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Review article

Beyond Competencies: AI Literacy as Communicative Mediation in Algorithmic Contexts

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Abstract
The rapid expansion of generative artificial intelligence (AI) has intensified discussions about the knowledge, skills, and competencies required for meaningful engagement with AI systems. Existing AI literacy frameworks provide important foundations for technical understanding, ethical awareness, critical evaluation, and responsible use. However, the increasing involvement of generative AI in the production and circulation of discourse also raises questions about how communication is shaped within AI-mediated environments. This article proposes reconceptualizing AI literacy through the concept of communicative mediation, which complements competency-oriented approaches by examining how interactions among human actors, algorithmic systems, and technological infrastructures shape communicative processes. Drawing on literature from AI literacy, communication studies, and critical digital literacy, the article proposes a conceptual framework organized around four interconnected dimensions: meaning, authorship, agency, and interpretation. These dimensions provide an analytical lens for examining how generative AI shapes meaning-making, the attribution of authorship and responsibility, communicative agency, and the interpretation of AI-generated content. The article discusses the implications of this framework for AI literacy, education, and language teaching, emphasizing the importance of examining the sociotechnical conditions through which communication is produced and negotiated.

Keywords: AI literacy, communicative mediation, generative AI, critical digital literacy, language education.

Introduction

The rapid expansion of artificial intelligence (AI) technologies has generated significant interest across multiple fields, including education, communication, media studies, and digital culture. The emergence of generative AI systems capable of producing coherent texts, images, audio, and multimodal content has intensified debates regarding the role of intelligent systems in contemporary society. These developments have prompted researchers and policymakers to consider how individuals can effectively understand, evaluate, and engage with AI-driven technologies. Within this context, the concept of AI literacy has gained increasing prominence as a framework for preparing citizens to navigate environments shaped by algorithmic systems.

AI literacy has often been conceptualized through competencies, skills, and knowledge related to artificial intelligence (Long & Magerko, 2020). Existing frameworks commonly emphasize understanding how AI systems function, recognizing their limitations, evaluating their outputs, and using them responsibly in educational and professional contexts. Such approaches have made important contributions by expanding public awareness of AI and promoting critical engagement with emerging technologies. Even as competency-based models have incorporated ethical, affective, contextual, and critical dimensions, their primary analytical unit generally remains what individuals should know, be able to do, or demonstrate in relation to AI.

While earlier forms of algorithmic mediation have frequently been associated with the organization, ranking, recommendation, and distribution of information, generative AI introduces a more direct form of computational involvement in the production of textual and multimodal outputs. Large language models generate responses, suggest formulations, rewrite texts, summarize ideas, and mediate interactions between individuals and information. These capabilities raise questions about how communicative production and interpretation are shaped when algorithmically generated outputs become part of communicative practices.

This transformation introduces new theoretical challenges. Communication scholars have argued that digital technologies increasingly participate in processes of mediation that shape social reality itself (Couldry & Hepp, 2017). However, algorithmic systems now contribute directly to communicative processes, influencing how information is produced, represented, and interpreted. Consequently, questions concerning authorship, agency, and meaning-making acquire renewed relevance. When texts are produced through interactions between human users and generative systems, how should authorship be understood? When

algorithmic systems influence communicative outcomes, how should agency be conceptualized? And when AI-generated content becomes part of everyday interactions, how are processes of interpretation affected?

These questions suggest that AI literacy requires a broader conceptual foundation that incorporates critical understandings of mediated communication alongside technical competencies (Buckingham, 2015). Existing competency-based models provide important insights into the technical and ethical dimensions of AI use, but they often devote limited attention to the transformations associated with algorithmic mediation. As generative AI becomes embedded in educational, professional, and social contexts, understanding AI involves understanding how communication itself is being reconfigured. This change encourages a reexamination of AI literacy as a framework for critically engaging with communicative processes shaped by algorithmic systems, moving beyond an exclusive focus on individual competencies.

Building on discussions of AI literacy, critical digital literacy, and communicative mediation (Buckingham, 2015; Long & Magerko, 2020; Couldry & Hepp, 2017), this article argues that AI literacy should be reconceptualized as communicative mediation. Drawing on literature from AI literacy, communication studies, and critical perspectives on digital technologies. We propose that understanding AI requires attention to the ways in which meaning, authorship, agency, and interpretation are constituted and negotiated within interactions involving human users, algorithmic systems, and their broader sociotechnical contexts. We argue that AI literacy should encompass not only technical knowledge and operational skills but also the ability to critically analyze the circumstances of algorithmically mediated interactions.

The notion of communicative mediation offers a productive framework because communication occurs within platformized and algorithmically mediated environments (van Dijk, 2013). From this perspective, AI systems are understood not simply as tools that assist communication but as components of sociotechnical environments in which communicative practices are shaped. Such participation does not imply that algorithms replace human agency; rather, it highlights the complex relationships through which communication is produced, negotiated, and interpreted in digital contexts.

The purpose of this article is therefore twofold. First, it critically examines the limitations of competency-based approaches to AI literacy. Second, it proposes a conceptual framework that reframes AI literacy as communicative mediation. To develop this argument, the article first reviews dominant approaches to AI literacy and identifies their conceptual

limitations. It then situates AI within broader discussions of algorithmic mediation and contemporary communication. Next, it offers a framework based on four interrelated dimensions: meaning, authorship, agency, and interpretation. Finally, it discusses the implications of this framework for education, language teaching, and future research on AI-mediated communication.

By repositioning AI literacy within communication studies, this article seeks to contribute to emerging debates about the social and cultural consequences of generative AI. As algorithmic systems become increasingly involved in the production of discourse, understanding AI also requires attention to how meaning is created, negotiated, and validated within AI-mediated contexts. Understanding AI involves learning how to use these systems and critically examining how they shape the production, negotiation, and validation of meaning in contemporary society.

Literature Review

Competency-Based Approaches to AI Literacy

As artificial intelligence becomes increasingly embedded in everyday, educational, and professional environments, AI literacy has emerged as a critical framework for understanding how individuals engage with AI systems and the social contexts in which these systems operate.

Long and Magerko (2020) define AI literacy as a set of competencies that enables individuals to critically evaluate AI technologies, communicate and collaborate effectively with AI systems, and use them in ways that are both informed and responsible. Their framework establishes AI literacy as a distinct area of inquiry and broadens discussions beyond technical expertise, emphasizing that understanding AI should not be limited to computer scientists and engineers but should also become part of public education. Subsequent work has further operationalized AI literacy as a multidimensional construct. Wang et al. (2023), for example, identify awareness, use, evaluation, and ethics as four core constructs and validate an instrument for measuring AI literacy among ordinary users.

The growing relevance of AI literacy has also been recognized by international organizations and policymakers. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has recently developed dedicated competency frameworks for both students and teachers aimed at promoting informed, ethical, and responsible engagement with artificial intelligence (UNESCO, 2024a, 2024b). These frameworks organize AI-related learning around competencies, skills, knowledge, values, and ethical considerations, reflecting a commitment to preparing individuals for participation in AI-mediated societies. Beyond

their educational objectives, such initiatives have contributed significantly to legitimizing AI literacy as a policy priority and to establishing common reference points for curriculum development, teacher preparation, and institutional implementation. The growing influence of UNESCO's frameworks further illustrates how AI literacy has become closely associated with competency-based approaches to learning, participation, and citizenship in digital societies. These frameworks illustrate the institutional importance of competency-oriented approaches, while recent scholarship has increasingly broadened the content of those competencies beyond technical knowledge.

Recent scholarship has increasingly challenged narrow understandings of AI literacy by highlighting the multiple dimensions involved in engaging with artificial intelligence. This shift is reflected in frameworks that extend beyond technical knowledge to encompass cognitive, affective, social, and ethical dimensions, as well as human–AI interaction (Yim, 2024). Further developing this multidimensional perspective, Sun and Chan (2025) examine AI literacy through affective, behavioral, cognitive, and ethical domains, while Yu (2025) emphasizes the interplay of knowledge, skills, dispositions, and context. Although these approaches differ in their conceptual organization, they converge in recognizing that AI literacy involves more than the acquisition of technical skills. Taken together, they point to an increasingly comprehensive understanding of AI literacy that incorporates the ethical, social, affective, and contextual dimensions of human engagement with AI.

These developments provide educators and institutions with practical guidance for integrating AI-related topics into teaching and learning while addressing issues such as transparency, bias, accountability, and responsible use. By broadening participation in AI-related discussions, competency-based models have also helped establish AI literacy as an important field of research and educational practice.

Despite their increasing multidimensionality, competency-oriented frameworks generally retain the individual learner's capacities, dispositions, practices, or outcomes as a primary organizing unit of analysis. The issue is not whether individuals need competencies to engage with AI but whether competencies alone provide sufficient conceptual resources for examining how AI-mediated communication transforms the conditions under which meaning is produced, attributed, interpreted, and negotiated. Recent competency-oriented frameworks increasingly incorporate ethical, affective, contextual, and social dimensions. Nevertheless, these dimensions are mostly articulated in terms of what individuals should know, do, or

develop. Less attention is devoted to explaining how communication itself is reconfigured through AI-mediated relations.

The emergence of generative AI makes this conceptual question particularly salient. Whereas much earlier scholarship on algorithmic mediation emphasized processes such as information organization, ranking, recommendation, distribution, and visibility, generative AI introduces a more direct form of algorithmic involvement in the production of textual and multimodal outputs. This development does not eliminate the importance of competencies; rather, it raises questions that cannot be reduced to the user's ability to operate or evaluate a system. These developments indicate that competency-based approaches, while necessary, do not by themselves address the full range of communicative questions raised by generative AI.

This limitation becomes particularly significant when considering questions of authorship, agency, and communication. Existing AI literacy frameworks generally acknowledge ethical concerns and encourage critical evaluation of AI outputs, yet the communicative processes through which authorship, agency, and meaning are negotiated in interactions involving generative AI remain comparatively under-theorized. When texts are generated through interactions between human users and algorithmic systems, conventional distinctions between author and tool become difficult to sustain. The concern is not whether AI systems exhibit agency akin to humans, but rather how their structures, outputs, capabilities, and limitations influence communicative opportunities and results. This distinction is important because the analytical problem addressed here concerns how communicative processes are organized, without attributing human-like intentionality to AI systems. These transformations suggest that the implications of generative AI extend beyond competencies and skills, requiring closer attention to the communicative processes through which meaning is produced, negotiated, and legitimized.

Understanding these transformations requires an account of competence that is situated within broader questions of communication and mediation. The issue is not whether AI literacy should be understood in terms of competence or communication but how competencies can be situated within a broader account of the communicative environments in which AI-mediated interactions occur. Competency-oriented frameworks remain essential for identifying what individuals need to know, do, and develop; communicative mediation addresses a different analytical question: how AI-mediated sociotechnical relations reshape the processes through which meaning, authorship, agency, and interpretation are constituted and negotiated.

The next section situates these questions within broader debates on mediation, platformization, and algorithmic communication, providing the conceptual basis for understanding AI literacy as communicative mediation.

Communication in Algorithmic Contexts

To examine these transformations, it is necessary to situate artificial intelligence within broader discussions of communication and mediation in contemporary digital societies. This perspective views communication as a process shaped by technological infrastructures, including the media and computational systems that structure the conditions under which communicative practices take place. This shift provides the conceptual basis for examining how generative AI becomes involved not only in the circulation of information but also in the production and interpretation of communicative outputs.

Communication scholars have challenged transmission-based models that portray communication primarily as the exchange of information between senders and receivers. Contemporary approaches emphasize communication as a socially situated process through which meanings and forms of social reality are constructed, negotiated, and transformed (Couldry & Hepp, 2017). From this perspective, media technologies are not simply channels through which messages pass; they also shape the conditions under which communication occurs and meanings become available for interpretation.

This understanding of communication is closely connected to the concept of mediation. Couldry and Hepp (2017) define mediation as the integration of media into social practices, contributing to the formation of quotidian reality. Media are not merely external communication channels; they are a part of and contribute to the communicative processes that shape social practices. A perspective of this nature is especially pertinent in digital environments, where technological infrastructures influence participation, visibility, and interactions.

The growing importance of digital platforms has intensified these processes of mediation. Van Dijk (2013) conceptualizes social media platforms as interconnected sociotechnical ecosystems in which technological, economic, and cultural mechanisms shape how online sociality and communication are organized. From this perspective, communication is inseparable from the infrastructures through which content is produced, circulated, and encountered.

Algorithms thus play a role in structuring modern information ecosystems by determining which content is visible, pertinent, accessible, or prioritized. Comprehending communication in digital environments

necessitates consideration of both human communicative practices and the computational systems and infrastructures that organize and present information (Gillespie, 2014). In platform-based environments, algorithms increasingly influence information access, visibility patterns, and participation opportunities. Communication is consequently shaped by both human participants and computational mechanisms that organize, prioritize, and disseminate content. Understanding contemporary communication thus requires attention to the technological infrastructures through which communicative practices take place.

The emergence of generative AI represents a significant development within this broader history of algorithmic mediation. Whereas earlier scholarship on algorithmic mediation has often focused on processes such as ranking, recommendation, classification, distribution, and visibility, generative AI introduces a more direct form of computational involvement in the production of textual and multimodal outputs. This development can be understood within the broader phenomenon that Striphas (2015) describes as algorithmic culture, in which computational processes increasingly participate in cultural practices traditionally associated with human actors. Generative AI extends this process by enabling systems to generate texts, images, explanations, summaries, and other communicative artifacts in response to user inputs.

This transformation raises important theoretical questions concerning authorship, agency, and meaning-making. When communicative outputs emerge through interactions between human users and generative systems, conventional distinctions between author and tool become more difficult to apply straightforwardly. Questions of agency can likewise be reformulated in relational terms by examining how system architectures, outputs, affordances, and constraints shape communicative possibilities and outcomes.

From this perspective, artificial intelligence should not be understood merely as a technological tool operating outside communication. Instead, generative AI systems can be examined as components of broader communicative environments in which human intentions, system architectures, prompts, outputs, interfaces, and institutional contexts interact to shape communicative processes. This perspective does not imply that AI possesses human-like intentionality or replaces human agency. Instead, it directs attention to the sociotechnical relations through which communication is mediated in AI-enabled environments.

These developments have important implications for AI literacy. If generative AI becomes increasingly embedded in communicative practices, understanding AI requires attention to technical knowledge, operational

skills, and responsible use alongside questions of meaning-making, interpretation, authorship, and agency. The analytical issue is therefore how competencies can be situated within a broader account of mediation and communication. Developing the skills necessary to interact with AI and examining the sociotechnical conditions that shape AI-mediated communication can thus be understood as complementary dimensions of AI literacy.

AI Literacy as Communicative Mediation

The discussions presented in the previous sections suggest that existing approaches to AI literacy provide valuable foundations for understanding how individuals interact with artificial intelligence. However, competency-oriented approaches can be complemented by a broader examination of how AI-mediated environments shape communication and the production of meaning. This issue is particularly relevant in educational contexts, where questions of technological adoption, pedagogical use, and responsible engagement intersect with broader transformations in knowledge, communication, and participation (Selwyn, 2021). As generative AI systems increasingly contribute to the production and circulation of textual and multimodal content, AI literacy requires an analytical perspective capable of addressing these communicative transformations. For this reason, this article proposes the conceptualization of AI literacy as communicative mediation.

Understanding AI literacy as communicative mediation entails examining both individual knowledge and capabilities and the ways in which communication is shaped through interactions among human actors, technological infrastructures, and algorithmic systems. This perspective resonates with broader discussions of life and interaction in hyperconnected informational environments, where digital technologies participate in the conditions through which social action and communication take place (Floridi, 2015). It also builds upon theories of mediation that view communication not merely as the transmission of information but as a socially situated process through which meanings, identities, and realities are continuously negotiated (Couldry & Hepp, 2017). Within digital environments, AI systems, therefore, become part of the sociotechnical conditions under which communication occurs.

Communicative mediation complements and expands existing competency-based frameworks. Competencies remain important for understanding how AI systems function and for promoting responsible engagement with technology. However, AI literacy can also address how algorithmic systems influence communication practices, shape

interpretations, and affect the production of knowledge. From this perspective, literacy involves understanding AI and critically examining the communicative environments in which it operates.

The connection between communication and AI literacy serves as a crucial foundation for this conceptual proposal. While competency-based frameworks focus on the knowledge and skills individuals need when interacting with AI, a communicative mediation perspective highlights how interactions among human actors, algorithmic systems, and technological infrastructures shape meaning, authorship, agency, and interpretation. This article conceptualizes communicative mediation as an analytical lens for investigating how AI-mediated environments reshape communication itself, situating communicative practices within broader sociotechnical relations.

To conceptualize AI literacy as communicative mediation, we propose a framework organized around four interconnected dimensions: meaning, authorship, agency, and interpretation. These dimensions were selected because they correspond to fundamental communicative processes that become particularly salient in AI-mediated environments. More specifically, meaning addresses the constitution of significance; authorship addresses attribution and responsibility for communicative production; agency addresses who or what can shape communicative possibilities and outcomes; and interpretation addresses how generated meanings are understood, evaluated, and contested. These dimensions identify interconnected processes through which communication is produced and negotiated in interactions involving AI, rather than isolated competencies. Generative AI challenges what individuals need to know and do, also raising questions about how meaning, authorship, agency, and interpretation are constituted and negotiated within communicative environments.

Table 1. AI Literacy as a Communicative Mediation Framework

Dimension	Analytical Focus	AI-Related Challenge
Meaning	Constitution and negotiation of significance	AI-mediated systems contribute to processes through which meaning is generated and negotiated.
Authorship	Attribution and responsibility for communicative production	AI-mediated co-production complicates conventional notions of authorship and responsibility.
Agency	Shaping of communicative possibilities and outcomes	AI-mediated co-production complicates conventional notions

		of authorship and responsibility.
Interpretation	Understanding, evaluation, and contestation of generated meanings	AI systems can influence possibilities and outcomes within sociotechnical relations.

Source: Authors' elaboration.

The first dimension, meaning, focuses on how meaning is created and negotiated in AI-mediated interactions. Generative AI systems can retrieve information, while their outputs can also be used in meaning-making processes that involve human intentions, prompts, model outputs, use contexts, interpretation, and institutional or social validation. This viewpoint necessitates considering the ways in which human intentions and algorithmic outputs can interact to negotiate meanings. It is consistent with critical literacy approaches that understand meaning as socially constructed through interaction and interpretation (Freire, 2011; Buckingham, 2015).

The second dimension, authorship, addresses questions concerning ownership, responsibility, and creative production. Traditional notions of authorship often assume a relatively clear distinction between author and tool. Generative AI complicates this distinction by enabling texts, images, and other forms of content to emerge through interactions between human users and computational systems. While AI does not possess intentionality in a human sense, its involvement in content generation raises questions concerning authorship, responsibility, originality, and intellectual production. Godwin-Jones (2025), for example, emphasizes the collaborative relations that emerge among human and nonhuman participants in AI-mediated language learning. From this perspective, authorship emerges through relations among human intentions, technological affordances, and generated outputs. The central question concerns who produced an artifact and how responsibility, attribution, and creative contribution are negotiated within AI-mediated production.

The third dimension, agency, refers to the capacity to influence communicative processes and outcomes. Here, distributed agency does not mean that AI systems possess human-like intentional agency. Rather, it refers to the way communicative possibilities and outcomes emerge from relations among human intentions, prompts, system architectures, training data, interface affordances, and algorithmic outputs.

Discussions of AI frequently position agency as either exclusively human or excessively attributed to technological systems. A communicative

mediation perspective avoids both extremes by examining how agency emerges through sociotechnical relationships. Human actors continue to make decisions, formulate prompts, evaluate outputs, and assign meanings. At the same time, algorithmic systems shape possibilities by influencing available options, generating responses, and structuring interactions. In this sense, agency should be understood not as a fixed property located solely in either humans or technologies but as a relational phenomenon emerging within informational environments (Floridi, 2015). The cultivation of robust generative AI literacy requires a critical acknowledgment of how these systems restructure the interplay between structure and agency across contemporary sociotechnical and communicative landscapes (Lee & Tan, 2025).

The fourth dimension, interpretation, concerns how individuals and communities understand, evaluate, and make sense of AI-generated content. While meaning concerns how significance is produced and negotiated, interpretation concerns how that significance is understood, evaluated, and contested in particular contexts. The growing presence of AI-generated texts creates challenges not only for assessing accuracy, bias, credibility, and contextual appropriateness but also for determining how authority, relevance, and limitations are attributed to generated content. Critical engagement with AI, therefore, requires attention both to the content produced and to the sociotechnical conditions under which it is generated and interpreted.

These four dimensions should not be understood as isolated categories. Meaning, authorship, agency, and interpretation are deeply interconnected and continuously influence one another. Questions concerning authorship affect how meaning is attributed; agency shapes interpretation; and interpretation contributes to the construction of meaning. In turn, these interpretive processes can reshape how authorship and agency are understood in subsequent interactions with AI. Together, these dimensions form a framework that expands AI literacy beyond competencies and toward a broader understanding of communication in algorithmic contexts.

This framework also highlights the political and social dimensions of AI-mediated communication. Scholars such as Noble (2018) and Zuboff (2019) have examined how algorithmic systems are embedded within broader structures of power, visibility, and knowledge production. A communicative mediation perspective requires attention not only to how communication occurs but also to whose voices are amplified, whose perspectives may be marginalized, and how algorithmic systems participate in the construction and circulation of social realities.

From this perspective, AI literacy involves understanding and using artificial intelligence while also critically examining how AI-mediated environments shape communication, meaning, authorship, agency, and interpretation. This broader perspective provides the basis for considering the implications of communicative mediation for education and language teaching.

Implications for Education and Language Teaching

AI literacy as communicative mediation has implications for how AI is approached in education. Educational practices can extend AI literacy beyond the acquisition of knowledge and skills for using AI systems by examining how these technologies reshape communication, knowledge production, and participation. This perspective does not diminish the importance of technical competencies; instead, it situates them within broader processes of critical engagement with AI-mediated environments. Recent research has likewise highlighted that the educational implications of generative AI extend across teaching, learning, assessment, and institutional practices (Chiu, 2024).

This perspective is consistent with longstanding critiques of technology-centered approaches to education. Selwyn (2021), for example, emphasizes the importance of examining the broader social, cultural, and institutional dimensions of educational technologies rather than reducing their significance to questions of adoption or efficiency. Applied to generative AI, this perspective suggests that technical competencies and responsible use should be situated within broader questions concerning meaning-making, knowledge production, communication, and participation. The educational challenge is to broaden the analytical and pedagogical questions through which AI is addressed.

These considerations also have implications for teacher education. Existing frameworks, including those developed by UNESCO (2024a, 2024b), emphasize the importance of preparing educators to engage critically and responsibly with AI technologies. Recent work on language teacher preparation similarly emphasizes the need to understand AI within broader relational and ecological configurations of language education (Godwin-Jones, 2025). If AI literacy is understood as communicative mediation, teacher preparation can integrate technical training and ethical awareness with critical discussions of authorship, agency, interpretation, and the social implications of AI-mediated communication. In this context, teachers have a dual role as users of AI systems and facilitators of critical reflection on how these technologies shape communication and educational practices.

Furthermore, this perspective places responsible use within a broader framework of critical understanding. Competency-based models have made important contributions by encouraging ethical engagement with artificial intelligence and promoting awareness of issues such as bias, transparency, and accountability. However, responsible use alone does not address all the communicative questions raised by AI-mediated environments. A communicative mediation perspective, therefore, complements responsible-use approaches by examining how algorithmic systems participate in the production of knowledge, the negotiation of meaning, and the organization of communicative possibilities.

These considerations are particularly relevant to language education because the development of generative AI affects how students engage with language and communicative practices as well as the resources available in language classrooms. Large language models can translate and summarize information, engage in conversational exchanges, provide feedback, generate texts, and produce other linguistic outputs that participate in human-like interactions. Language education, consequently, offers a particularly relevant context for investigating how AI-mediated systems transform communication practices and the processes through which language and meaning are produced and interpreted.

The first dimension of the proposed framework, meaning, highlights opportunities for examining how AI-generated content participates in processes of meaning-making. Students can be encouraged to critically examine how different prompts influence outputs, how particular interpretations are presented or privileged, and how contextual factors impact the meanings attributed to generated content. Such activities can contribute to a deeper understanding of the relationship between language, technology, and meaning construction.

The dimensions of authorship and agency are equally relevant in language education contexts. Generative AI complicates conventional understandings of authorship by enabling texts to emerge through interactions between human users and computational systems. This transformation creates opportunities for discussing questions of responsibility, originality, ownership, and creativity in writing and other forms of language production. Language classrooms can also provide spaces for examining how communicative agency is configured through interactions among learners, AI systems, prompts, interfaces, and institutional contexts. Students can be encouraged to critically analyze how particular communicative outcomes emerge within these sociotechnical relations, recognizing that AI is neither a neutral tool nor an autonomous human-like agent.

The dimension of interpretation further reinforces the relevance of language education for AI literacy. As AI-generated content becomes increasingly present in everyday communication, learners can be encouraged to evaluate credibility, identify possible biases, recognize contextual limitations, and examine how authority and relevance are attributed to algorithmically generated texts. Such practices resonate with broader traditions of critical literacy, which emphasize questioning how meanings are produced, represented, and legitimized within social contexts (Buckingham, 2015; Freire, 2011). Interpreting AI-generated language involves evaluating what a system produces while also considering the communicative conditions under which that content is generated and used.

Taken together, these dimensions suggest that language education can provide an important context for the development of critical AI literacy. Language classes can move beyond the instrumental use of AI for productivity or instructional support by creating opportunities to examine how algorithmic systems shape communication itself. Within this framework, AI literacy involves not only knowing how to interact with AI systems but also critically engaging with the communicative conditions through which meaning, authorship, agency, and interpretation are negotiated in AI-mediated environments.

Conclusions

The growing presence of generative artificial intelligence has intensified discussions regarding the knowledge, skills, and competencies required for meaningful engagement with AI systems. Existing AI literacy frameworks have provided significant foundations by addressing technical understanding, ethical awareness, critical evaluation, and responsible use. However, the increasing involvement of generative AI in the production and circulation of discourse also raises questions about how communication itself is shaped within AI-mediated environments.

This article has argued that contemporary developments in artificial intelligence, particularly the emergence of generative AI, raise new questions concerning communication, authorship, agency, and meaning-making. Competency-based models provide valuable foundations for understanding how individuals interact with AI technologies. The present analysis complements these contributions by directing attention to the communicative environments in which such interactions occur. Understanding AI involves considering what individuals know and can do alongside the ways in which meaning and communication are shaped within AI-mediated contexts.

Drawing on literature from AI literacy, communication studies, and critical digital literacy, this article has proposed reconceptualizing AI literacy as communicative mediation. Rather than treating AI literacy as exclusively a matter of competencies, this perspective extends competency-oriented approaches by examining how communication is shaped through interactions among human actors, algorithmic systems, and technological infrastructures. To support this reconceptualization, the article introduced a framework organized around four interconnected dimensions—meaning, authorship, agency, and interpretation—as an analytical lens for examining how AI-mediated environments shape communicative processes.

The proposed framework contributes to ongoing discussions on AI literacy by connecting the analysis of individual competencies with the communicative processes through which meaning, authorship, agency, and interpretation are constituted and negotiated in AI-mediated environments. By bringing these dimensions together, the framework offers a complementary analytical perspective for examining how generative AI reshapes communication. It situates competency-based approaches within a broader account of the sociotechnical conditions under which communication takes place, while highlighting the distinctive contribution of communicative mediation to the study of AI literacy.

The educational implications of this perspective are particularly relevant to contemporary learning environments. As AI-generated content becomes increasingly present in classrooms and everyday communication, educational practices can move beyond purely instrumental understandings of artificial intelligence. Developing AI literacy involves creating opportunities for learners and educators to critically engage with the transformations associated with AI-mediated communication, particularly those concerning meaning-making, authorship, agency, and interpretation.

Finally, this article suggests several directions for future research. Empirical studies may examine how the proposed framework can be operationalized and applied in educational settings, teacher education programs, and language classrooms. Further research may also investigate how communicative mediation operates across different cultural, linguistic, institutional, and technological contexts. Such studies could contribute to the empirical examination and refinement of the four proposed dimensions. As artificial intelligence continues to evolve, understanding its implications will require sustained attention not only to technological developments but also to the transformations through which communication and social life are organized.

Ultimately, AI literacy involves more than knowing how to use artificial intelligence. It also involves understanding, questioning, and critically engaging with the communicative conditions through which AI-mediated systems increasingly shape processes of meaning-making, knowledge production, and social participation.

Limitations and future research directions

This article has a number of limitations that should be considered when interpreting its contribution. First, the proposed framework is conceptual and has not yet been empirically examined in educational settings. Although the four dimensions—meaning, authorship, agency, and interpretation—provide an analytical lens for examining AI-mediated communication, their applicability and potential limitations require further investigation through empirical research. Second, the discussion draws on selected literature from AI literacy, communication studies, and critical digital literacy. Other theoretical perspectives and educational contexts may offer additional insights into the relationship between artificial intelligence and communicative practices.

Future research could investigate how the proposed framework can inform the design and evaluation of educational practices, particularly in language teaching and teacher education. Studies involving teachers and students could examine how the four dimensions emerge in specific AI-mediated communicative situations and how they might contribute to the development of critical AI literacy. Such research could also inform the development and evaluation of educational resources that translate the framework into pedagogical practice.

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