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AI at ProComm 2026: An annotated bibliography

by Clay Walker

AI was a major focus at the 2026 IEEE ProComm Conference including the keynotes, panel presentations, and workshops, as well as conversations at round tables, in between sessions, and at evening events. The following annotated bibliography provides both a review of conference papers and the major themes related to AI evident in this body of work. Thus, this consolidated review reflects ProComm's ongoing commitment to fostering responsible, ethical, and human-centered approaches to AI. I hope that by sharing this overview, technical and professional communicators will have better insight into the conversations that happened at the conference, but also more generally, the directions that we are moving in together as a community.

This annotated bibliography highlights the papers (excluding workshops) from the 2026 ProComm conference that focus on Generative AI (GenAI). To identify papers, I selected the keywords related to AI in the proceedings system, resulting in 20 total papers out of 52. The analysis excludes two Workshops, thus I consider 18 total papers. The key terms used to fetch relevant papers are listed below. Note, some key terms were consolidated when multiple formatting conventions were used for AI and GenAI; for example, AI and Artificial Intelligence were combined as Artificial Intelligence (AI). However, when AI was combined with another term, such as Agentic AI, it was not condensed.

- Artificial Intelligence (AI) (n=23)
- Generative AI (GenAI) (n=7)
- Agentic AI (n=1)
- AI in writing (n=1)
- AI literacy (n=1)
- Algorithmic beauty (n=1)
- Algorithmic technology (n=1)
- ChatGPT (n=1)
- Claude AI (n=1)
- GenAI in education (n=1)
- GenAI literacies (n=1)
- generative AI in higher education (n=1)
- Human-centered AI (n=1)
- human-in-the-loop (HITL) (n=1)
- large language models (LLMs) (n=1)

Once the relevant papers were identified, I read each paper, with the goal to generally understand the purpose, methods, and stated implications of the work. I took notes on each document using a tablet and stylus. Using these notes, I generated the annotated bibliography that appears at the end of the document. I next identified themes based on a combination of my

reading notes on emergent themes and AI supported analysis with Claude. A draft was shared at a ProComm GenAI Working Group meeting for broad feedback while I was developing themes. Once I settled on the final list of themes, I turned to Claude to help identify papers that fit each theme based on my description of that theme. The synthesis summaries were drafted through a mix of AI-informed summaries and my own notes. The following sections consist of first the thematic overview of the papers followed by a list of papers, each with its own summary.

Major Themes

Cites are listed at the end of this document.

Human-in-the-loop (HiTL) workflows

> *Focus on how humans use AI in educational, pedagogical, and/or professional contexts with an emphasis on describing or analyzing AI literacies. [1, 5, 6, 7, 14, 15, 16, 18]*

Bakhtawar and Chong [1] provide a systematic literature review that establishes a taxonomy of HiTL strategies for engineering education. Duin [5] describes using Claude to develop a self-reflective analysis of her scholarly record. Getto, Damrau, and Mancio [6] provide a survey-based analysis of the misconceptions that affect practitioner workflows with AI. Getto and Gilmour [7] analyze how HiTL could center AI to support the structuring of workflows rather than for increasing efficiency of text generation. Tham et al [14] illustrate AI literacy as an emergent, design-oriented rhetorical practice rather than simply a set of technical skills through a series of vignettes showing humans working with AI systems. Vance and Getto [15] consider how the disciplinary pillars of TPC serve as assets when individuals become responsible for overseeing AI-generated code. Vance, Mara, and Brewer [16] deliver three strategies for incorporating AI into professional TPC work marked by a critical awareness of the risks of the negative impacts of AI in workflows. Walker and Krupansky [18] correlate first-year students' attitudes toward GenAI with their actual self-reported uses in engineering curricula.

Classroom pedagogy and student use of AI

> *Focus on students' AI literacy practices, curricula or pedagogical strategies, and/or other educational-related uses of AI [1, 2, 3, 10, 12, 13, 18]*

The largest cluster focuses on classroom pedagogy and students' literacy practices with AI. Bakhtawar and Chong [1] develop a literature review to identify core areas for TPC educators to consider when developing ethical AI-pedagogies. Barker et al. [2] describe the University of Alberta's approach to develop AI pedagogy that emphasizes student concerns and ethical issues instead of just AI as technical skill development. Biviano et al. [3] analyze pre- and post-surveys in relation to a workshop with graduate students that focuses on AI in graduate level writing. Mohammed, Abdoorl, and Jaggernauth [10] raise questions about the teaching of

abstract writing based on their analysis abstracts created by GenAI systems. Pestova [12] analyzes interviews and surveys with undergraduate students to understand their attitudes toward AI bias and to propose TPC pedagogies. Pollak [13] presents a 10-week first year curriculum that helps students critically analyze AI slop without having to commit to using AI. Walker and Krupansky [18] present the first two years of a longitudinal study on first year undergraduate engineering students' uses of and attitudes towards AI through an expertise framework. The scholarship in this group includes empirical research focused on undergraduate students [12, 18] and graduate students [3], descriptions of curriculum and pedagogy [1, 2, 10, 13].

AI's cultural and linguistic biases

> *Focus on the cultural and linguistic biases within and in relation to AI systems [2, 4, 8, 9, 11, 12, 17]*

Barker et al [2] advocate for culturally responsive approaches to AI curricula. Brophy et al [4] develop strategies for using AI and VR systems to allow users to modulate how their identities are mediated in self-authored immigrant narratives. Laudenbach and Markey [8] analyze the biases in AI-generated prose showing that the systems privilege style related to humanities-related discourses even when used in engineering education contexts. Mariita [9] considers how TPC knowledge can affect how AI systems mediate aesthetic content creation thereby allowing users to counter the bias and colonial power dynamics that impact the circulation of aesthetic content in social media. One panel in [11] discusses AI and ethics in transnational contexts. Pestova [12] interviews students to develop strategies to unravel the myth of AI neutrality and resist the colonial power dynamics inherent in these systems. Visioli et al [17] find Deep Seek and Perplexity produce stable genres but vary in tone, thus increasing the risk for layered bias in system outputs.

Critical analyses of identity and sociocultural power

> *Analyses of the uses of AI that explicitly address the relationship between AI and formations of identity, equity, and sociocultural power formations [4, 8, 9, 12, 17, 18]*

Brophy et al [4] examine how migrants encode cultural identity in immigrant narratives using AI and VR technologies. Laudenbach and Markey [8] examine how GPT-4o may affect the development of discourse community norms in STEM fields. Mariita [9] argues that AI image/design systems encode Eurocentric aesthetic norms as default "beauty," and traces how that shapes professional visibility and economic opportunity for creators and entrepreneurs in the Global South. Pestova [12] treats "algorithmic neutrality" itself as a myth that reproduces Western power structures, and proposes storytelling/parable-based pedagogy as a counter-practice. Visioli et al [17] examine how commercial AI systems (DeepSeek and Perplexity) perform across multicultural contexts in workplace genres with the goal of determining whether the systems can adapt to various cultural norms without resorting to either stereotypes or

essentialism. Walker and Krupansky [18] situate their longitudinal study of engineering students' AI use in a model of expertise that describes how students move from novice to experts.

Ethics and AI

> Analyses that make ethical judgement, governance structures, and accountability an explicit, central concern in AI-mediated professional and technical communication [1, 2, 3, 6, 7, 11, 14, 16]

Bakhtawar and Chong [1] identify an "institutional ethical framework" as one recurring approach in their taxonomy of GenAI pedagogy in engineering education. Barker et al. [2] situate ethical AI use, data governance, and the preservation of authentic human voice as central concerns across three university AI curricular initiatives. Biviano et al. [3] survey engineering graduate students on how they rationalize "acceptable use" of AI in technical writing, finding that they are often left to work through ethical issues largely on their own. Getto, Damrau and Mancio [6] argue that technical communicators working on AI governance need ethical reasoning not just tool fluency to manage AI agents in coding. Getto and Gilmour [7] argue that ethical, effective AI use in content strategy workflows depends on transparency, traceability, and governance. Northcut et al [11] report on emerging ethical concerns in AI-mediated transnational TPC practice, showing that AI governance and ethical commitments are applied unevenly across national and institutional contexts. Tham et al [14] reframe AI literacy for professional communication around ethos and ethics. Vance, Mara, and Brewer [16] articulate ethical strategies for TPC faculty and practitioners to incorporate AI into their teaching, research, and professional development.

Summaries

1. Bakhtawar and Chong. **Engineering Communication Pedagogy in the Age of GenAI: A Taxonomy of Approaches**. **DOI:** 10.1109/ProComm69759.2026.00048

Bakhtawar and Chong underline the threats to mental effort when GenAI gets incorporated into engineering education. Using an integrative literature review across engineering education, writing studies fields, and general higher-education policy literature, Bakhtawar and Chong identify five broad categories of teaching strategies for TPC educators to consider when incorporating AI into their classes: scaffolding and tutoring; process-oriented and reflective models; simulation and roleplay; assessment redesign; and institutional ethical frameworks. The paper recommends hybrid approaches that combine multiple approaches.

2. Barker et al. **From Resistance to Resilience: Cross-Disciplinary Approaches to AI Integration in University Communication Programs**. **DOI:** 10.1109/ProComm69759.2026.00052

This panel presents various AI programming initiatives at the University of Alberta that illustrate the concept of “adaptive resilience” - preserving core educational values while strategically integrating AI. The panelists present curricula that center an emphasis on students and ethical concerns rather than just teaching AI as a top-down technical skill. Overall, Barker et al argue universities should move beyond polarized adoption/prohibition stances toward evidence-based, values-grounded, culturally responsive approaches to AI curricula.

3. Biviano et al. **Extended Abstract: Exploring Engineering Students' Use of AI in Technical Writing**. **DOI:** 10.1109/ProComm69759.2026.00039

Biviano et al., argue that insufficient work has addressed student perspectives on AI use in engineering education. To address this gap, the team implemented a 3-hour workshop “AI in Engineering Writing: Opportunities and Pitfalls” and measured student learning with pre- and post-workshop surveys. The authors find that graduate students use AI but have unmet needs related to institutional policy, ethical complexity, and hands-on training that centers critical AI practices.

4. Brophy et al. **Encoding Culture in Self-Authored Immersive Narratives: Examining Barriers and Enablers Across Two Migrant Communities in Japan**. **DOI:** 10.1109/ProComm69759.2026.00034

Brophy et al., argue that AI and VR tools can help encode cultural information in self-created immigrant narratives. Using a four-stage process with Skybox AI to generate 360º VR backgrounds, the team tested the AI mediated narratives with 11 participants from two migrant groups in Japan and analyzed findings through Communication Infrastructure theory and Communication Accommodation theory. The paper finds that immersive GenAI tools carry both potential risks and benefits as communication infrastructures as they both mediate and transmit cultural meanings.

5. Duinn. **Extended Abstract: Reflections of a TPC Researcher: Identifying Gateways to Culturally-Adaptive Research from 1985–2025** . **DOI:** 10.1109/ProComm69759.2026.00010

Duinn presents an auto-ethnographic review of her scholarship over 40 years that was developed in coordination with Claude AI to identify gateways into her career. The paper suggests a strategy for researchers to investigate the histories and shifting frames of their scholarship over extended periods of time.

6. Ghetto, Guiseppe, Jackie Damrau, and Angel Mancio. **AI Governance Readiness in Documentation Teams: Survey-Based Insights Toward Governance Readiness**. **DOI:** 10.1109/ProComm69759.2026.00023

Getto, Damrau, and Mancio argue that recurring misconceptions about GenAI in documentation workflows reveal a lack of maturity in how organizations manage AI governance. Drawing on a

preliminary survey of 90 technical writers (Likert-scale, multi-select, and open-ended items), they identify five AI fallacies that affect professional writing workflows. The paper reframes AI adoption as a workflow-design and accountability problem rather than a tool-capability problem.

7. Ghetto, Guiseppe and Nathan Gilmour. **Human-in-the-Loop Editorial Oversight: A Content Strategy Workflow with WritemoreAI**. **DOI:** 10.1109/ProComm69759.2026.00024

Getto and Gilmour examine an AI system that develops content strategy plans (including editing) rather than generating specific prose for use in artifacts. Framed within structured-content/DITA literature and human-in-the-loop scholarship, the paper focuses on workflow rather than output quality, describing how the tool redistributes the rhetorical load when planning, thus structuring work between AI and human editors through qualitative analysis. The paper suggests that AI may be more effectively used to structure workflow than to generate prose.

8. Laudenbach and Markey. **Humanistic-Writing Bias in AI-Powered Grading: An Analysis of Linguistic and Rhetorical Features Related to High- and Low-Scoring Student Papers**. **DOI:** 10.1109/ProComm69759.2026.00056

Laudenback and Markey observe that LLMs have been taken up in education without evidence demonstrating their efficacy in learning and ask whether AI biases may interfere with the acquisition of discipline-specific practices. Using GPT-4o, they scored 141 papers tagged with 125 linguistic and rhetorical variables using three different prompting strategies to determine whether LLM biases affected scoring of student writing. Findings show that GPT-4o consistently rewards features typical of humanities prose (nominalizations, prepositions, wh-/that-clauses, narrative/character-focused style) over features of typical hard-science writing (passive voice, hedging, explicit causal reasoning) regardless of the scoring task assigned to the LLM. The paper suggests that AI-assisted grading may disadvantage STEM students development of disciplinary-specific writing practices.

9. Mariita. **Algorithmic Beauty as Communication Infrastructure: AI Systems and Unequal Professional Visibility.** **DOI:** 10.1109/ProComm69759.2026.00044

Mariita develops the concept of algorithmic beauty to describe how modern aesthetic practices (e.g., social media influencers) are mediated by algorithmic systems that function as sociotechnical infrastructure, and thus increasingly overlap with technical communication concerns. Using feminist theory, critical race scholarship, and algorithmic platform studies, Mariita examines how content creators adjust self-presentation to achieve desired results with algorithmic systems. The paper contributes to understandings of algorithmic bias and colonial power dynamics in modern AI systems. This paper won the Hayhoe award.

10. Mohammed, Abdool, and Jaggernauth. **Can Generative AI Write Effective Abstracts for the ETC Community?** **DOI:** 10.1109/ProComm69759.2026.00033

Mohammed, Abdool, and Jaggernauth test three GenAI tools to evaluate whether they produce effective abstracts. Using consensus scoring, the team analyzed 12 abstracts generated using two different prompts based on two popular science articles. The paper finds that the GenAI systems produce reliable abstracts, thus leading to the conclusion that teaching abstract-writing tasks may require reconsideration in TPC pedagogy due to the potential for students to offload this work.

11. Northcut et al. **Ambiguities and Ethics: Field Reports of Globally Relevant TPC Activities.** **DOI:** 10.1109/ProComm69759.2026.00020

This panel includes one speaker who directly addresses GenAI among a set of papers focused on globally engaged TPC. Speaker 2 discusses ambiguity and ethics among TPC practitioners in transnational contexts.

12. Pestova. **Beyond Algorithmic Neutrality: Decolonial Pedagogy in Technical Communication.** **DOI:** 10.1109/ProComm69759.2026.00009

Pestova argues that by implementing specific strategies in TPC curricula, we can resist the colonial matrices of power embedded in AI systems and thus unravel their myth of neutrality. Using grounded theory and unstructured interviews with 15 students and recent graduates at a Northern Virginia university, Pestova explores how participants use tools like ChatGPT, Claude, and NotebookLM, and examines their attitudes toward these systems' cultural limitations. The paper finds that while students use AI, they have several concerns, which leads Pestova to propose four actionable pedagogical categories for TPC instructors.

13. Pollak. **Extended Abstract: Less "Slop", More Human: Teaching Writing Style Against LLMs**. **DOI:** 10.1109/ProComm69759.2026.00045

Pollak presents a teaching-focused presentation that develops teaching practices focused on understanding AI slop. The paper builds pedagogical activities for a 10-week introductory TPC course. These exercises build both critical AI literacy and TPC genre knowledge, and aim to move students beyond simple AI text detection towards reclaiming distinctly human argument and narrative writing strategies while also allowing students to opt out of AI use entirely.

14. Tham, et al. **Ethos and Ethics Before Efficiency: Toward a Deliberative AI Literacy for Professional Communication.** **DOI:** 10.1109/ProComm69759.2026.00019

Tham et al., argue that ethos and ethics frameworks should occupy the center of AI literacy rather than concepts of efficiency. The paper synthesizes the team's prior published frameworks (the HEAT heuristic, threshold concepts for digital literacy, networked literacy models) into an integrated set of design principles for deliberative AI literacy, treating ethos and ethics as primary constraints on how efficiency itself should be pursued. This synthesis is illustrated through a series of individual vignettes from the authors to show how AI literacy is an emergent,

design-oriented rhetorical practice rather than a matter of technical proficiency. This paper won the Lufkin Award.

15. Vance and Getto. **Individual-Scale Governance: Why Speed Increases the Need for Structure in Vibe Coding Workflows.** **DOI:** 10.1109/ProComm69759.2026.00043

Vance and Getto focus on the process of reviewing AI-generated code through the process of vibe coding, or using natural language to develop code through LLMs and argues that the problems associated with vibe coding (verification debt, context loss, architectural erosion) are communication and project-management problems in addition to technical problems. Drawing on practitioner narratives, tool documentation, and developer reports, they describe strategies for individual-scale governance to control coordination and oversight of coding. Vance and Getto map these practices onto core technical communication competencies (e.g.., information architecture, audience analysis, etc.) and suggests individual technical and professional communicators can manage AI workflows and replace the work of teams managing code development.

16. Vance, Mara, and Brewer. **From Guidance to Strategy: Contextual Approaches for Generative AI in Professional Communication**. **DOI:** 10.1109/ProComm69759.2026.00042

Vance, Mara, and Brewer, presenting themselves as members of the ProComm GenAI working group, cover some practice-based strategies for teaching, UX content design, and professional development. The panel points to a lack of shared norms guiding use of AI by TPC educators and practitioners and responds to that gap with concrete strategies for developing strategic approaches for human-centered AI decision making that resists both blanket prohibition and uncritical adoption.

17. Visioli, et al. **Cultural Inclusivity in AI-Mediated Workplace Communication: A Comparative Study of DeepSeek and Perplexity.** **DOI:** 10.1109/ProComm69759.2026.00028

Visioli et al., argue that AI models produce stable genres but produce varied tone leading to risks for layering bias in outputs. The study compares DeepSeek and Perplexity across three engineering workplace genres and national contexts using a framework based on rhetorical genre theory, intercultural communication, and anti-essentialist ethics. The paper recommends that AI systems be evaluated from an ethical perspective, not just based on accuracy or fluency.

18. Walker and Krupansky. **"I don't want to be dependent on it to learn": Analyzing Student Uptake of GenAI in the Technical Communication Classroom.** **DOI:** 10.1109/ProComm69759.2026.00030

Walker and Krupansky report on the first two years of a longitudinal, mixed-methods study of first-year engineering students' (n=150) attitudes towards and use of GenAI. Using the

framework of expertise to focus the study, Walker and Krupansky analyze survey responses using a variety of statistical methods. Findings show that students primarily use GenAI to support development of subject matter knowledge and the minority of users who take up GenAI for writing tasks also tend to hold the belief that GenAI will improve their writing. Despite the broad use of GenAI, students also voiced concerns about the impacts on their learning, suggesting TPC instructors, not tech companies, should shape discipline-specific GenAI literacies.