and learning processes of the English language is the over-emphasis on ‘information/data’ that are available online. This is connected to the social pragmatism argument of the use of technology that criticizes the acceptance of technology as an end in itself, not as a means to social development. Brown and Duguid suggest “that envisioned change will not happen or will not be fruitful until people look beyond the simplicities of information and individuals to the complexities of learning, knowledge, judgment, communities, organizations, and institutions” (2000, p. 9). In order to reduce this over-reliance on ‘information/data’ and also to objectively approach the learning process, the role of trained teachers is vital. In the absence of teachers, ICT enabled learning processes would pave the way for unidimensional thinking among learners and restrict the production of knowledge. So it is highly recommended that the learning process should be blended in nature with both components; digital medium and face-to-face methods. By making learning possible both inside and outside classroom settings, blended learning allows learner autonomy in terms of pace, place, content, and time for learning facts, principles, and concepts and at the same time guarantees learning practical skills and acquiring expertise under expert human eyes (Jose, 2016).
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