

Reconceptualising English Language Teaching in the Age of Artificial Intelligence: A Theoretical Perspective

Adam, Y. Y.

Department of Arts Education, Faculty of Education, University of Abuja
yahya.adam@uniabuja.edu.ng

Abstract

The rapid integration of artificial intelligence (AI) into educational contexts has prompted urgent reconsideration of established pedagogical frameworks, particularly within the domain of English Language Teaching (ELT). While AI-powered tools are increasingly present in language classrooms, the theoretical foundations needed to guide their thoughtful and equitable integration remain underexplored. This paper examines the reconceptualisation of ELT in the age of AI through a multi-theoretical lens, drawing on constructivism, Vygotsky's sociocultural theory, connectivism, the Technology Acceptance Model (TAM), and Communicative Language Teaching (CLT). The central argument advanced is that no single theory adequately accounts for the complexity of AI-mediated language learning; instead, an integrated framework is needed, the one that positions the teacher as a critical mediator, foregrounds social interaction as the locus of language development, and embraces networked knowledge as a legitimate epistemic resource. The paper proposes a conceptual model; the AI-Mediated Language Learning Model (AMLL) to map the dynamic relationships among AI tools, teacher agency, student interaction, and language development. Implications are drawn for classroom practice, institutional policy, and future research directions. It is argued that the future of ELT must be neither technophilic nor technophobic, but critically reflexive.

Keywords: artificial intelligence, English language teaching, sociocultural theory, technology acceptance, communicative language teaching, pedagogical innovation.

I. Introduction

Artificial intelligence is no longer a peripheral novelty in educational settings but a transformative force reshaping how knowledge is produced, transmitted, and acquired. From adaptive learning platforms to generative AI tools capable of producing grammatically refined prose in multiple languages, the technological landscape of English Language Teaching has shifted in ways that were unimaginable a generation ago. Yet, as Bax (2023) observed, the prevalence of technology does not guarantee its pedagogically sound deployment; without a coherent theoretical scaffolding, AI risks being adopted in superficial or counterproductive ways that reinforce passive learning and erode teacher agency. The problem this paper addresses are both theoretical and practical: existing frameworks for understanding language learning and technology integration were developed in a pre-AI context and consequently failed to capture the full complexity of human-AI interaction in language education. Communicative Language Teaching, for instance, was designed to foreground authentic human communication, but it does not account for the emergent communicative possibilities and distortions that were introduced by large language models (LLMs) such as ChatGPT, Gemini, or Claude. Similarly, constructivism provides a rich account of learner-centred knowledge construction but says comparatively little about how learners navigate distributed, algorithmically curated information environments (Selwyn, 2022). The gap is therefore not merely empirical, but fundamentally conceptual. As Warschauer and Matuchniak (2010) argued in the context of earlier digital technologies, the question is not whether technology improves outcomes but how technology is embedded within broader social, institutional, and epistemological structures. This question has become far more urgent with the arrival of generative AI, which can simulate fluent language production, provide personalized feedback, and adapt to individual learner needs in real time (Kasneci *et al.*, 2023). This paper aims to address this theoretical gap by examining how existing theories of language learning and educational technology can be critically synthesized to form an integrated framework adequate to the demands of AI-mediated English language instruction. The paper proceeds

as follows: after clarifying key concepts, it reviews and critically evaluates relevant theories, develops an original argument about their synthesis, proposes a conceptual model, and draws out implications for practice, policy, and future research. The central thesis is that reconceptualising ELT for the AI age requires a critically integrative framework that foregrounds teacher mediation, social interaction, and ethical reflexivity.

A. Conceptual Clarification

Before engaging with theoretical frameworks, it is necessary to establish clear definitions of the key terms that are central to this paper, as these concepts are frequently used loosely in educational technology discourse.

Artificial Intelligence (AI): For the purposes of this paper, AI refers to computational systems capable of performing tasks that typically require human cognitive abilities, including language comprehension, generation, translation, and feedback provision (Russell & Norvig, 2022). In the educational domain, relevant AI applications include intelligent tutoring systems, automated writing evaluation tools, chatbots, and generative language models. It is important to note that AI is not a monolithic technology but a family of systems with distinct capabilities, limitations, and pedagogical affordances.

English Language Teaching (ELT): ELT is understood here as the professional practice of facilitating the development of English proficiency in non-native speakers across diverse educational contexts. ELT encompasses curriculum design, instructional methodology, learner assessment, and the broader socio-cultural positioning of English as a global or additional language. The field has historically been responsive to technological change, from the language laboratory to computer-assisted language learning (CALL), and is now confronting its most significant technological disruption (Godwin-Jones, 2022).

Digital Literacy: following Dudeney *et al.* (2013), refers not merely to technical competence with digital tools but to the critical, communicative, and creative capacities required to navigate, evaluate, and produce meaning in digital environments. In the context of AI mediated ELT, digital literacy must be expanded to include AI literacy i.e. the ability to understand the affordances and limitations of AI-generated language and to engage critically with AI outputs (Long & Magerko, 2020).

Language Learning: Language learning is conceptualized broadly as the process through which learners develop communicative competence in a target language. This encompasses not only grammatical and lexical knowledge but also pragmatic, sociolinguistic, and discourse competencies. Contemporary understandings of language learning are deeply social, emphasizing interaction, negotiation of meaning, and identity construction as central to the acquisition process (Norton, 2013).

Pedagogical Innovation: Pedagogical innovation, as distinct from technological adoption, refers to substantive changes in the goals, methods, relationships, and epistemologies of teaching and learning. A teacher who uses an AI chatbot to generate grammar exercises without altering their instructional approach has adopted a technology but has not innovated pedagogically. True pedagogical innovation involves rethinking the roles of teacher and learner, the nature of knowledge, and the criteria by which learning is evaluated (Fullan & Langworthy, 2014).

II. Theoretical Framework

This section examines five theoretical traditions relevant to the reconceptualization of ELT in the AI age: constructivism, sociocultural theory, connectivism, the Technology Acceptance Model, and Communicative Language Teaching. Each theory is described, related to AI-mediated ELT, and evaluated for its explanatory strengths and limitations.

A. Constructivism

Constructivism, rooted in the developmental psychology of Jean Piaget and elaborated by educational theorists such as von Glasersfeld (1995), holds that learners do not passively receive knowledge but actively construct it through interaction with their environment. Learning is understood

as a process of assimilation and accommodation: new information is interpreted through existing cognitive schemas, and when new experiences cannot be assimilated, schemas are restructured. In ELT, constructivist principles underlie learner-centred approaches, project based learning, and task-based language teaching, all of which position the learner as an active meaning-maker rather than a receptacle of transmitted knowledge. The relevance of constructivism to AI-mediated ELT is significant. AI tools can provide learners with richly varied, authentic linguistic input and can create interactive tasks that demand active engagement with language. Adaptive learning systems can individualize the learning environment to match the learner's existing knowledge structure, supporting the constructivist principle of building on prior knowledge (Roll & Wylie, 2016). Generative AI tools can function as interlocutors, providing learners with a conversational partner that is infinitely patient, available around the clock, and capable of adjusting its linguistic complexity to the learner's level. However, constructivism has significant limitations in this context. Its cognitivist emphasis on the individual learner's mental processes risks obscuring the fundamentally social and socio-political dimensions of language learning. Furthermore, constructivism provides limited guidance on how to evaluate the quality of the cognitive environment created by AI. A chatbot that generates plausible, but inaccurate language models could actively impede schema construction rather than facilitate it. As Selwyn (2022) cautioned, digital technologies do not automatically create the conditions for meaningful learning; their pedagogical value depends entirely on the quality of the experiences they afford, and the critical stance learners bring to them.

B. Sociocultural Theory

Vygotsky's (1978) sociocultural theory represents a decisive departure from purely cognitive accounts of learning. For Vygotsky, higher mental functions, including language, are first formed in social interaction before being internalised by the individual. The Zone of Proximal Development (ZPD); the space between what a learner can do independently and what they can achieve with expert guidance, is particularly generative for understanding AI-mediated ELT. Scaffolding, or the provision of structured support that enables learners to operate above their current independent capacity, is a central pedagogical concept derived from this framework. Sociocultural theory has been extensively applied to CALL and, more recently, to AI enhanced language learning, (Lantolf *et al.*, 2015). AI tools can function as dynamic scaffolding agents: a grammar checking tool that explains its corrections, a writing assistant that prompts revision, or a pronunciation feedback system that models target phonology all operate within a learner's ZPD by providing support that gradually fades as competence increases. The dialogic quality of interaction with generative AI systems makes them particularly well-suited to Vygotskian analysis, as meaning is negotiated through the conversational exchange rather than transmitted in one direction. The limitations of applying sociocultural theory to AI-mediated ELT are, however, substantial. Vygotsky's framework presupposes a human expert whose intentionality, cultural knowledge, and ethical responsibility underwrite the scaffolding process. An AI system, however sophisticated, does not possess genuine intentionality, cultural membership, or ethical subjectivity. Thorne (2016) argued that the mediation provided by digital tools differs fundamentally from human mediation because it is designed and algorithmically constrained rather than emergent and responsive to the full complexity of a learner's social situation. The risk, then, is that AI scaffolding may be technically responsive without being genuinely educative.

C. Connectivism

Siemens (2005) and Downes (2012) proposed connectivism as a theory of learning specifically designed for the digital age, arguing that traditional learning theories were developed before the internet fundamentally transformed how knowledge is created, stored, and accessed. Connectivism holds that knowledge is distributed across networks of people, technologies, information systems and that learning consists in the ability to navigate these networks, identify reliable nodes of information, and form connections between disparate ideas. The capacity to know where to find knowledge is as important as the knowledge itself. In the context of AI-mediated ELT, connectivism offers a uniquely fitting framework. AI tools are, in essence, nodes in a global knowledge network: they aggregate vast

quantities of linguistic data, identify patterns across millions of texts, and synthesize responses that draw on distributed knowledge. A learner who can effectively prompt, evaluate, and apply the outputs of AI language tools is demonstrating precisely the kind of networked, navigational intelligence that connectivism valorises. Moreover, connectivism legitimizes the role of AI in the epistemic ecology of learning, positioning it not as a replacement for human knowledge but as one node among many in a complex learning network (Siemens, 2005). Critics of connectivism, including Kerr (2007) and Bell (2011), have questioned whether it constitutes a genuine learning theory or a descriptive account of information behaviour. The theory arguably underestimates the role of critical evaluation in knowledge construction: not all nodes in a network are equally reliable, and the ability to identify misinformation, bias, and algorithmic hallucination requires precisely the kind of deep domain knowledge that connectivism tends to downplay. In the context of AI-generated language, this limitation is especially pertinent: LLMs are known to produce confident but factual or linguistically erroneous outputs, and learners without a critical metalinguistic awareness may internalise errors as correct models (Kasneci *et al.*, 2023).

D. Technology Acceptance Model

Davis's (1989) Technology Acceptance Model (TAM) proposes that the adoption of a technology is determined by two perceptual factors: perceived usefulness (the degree to which a technology is believed to enhance performance) and perceived ease of use (the degree to which the technology is believed to be free of effort). Extended versions of the model, including TAM (Venkatesh & Davis, 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT; Venkatesh *et al.*, 2003), incorporate additional variables such as social influence, facilitating conditions, and hedonic motivation. TAM has been extensively applied to teachers' and learners' acceptance of educational technology, including CALL tools and, more recently, AI systems in language education (Huang *et al.*, 2023). Research drawing on TAM has identified critical factors that determine whether ELT practitioners integrate AI tools meaningfully: teachers with high AI self-efficacy and strong technical support structures are significantly more likely to adopt AI in pedagogically innovative ways (Crompton & Burke, 2023). This has important implications for professional development and institutional support. The limitations of TAM in the ELT context are significant, however. The model's behavioural orientation—its focus on whether and how much technology is used—provides limited insight into the quality of its pedagogical deployment. A teacher might score high on perceived usefulness and use AI tools extensively while deploying them in ways that are pedagogically shallow. Furthermore, TAM treats technology adoption as an essentially individual decision, neglecting the institutional, cultural, and political pressures that shape technology use in educational contexts (Selwyn, 2010). In many ELT settings, particularly in resource-limited environments, technology adoption is constrained by structural inequalities that TAM's psychological framework cannot adequately address.

E. Communicative Language Teaching (CLT):

Communicative Language Teaching (CLT): developed through the contributions of Hymes (1972), Canale and Swain (1980), and Widdowson (1978), established communicative competence that is the ability to use language appropriately in social contexts as the primary goal of language instruction. CLT foregrounds authentic communication, meaningful interaction, and the integration of form and meaning. It has been the dominant paradigm in ELT for decades, shaping curriculum design, instructional methodology, and assessment practices worldwide. The encounter between CLT and AI is theoretically complex. On one hand, AI tools expand the opportunities for communicative practice: learners can engage in conversational interactions with AI interlocutors at any time, receiving immediate feedback on their language use without the anxiety that peer or teacher interaction may provoke (Godwin-Jones, 2022). On the other hand, the communicative authenticity of AI interaction is philosophically contested. If communication is fundamentally a social act between intentional subjects who share a world, then interaction with an AI system which has no intentions, no world-

experience, and no genuine stake in the communicative encounter may be communicatively authentic in form but not in substance (Bax, 2023). This tension points to a deeper theoretical issue: CLT's foundational assumptions about the nature of communication may need to be revised in an age when AI-generated text is indistinguishable from human-generated text and when AI interlocutors can simulate empathy, humour, and sociolinguistic sensitivity. The emerging field of human-AI communication studies offers conceptual resources for this revision, but these have not yet been systematically integrated into CLT theory (Dynel, 2023).

III. Critical Discussion

Having examined the five theoretical frameworks individually, it is now possible to develop a synthetic critical argument about their collective adequacy for reconceptualising ELT in the AI age. Three central observations emerge from this analysis. First, each of the five theories captures an important dimension of AI-mediated language learning while failing to account for others. Constructivism illuminates how AI tools can create individualized, active learning environments but neglects the social constitution of language. Sociocultural theory foregrounds the mediating role of interaction and expert scaffolding but struggles to account for the non-human nature of AI mediation. Connectivism legitimizes distribution, networked knowledge but underestimates the critical evaluation required to navigate AI-generated content. TAM explains adoption patterns but not pedagogical quality. CLT asserts the primacy of authentic communication but does not resolve what authenticity means when the interlocutor is an algorithm. The theoretical deficit, therefore, is not a matter of selecting the correct theory from among these options but of recognizing that ELT in the AI age requires a genuinely integrative framework. Second, a critical thread running through all five frameworks is the question of teacher agency. Constructivism, sociocultural theory, and CLT all assign the teacher a central role, as learning environment designer, scaffolding expert, and communicative model respectively, but none adequately theorizes how AI changes, supplements, or threatens this role. TAM addresses teacher adoption behaviour without specifying what constitutes professional agency in AI-mediated contexts. Connectivism arguably marginalizes the teacher by positioning the learner as the autonomous navigator of knowledge networks. Against these tendencies, this paper argues that teacher agency is the critical variable in determining whether AI enhances or diminishes the quality of language education. As Luckin et al. (2016) argued, AI in education functions best not as a replacement for human teachers but as a tool that amplifies their professional capabilities—what might be called AI-amplified teaching. Third, the theoretical frameworks reviewed share a common gap: none of them adequately address the ethical dimensions of AI integration in ELT. Questions about data privacy, algorithmic bias, the reproduction of standard language ideologies, and the differential access to AI tools across socioeconomic contexts are not peripheral concerns but central to any critical reconceptualization of the field. As Flores and Rosa (2015) argued in the context of language education more broadly, pedagogical practices are never politically neutral; they participate in the construction and reproduction of social hierarchies. AI tools trained predominantly on high prestige varieties of English may implicitly devalue the linguistic repertoires of learners from marginalized communities. A theoretically adequate framework for AI-mediated ELT must, therefore, incorporate a critical sociolinguistic dimension that the five frameworks examined here largely lack. These three observations point toward the necessity of what might be termed a critically integrative framework; one that draws on the strengths of constructivism, sociocultural theory, connectivism, TAM, and CLT while supplementing them with a critical sociolinguistic orientation that foregrounds power, equity, and ethical responsibility. The key integrative moves are: (a) retaining sociocultural theory's insistence on the social constitution of language while extending it to account for non-human mediation; (b) incorporating connectivism's networked epistemology while insisting on critical evaluation of AI-generated knowledge; (c) maintaining CLT's communicative goals while reconceptualising authenticity for human-AI interaction; and (d) adding an ethical dimension that holds teacher, institution, and policymaker accountable for the equitable deployment of AI tools.

A. Proposed Conceptual Model: The AI-Mediated Language Learning Model (AMLL)

The basis of the critical discussion above, this paper proposes the AI-Mediated Language Learning Model (AMLL) as a conceptual framework for understanding and organizing AI integration in ELT. The AMLL identifies five interrelated components and maps the dynamic relationships among them. The first component is the AI Tool Environment, which encompasses the full range of AI powered resources available to teachers and learners: generative language models, intelligent tutoring systems, automated feedback tools, and adaptive learning platforms. The AI Tool Environment is not a neutral space but is shaped by design decisions, training data biases, and access inequalities that critically mediate its educational value. The second component is Teacher Mediation, which is the central and irreducible component of the model. The teacher functions not merely as a technological gatekeeper but as a critical interpreter, evaluator, and pedagogical designer who determines how AI tools are integrated into instructional sequences, what learning objectives they serve, and what ethical safeguards are in place. Teacher mediation is the mechanism through which AI affordances are transformed into genuine pedagogical resources. The third component is Learner-AI Interaction, which encompasses the full range of exchanges between learners and AI tools. Drawing on sociocultural theory, these interactions are understood as zones of proximal development in which AI scaffolding supports learners' development of linguistic competence. Drawing on connectivism, learner-AI interaction is also understood as navigational practice in which learners develop their capacity to evaluate and apply AI-generated knowledge. The fourth component is Social Interaction, which encompasses peer-to-peer communication, teacher-student dialogue, and community participation. The AMLL insists, against purely techno-centric accounts, that social interaction remains the fundamental locus of language development. AI tools are positioned as resources that support and extend social interaction rather than substitute for it. The fifth component is Language Development, understood in its full communicative, sociolinguistic, and identity-related complexity. Language development is the outcome toward which all other components are oriented, and it is evaluated not only in terms of linguistic accuracy or proficiency scores but in terms of communicative competence, critical literacy, and learner agency. The relationships among these components can be summarized as follows: the AI Tool Environment affords possibilities that are realized through Teacher Mediation; Teacher Mediation shapes Learner-AI Interaction and Social Interaction; Learner-AI Interaction and Social Interaction mutually reinforce each other; and together they drive Language Development. Critically, the entire model is embedded within an Ethical and Equity Dimension that scrutinizes questions of access, bias, identity, and power at every level.

B. Implications

(a) Implications for Teaching Practice

The AMLL has several concrete implications for how ELT practitioners approach AI integration. First, teachers should position themselves as critical mediators rather than passive adopters of AI tools. This means selecting AI tools based on explicit pedagogical criteria, evaluating their outputs for linguistic accuracy and cultural appropriateness, and designing instructional sequences that use AI to complement rather than replace meaningful human interaction. Second, teachers should develop and teach AI literacy as an explicit component of their curriculum. Learners who understand how AI language tools work, including their data origins, their tendency to produce plausible but sometimes inaccurate text, and the social biases embedded in their training data, are better equipped to use them critically and productively (Long & Magerko, 2020). Third, teachers should resist the instrumentalisation of AI as a time-saving device and instead use it as a catalyst for deeper pedagogical reflection. Questions such as what does this AI tool make possible that was not possible before? And what does it risk displacing or devaluing? Should be routine elements of professional practice.

(b) Implications for Policy

At the institutional and policy level, the AMLL implies that the governance of AI in ELT must be both proactive and equity centred. Institutions should develop clear policies on the acceptable use of AI tools by both teachers and learners, addressing issues of academic integrity, data privacy, and

the rights of learners over their linguistic data. Policy frameworks should also address the structural inequality of AI access: not all learners have equal access to high-quality AI tools, and policies that assume universal access risk deepening existing educational inequalities (Warschauer & Matuchniak, 2010). Teacher professional development programs must be redesigned to include substantive training in AI pedagogy—not merely technical instruction in how to use specific tools but critical theoretical preparation for teaching in AI-mediated environments. Crompton and Burke (2023) found that AI-specific professional development significantly increases teachers' capacity to deploy AI in pedagogically innovative ways.

(c) Implications for Research

The theoretical analysis conducted in this paper points to several priority areas for future empirical research. First, longitudinal studies are needed to examine how AI-mediated language learning environments affect the development of communicative competence over time, and whether gains in AI-scaffolded practice transfer to unmediated human communication. Second, research is needed on the effective and identity dimensions of learner-AI interaction: how do learners experience and position themselves in relation to AI interlocutors, and what are the implications for their investment in language learning (Norton, 2013)? Third, critical discourse analysis of AI-generated language learning content would help to identify the ideological assumptions embedded in AI tools about what constitutes correct, appropriate, or prestigious English. Finally, comparative studies across different sociolinguistic and cultural contexts are essential to ensure that emerging theories of AI-mediated ELT do not unreflectively replicate the Anglo-centric biases of the field's historical dominant paradigms.

IV. Conclusion

This paper has argued that the reconceptualization of English Language Teaching in the age of artificial intelligence requires more than the adoption of new tools, it demands a fundamental rethinking of the theoretical frameworks that guide our understanding of language learning, teaching, and the role of technology. Through a critical examination of constructivism, sociocultural theory, connectivism, the Technology Acceptance Model, and Communicative Language Teaching, the paper has demonstrated that each theory captures an important dimension of AI-mediated ELT while failing to account for others. The proposed AI-Mediated Language Learning Model addresses this limitation by integrating insights from across these frameworks, centring teacher mediation as the critical variable, and embedding the entire model within an ethical and equity dimension. The theoretical significance of this paper lies in its insistence that AI cannot be theorised as a neutral instrument that simply enhances or supplements existing ELT practice. AI tools are embedded in social relations, institutional structures, and political economies that fundamentally shape what language learning is possible, for whom, and with what consequences. A theoretically adequate response to AI in ELT must, therefore, be simultaneously epistemological by addressing how knowledge is produced and evaluated in AI-mediated environments and political by addressing who benefits from and who is disadvantaged by the AI transformation of language education. The final recommendation of this paper is that ELT scholars, practitioners, and policymakers resist both uncritical enthusiasm for AI and reflexive technophobia. The most productive intellectual posture is one of critical reflexivity: a willingness to harness the genuine affordances of AI for language teaching and learning while subjecting those affordances to rigorous theoretical, empirical, and ethical scrutiny. It is through this disciplined, reflexive engagement with technology that the field of ELT can rise to the challenge of the AI age without losing sight of its foundational commitment to human communication, social justice, and the transformative power of language.

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