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Technology-Mediated Language Pedagogy and Gender Equity: An Empirical Exploration in a North-East Indian Context

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Abstract—**The integration of Information and Communication Technology (ICT) into English Language Teaching (ELT) has emerged as a vital response to the paradigm shifts in education, particularly after the COVID-19 pandemic. This study, titled "Technology-Mediated Language Pedagogy and Gender Equity: An Empirical Exploration in a North-East Indian Context", investigates how ICT tools including Queer Cinema can promote inclusivity and gender equity in language classrooms. The research was conducted across three districts in the North-East Indian province of Assam—Sivasagar, Charaideo, and Majuli—using a mixed-method approach to collect and analyse both quantitative and qualitative data. The research explores the assessment of online platforms such as course management systems, virtual meeting tools, interactive digital applications, and computer-assisted language learning programmes, while simultaneously analysing educator and learner preparedness, organisational backing, and attitudes toward gender equity within technology-mediated educational settings. By analysing how male and female students access and engage with ICT resources, the research highlights patterns of usage, levels of participation, and potential barriers to equity. The findings suggest that ICT, when strategically implemented, can foster gender-balanced engagement, enhance learner motivation, and create inclusive ELT practices. Furthermore, the study proposes adaptive feedback mechanisms, localised policy recommendations, and scalable implementation models tailored to regional educational needs. Ultimately, digital technologies including LGBTQ+ Films are recognised not simply as supportive instructional tools but rather as a powerful catalyst for change in promoting equitable access to language education and equipping learners across genders for scholastic and professional advancement.**

Index Terms—**ICT in ELT, technology-mediated language, gender equity, inclusive language learning, hybrid pedagogy, Assam**

I. Introduction

In the twenty-first century, English Language Teaching (ELT) has been undergoing a significant transformation due to the rapid advancement of Information and Communication Technology (ICT). The integration of ICT into language education is no longer optional but essential, as it enriches learning experiences, supports diverse pedagogical practices, and addresses the evolving needs of learners in a globalised context (Warschauer, 2000; Hubbard, 2009). ICT enables multimodal, interactive, and student-centred approaches that enhance communication, participation, and learner autonomy (Selwyn, 2016).

Despite its potential, challenges remain in ensuring equitable access to technology-based learning. Gender disparities, socio-cultural barriers, and infrastructural limitations have restricted opportunities for many learners, particularly female students, in digital classrooms (UNESCO, 2021). The disruptions caused by the COVID-19 pandemic further highlighted these inequalities, exposing gaps in institutional readiness, teacher preparedness, and learner engagement (Dhawan, 2020). Therefore, there is a pressing need for frameworks that not only integrate ICT effectively into ELT but also promote inclusivity and bridge gender gaps in education.

The present study, "Technology-Mediated Language Pedagogy and Gender Equity: An Empirical Exploration in a North-East Indian Context" addresses these issues by examining how ICT tools such as Learning Management Systems (LMS), video conferencing platforms, collaborative applications, and language learning software can foster equitable learning environments. It emphasises the role of ICT in promoting gender-inclusive participation, enhancing digital literacy, and creating sustainable pedagogical models adaptable to different educational contexts.

Grounded in real-world data collected from Sivasagar, Charaideo, and Majuli districts of Assam, India, this research highlights localised challenges and opportunities in ICT-enabled ELT classrooms. It also underscores the importance of teacher training, institutional support, and adaptive feedback mechanisms to ensure effective ICT integration (Kessler, 2018). Ultimately, this study positions ICT including Queer Cinema as a transformative force in ELT—capable of democratising education, empowering both male and female learners, and preparing them with the communicative competence needed to thrive in academic and professional domains.

A. Research Problem

In spite of the increasing accessibility of Information and Communication Technology (ICT) tools in English Language Teaching (ELT), several challenges delay their successful operation and force on learning results.

These challenges consist of:

- Constraints in accessing suitable technological equipment and resources;
- Disparities in learners' technological skills and engagement;
- Limited capacity–building opportunities for educators to effectively implement digital tools;
- Inadequate implementation of personalised assessment and adaptive strategies;
- Constraints in fostering meaningful interaction in technology–mediated contexts;
- Socio-economic gaps affecting students' access to digital tools including queer cinema.

Tackling these challenges is essential to harnessing the transformative potential of digital technologies in reshaping English language teaching pedagogy and fostering purposeful, equitable, and high-quality language acquisition experiences.

B. Technology-Mediated Instructional Strategies

The research reveals that educators and learners have extensively utilised a range of digital technologies, including word processing software, online video-sharing platforms, web-based learning management systems, and other ICT applications like LGBTQ+ movies as teaching-learning materials (TLM). These digital platforms have been instrumental in facilitating diverse instructional and learning processes, such as disseminating lecture materials, administering web-based assignments, and accessing a broad spectrum of academic resources.

The adoption of digital technologies has substantially grown, especially amid the global health crisis. As academic activities and associated responsibilities transitioned rapidly to virtual platforms, professionals across diverse sectors increasingly relied on ICT systems to facilitate efficient communication, collaboration, and productivity. Within the educational domain in particular, technological platforms have become indispensable, offering crucial support to students and educators in addressing the disruptions and challenges triggered by the pandemic.

The proposed platform incorporates intelligent adaptive algorithms, rich multimedia resources, and immediate feedback mechanisms to strengthen fundamental English Language Teaching (ELT) competencies. It promotes active learner participation through interactive, contextually enriched digital modules; encourages collaborative interaction and genuine language application within virtual settings; delivers customised learning trajectories aligned with individual progress and requirements; improves evaluation processes through automated assessment systems and analytics-based insights; and supports adaptable instructional formats appropriate for conventional, hybrid, and fully online learning environments.

By engaging learners in authentic, technology-enhanced simulations and providing continuous, iterative practice opportunities, the platform cultivates communicative proficiency that is vital for academic achievement, professional advancement, and social integration in an increasingly globalised society.

This study responds to the growing need for scalable, inclusive, and high-impact ELT innovations that correspond with contemporary technological developments and learner expectations. It equips educators and students to confidently navigate the dynamic educational ecosystem, promoting enhanced language proficiency through forward-looking, ICT-enabled pedagogical strategies.

II. Literature Survey

The incorporation of Information and Communication Technology (ICT) into English Language Teaching (ELT) has

undergone substantial advancement over the last twenty years, attracting increasing scholarly focus on its instructional effectiveness, accessibility, and impact on learner participation. A wide range of research has underscored the innovative capacity of ICT to transform conventional language pedagogy into more engaging, learner-centred, and interactive educational environments.

The Technology-Mediated Approach to Language Education is based on Entrenched Theories and Pedagogical Skeleton:

Warschauer and Healey (1998) provided a foundational overview of the role of computers in language learning, emphasising that technology fosters interaction, learner autonomy, and communicative competence in English Language Teaching (ELT). Continuing this perspective, Warschauer (2000) explored how the Internet and telecommunication networks globalised English language education, making authentic communication and cross-cultural learning increasingly accessible.

Mumtaz (2000) highlighted that teachers are central mediators in integrating Information and Communication Technology (ICT) into classrooms. She noted that educators' attitudes, confidence, access to resources, and professional training play crucial roles in determining the success of ICT adoption. Supporting this, Prensky (2001) introduced the notion of "digital natives," emphasising that learners of the 21st century possess a natural affinity for digital tools and require interactive, technology-enhanced methods to remain engaged. This shift demanded pedagogical innovations that move beyond passive instruction toward participatory learning environments.

Levy and Stockwell (2006) expanded upon the theoretical and practical dimensions of Computer-Assisted Language Learning (CALL), identifying pedagogical, technical, and learner-related factors influencing successful implementation. Hubbard (2009) further compiled key research insights on CALL, stressing the importance of aligning technology use with sound linguistic pedagogy, adequate training, and reflective teaching practices. Despite growing enthusiasm for ICT, Bingimlas (2009) cautioned that barriers such as lack of infrastructure, limited digital literacy, insufficient technical support, and resistance to change remain prevalent, particularly in developing contexts.

Kukulska-Hulme (2012) introduced a framework for next-generation language learning, defining it by time and place flexibility through Mobile-Assisted Language Learning (MALL). This approach emphasised learner autonomy and ubiquitous access to language practice.

Selwyn (2016), in his critical examination of technology in education, has reminded educators to confront the socio-cultural and ethical implications of technological dependence and digital inequality.

In the realm of advanced digital applications, Kessler (2018) discussed how emerging technologies such as Artificial Intelligence (AI), data analytics, and immersive media are shaping the future of language pedagogy. Similarly, Godwin-Jones (2018) investigated how mobile and digital tools enhance both linguistic proficiency and intercultural understanding, enabling more adaptive and personalised learning experiences.

Within the Indian educational landscape, Kumar and Nanda (2019) examined the implementation of ICT in rural classrooms and identified significant inequalities between urban and rural students, emphasising the necessity for focused policy interventions to reduce digital disparities. The emergence of the COVID-19 crisis accelerated additional shifts and transformations within the educational system.

Dhawan (2020) described online learning as a necessary "panacea" during the crisis, while Jena (2020) observed that the pandemic accelerated ICT adoption but also exposed deep-rooted inequities in access, digital infrastructure, and pedagogical readiness.

UNESCO (2021) reinforced the global imperative for gender equality in education, advocating for inclusive digital learning environments. Reinforcing this perspective, Saxena and Pandey (2021) investigated gender-related constraints within ICT-enabled education in India, demonstrating that female students frequently encounter socio-cultural and infrastructural challenges that limit their engagement with digital platforms and adversely affect their educational achievement.

Collectively, these studies—from early CALL developments to modern digital equity research—illustrate the evolving integration of ICT in ELT. While technology has transformed teaching and learning through accessibility, interactivity, and personalisation, persistent challenges such as digital literacy gaps, infrastructural inadequacies, and socio-demographic inequalities continue to shape its impact. The present study builds upon this corpus by examining how gender, region, and institutional support influence the efficacy of ICT tools in English language teaching and learning.

III. Research Methodology

The researchers have designed and implemented an ICT-based framework entitled "Technology-Mediated Language Pedagogy and Gender Equity: An Empirical Exploration in a North-East Indian Context" to explore the role of technology in enhancing English Language Teaching and ensuring gender inclusivity. This methodology systematically integrates digital tools like third gender films etc. into classroom practices to address challenges in communication skills while simultaneously promoting gender equity in learning environments.

The study involved 650 students drawn from diverse higher education disciplines across the districts of Sivasagar, Charaideo, and Majuli belonging to the Indian state of Assam. Over a period of two months, ICT-based interventions were introduced into ELT classrooms, employing tools such as Learning Management Systems (LMS), video

conferencing applications, collaborative platforms, and digital assessment methods. The methodology followed a blended approach combining both qualitative and quantitative techniques. A structured course schedule was developed, embedding ICT activities that encouraged student participation, collaboration, and self-paced learning. Data was collected through survey questionnaires, classroom observations, and performance evaluations.

To systematically analyse outcomes, the methodology was divided into two phases:

A) Questionnaire Analysis – evaluating learners' perceptions, attitudes, and accessibility toward ICT in ELT.

B) Assessment of ICT Impacts – examining the effectiveness of digital tools including LGBTQ+ motion pictures in improving listening, speaking, reading, writing, and collaborative communication skills, with a particular focus on gender inclusivity and equitable access. This framework ensured progressive engagement of students, enabling them to transition from traditional to technology-supported ELT practices, while simultaneously providing insights into localised challenges and solutions for ICT integration in higher education.

Survey Questionnaire

The selected students were evaluated using a structured questionnaire to assess their perceptions and practices regarding the integration of ICT tools in English Language Teaching (ELT). The questionnaire focused on six key areas: ICT usage, gender inclusivity, teacher readiness, student engagement, institutional support, and post-pandemic ICT adoption.

(Appendix) Sample items from the questionnaire included:

- Do you use ICT tools such as Google Classroom, Moodle, MS Teams, Queer Cinema on You Tube, etc. for English learning? Yes / No
- Do you have independent access to ICT devices (smart phone, tablet, laptop, etc.)? Yes / No
- Do you face difficulties in accessing ICT tools due to connectivity issues? Yes / No
- Do you feel motivated to learn English through ICT tools? Yes / No
- Do you participate actively in collaborative digital activities (e.g., Padlet, Google Docs, Kahoot)? Yes / No
- Do you believe ICT helps you improve your speaking and writing skills? Yes / No
- Do you think female students face more challenges in accessing ICT tools compared to male students? Yes / No
- Do teachers in your institution use ICT tools including third gender movies etc. effectively in ELT classrooms? Yes / No
- Do you find ICT-based lessons more interactive and engaging than traditional ones? Yes / No
- Do you consider LGBTQ+ films to be an effective teaching-learning material (TLM) to improve LSRW linguistic skills? Yes / No
- Do you believe gender equity including the acceptance of LGBTQ+ community can be achieved through the application of Queer Cinema as a teaching-learning material (TLM) in language pedagogy? Yes / No
- Has the use of ICT increased after the COVID-19 pandemic? Yes / No

The questionnaire responses (Appendix) were collected from 650 students across Sivasagar, Charaideo, and Majuli districts of Assam, India.

IV. Analytical Assessment

The evaluation of survey responses yielded significant insights into the incorporation of ICT tools in English Language Teaching (ELT) and their role in narrowing gender disparities within academic contexts. The survey instrument comprised 50 questions organised across multiple dimensions, including digital technology utilisation, student engagement, gender equity, educator preparedness, institutional backing, and the perceived effectiveness of ICT in language instruction. Data were gathered from both learners and instructors across the districts of Sivasagar, Charaideo, and Majuli in Assam through a mixed-methods research design as mentioned below:

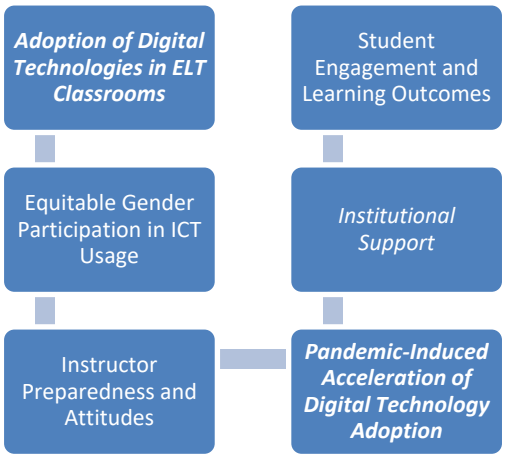

Figure 1.

1. Adoption of Digital Technologies in ELT Classrooms

The survey findings indicated that over 82% of participants consistently utilised digital technologies, including Learning Management Systems such as Google Classroom and Moodle, video conferencing platforms like Zoom and Microsoft Teams, as well as language learning applications such as Duolingo and Quizlet. This confirms the growing penetration of digital technologies in ELT classrooms. However, a gendered digital divide was evident: female students reported slightly lower access to personal devices and reliable internet connectivity compared to male students. This suggests that despite increasing ICT adoption, access-related challenges continue to persist, especially among female learners.

2. Equitable Gender Participation in ICT Usage

The analysis of the survey data indicated that 74% of male respondents and 65% of female respondents reported having independent access to ICT resources. While quantitative results point to a gender gap, qualitative data indicate that female students demonstrated equal, and in some cases greater, motivation to use ICT tools for language learning once access was provided. This underscores the importance of institutional and policy-level interventions to ensure equitable access and to leverage the enthusiasm of female learners for digital language learning.

3. Instructor Preparedness and Attitudes

Approximately 68% of teachers reported feeling confident in incorporating ICT tools into lesson planning, instructional delivery, and assessment practices. Male Instructors were generally more comfortable with advanced tools such as Virtual Reality (VR) and Augmented Reality (AR), while female Instructors expressed a preference for more familiar tools like LMS platforms and collaborative applications. This highlights the need for targeted digital training workshops that not only enhance technical proficiency but also build confidence across genders, ensuring inclusivity in professional development.

4. Student Engagement and Learning Outcomes

ICT integration was reported to significantly improve motivation, participation, and communication skills among students. More than 70% of respondents agreed that tools such as Kahoot!, Padlet, and Google Docs made learning more "fun," "interactive," and "easy to understand." These tools facilitated collaborative learning, reduced classroom anxiety, and encouraged both male and female learners to actively engage in peer-based tasks. This suggests that ICT-enabled ELT fosters greater learner autonomy and collaborative competence.

5. Institutional Support

Institutional infrastructure emerged as a critical factor influencing the extent of ICT integration. While some institutions provided robust digital infrastructure and training, others reported gaps in access to devices, internet bandwidth, and updated software. Students from urban areas demonstrated higher exposure to ICT tools compared to their rural counterparts, pointing to a rural–urban digital divide. Bridging this divide through improved infrastructure and institutional support is essential for equitable ICT adoption in ELT.

6. Application of Queer Cinema as Teaching-Learning Materials (TLM) in Language Pedagogy

The issue of the execution of LGBTQ+ Films in the shape of teaching-learning materials (TLM) during language education in general and English language teaching (ELT) in specific has instigated mixed responses. Some of the respondents have commented that there is partial chance of LGBTQ+ films to be implemented as an effective teaching-learning material (TLM) to improve listening, speaking, reading, and writing linguistic skills as the non-queer cinema may serve the purpose concerned. Of course, majority of the respondents have supported the idea that gender equity including the socio-cultural acceptance of LGBTQ+ community can be achieved through the employment of Queer Cinema as teaching-learning materials (TLM) during language pedagogy in broader sense and English language education (ELT) in particular. The participants belonging to urban socio-cultural setting have offered more positive attitude towards the utilisation of Third Gender Motion Pictures as teaching aids in ELT classroom interaction. On the contrary, comparatively negative point of view has been observed to be common among the participants having rural socio-cultural background pertaining to the matter of Homosexual Cinema as teaching material during the instruction of any language including English.

7. Pandemic-Induced Acceleration of Digital Technology Adoption

The COVID-19 crisis acted as a stimulus in accelerating technology integration across ELT ambience. Approximately 91% of instructors acknowledged that ICT has become indispensable in the post-pandemic educational landscape. However, the pandemic also revealed systemic inequalities, particularly for female learners in rural areas, who faced greater barriers in accessing devices and stable internet. These findings emphasise the need for gender-sensitive and location-sensitive ICT policies to mitigate learning disruptions in future crises.

In the context of "Technology-Mediated Language Pedagogy and Gender Equity: An Empirical Exploration in a North-East Indian Context", the data highlights the gender distribution among the respondents. Of the total 650 students surveyed from the districts of Sivasagar, Charaideo, and Majuli of Assam, North-East India, 290 are female, representing approximately 44.61% of the sample, while 360 are male, making up around 55.38%. This indicates a greater participation of male students in the study compared to female students.

TABLE 1
DEMOGRAPHIC DISTRIBUTION OF PARTICIPANTS

Gender Category	Total Participants	Percentage of Distribution
Men	360	55.38
Women	290	44.61
TOTAL	650	100

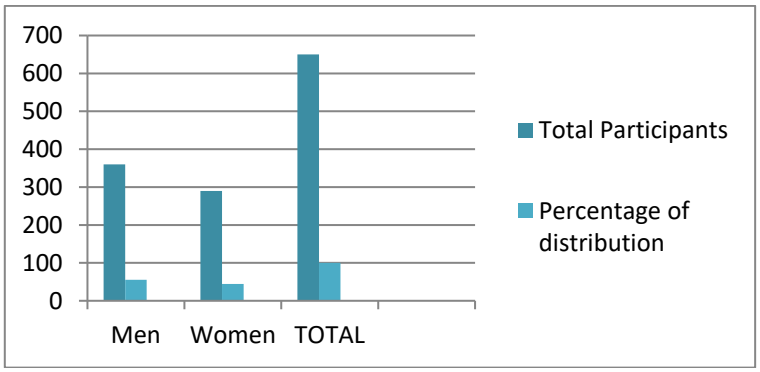

Figure 2.

Table 2 and Figure 2 show the rural–urban distribution of respondents. Of the total sample, 321 were from rural areas and 329 from urban areas, demonstrating a near-balanced representation. This distribution is significant because it allows the study to explore ICT adoption across different socio-economic and infrastructural contexts.

TABLE 2
LOCATION OF PARTICIPANTS

Socio-cultural Background	Number of Samples
Village	321
Town	329
Total	650

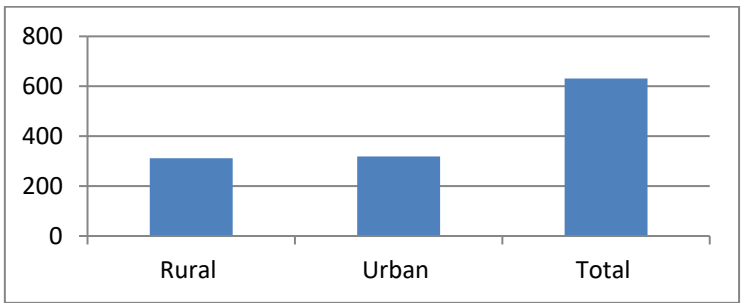

Figure 3.

8. Integration of ICT Tools in ELT

Based on both quantitative and qualitative data, the following ICT tools were most frequently highlighted in contemporary ELT practices:

1. **Learning Management Systems (LMS)** – for structured content delivery and assessments
2. **Video Conferencing Tools** – for real-time classroom interaction
3. **Interactive Whiteboards** – for visual and multimodal learning
4. **Collaborative Tools** – for group projects and peer learning
5. **Language Learning Apps** – for independent and gamified practice
6. **Social Media Platforms** – for informal communication and resource exchange
7. **Digital Assessment Tools** – for interactive evaluations
8. **VR and AR Applications** – for immersive learning contexts
9. **Podcasts and Audiobooks** – for flexible listening practice
10. **Discussion Forums** – for asynchronous, peer-driven knowledge sharing

The analysis confirms that ICT integration significantly enhances student engagement, motivation, and language outcomes. However, gender-based and rural–urban disparities remain critical challenges. While male students reported higher access to ICT resources, female students demonstrated strong motivation and effective use when given access. Similarly, urban students benefited from better infrastructure, whereas rural learners faced infrastructural and connectivity constraints. Institutional support, teacher readiness, and targeted ICT policies will therefore be central to achieving equitable and sustainable ICT adoption in ELT.

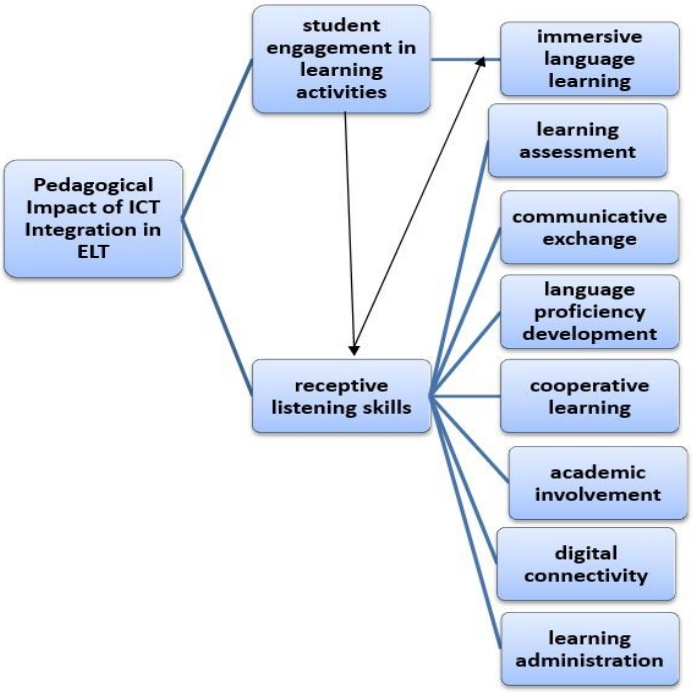

Figure 4. Pedagogical Impact of ICT Integration in ELT

The integration of ICT tools in English Language Teaching (ELT) has yielded multiple positive outcomes, particularly in creating inclusive, interactive, and gender-equitable learning environments. The present study, conducted across three selected districts of the North-East Indian province of Assam namely Sivasagar, Charaideo, and Majuli, highlights the following key outcomes:

- **student engagement in learning activities**
  - ICT platforms such as Learning Management Systems (LMS) and video conferencing applications have significantly increased student participation. By offering flexible and accessible modes of learning, these tools encourage both male and female students to actively engage in discussions, collaborative tasks, and virtual classrooms.
- **receptive listening comprehension skills**
  - The use of podcasts, audio-books, and multimedia platforms has enhanced listening comprehension and pronunciation skills. These tools provide authentic listening opportunities that help learners practice English beyond the classroom, supporting both genders equally in developing critical receptive skills.
- **immersive language learning**
  - Emerging technologies like Virtual Reality (VR) and Augmented Reality (AR) provide immersive language-learning environments where students experience real-life communication contexts. Such technologies allow learners to practice English in simulated professional and social settings, thereby improving confidence and practical application.
- **learning assessment**
  - Assessment tools such as Kahoot! and Quizlet introduce interactive and gamified evaluation methods. These not only make assessments engaging but also reduce anxiety associated with traditional testing, motivating both male and female learners to perform with greater confidence.
- **communicative exchange**
  - Video conferencing tools, collaborative apps like Google Docs, and online forums such as Edmodo have strengthened teacher–student and peer–peer interaction. These platforms encourage synchronous and asynchronous exchanges, ensuring that both genders benefit equally from collaborative language use.
- **language proficiency development**
  - Language learning applications such as Duolingo and Babbel promote continuous practice of English speaking and writing. By offering self-paced and personalised exercises, these tools support fluency development and enable students to practice independently, overcoming barriers of time and location.
- **cooperative learning**
  - Collaborative platforms like Padlet and Google Docs foster group projects and peer feedback, promoting teamwork and collective problem-solving. These tools encourage equal contributions from male and female students, supporting gender inclusivity in classroom dynamics.
- **academic involvement**
  - Social media platforms and interactive classroom technologies (e.g., SMART Boards, Jamboard) increase

learner engagement by integrating familiar and visually rich media into lessons. Students become more motivated and interested, leading to higher levels of participation and sustained involvement in ELT activities.

- **digital connectivity**
  - ICT tools bridge geographical and socio-economic gaps by connecting students to global resources and communities. Through digital platforms, both urban and rural learners gain equal opportunities to access English language content, supporting digital equity across genders.
- **learning administration**
  - Learning Management Systems (LMS) help in systematically organising course materials, assignments, and assessments. Such structured environments allow students to track their progress and engage with lessons at their own pace, providing a well-organised framework that benefits all learners.
- **gender equity and socio-cultural acceptance of LGBTQ+ community**
  - Though some participants from rural ambience have negated the hope of Queer Cinema to be a matching device to enhance linguistic skills, yet most of the respondents having urban aura have expressed their opinion in a positive manner hoping for a successful socio-cultural acceptance of LGBTQ+ community, if Third Gender Films are accomplished as teaching-learning aids during the instruction of English and any other language for the eradication of homophobia.

V. Conclusion

This study examined the integration of ICT tools in English Language Teaching (ELT) with a focus on gender equity, learner engagement, and regional disparities across three selected districts of the North-East Indian province of Assam. By combining quantitative and qualitative approaches, the research generated important insights into how ICT influences language learning outcomes, motivation, and classroom participation.

The findings reveal that while ICT integration has significantly enriched ELT practices—enhancing learner interaction, promoting collaborative learning, and improving language proficiency—gender and regional divides continue to pose challenges. Male students reported higher access to ICT resources, yet female students, particularly in rural areas, demonstrated equal or greater motivation when given the opportunity to use digital platforms. This highlights the need for gender-sensitive policies that address unequal access while leveraging the enthusiasm of female learners.

Similarly, the study underscores the rural–urban digital divide, with urban students benefiting from better infrastructure and exposure compared to their rural counterparts. Inadequate institutional support, limited connectivity, and uneven access to devices continue to restrict the effectiveness of ICT adoption in rural settings. These findings suggest that infrastructural investment and context-sensitive implementation strategies are essential to bridge existing gaps and ensure equitable participation in digital learning environments. The role of teachers also emerged as central to effective ICT integration. While a majority expressed confidence in using digital tools for lesson delivery and assessment, variations in familiarity—especially with advanced tools such as VR/AR—indicate the importance of continuous professional development. Targeted training programs can strengthen teacher readiness and create more inclusive classrooms where technology is effectively leveraged for language learning.

Overall, this study confirms that ICT tools—ranging from Learning Management Systems and video conferencing platforms to collaborative applications, gamified assessments, and immersive technologies—have the potential to transform ELT into a more dynamic, interactive, and learner-centred practice. However, their successful implementation depends on addressing systemic inequalities in access, providing sustained institutional support, and fostering inclusive practices that consider both gender and regional differences. It has been observed that non-queer films are enough as teaching aids of ELT to replace LGBTQ+ Movies. Besides, the praxis of Queer Cinema as teaching-learning materials (TLM) in language pedagogy including ELT will definitely help in the socio-cultural acceptance of LGBTQ+ community for the eradication of Homophobia in the context of North-East India.

In conclusion, ICT adoption in ELT offers transformative opportunities but must be inclusive, adaptable, and sustainable. Bridging gender and regional disparities, investing in digital infrastructure, and equipping both teachers and students with the necessary skills are essential steps toward maximising the benefits of ICT in language education. By adopting comprehensive and context-aware strategies, stakeholders can ensure that digital innovation truly empowers learners, enhances communicative competence, and prepares students for academic and professional success in a globalised world.

Appendix

Survey Questionnaire: Integration of ICT Tools in ELT and Gender Inclusivity

The following questionnaire was administered to students and teachers from higher education institutions across Sivasagar, Charaideo, and Majuli districts of Assam, India to explore ICT integration in English Language Teaching (ELT). Respondents were asked to answer each question with **Yes** or **No**.

A. ICT Tool Usage in ELT Classrooms

1. Do you regularly use Learning Management Systems (e.g., Google Classroom, Moodle) for English

learning?
2. Do you attend online or hybrid classes using video conferencing tools (Zoom, Microsoft Teams)?
3. Do you use interactive tools such as SMART Boards or Jamboard in English classes?
4. Do you collaborate with peers on platforms like Google Docs or Padlet?
5. Do you practice English using language apps like Duolingo or Babbel?
6. Do you use social media platforms (Twitter, Instagram, Facebook groups) for English learning?
7. Do you participate in gamified assessments such as Kahoot! or Quizlet?
8. Have you experienced Virtual Reality (VR) or Augmented Reality (AR) in English lessons?
9. Do you listen to English podcasts or audiobooks to improve your skills?
10. Do you participate in online discussion forums (e.g., Edmodo, LMS boards) for English practice?

B. Learner Engagement and Motivation

11. Do ICT tools make English learning more enjoyable for you?
12. Do you feel more motivated to participate in class when ICT tools are used?
13. Do gamified tools (Kahoot!, Quizlet) increase your interest in learning?
14. Do collaborative platforms (Google Docs, Padlet) help you engage with peers?
15. Do video conferencing classes feel as engaging as face-to-face classes?
16. Do interactive whiteboards help you understand English better?
17. Do social media groups improve your English practice outside class?
18. Do podcasts and audiobooks keep you engaged in learning English?
19. Do VR/AR tools make English learning more interesting?
20. Does ICT-based learning reduce your hesitation to speak English?

C. Gender Inclusivity in ICT Access

21. Do both male and female students have equal access to ICT resources in your institution?
22. Does gender not affect participation in ICT-based ELT activities?
23. Do female students face more barriers in accessing ICT devices compared to male students?
24. Do male students get more opportunities to use ICT tools than female students?
25. Do female students show equal or greater motivation in using ICT tools?
26. Do teachers encourage both male and female students equally in ICT-supported lessons?
27. Do LGBTQ+ films have the element to improve LSRW linguistic skills as effective teaching-learning materials (TLM)?
28. Do gender equity and acceptance of LGBTQ+ community can be achieved through the application of Queer Cinema as a teaching-learning material (TLM) in language pedagogy?
29. Do ICT tools provide a gender-neutral platform for English learning?
30. Does gender influence confidence in using advanced tools like VR/AR?

D. Teacher Readiness and Attitudes

31. Are teachers in your institution trained to use ICT for ELT?
32. Do teachers use ICT tools effectively in English lessons?
33. Are teachers confident in managing online or hybrid classes?
34. Do teachers use ICT for assessments and giving feedback?
35. Do teachers encourage student collaboration using ICT?
36. Are female teachers as confident as male teachers in ICT use?
37. Do teachers receive regular digital training from the institution?
38. Do teachers try new ICT tools to improve teaching?
39. Does teacher enthusiasm increase your interest in ICT learning?
40. Do teachers promote inclusive ICT use for all students?

E. Institutional Support

41. Does your institution provide sufficient ICT infrastructure (computers, internet, projectors)?
42. Are ICT resources equally available for rural and urban students?
43. Does your institution provide digital literacy training for students?
44. Does your institution conduct ICT workshops for teachers?
45. Is internet connectivity in classrooms reliable?
46. Do institutional ICT policies promote equal access?
47. Does your institution provide devices (laptops, tablets, etc.) to students?
48. Do you receive technical support for ICT issues in your institution?
49. Has your institution strengthened ICT adoption after COVID-19?
50. Is institutional investment in ICT sufficient for student learning needs?

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