Expressing Authentic Voice within Co-Creative AI Partnerships: Insights from Augmentative and Alternative Communication

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Abstract

For a co-creative partnership to be effective, each participant must be able to express themselves authentically and see that expression reflected in the resulting artefacts. In this bridging paper, we draw on insights from the field of Augmentative and Alternative Communication (AAC) to explore what it means to preserve an authentic voice in the era of generative AI. AAC has a long history of considering authorship in communication and how this relates to the authentic construction of the self. We draw on this to propose three recommendations: prioritise authentic expression over efficiency through participatory approaches; adopt personalised, "one size fits one" design; and develop evaluation metrics that capture co-creators' sense of authentic self-expression.

Introduction

As creative AI becomes increasingly sophisticated and widespread, as a community we need to turn our attention to questions such as – what now? How can this technology benefit society and how do we steer it in the right directions to do so? One long-term goal for CC researchers has been to develop co-creative AI partners, motivated by helping to "enable", "support", "facilitate", "enhance", and "democratise" our creativity (this is contrasted with the goal of developing independent, autonomous creative systems). In this paper we focus on one dimension of a rich human–AI co-creative partnership that is often missing in today's culture of semi-passive AI output consumption and prompt-driven artefact creation: the presence of an authentic voice. This is the part of creativity connected to creative self-expression and a sense of shared ownership over what is produced – the feeling that an artefact was created intentionally and, in some way, reflects a core part of the individual and what they wish to communicate or share with others. For a creative partnership to work, each party must be able to express themselves and be listened to, and see that expression meaningfully reflected in the resulting artefacts. Whether or not AI could have its own authentic voice to contribute to the partnership is an open question - explored in (Colton, Pease, and Saunders 2018). Here we focus on the importance of preserving the human authentic voice within mixed initiative co-creative interactions.

The importance of the authentic voice is widely recognised by both creators and those who engage with their work (Fox 2025; McVeigh and Valquaresma 2025). However, to the best of our knowledge, there has been no work in CC itself that directly addresses the role of the authentic voice in co-creative partnerships or how to design for it. In contrast, this lies at the core of Augmentative and Alternative Communication (AAC). Here, researchers focus on how technology can be developed to help to preserve and articulate the voices of people with complex communication needs. The field of AAC has grappled with issues of authorship since its inception (Wickenden 2011; Scarinci, Holm, and Hemsley 2024), but the emergence of generative AI has reframed and intensified these discussions. In this bridging paper, we draw on insights from AAC to suggest how this essential aspect of meaningful co-creative relationships might be addressed within a CC context.

The Authentic Voice in Creative Practice

People enjoy being creative. This has been understood since Aristotle linked creative activity, as a source of meaning, connection, and fulfilment, to his concept of eudaimonia as human flourishing (Wright and Pascoe 2015). More recent studies, for instance (Silvia et al. 2014; Benedek, Bruckdorfer, and Jauk 2020), have found strong links between creativity and enjoyment. Furthermore, an extensive body of research and practice in the therapeutic disciplines explores the relationship between creativity and mental well-being, demonstrating that creative behaviour can positively affect a wide range of psychological and physiological outcomes (Shafir et al. 2020). Creative AI must therefore preserve this sense of enjoyment. Rather than outsourcing much of our creativity to AI, we should design co-creative partnerships that sustain, and ideally enrich, the core qualities of creative experience, which underpin human flourishing and healing.

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Central among these qualities is the authentic voice.[1]

The authentic voice is emphasised in both pedagogical and creative practice circles. For instance, within the context of screenwriting education, McVeigh and Valquaresma argue that: "Finding your authentic voice and believing in yourself enough to express it is core to creative work" and "... developing an authentic voice is both a pedagogical challenge and a critical component of creative practice as it empowers the writer to tell stories that are unique and impactful." (McVeigh and Valquaresma 2025, p.1). More generally, (Vernon and Paz 2023) present a pedagogical approach in design education centred on creative authenticity, advocating for teaching grounded in creative authenticity to help students develop their strengths through evolving identities. Their work also highlights its broader role in enabling marginalised groups to see their identities and experiences genuinely reflected in education and practice.

In the context of media education, (Fox 2025) reflects on her experiences encouraging students to use AI in audio production, questioning whether it augments creativity or compromises authenticity. She asks, "Is the final product an authentic representation of the student's voice, skill and intent?", finding that co-creative AI tools can obscure the craft of authentic storytelling. She further reflects on ways in which this could overcome, suggesting that students must not only learn to use these tools, but also critically examine their implications.

People also value the authentic voice when engaging with other people's creative artefacts. This can be seen in the betrayal that people sometimes feel when, for example, works published as memoirs are shown to be inaccurate. Raynor Winn's book The Salt Path (2019) is a recent example: this was found to contain several misleading aspects, including how the author became homeless and the medical condition that her husband had (Hadjimatheou 2025). People reacted similarly to the exposure of fabrications in A Million Little Pieces by James Frey (2003) which describes Frey's struggle with drug addiction and rehabilitation. To some extent, creative artefacts embody a discourse between the creator and those who engage with them, where viewers, readers, and listeners want to feel that they have some understanding of the creators' artistic intent and self-expression.

While there is no work directly within CC on human AI co-creativity and the authentic voice, there are a few studies in related fields. Robbins and Blundell raise concerns over whether Generative AI is degrading human expression and causing us to lose our voices (2026). They argue that it is devaluing and discouraging authentic human expression, affecting both consumers and creators. Liu (2025) has conducted an excellent study into how Generative AI is reshaping creative work, and the tensions this is creating around authorship, agency, and authenticity. By examining the lived experiences of creative professionals of using AI for brainstorming, visual exploration, and early-stage drafting, she highlights the experiential tensions at the heart of AI-assisted creativity, particularly in terms of authenticity drift. Her findings suggest that authentic expression in human AI co-creativity depends on maintaining human agency, interpretive involvement, and exploratory engagement, and she proposes designing AI systems that support uncertainty and expression rather than simply optimizing outputs.

[1]The concept of authenticity within a creative context can refer to the provenance of an artefact (known as nominal authenticity (Dutton 2005) or whether an artefact genuinely reflects an author's beliefs and values in a socio-historical context (expressive authenticity (ibid.)). Here, we focus on the latter, the aspect of the creative experience which captures self-expression.

Insights from Augmentative and Alternative Communication

AAC describes a range of devices, strategies and techniques that may be used to support people with communication disabilities, for whom clearly articulated speech is limited or impossible. In its broadest definition (see: Burkhart 2011) AAC covers strategies such as manual signing, physical gesture, and paper-based resources such as letter boards or arrays of graphic symbols used to represent meaning. Of greatest relevance to CC is the group of devices known as voice output communication aids (VOCAs), computer-based systems which turn a user's selection of words or graphic symbols into synthetic speech output. Within the field of assistive technology, AAC is unique in that it serves an expressive purpose, allowing users not only to convey messages, but also to construct and convey their personalities in similar ways to their speaking peers (Waller 2019). Key to this is the discussion of authorship - who is (or is perceived to be) the author of a message, or the source of its originating thought?

Authorship in AAC is complex, and is a long-running discussion in the field - from early concerns that word prediction was "putting words in people's mouths" (Waller 2019, p. 161), to more recent discussions about how choices are made about what symbols are included in pre-made vocabularies for emergent aided communicators (Laubscher and Light 2020), questions of authorship tend to centre on the balance between the user as originator of the message and their VOCA as the channel through which it is constructed and transmitted. This balance is often dynamic, changing according to the needs of an interaction (Weinberg et al. 2025), but communicative interaction is predicated on a shared understanding that each participant is the author of their own contributions, that each person is contributing authentically. Authorship is therefore intrinsically tied to how one's very humanness is manifested and recognised (Dickerson et al. 2002), and its importance is underlined by authors whose work discusses how self-expression and personality are created in VOCA-mediated communication (Preece et al. 2024; Kane et al. 2017).

The advent of readily available generative AI systems, particularly large language models (LLMs), represents an inflection point for the field. Whilst natural language processing techniques have been part of VOCA design for many years (Higginbotham et al. 2012), the shift from probabilistic predictors to generative "co-authors" (Scarinci, Holm, and Hemsley 2024) introduces a potentially disruptive change in how communication is produced. These systems offer new possibilities for flexible communication

strategies, drawing on context and dynamically anticipating conversational needs. At the same time, however, scholars have cautioned against their uncritical integration into VOCAs (Griffiths, Slaughter, and Waller 2024), noting that a focus on efficiency and rate enhancement (Ibrahim et al. 2026) may overlook important concerns around authentic representation. For VOCA users, this raises fundamental questions about how the presence or use of an LLM may reshape authorship in communication, echoing concerns around creative partnership that are central to CC. The capacity of LLMs to generate large volumes of text with minimal effort is potentially seductive, particularly in the context of existing VOCA technologies which generally remain orders of magnitude slower than speech. But the relationship between speed and authorship is a nuanced one, with some researchers highlighting that VOCA users are often willing to tip the balance in time-pressured interactions or contexts (Weinberg et al. 2025), whilst others warn of the risk that users may "defer to the programmed algorithm" (Sellwood et al. 2024, p. 621), potentially sacrificing their own expression for ease and efficiency. More concerning still is the possibility that a VOCA may effectively "talk for" a user, producing fluent and plausible utterances with little or no user input, that are then claimed or perceived as being the true thoughts or expressions of the user (Griffiths et al. 2025). Whilst authorship remains an open question in AAC, recent work has sought to explore the impact of LLMs on authentic communication through the design of systems that seek to foreground and retain a user's previous utterances (Waller, Griffiths, and Kristensson 2025), create personalised language models specific to the user (Weinberg et al. 2026) and which ensure users retain agency over decisions about how and when to use LLM systems (Yang and Kristensson 2023).

Other challenges in how LLMs are being applied in AAC also have parallels with CC. Some researchers have raised the possibility that LLMs may produce outputs that privilege dominant communicative norms or linguistic structures over personal or idiosyncratic forms of expression (Valencia et al. 2023; Griffiths, Slaughter, and Waller 2024) or that they may routinely offer culturally or socially inappropriate outputs, based on algorithmic biases in their training data (Sennott et al. 2019). Training data for LLMs is often "scraped" from large corpuses of written text, reflecting typically non-disabled linguistic and cultural norms, and marginalising non-standard, disabled and other under-represented voices. As with creative forms, there is a risk that their use can only therefore reflect dominant cultural norms, or particularly popular styles of expression. For disabled communicators, this may further entrench biases or ableist assumptions about the way they "should" communicate (Preece et al. 2024). The absence of sufficiently large and representative training datasets reflecting disabled communicators and their forms of expression remains a problem for the field of AAC, although several researchers have proposed solutions to address this crucial gap (Vertanen and Kristensson 2011).

Another facet of AAC that may prove insightful for the CC field is the question of exactly how the VOCA is positioned within an interaction. Similar to the way in which creative AI can be positioned as a support for human creativity, contemporary AAC practice seeks to consider the whole interaction, rather than focus solely on outputs from a device. AAC acknowledges that interactions between people are highly individualised, and that there is not a single, "right way" to conduct an interaction, no single definition of "success". Where we communicate for the purpose of social closeness, or to share our personal thoughts and stories, it becomes even clearer that no two communication partnerships are the same, and thus communication is tailored to the dynamics of that partnership, with an increasing acknowledgement that such communication is inherently enchronic (Enfield 2022), constructed both from the prior knowledge and mutual grounding of participants, as well as building on prior contributions. There are elements of this that an AI could not reasonably hope to emulate, and as such recent work in AAC (Griffiths et al. 2025; Valencia et al. 2023; Ibrahim et al. 2026) has highlighted the risk that too tight a focus on AI's efficiency and linguistic flexibility risks returning the device to the centre of the interaction, shifting the focus back to an outdated "sender-receiver" model of communication.

The challenge for the field of AAC, and for those designing VOCAs in particular, may therefore be one of developing systems that can leverage the considerable possibilities of LLMs while supporting authentic expression for users. In line with work in HCI more broadly, current discourse emphasises participatory methods, and the involvement of users at all stages of the design process (Waller 2024), particularly in shaping how and when LLMs are used, and the extent to which they are permitted to contribute to communicative output.

In this respect, the use of LLMs in VOCAs shares a conceptual basis with CC, in that systems can be understood as lying on a spectrum of communicative authorship and agency. The central challenge is therefore not whether an LLM-augmented VOCA *can* be creative, but how developers and users navigate shifts in the locus of linguistic control, determining how much control can be ceded to an LLM while still preserving authentic authorship. Framed in this way, the goal becomes one of supporting authentic expression without distorting or diluting the user's voice.

Lessons Learned for CC

The field of AAC is currently discussing important questions of how AI, and particularly LLMs, can be responsibly integrated into communication systems in ways that benefit users without diluting their agency. With this paper we propose that CC can gain several important insights from these discussions.

How the technology is best implemented and used is an open question in both fields. In AAC, the current focus is on how users maintain agency, something that is vital if communication is to be perceived and valued as authentic. Similar concerns manifest in CC, where the goal of co-creative AI systems can be seen as supporting human creative practice. For such outputs to be valued, it is important that the creator's voice is not obscured or over-written by the system's contribution. In both fields, where AI systems act as

contributors, co-authors or co-creators, it becomes necessary to account for how agency and authorship are distributed between human and machine. AAC highlights the risks of failing to do so, particularly when communicative acts are attributed to users who have not fully authored them, but it also highlights that this distribution may well be contextually defined, or based on the goals of a particular interaction.

Related to this, another important consideration is that of how "success" is perceived. Successful communication, much like any creative output is co-constructed, and evaluated both by those who produce and those who receive. In communication and creativity, existing ways in which we measure how we judge whether an interaction has been successful may not be adequate to capture the complex creative relationship between a user and an AI. Research in AAC has demonstrated that simple measures of efficiency or output rate cannot fully capture whether an AI-mediated interaction is successful (Valencia et al. 2023).

In both these considerations, it is important to note that AAC has always been a highly individualised intervention. Provision of AAC systems is a process of matching the needs of a communicator with available aided and unaided resources. As a result, no two communication systems are the same, and the assertion is that "one size fits one", as each user brings fundamentally different needs, goals and attitudes to their communication system.

What emerges from this discussion is that the question of how AI can support communicators and creators is not primarily a technical one; nevertheless, recent work (Ibrahim et al. 2026) indicates that the inclusion of AI in AAC is still largely framed within the design literature as a technical problem. We propose that there is a need to shift focus to how AI can support participation and interaction, rather than purely focusing on "fixes" such as efficiency gains. In CC, there may be a corresponding need to shift the focus towards how AI systems can be properly positioned as co-creators, rather than systems that create based on human prompting. The involvement of users in the design of AI systems is of paramount importance here: we must work with users to properly understand the problem space, and to define how agency, authorship, and control should be distributed within AI-mediated creativity.

Whilst there are many lessons to be learned here, and the question of authenticity is still an open one in both fields, we summarise our learning in three key recommendations:

1. Using participatory methods, shift the focus of CC research from a focus on technological efficiency towards supporting the expression of authentic voice, exploring how this can be realised within co-creative human–AI partnerships.
2. Consider the philosophy that "one size fits one", rather than "one size fits all". This applies similarly in a CC context: creators look for different things in a creative partner, and the design and evaluation of CC systems should reflect this.
3. Develop new evaluation metrics which capture the experiences of human co-creators in terms of whether they feel that they've been able to express themselves authentically.

Conclusion

There are clear parallels in how authentic voice is understood in both AAC and CC. AAC explores how meaning in conversation can be co-constructed among participants, each contributing authentically; similarly, CC explores how creative processes can be co-constructed between collaborators, with each participant contributing authentically. In the era of co-creative AI, both fields face shared challenges in developing meaningful ways to work with these systems while preserving authentic expression and a sense of authorship.

This discussion is already well-established in AAC, and there is a long tradition of careful attention to the role of authorship in communication, of considering what it means to be the author of one's own message and to express oneself authentically. In this paper, we propose that CC can learn from AAC's understanding of authorship, particularly as realised through personalised communication tools and co-constructed interactions. We argue that both fields stand to benefit from one another, and that greater interdisciplinary collaboration and dialogue would be mutually valuable.

References

[Benedek, Bruckdorfer, and Jauk 2020] Benedek, M.; Bruckdorfer, R.; and Jauk, E. 2020. Motives for creativity: Exploring the what and why of everyday creativity. *The Journal of Creative Behavior* 54(3):610–625.

[Burkhart 2011] Burkhart, L. 2011. ISAAC – What is AAC?

[Colton, Pease, and Saunders 2018] Colton, S.; Pease, A.; and Saunders, R. 2018. Issues of Authenticity in Autonomously Creative Systems. In *Proceedings of the 9th International Conference on Computational Creativity (ICCC 2018)*, 272–279. Salamanca, Spain: Association for Computational Creativity (ACC).

[Dickerson et al. 2002] Dickerson, S. S.; Stone, V. I.; Panchura, C.; and Usiak, D. J. 2002. The Meaning of Communication: Experiences with Augmentative Communication Devices. *Rehabilitation Nursing* 27(6):215–220.

[Dutton 2005] Dutton, D. 2005. Authenticity in art. In Levinson, J., ed., *The Oxford handbook of aesthetics*. Oxford University Press.

[Enfield 2022] Enfield, N. J. 2022. Enchrony. *WIREs Cognitive Science* 13(4).

[Fox 2025] Fox, K. 2025. Reflection-ai: augmenting creativity or compromising authenticity? reflections on using generative AI in audio education. *Frontiers in Communication* 10:1613254.

[Griffiths et al. 2025] Griffiths, T.; Broomfield, K.; Hrastelj, L.; Judge, S.; and Toogood, J. 2025. AI, communication aids and the challenge of authentic authorship – Whose line is it anyway?! *Journal of Enabling Technologies* 19(2):102–112.

[Griffiths, Slaughter, and Waller 2024] Griffiths, T.; Slaughter, R.; and Waller, A. 2024. Use of artificial intelligence (AI) in augmentative and alternative communication (AAC): community consultation on risks, benefits and the need for a code of practice. *Journal of Enabling Technologies* 18(4):232–247.

[Hadjimatheou 2025] Hadjimatheou, C. 2025. The real salt path: how a blockbuster book and film were spun from lies, deceit and desperation.

[Higginbotham et al. 2012] Higginbotham, D. J.; Lesher, G. W.; Moulton, B. J.; and Roark, B. 2012. The Application of Natural Language Processing to Augmentative and Alternative Communication. *Assistive Technology* 24(1):14–24.

[Ibrahim et al. 2026] Ibrahim, S. B.; Griffiths, T.; Clarke, M.; Judge, S.; Slovak, P.; Pullin, G.; and Higginbotham, J. 2026. Before the Technological Fix: Scoping AI and AAC for Social Futures. In *Extended Abstracts of the 2026 CHI Conference on Human Factors in Computing Systems*, 1–10. Barcelona, Spain: ACM.

[Kane et al. 2017] Kane, S. K.; Morris, M. R.; Paradiso, A.; and Campbell, J. 2017. "At times avuncular and cantankerous, with the reflexes of a mongoose": Understanding Self-Expression through Augmentative and Alternative Communication Devices. In *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, 1166–1179. Portland Oregon USA: ACM.

[Laubscher and Light 2020] Laubscher, E., and Light, J. 2020. Core vocabulary lists for young children and considerations for early language development: a narrative review. *Augmentative and Alternative Communication* 36(1):43–53.

[Liu 2025] Liu, L. 2025. Reconceptualizing innovation in human-ai creative collaboration: Balancing agency, machine contribution, and authenticity. *Machine Contribution, and Authenticity (December 17, 2025)*.

[McVeigh and Valquaresma 2025] McVeigh, M., and Valquaresma, A. 2025. Creativity and screenwriting: authenticity and finding your voice. *Media Practice and Education* 1–15.

[Preece et al. 2024] Preece, J.; Sullivan, E.; Tams-Gray, F.; and Pullin, G. 2024. Making my voice and owning its future. *Medical Humanities* 50(4):624–634.

[Robbins and Blundell 2026] Robbins, S., and Blundell, I. 2026. Losing our voice? generative ai and the degradation of human expression. *Minds and Machines* 36(1):2.

[Scarinci, Holm, and Hemsley 2024] Scarinci, N.; Holm, A.; and Hemsley, B. 2024. Ethical conversations: what are the implications of AI for AAC development, use, and implementation? *Journal of Clinical Practice in Speech-Language Pathology* 26(1):101–107.

[Sellwood et al. 2024] Sellwood, D.; McLeod, L.; Williams, K.; Brown, K.; and Pullin, G. 2024. Imagining alternative futures with augmentative and alternative communication: a manifesto. *Medical Humanities* 50(4):620–623.

[Sennott et al. 2019] Sennott, S. C.; Akagi, L.; Lee, M.; and Rhodes, A. 2019. AAC and Artificial Intelligence (AI). *Topics in Language Disorders* 39(4):389–403.

[Shafir et al. 2020] Shafir, T.; Orkibi, H.; Baker, F. A.; Gussak, D.; and Kaimal, G. 2020. The state of the art in creative arts therapies. *Frontiers in psychology* 11:68.

[Silvia et al. 2014] Silvia, P. J.; Beaty, R. E.; Nusbaum, E. C.; Eddington, K. M.; Levin-Aspenson, H.; and Kwapil, T. R. 2014. Everyday creativity in daily life: An experience-sampling study of "little c" creativity. *Psychology of Aesthetics, Creativity, and the Arts* 8(2):183.

[Valencia et al. 2023] Valencia, S.; Cave, R.; Kallarackal, K.; Seaver, K.; Terry, M.; and Kane, S. 2023. "The less I type, the better": How AI Language Models can Enhance or Impede Communication for AAC Users. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. Hamburg Germany: ACM Press.

[Vernon and Paz 2023] Vernon, Z., and Paz, A. 2023. Creative authenticity: a framework for supporting the student self in design education. *International Journal of Art & Design Education* 42(1):6–15.

[Vertanen and Kristensson 2011] Vertanen, K., and Kristensson, P. O. 2011. The imagination of crowds: Conversational AAC language modeling using crowdsourcing and large data sources. In *Proceedings of the 2011 Conference on Empirical Methods in Natural Language Processing*, 700–711. Edinburgh, Scotland, UK: Association for Computational Linguistics.

[Waller, Griffiths, and Kristensson 2025] Waller, A.; Griffiths, T.; and Kristensson, P. O. 2025. 'What I Think about When I Type about Talking': Reflections on Text-Entry Acceleration Interfaces. *Communications of the ACM* 68(5):58–68.

[Waller 2019] Waller, A. 2019. Telling Tales: Unlocking the Potential of AAC Technologies. *International Journal of Language & Communication Disorders* 54(2):159–169.

[Waller 2024] Waller, A. 2024. Technical Perspective: The User as a Key Ingredient in AAC Design. *Communications of the ACM* 67(1):122–122.

[Weinberg et al. 2025] Weinberg, T. M.; Kadoma, K.; Gonzalez Penuela, R. E.; Valencia, S.; and Roumen, T. 2025. Why so serious? Exploring timely humorous comments in AAC through AI-powered interfaces. In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, CHI '25.

[Weinberg et al. 2026] Weinberg, T. M.; Penuela, R. E. G.; Valencia, S.; and Roumen, T. 2026. I, Robot? Exploring Ultra-Personalized AI-Powered AAC; an Autoethnographic Account. arXiv:2509.13671 [cs].

[Wickenden 2011] Wickenden, M. 2011. Whose Voice is That?: Issues of Identity, Voice and Representation Arising in an Ethnographic Study of the Lives of Disabled Teenagers who use AAC. *Disability Studies Quarterly* 31(4).

[Wright and Pascoe 2015] Wright, P. R., and Pascoe, R. 2015. Eudaimonia and creativity: the art of human flourishing. *Cambridge Journal of Education* 45(3):295–306.

[Yang and Kristensson 2023] Yang, B., and Kristensson, P. O. 2023. A Demonstration of a Tinkerable Augmentative and Alternative Communication Keyboard. In *28th International Conference on Intelligent User Interfaces*, 138–140. Sydney NSW Australia: ACM.