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AI and Multilingualism in ELT: A Future-Forward Fusion for Inclusive Classrooms

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Abstract

In a multilingual world where English is often taught as a bridge language, classrooms must evolve to honor the linguistic diversity learners bring with them. This chapter explores how Artificial Intelligence (AI) can reshape English Language Teaching (ELT) into a more inclusive, adaptive, and respectful experience. It draws upon classroom experiences, personal insights, rural and urban use-cases, and international best practices. From AI chatbots that speak regional languages to personalized pronunciation tools, we explore how AI is not just a digital aid—but a supportive companion. Alongside its benefits, the chapter also addresses ethical concerns, accessibility gaps, and future recommendations to ensure AI does not replace human touch but rather enhances it. Through this journey, we recognize that multilingualism is not a challenge to be solved—but a treasure to be honored. In every classroom, there is more than just a chalkboard, a few benches, and a teacher. There are stories—stories carried in languages, in expressions, in accents. Every student brings a world with them, and very often, that world doesn't speak English.

Growing up in Tamil Nadu, I remember how English was both my favourite subject and my biggest fear. It wasn't the language itself that was scary—it was the pressure that came with it. Speak in English, think in English, write in English, and worse—don't speak in your mother tongue. The rules were clear. The only problem? Our hearts didn't follow those rules. We thought in Tamil, we dreamt in Tamil, and when the English teacher asked us a question, we panicked because we had to do mental translation before we could speak.

That's why this topic—AI and Multilingualism in ELT—feels personal. Because I know, like many of my classmates, what it feels like to be capable but misunderstood because of language. I've seen brilliant thoughts go unspoken just because someone couldn't find the right English word. And now, as a Computer Science student specializing in AI, I'm watching technology do what humans sometimes forget—meet learners where they are.

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A Classroom That Speaks Many Languages

A classroom where a student who speaks Telugu at home, learns in Tamil at school, and is taught English as a third language doesn't feel lost. Instead of asking her to choose one language and leave the others behind, the classroom adapts to *her*. This is not just a dream. This is becoming a reality , thanks to Artificial Intelligence.

AI has transformed education in many ways, but in ELT (English Language Teaching), its impact is profound. Real-time translation, adaptive learning platforms, speech recognition, intelligent grammar feedback, and culturally aware content creation—these aren't futuristic concepts anymore. They are here. And they are helping students hold onto their identity while reaching for new knowledge.

Let me take you to a small government school in Tirunelveli, where I recently visited as part of a project on inclusive learning. In a Grade 6 classroom, I saw something that left me both inspired and emotional. A student, who had been struggling to understand English Science lessons, was now confidently responding to questions. The reason? She was using the *DIKSHA* platform—an AI-supported app developed by the Government of India. Her science video lesson was in English, but she had enabled Tamil captions and explanations. She was learning not just English words but also the meaning of the concept—in a language her heart understood. "*Idhu romba easy-a irukku akka, I can finally understand everything*," she told me. That smile was all the proof I needed that AI, when used wisely, can bridge worlds.

Not Just Smarter Tools, but Kinder Ones

I remember once mispronouncing "choir" in class as "choyer." The laughter that followed stayed with me far longer than the lesson itself. But now, with tools like *Elsa Speak*, students can practice their pronunciation privately. The app doesn't laugh. It listens patiently, gives feedback, and allows you to try again and again.

A case that stays with me is of a boy named Arif in Kerala. His first language was Malayalam, and he had trouble with English articles (a/an/the)—something that many second-language learners struggle with. His teacher introduced him to *Grammarly*, an AI writing assistant. Arif began typing his English essays into the app, and for the first time, he got real-time corrections with explanations. No red marks. No embarrassment. Just helpful, calm suggestions. Within three months, his writing improved dramatically. His teacher said, "I didn't have to correct much. The app gave him the freedom to learn without fear."

Teaching That Learns From the Learner

One of the most beautiful things AI has done for ELT is that it made learning *personal*. In traditional classrooms, the teacher often has to teach at one pace, one level, one language. But students are not the same. One may understand verbs easily, while another struggles with tenses. One may be a fast reader but a shy speaker. Adaptive AI platforms like *Duolingo*, *Century Tech*, and *Byju's* have changed this. They track how the learner performs and change the difficulty, the speed, even the language of instruction accordingly.

I remember helping my cousin Anushka—who studied in a Kannada-medium school—prepare for her English board exams. She was nervous about vocabulary and pronunciation. We used Duolingo for 15 minutes daily. At first, she needed Kannada support for every word. The app recognized this and offered Kannada-English pairings for lessons. Over time, she needed fewer translations. The AI adapted. Her confidence grew. When her results came in, she had scored the highest marks in English in her class.

AI doesn't make assumptions. It doesn't compare students. It watches quietly, learns their pace, and says, "I've got you."

A Global Language, But Local Touch

English may be global, but every learner's story is local. That's where AI has made another leap—by helping create culturally relevant, multilingual content.

Teachers now use platforms like *Canva* with built-in translation, or even AI design assistants to make worksheets that include regional proverbs, local festivals, and relatable characters. I worked with a teacher in Madurai who created English-Tamil bilingual posters for her class on hygiene. The kids loved it. "It feels like it's made for us," one boy said. That sense of belonging is powerful. Even chatbots have become more intelligent. In Latin America, for instance, English-learning bots talk to students in Spanish and slowly switch to English as the student improves. In Dubai, Arabic-English NLP tools are helping students improve grammar by offering bilingual explanations. These aren't just tools. In our own AI lab, we built a prototype chatbot named "Thozhi"—it could switch between English and Tamil. We tested it with school students from different backgrounds. One student asked, "What is a noun?" in English. The bot replied, "A noun is a name of a person, place, or thing." The student then typed, "Enakku puriyala" (I didn't understand), and the bot continued in Tamil, giving examples like "school,"

“amma,” and “chocolate.” The joy on the student’s face was unforgettable.Language was no longer a wall—it had become a ladder.

What We Must Watch Out For !

AI tools are drastically built in English or with the availability of data .This means they don’t always understand our languages. I once typed a Tamil sentence into an AI translator—“*Avan velaiya seyyanum nu nenaikiraan*” and it translated to “He is think to do the work.” That’s not even close. There’s beauty and logic in our languages, and AI must learn that too. Developers need to build inclusive datasets, or else the tools will only serve a few.

Then there’s the issue of **access**. Not every school has Wi-Fi. Not every home has a smartphone. We talk about AI as a solution, but if only some students can use it, it creates more inequality. We need policies that provide access to devices, subsidized tools, and teacher training. Because without the teacher, no tool , no matter how smart it can succeed.

Data privacy is another concern. Many apps collect student data. Are parents aware? Is the data protected? Schools must have clear policies. We cannot trade learning for surveillance.

Lastly, let’s not forget the teachers. They need support too. Many feel overwhelmed by AI tools. Regular training, mentorship, and community spaces where they can share challenges and ideas will go a long way in ensuring they are not left behind.

What the Future Should Look Like

- Imagine a future where English classes don’t begin with “Leave your language at the door,” but rather, “Bring your language with you—we’ll build on it.”
- Imagine AI tools that recognize dialects, respect local cultures, and help learners see connections between languages instead of walls.
- Imagine every government school having at least one multilingual AI learning station, and every teacher trained to use it meaningfully.
- Imagine a world where students from Tenkasi to Tokyo, from Madurai to Morocco, can learn English while still loving their language, their roots, and their voices.
- That’s the future I dream of. Not just a smarter classroom……but a kinder one.

How AI Is Useful for Us in English Language Learning

Artificial Intelligence is no longer the stuff of science fiction or Silicon Valley labs. It's now a quiet yet powerful presence in classrooms, helping both students and teachers learn better. AI in English Language Teaching refers to tools and technologies that can mimic aspects of human language understanding—listening, speaking, correcting, translating, and even encouraging. Whether it's a grammar checker, a pronunciation coach, or a voice assistant, AI can provide real-time support tailored to a learner's pace, background, and language.

For multilingual learners, this is a game-changer. Traditionally, students were expected to "leave their language at the door" when entering an English class. But AI invites those languages in. It recognizes that thinking in Tamil, Telugu, Hindi, or Kannada isn't a barrier to learning English it's a foundation. When AI-powered apps allow students to compare translations, receive bilingual explanations, or hear pronunciations adjusted for their accent, the result isn't just better English—it's a better experience of learning.

A Real Story from Tamil Nadu: Keerthana's Journey with DIKSHA

In a government school in Tirunelveli, a 12-year-old girl named Keerthana was once hesitant to answer questions during her English classes. Like many of her classmates, she could understand basic English words but struggled with subject-specific vocabulary—especially in Science and Social Studies. That changed when her school started using the **DIKSHA platform**, an AI-enhanced educational app by the Indian government. DIKSHA allowed students to access English video lessons with Tamil subtitles and audio explanations. Suddenly, difficult words like "photosynthesis" and "evaporation" were no longer frightening—they were familiar.

With every video, Keerthana became more confident. Her teacher, Mrs. Lakshmi, told me that the change was visible in her posture, her willingness to speak, and her grades. She no longer sat silently—she participated, questioned, and sometimes even helped her classmates understand English words. That's what thoughtful technology does—it lifts people up.

Real-Time Translation: Making Learning Seamless

One of the most immediate benefits of AI in ELT is **real-time translation**. Apps like **Google Translate**, **Microsoft Translator**, and **DeepL** are now advanced enough to provide context-aware translations. That means they don't just translate words , they translate meaning.

Example: A Marathi Student in Mumbai

In a classroom in Mumbai, a boy who spoke only Marathi at home struggled to understand the term “ecosystem” during an English Geography lesson. Without interrupting the teacher, he quietly typed the word into his translation app. Within seconds, he saw the Marathi explanation and an example sentence. That one quick moment of clarity allowed him to stay connected to the class discussion. Instead of falling behind or zoning out, AI helped him keep up—and feel included.

Adaptive Learning Tools: Personalized English Coaching

Everyone learns at their own pace. AI-powered apps like **Duolingo**, **Elsa Speak**, and **Byju’s** use machine learning to adapt to the user’s strengths and weaknesses. These tools don’t just throw random lessons at students—they build a customized learning path.

Example: Elsa Speak Helps a Telugu Learner

Geethika, my neighbour and a native Tulu speaker, found English language tough. She avoided speaking in public due to the embarrassment . When she started using **Elsa Speak**, she discovered a gentle, judgment-free learning space. The app would listen to her speak, highlight the exact syllables she mispronounced, and give her unlimited chances to practice. No human tutor could offer this kind of tireless patience. Today , Geethika leads presentations with grace and clarity. That’s not just fluency—it’s freedom.

Grammarly and NLP: Writing with Confidence

Writing in English can be intimidating, especially when you're unsure about grammar rules that don't exist in your native tongue. **Natural Language Processing (NLP)** tools like **Grammarly** and **Write & Improve** don’t just correct errors , they explain them.

Example: Kannada Learner Gains Clarity

In our college writing workshop, a Kannada-speaking student named Padma priya submitted her first English essay with trepidation. She used Grammarly to revise her draft, which highlighted her overuse of passive voice and verb agreement mistakes common when translating thoughts directly from Kannada. What stood out was how the app *explained* the issue in a way that helped her improve, not just fix it. Over time, her essays transformed from rigid to reflective.

Chatbots and Voice Assistants: Practice Without Pressure

Many students hesitate to speak English out loud. AI chatbots provide a solution they simulate real conversations and switch between languages as needed.

Example: "Thozhi"—Our College Chatbot Project

As part of our AI lab initiative, we built a chatbot called **Thozhi**, designed to assist students from Tamil-medium schools. Thozhi could answer grammar queries in English and Tamil. One Telugu-speaking user asked, "What is an adjective?" in English. The bot replied, then clarified in Telugu with examples. The student's reply came in a mix of both languages "Oh like beautiful girl or red apple." The bot responded: "Yes! Perfect example." It was heartwarming to see a learner build confidence in a space free from judgment. This has originally happened in Trichy school.

Bilingual Content Creation: Making Lessons Relatable

Teachers now use AI design platforms like **Canva**, with multilingual support, to create culturally relevant content.

Example: Madurai Classroom Posters

In Madurai, a Social Science teacher created posters about public health, featuring bilingual content—English and Tamil. The visuals were of Indian villages, common hygiene practices, and local landmarks. Students engaged more, understood better, and even took the posters home.

Case studies based on AI and Multilingualism in ELT

1. **Colombia's Rural Chatbot Program**

   In Colombia, a pilot program introduced English chatbots in rural schools. These bots were designed to start conversations in Spanish, then gradually transition to English based on the student's responses. Topics ranged from daily life—like food and transport—to school-related vocabulary. Students used the bot during lunch breaks, at home, and even while walking to school. Within 6 months, many students improved their English-speaking confidence by over 40%, according to the Fundación Telefónica education report. The key was that the chatbot didn't *demand* fluency—it *grew* with the student.

2. **Finland's Dual Grammar Practice**

   In Finnish schools, students were encouraged to use AI translators to switch between Finnish and English while doing grammar exercises. They would analyze both versions and discuss how each language structured meaning. This helped them become more conscious of language—not just as a subject, but as a tool of thought.

Challenges: Bias, Access, and Ethical Concerns

While AI is full of promise, it also comes with risks.

1. **Bias in Translation** – AI models trained on Western English datasets often misrepresent Indian languages. For example, the Tamil phrase "Avarukku romba pudikkum" becomes "He is liking it very much," which is not grammatically correct in English. This reflects a lack of exposure to non-Western linguistic patterns.
2. **Digital Divide** – Many students in rural India do not have access to smartphones or stable internet. A brilliant AI app means nothing if it can't be accessed.
3. **Data Privacy** – Tools like Grammarly or Duolingo collect user data, including writing samples and speech. Without transparent policies, we risk exposing student data.
4. **Teacher Training** – Many educators are unaware of how to integrate AI in classrooms. In one school I visited, teachers had AI tools but didn't use them due to lack of training. They went back to blackboards—not by choice, but by helplessness.

Recommendations for a Better Future

- **Develop AI in All Indian Languages** – Let's move beyond Hindi and Tamil and include Tulu, Bodo, Konkani, Meitei, and more.
- **Free and Open-Source Tools** – Schools need affordable, accessible apps that don't require expensive licenses.
- **Train Teachers First** – AI will fail without trained educators who know how to blend tech with teaching.
- **Protect Learners' Privacy** – Every AI tool must follow strict data protection norms.

Final Thoughts

Language is not just grammar and vocabulary. It is emotion. It is history. It is identity.

AI, when built with care and used with love, can protect all of this while giving learners the gift of English. And English, when taught with respect for all languages, becomes more than just a skill, it becomes a bridge.

I hope that as students, teachers, and future developers, we remember this: The goal is not to replace our languages, but to add to them. AI and multilingualism are not opposing forces. In fact, together, they are creating classrooms where no one feels left out.

Because every child deserves to be understood, in any language.

Conclusion

AI as a Kind Companion, not a Cold Machine

When AI tools acknowledge this, they stop being cold machines and start becoming companions. AI, when used right, lets learners feel understood in their native tongue while exploring a new one. It doesn't erase your voice as it amplifies your voice.

Let’s not ask students to leave their languages behind to learn English. Let’s use AI to walk with them,step by step across languages, across cultures, across borders.

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