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Invited Article

We are delighted to present this invited contribution by Kirsti Cole and Roy Schwartzman, leading experts in the study of Artificial Intelligence in Higher Education. In this timely piece, Cole and Schwartzman address the growing phenomenon of AI and offer a critical perspective on its role in communication centers. Their research provides essential background and a clear roadmap for understanding AI in higher education today and will be invaluable to researchers and practitioners alike.

A Modest Futurist Manifesto for Reimagining Communication Centers in a Critical AI Landscape

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In their literature review of 146 research studies on AI in higher education, Zawacki-Richter and colleagues (2019) noted that AI technologies for tutoring applications have been available for more than 30 years—long before generative AI LLMs (large language models) such as ChatGPT became widely available for general usage. "Intelligent tutoring systems (ITS) can be used to simulate one-to-one personal tutoring. Based on learner models, algorithms and neural networks, they can make decisions about the learning path of an individual student and the content to select, provide cognitive scaffolding and help, to engage the student in dialogue" (Zawacki-Richter, et al., 2019, p. 4). The researchers found a paucity of longitudinal research on AI tutoring and lack of direct comparisons between AI tutors and their human counterparts performing equivalent tutoring tasks. The rapid implementation of AI across many domains renders the need for research on the nature and implications of the rapidly evolving interconnections between human mentors, students, and AI increasingly essential.

The following article directly addresses the potential challenges and opportunities posed by the integration of AI into communication centers. Building on integrative human-machine relationships inspired by Donna Haraway's *Cyborg Manifesto* (1991), the theoretical, practical, relational, and ethical aspects of AI for communication centers receive detailed attention. Our objective is to critically examine the transformative possibilities AI could have for communication centers and by extension for education itself, mindful of the risks as well as the rewards such technology offers. By mapping possible pathways the incorporation of AI into communication centers might chart, this manifesto for the future resists false binaries that dichotomize AI as either a technological savior or a doomsday device. Instead, AI tools can participate as collaborators in the ongoing process of communication competency development. Within this framework, AI can facilitate continuous improvement of processes involved in

progressively becoming a better communicator rather than circumventing human input by churning out ready-made products.

AI Challenges and Opportunities

The integration of artificial intelligence (AI) into higher education has introduced a deep disruption and potentially profound transformations in teaching, learning, and communication practices. Communication centers, which serve as critical spaces for fostering not only oral but associated written, visual, and digital communication skills, are uniquely positioned to grapple with the complexities of this shift. However, adopting AI uncritically risks neglecting its significant ethical, environmental, and social implications. Central to this conversation is the dismantling of the simplistic "AI/not-AI" binary, a fallacy that frames AI as either a technological threat to avoid or a seamless replacement for human work. Drawing from Donna Haraway's *Cyborg Manifesto* (1991) and critiques articulated in the *Refusing GenAI* manifesto (Sano-Franchini, McIntyre, & Fernandes, 2024), communication centers can instead position themselves as dynamic hybrid spaces where the boundaries between human expertise and machine capabilities blur—spaces that leverage AI thoughtfully while foregrounding human creativity, ethical awareness, and equity.

The *Refusing GenAI* manifesto (Sano-Franchini, McIntyre, & Fernandes, 2024) underscores critical issues that must inform the adoption of AI in higher education. First, the environmental impact of AI cannot be ignored. Large Language Models (LLMs), such as GPT-4o, consume vast amounts of energy and contribute significantly to carbon emissions, raising concerns about the ethics of their widespread use in teaching and learning. Although difficult to quantify precisely, AI developers and researchers express concern about excessive energy consumption, electronic waste, resource extraction, carbon footprint, and environmental damage attendant to the expanding use of AI and its data centers (Chauhan, Bahad, & Jain, 2024; Khajeh Naeeni & Nouhi, 2023). Communication centers must engage students and educators in conversations about the environmental costs of relying on AI, positioning sustainability as a central concern in the discourse surrounding educational technologies. Second, labor exploitation remains an invisible yet integral part of AI systems, from the underpaid workers who annotate data for model training to those tasked with moderating harmful AI outputs (Crawford, 2021). Communication centers must critically examine this hidden labor and consider the ethical implications of relying on tools built upon exploitative practices.

At the same time, AI systems—trained on massive datasets—carry the potential to amplify bias and discrimination. All AI platforms and tools remain vulnerable to at least four types of biases (Thorpe, 2024b):

- Sample bias: Data selection that AI trains on and refers to can reflect systematic underrepresentation or exclusion of particular populations, languages, cultures, or viewpoints.
- Label bias: Labels assigned to data reflect false or subjective beliefs (e.g., intelligence tests that identify intellectually "gifted" or "stunted" as genetically rooted in race).

- Algorithmic bias: Results produced by AI are skewed due to their operational processes (e.g., facial recognition technologies that can identify only light-skinned faces [Buolamwini, 2023]).
- Developer bias: Conscious or unconscious assumptions made by those who create AI tools (e.g., training on data that reflects Western or masculine norms in line with those of the developers).

As critics of generative AI have noted, these systems often perpetuate the systemic inequities embedded in their training data, reflecting and reinforcing cultural, racial, and gender biases. For communication centers, which strive to create inclusive learning spaces where participants feel comfortable exploring and expressing their identities (Schwartzman & Sanchez, 2016), this limitation is particularly troubling. AI's inability to recognize diverse cultural contexts or produce content that reflects underrepresented voices demands a critical pedagogical response (Crawford, 2021). Consultants and instructors must guide students in recognizing AI's biases and interrogating the ways these technologies may homogenize language, marginalize voices, or reinforce inequities.

Cyborg Communication: Toward Hybrid Models

In response to these critiques, communication centers can adopt a cyborg framework inspired by Haraway's *Cyborg Manifesto* (1991), which challenges traditional boundaries between human and machine. Under this model, communication centers become hybrid spaces, fostering collaboration between human consultants, students, and AI systems. Rather than replacing human expertise, AI tools can serve as complementary supports that enhance feedback, simulations, and instructional efficiency. In this cyborg paradigm, consultants take on the role of cyborg facilitators who merge their expertise with AI tools to amplify their instructional capacities. AI-enhanced tools can allow consultants to retrieve information rapidly, generate diverse communication examples, and provide feedback that is both comprehensive and efficient. However, the human consultant remains central to this process, ensuring that feedback is personalized, empathetic, and attuned to the needs of individual students.

Students, too, are reimagined as cyborg learners who engage with AI tools critically and reflectively. Rather than passively adopting AI-generated outputs, students are encouraged to use AI as extensions of their cognitive and creative capacities. For example, AI-powered writing assistants can facilitate brainstorming or support revisions, while simulation tools offer opportunities for students to practice oral communication in realistic, low-risk scenarios. The cyborg learner does not surrender agency to the machine but instead develops critical literacy by learning to collaborate with, critique, and evaluate AI's contributions. To support this hybrid approach, communication centers must develop hybrid pedagogical models that integrate human instruction with machine assistance while fostering critical awareness. These include:

- Collaborative AI-Human Workshops: Instructors guide students as they engage with AI tools to solve communication challenges, ensuring that the focus remains on human learning and developmental processes, not machine output of ready-made products.

- AI-Augmented Peer Review: Combining human peer review with AI-generated feedback creates a multi-layered critique process that highlights both machine precision and human insight.
- Cyborg Storytelling: Students develop narratives that blend AI-generated and human-created content, critically reflecting on the creative potential and limitations of machine collaboration.

At this point, one might object that students might resist deep collaborations with AI. Such resistance could arise on two grounds:

1. They avoid AI entirely because they view it as academic dishonesty, often due to punitive approaches their instructors have instituted to avoid cheating. ("If you use AI, you fail!")
2. They understand AI as an illegitimate shortcut, an alternative to the painstaking human effort expended in difficult tasks. For example, some students demanded a tuition refund when they discovered instructor feedback on student work was generated by ChatGPT (College students, 2025).

The second objection seems easily preventable through more transparent explanations of AI usage. On a deeper level, however, research suggests that students may be more amenable to AI-infused mentoring than they themselves may realize.

In their study comparing written feedback on student work generated by ChatGPT with feedback provided by the course instructor in business communication and instructional communication courses, Chiasson and colleagues (2024) found that "ChatGPT outperformed the expert on measures of clarity, coherence, structure, and competence while generating significantly greater affect and situational interest for the content" (p. 359). When told all the feedback (including what the AI chatbot generated) originated from an instructor, students also reported more positive affect toward the AI-generated feedback because they judged it to be clearer. This research was conducted using ChatGPT-3.5, so the same chatbot now two generations more evolved (to ChatGPT-4o) likely would outperform the human instructor by a larger margin.

In a similar vein, students found the instructional feedback from an online interactive chatbot at Georgia Tech so effective that they wanted to nominate the chatbot (named Jill Watson) for an Outstanding Teaching Assistant award—until they discovered that Jill was not human and therefore ineligible for the award (Irsyam, 2024). As Guo's (2024) research on individualized feedback to second language learners demonstrates, negative perceptions of students to AI's feedback may arise more from psychological than substantive objections, with student dissatisfaction stemming from the fact that the feedback came from AI rather than the quality of the feedback itself.

Notably, AI did not outperform human instructors across all dimensions. Instead of operating as zero-sum alternatives, humans and AI could complement each other's strengths and limitations. For example, the succinct, action-oriented suggestions from AI observed in Chiasson et al.'s (2024) study provide practical, implementable recommendations that could intertwine

with personalized human commentary on observable performance improvements or slippages over time and connections to individual factors that may have affected student performance.

Addressing Ethical Challenges

As communication centers embrace this cyborg model, they must simultaneously address significant ethical considerations surrounding AI use. The growing reliance on AI raises concerns about privacy and consent, particularly regarding the data collected when students interact with AI tools (Ismail, 2025). Institutions must develop transparent guidelines for data collection, ensuring that students have full awareness of—and agency over—how their data is used (Hasan et al., 2024). Similarly, concerns about surveillance arise when AI tools are deployed to monitor student interactions under the guise of academic integrity enforcement. Communication centers must resist such intrusive applications, preserving students' sense of safety, autonomy, and ownership over their ideas.

The question of intellectual property further complicates the ethical landscape. AI-generated content challenges traditional notions of authorship and originality, raising questions about how students' work is evaluated and who "owns" AI-assisted creations. For example, if a student uploads audio or video of a presentation to an AI platform, how could it be used in training the chatbot? Could content from the student's presentation be appropriated in responses to prompts by other users? At what point does an AI-assisted work product (e.g., a public speech or a visual aid) no longer qualify as a student's own original work? Communication centers can play a leading role in facilitating these conversations, helping students navigate questions of academic integrity and ethical AI use. Consultants and instructors must emphasize the value of human creativity while preparing students to engage with AI in ways that preserve their distinctive human voice, agency, and ethical judgment.

Finally, the integration of AI risks exacerbating existing inequities in higher education. Unequal access to AI tools, especially enhancements available only via paid subscriptions, may widen achievement gaps between students from different socioeconomic backgrounds, while under-resourced institutions may struggle to keep pace with technological innovations. To mitigate these disparities, communication centers must advocate for policies that ensure equal access to AI tools, provide targeted training for educators and students in underserved communities, and prioritize open-source solutions that promote transparency and accessibility.

Fostering Critical AI Literacy

Central to this cyborg framework is the cultivation of critical AI literacy among students, communication center staff, and instructors. Communication centers must go beyond using AI tools and instead foster critical engagement with their outputs. Following recommendations from the MLA-CCCC *Building a Culture for Generative AI Literacy* (2024) paper, students should be equipped to:

1. Evaluate AI outputs for bias, accuracy, and reliability.
2. Critique the societal and environmental impacts of AI systems.

3. Make ethical decisions about when and how to use AI tools in their learning.

Assignments like AI-augmented peer review and reflective storytelling provide opportunities for students to develop this literacy, encouraging them to think critically about the role of AI in their communication processes. These activities position communication centers as spaces where students learn not only to use AI but also to question its implications for education and society.

AI-Infused Communication Center Practices

In keeping with a transhumanist perspective on AI as enhancing and extending communication center services, human tutors evolve into technology-empowered educators, not obsolete labor (More, 2013). The challenge becomes not how to protect tutors from AI, but how to equip them and their clients to thrive with it. Three new instructional roles for communication center staff arise in conjunction with AI: defining relationships with AI, using and guiding students toward the most productive collaborations with AI, and the emergent role of AI alignment engineer.

Defining Relationships With AI

At the root of many concerns about AI fostering academic dishonesty and subverting educational processes lies the temptation to employ it simply to "deliver the goods," to provide the user a ready-made, finished product conveniently in minimal time with minimal effort. The power of AI does invite this misuse. Communication centers occupy a unique position to address the problem. Communication center workers operate within territory only superficially accessible (if at all) to most traditional instructional faculty: the process of students crafting an assignment. While the students' professors assess finished products and perhaps comment on drafts, communication centers can and often do accompany students through all the developmental stages, from ideation to culmination. The stakes are high, since using AI simply as a delivery system circumvents honing the skills required to produce communication that will advance students professionally and personally. By mentoring students in more judicious use of AI, communication centers can render AI a tool for encouraging a growth mindset that stimulates curiosity, perseverance, and continuous improvement (Dweck, 2016).

Although a cyborg paradigm for AI-infused communication centers stresses human-machine connectivity, the definition of this relationship affects the role AI will play in any interaction with it. As one of their most fundamental tasks, communication center tutors can work with students to establish the type of role AI will play for specific tasks. Defining the relationship sets parameters for what AI should contribute and clarifies expectations. Before enlisting AI as a collaborator, students and their communication center consultants should settle on the role AI should play, aware that this role may change during different stages of their projects. Communication center staff can help student clientele determine what type of relationship with AI best fits with their objectives, the assignment guidelines, and the AI policies that apply to the task (e.g., how the instructor might limit AI usage). The types of possible relationships may include, but are not limited to:

1. AI as Lackey: Use AI as a proxy for the student, producing the product assigned to the student to complete.
2. AI as Tireless Laborer: Have AI perform time-consuming, rote tasks such as ordering lists, drafting tables or charts, or setting up a work timeline and task list for completing a long-range assignment.
3. AI as Conscience: Ask AI about possible ethical concerns about ideas for approaching a topic. Prompt AI to probe for signs of biases or omissions in the phrasing of ideas.
4. AI as Critic or Devil's Advocate: Prompt AI to offer rigorous constructive criticism on working drafts. The student and mentor can review these assessments together and compare them with their own observations.
5. AI as Predictor: Prompt AI to anticipate how the audience would most likely react to specific content and why they would react that way. Fine tune prompts by identifying particular segments of the audience to analyze.
6. AI as Tester: Query AI about economic, health, emotional, environmental, or other consequences arising from a position or recommendation. This angle especially applies to persuasive communication tasks.
7. AI as Contingency Planner: Imagine the various things that could go wrong when completing the assignment, e.g., when giving a public speech or group presentation. For best results, specify the precise context: audience composition, specific topic, etc. This role can prove useful for gaining control over communication apprehension.

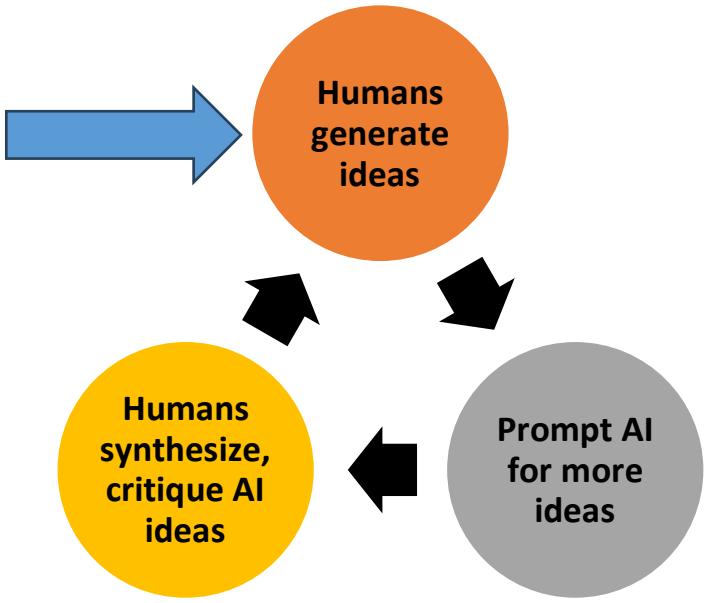
The possible relationships with AI are limited only by the imagination. Not all of these relationships are desirable or relevant at every stage of every task. It therefore becomes important to identify not only the relationship to adopt, but also any to avoid.

Humans First (But Not Alone)

Ethan Mollick (2024) popularized the phrase "keeping humans in the loop" as a reminder that human interaction with and supervision of AI yields the best results and avoid over-reliance on AI to substitute for human creativity and skill development. A growing body of research demonstrates that AI has developed to the point that it can exceed humans in the number and quality of ideas it generates when presented with a task (Boussioux et al., 2024; Haase & Hanel, 2023). Optimal performance in controlled comparisons between humans and AI, however, emerges from a fusion of human and AI contributions. Although AI often can generate more and better ideas than humans acting alone, beginning tasks from AI output rather than from initial human ingenuity hampers results, in the end yielding fewer, less original, and poorer quality ideas. This performance reduction results from initial AI-only output triggering an anchoring and adjustment heuristic, with the subsequent human contributions converging more toward what AI offered than striking out in new directions (Carter & Liu, 2025). The anchoring and adjustment heuristic describes the cognitive tendency to depend too heavily on the first information obtained when making decisions or estimating values (Tversky & Kahneman, 1974). In this context, the AI contribution becomes the cognitive anchor with subsequent human input clustering around

what AI offered. More colloquially, AI as the initial content generator builds a box than confines human thought more than stimulating it.

Figure 1. Humans-First Dynamic Feedback Cycle of AI Interactivity



The recursive procedure of Humans-First, beginning with humans generating content and then prompting AI for input, followed by ongoing back-and forth interactions between humans and AI.

Communication center staff can practice as well as guide their clientele in using this "humans-first" approach as an optimal method for human-AI collaborations (Hosanagar & Ahn, 2025; Wan et al., 2024). The sequence of AI usage matters. Beginning with human ideation and then enlisting AI for illumination, and then having humans curate the AI output to incorporate in the next iteration initiates a dynamic feedback loop between humans and AI. Results from a study of artistic creativity involving more than 50,000 participants and 4 million creative works supported this human-AI relationship (Zhou & Lee, 2024). Novel ideas peaked only when humans drove concept selection and curated AI outputs. The researchers describe this creative

interplay as "'generative synesthesia'—the harmonization of human exploration and AI exploitation to discover new creative workflows" (p. 7). A review of 105 empirical studies of human-AI interaction patterns strongly supports a humans-first approach to counteract anchoring and adjustment bias (Gomez et al., 2025). Overall, research shows that by highlighting human agency, the humans-first pattern prevents over-reliance on AI, increases cognitive effort by going beyond simply editing AI output, and deepens deliberation in the absence of ready-made AI products—a form of "cognitive forcing" that elicits AI assistance only when needed for assistance (Gomez et al., 2025). Figure 1 provides a visualization of how the cycle of humans-first AI feedback operates.

Becoming AI Alignment Agents

Throughout the articles in this forum, as in much current AI literature, concerns have arisen regarding the problems of AI biases and misuses. The increasing presence of AI, whether disclosed or covert, and AI's rapidly advancing capabilities add urgency to calls for greater critical awareness in using these tools. Communication centers, positioned as partners with their clientele in creating effective and ethical communication, can—indeed, perhaps need to—evolve to meet this burgeoning need. Peer tutors and other staff could serve as AI alignment agents, ensuring AI-generated communication guidance aligns with educational values, ethical communication principles, and inclusive pedagogical frameworks. Through guiding critical engagement with AI, communication center workers also instill attention to alignment in their clientele.

Thinkers across many disciplines have become increasingly vocal that AI is infused with the social and personal values of its technicians and the cultural environments that generate the information algorithms that enable it to function (Christian, 2021). Human intervention becomes necessary to assure that AI products and processes reflect humanity's highest normative standards rather than its prejudices (Gabriel, 2020). AI alignment describes this ongoing task—indeed, obligation—to monitor, assess, and when possible correct unfair or inaccurate usage and output of AI. Acting as an AI alignment agent reframes the mentoring role of communication center tutors, casting them not simply as responders to hybrid human-AI tutoring environments but as essential human guides who keep AI accountable to human goals and ideals.

Several specific duties constitute the AI alignment agent role. The following list addresses some of the more important types of tasks, although many others remain possible and more will emerge as AI capabilities evolve.

1. Interpretive Mediators: As interpreters of AI output, tutors would contextualize and translate (i.e., render more understandable and relevant) AI-generated feedback for human learners. For example, if AI identifies monotone delivery, a tutor might explain the rhetorical impact of vocal variety, experiment with corrective exercises, and assess how the AI's suggestions fit within the student's communicative goals or cultural norms. Although AI could perform all or most of these tasks, obtaining this output would require many sequential prompts and precision in chatbot interaction (e.g., what kind of

corrections to request and how to select the most suitable correctives) that the student likely would not have. This alignment function ensures that AI feedback is relevant, ethically sensitive, and pedagogically actionable.

2. Bias Monitors: AI systems often reflect biases in their training data and in how they interpret the data. Communication center tutors, especially when equipped with anti-bias and cultural studies training, are well-positioned to detect and critically interrogate problematic outputs, such as gendered feedback on speaking styles or culturally biased notions of "professionalism." As bias monitors, tutors audit AI outputs for equity and inclusivity, correcting distortions that may undermine the student's credibility or offend some audiences.
3. Feedback Calibrators: Tutors can modulate the affective tone and sheer quantity of AI feedback, especially for learners experiencing anxiety or communication apprehension. While AI might deliver blunt assessments or recommend long lists of changes, tutors can frame this input with empathetic pedagogy and personalized, incremental schedules for implementing improvements. Tutors perform alignment by tailoring AI feedback with human emotional and developmental needs. For example, how many suggestions for improving delivery should the learner attempt to implement at once? Tutors also can work with students to triage AI feedback, prioritizing suggested changes according to the student's readiness to address them.

Key AI Issues Communication Centers Face

As generative AI tools become increasingly accessible, two primary concerns demand attention: maintaining academic integrity in the age of AI-assisted work and guiding students toward effective, responsible AI usage. At the heart of both concerns is the need to reframe AI not as a shortcut or a replacement for human effort, but as a collaborative tool that requires active, critical engagement. Communication centers are uniquely positioned to model this approach, empowering students to interact with AI tools in ways that preserve creativity, foster learning, and reflect ethical values.

Addressing Academic Integrity

Generative AI tools, such as ChatGPT and other large language models (LLMs), complicate long-standing issues of authorship and originality in higher education. While traditional plagiarism typically involves copying existing content, AI-generated outputs add layers of complexity because the content, though machine-generated, often appears fluent, coherent, and original. This apparent originality, however, may need more student engagement with the writing or communication process, undermining the very purpose of education: critical thinking, creativity, and learning.

Communication centers can address these challenges by moving beyond punitive measures and instead fostering ethical, transparent AI usage through proactive strategies:

1. Develop Clear Ethical Guidelines: Communication centers must collaborate with instructors and administrators to define and communicate what constitutes responsible AI use versus misuse. For example, distinguishing between using AI to brainstorm ideas or improve grammar versus relying on AI to produce entire assignments without meaningful student involvement helps clarify acceptable practices. A Modern Language Association and Conference on College Composition and Communication *Working Paper on Generative AI Literacy* (2023) similarly stresses the importance of building frameworks that balance innovation with academic integrity.
2. Encourage Transparency: Transparency can be achieved by requiring students to document their interactions with AI tools. This might include sharing the prompts used, the generated outputs, and subsequent revisions made by the student. Encouraging reflective practices, such as process memos or learning logs, provides insight into the student's engagement with the task and ensures accountability. This aligns with research on fostering metacognition in learning processes, which highlights the value of students understanding and articulating their decision-making. A recent study of 193 English language learners, for example, shows that interacting with AI learning tools and incorporating AI-generated feedback can build confidence and stimulate greater awareness of writing processes (Shen & Tao, 2025). Further research should explore whether incorporating AI into oral communication preparatory processes may yield analogous results, increasing the sense of self-efficacy as a speaker.
3. Position AI as a Supplement to Human Creativity: AI should be framed as a tool that enhances—rather than replaces—human thinking and effort. Communication centers can emphasize the importance of students' intellectual contributions by discussing how AI can serve as an aid for brainstorming or drafting, but that meaningful revisions and ideas must remain student-driven. This approach helps students recognize the limitations of AI while fostering their own agency in the learning process.

By shifting the conversation away from punitive responses to a more nuanced exploration of ethical use, communication centers encourage students to engage with AI as part of a reflective, iterative communication process. This approach not only upholds academic integrity but also equips students with the skills to navigate AI ethically in academic and professional contexts.

Guiding Students in Effective, Responsible AI Usage: "More Chat, Less Bot"

Promoting responsible AI usage requires a cultural and pedagogical shift in how students interact with these tools. Unlike an Internet search that fulfills a one-shot request for information (analogous to a fast-food drive-through order), AI chatbots operate optimally through iterative interactions that progressively refine the responses (more analogous to a pair of chefs testing and adjusting a recipe). Researchers Kian Gohar and Jeremy Utley popularized the slogan "More chat, less bot" to capture the interactive core of AI chatbots (Brancaccio, Schroeder, & White, 2024). Their research found that dialogues with AI chatbots achieved superior levels of productivity and creativity (Gohar & Utley, 2023). The concept of "More chat, less bot" provides

a guiding principle: rather than passively adopting AI-generated outputs ("bot"), students must learn to interact dialogically ("chat") with AI tools, treating them as collaborators in the communication process.

This approach reframes AI as a thinking partner that supports critical inquiry, iterative refinement, and student-driven creativity: a collaborator that co-creates rather than a contractor that performs outsourced work (Mollick, 2024). Communication centers can implement targeted strategies that foster the "More chat, less bot" mindset:

1. Encourage Dialogic Use of AI: Students should approach AI tools as interactive systems. Consultants can guide students to ask targeted, specific questions that refine AI outputs, rather than accepting generic responses. For instance, students might prompt AI to explore rhetorical approaches to a speech or generate multiple revisions of an argument, evaluating each for clarity and purpose. Teaching students to iteratively improve AI responses encourages deeper engagement with both the tool and the content.
2. Position AI as a Thinking Partner: Communication centers can teach students to use AI tools strategically during various stages of the communication process—invention, outlining, drafting, revising—while ensuring that their human voice remains central. For example, AI can generate brainstorming lists for a presentation, but students must evaluate and synthesize the most relevant ideas. Consultants can help students reflect on how these tools enhance their communication skills without replacing their intellectual contributions.
3. Foster Critical Evaluation: Communication centers should encourage students to critically assess AI outputs for quality, accuracy, and bias. LLMs are trained on vast datasets that may contain cultural biases, factual inaccuracies, or homogenized perspectives. Students should learn to recognize and challenge these limitations, fostering a deeper awareness of the ethical dimensions of AI use. For example, comparing AI-generated text with student-authored work can highlight areas where AI lacks nuance or creativity.
4. Promote Reflective Practices: Reflection is key to fostering responsible AI usage. Communication centers can implement activities that ask students to document their AI interactions, analyze the role AI played in their work, and connect this engagement to their learning goals. Process memos, reflection essays, or peer discussions about AI tools can deepen students' understanding of how technology supports (or hinders) their growth as communicators.
5. Highlight Human Creativity: While AI can generate coherent outputs, it often lacks originality, emotional nuance, and the ability to adapt to diverse contexts. Communication centers should emphasize the irreplaceable value of human creativity and rhetorical decision-making. By showcasing examples where human insight surpasses AI outputs—such as persuasive arguments that require emotional appeals or culturally situated storytelling—consultants can reinforce students' confidence in their own creative abilities.

In positioning AI as a dialogic tool, the "More chat, less bot" approach encourages students to remain active, intentional participants in the communication process. Rather than relying on AI as a shortcut, students learn to collaborate with it thoughtfully, refining their ideas while preserving their voice and critical agency.

Prompt Attention to Prompt Engineering

The concept of "More chat, less bot" naturally leads to the need for prompt engineering—the practice of crafting targeted, effective prompts to guide AI tools toward producing meaningful, high-quality outputs. Prompt engineering represents a crucial skill for both developing users of AI, who are learning to engage thoughtfully with these tools, and advanced users, who can strategically manipulate AI to meet complex communication goals. By teaching prompt engineering as both a technical and rhetorical practice, communication centers can empower students to interact with AI tools more effectively while reinforcing their role as active, intentional learners. The following section explores prompt engineering in detail, offering examples that illustrate its application in communication instruction and highlighting its importance for preparing students to navigate AI-enhanced learning environments.

The burgeoning popularity of chatbots has spawned a plethora of spinoff endeavors, most notably an entire industry of training in prompt engineering. Contrary to what many of these training regimens might claim, prompting an AI chatbot does not require mastery of an esoteric technical language with arcane phrases that generate miraculous results. While communication center staff certainly will need to become conversant with strategies for chatbot prompting, the most important lessons the staff need to teach clients operate at a more general level as meta-strategies for designing prompts.

Chatbot users should recognize that the more they interact with a particular platform's chatbot, the better that chatbot becomes at interpreting and anticipating the subtleties of the user's requests. While it remains helpful to gain experience with various AI platforms to hone AI usage skills, a user will tend to generate progressively better results with ongoing usage of one platform's chatbot. This performance improvement stems from the cumulative training the chatbot undergoes as it gets more detailed information about what the prompter means and wants, using the preceding conversations as a knowledge base. Newer generations of chatbots have become so skilled at inferring what prompters seek that researchers have begun to question the need for in-depth training in specific prompt engineering syntax, terminology, and other nuances (Wang et al., 2024). This development bodes well for communication centers, since staff can guide clientele toward strategic ways to prompt rather than get bogged down in linguistic details of the prompts themselves. While precise detail remains necessary for some tasks, such as those related to scientific, medical, and engineering research, more casual users

employing chatbots for less technical purposes (typical clientele of communication centers) mainly need tutelage on prompting as a practice of intentional, goal-oriented inquiry.

Understanding prompting as intentional, goal-oriented inquiry places responsibility on communication centers to encourage prompting practices guided by the overall objective of AI helping the user become more capable and self-sufficient at communicative practices. Several prompting practices can aid in progressing toward this objective.

1. Request assistance in step-by-step processes, not finished products. As a shortcut, a user might simply ask the chatbot to produce the complete text of an assignment, as in: "Write me a seven-minute persuasive speech according to the attached assignment guidelines." That prompt will yield a speech script, but it fails to involve the user except as an observer of the product. For skill development, users could instead break down the overall task into its components, drilling down into the mechanics of crafting the assignment systematically. Prompts that focus on skill development include requests such as:
    - Guide me through the process of crafting the introduction for my persuasive speech.
    - Here are some ideas for the main arguments of my persuasive speech on the topic of ____. What are the main strengths and weaknesses of these arguments?
    - I am very nervous about delivering a presentation to my classmates. My communication center consultant helped me use guided visualization to build my confidence. Take me through a practice session of guided visualization so I can do it on my own.
2. Assign the chatbot a specific role when prompting (Bsharat, Myrzakhan, & Shen, 2023). Chatbots excel at role-playing, since assigning them a role sets clear parameters for the knowledge base they will probe and generates more precise responses than a more generic query. The role could be the perspective of a particular person or school of thought, or the prompt could place multiple roles in dialogue. To assure high quality output, queries that do not require such specific roles can stipulate that the chatbot is an expert in the subject matter who prioritizes peer-reviewed scholarly research. Some examples include:
    - You are an expert in [topic] who values evidence-based arguments grounded in peer-reviewed research.
    - Play the role of devil's advocate by pointing out the disadvantages of the following policy proposal.
    - Critique the quality of my evidence from the standpoint of a climate change denier.
    - Assume the role of Plato. As Plato, how would you respond to Aristotle's definition of rhetoric?
3. Use prompting to avoid or correct bias. Specify that the chatbot should present marginalized or excluded standpoints not ordinarily highlighted in responses. This

proviso leverages lessons from standpoint theory, making explicit the linkages between knowledge claims and social positionality (O'Brien Hallstein, 2000). These prompts help users become more aware and considerate of perspectives they may not have considered sufficiently. For example:

- What effects would my proposal have on transgender people?
- How could I make my informative speech on the Ten Commandments more interesting and relevant to Muslim students?
- Guide me through some ways I could enable my informative speech on aerobic exercise to accommodate people with disabilities.
- Explain how your response to my prompt accounts for minoritized or under-represented populations.
- How might your response to my prompt differ if you were responding as an African-American cisgender woman?

4. Include meta-prompts to introduce rules or principles that guide subsequent prompts (Ali, 2024). These meta-prompts foreground guidelines that will help the output of the chatbot more precisely meet the objectives of the prompter. Meta-prompts could address tone, audience level, procedures, or ethical considerations. Such meta-prompts could include instructions such as:
    - Address your responses to an audience of scientific experts on the topic.
    - Offer evaluations that are rigorous and include constructive criticism, but be kind and offer encouragement.
    - All sources that you include as research must actually exist as real publications. Never invent or fabricate your sources. Note: While this meta-prompt will not eliminate hallucinations, it can help reduce their quantity and severity. An additional meta-prompt of this kind dramatically reduced falsified research in preparing the AI-generated article in this journal issue's special section on AI.
5. Conclude the prompt by asking what else the chatbot needs you to tell it so it can do its job well. Instead of repeated back-and-forth exchanges with the chatbot simply to clarify what you want, end the initial prompt of a chat by asking what more the chatbot needs to provide an optimal response. If the initial prompt was unclear or puzzling to the chatbot, it will respond with a request for specific clarifications, usually presented as follow-up questions to the prompter. Responding to these queries from the chatbot will hone its responses so that they more precisely suit the prompt's specifications. Since the "What do you need from me?" prompt will be used repeatedly across chats, it makes sense to save the text of this prompt to copy and paste into the end of the initial prompt within each new chat. Some examples of this type of prompt include:
    - What else should I tell you that will enable you to give the best response?
    - What other information can I provide to help you before we proceed?
    - What more do you need to know that I did not specify in the prompt?

The "What do you need from me?" prompt assumes particular importance given that the user is training the chatbot with each chat. These types of prompts exhibit an open-ended format, triggering a detailed response than might emerge as a reply to a close-ended version. A close-ended question might yield a terse "No" or "We're all good" response even when the chatbot still remains confused if the confusion fails to reach a threshold that triggers the chatbot to disclose it.

A chatbot operates analogously to an ultra-capable new trainee who knows absolutely nothing about the job the prompter (acting as the training supervisor) wants it to do. Just as a trainer—or teacher, for that matter—should ask, "What more do you need from me to do your best work?" the prompter elicits a response that identifies exactly what else to provide for the chatbot. For a chatbot, even a close-ended, truncated query such as "Any questions?" might generate an answer that pinpoints ways to prevent misunderstandings, but a more open-ended version assures thoroughness.

Needs and Opportunities for Further Research

As the integration of AI tools like generative large language models (LLMs) becomes more pervasive in higher education, the question of how sustained AI usage impacts communication competency development remains largely unanswered. Although short-term studies have provided initial insights into AI's potential for enhancing communication skills, longitudinal research is needed to explore the dynamic, evolving relationship between students and these tools over time. Longitudinal studies can offer more nuanced understandings of both the opportunities and challenges posed by AI in higher education, particularly in communication instruction.

Insights from Existing Longitudinal Research

A longitudinal study on ChatGPT adoption conducted among Dutch higher education students (Polyportis, 2024) highlights the value of examining behavior changes over time. Over an eight-month period, the study revealed a significant decline in ChatGPT usage. Interestingly, changes in trust, emotional creepiness, and Perceived Behavioral Control (PBC) were identified as key predictors of this behavioral shift. Trust, for instance, declined as students questioned the tool's reliability and accuracy, while emotional creepiness—a discomfort often associated with human-like AI interactions—decreased as students gained familiarity with the technology. These findings suggest that students' relationship with AI is not static but shaped by evolving perceptions and experiences.

While this study provides important insights into behavioral trends, it stops short of examining communication competency as an outcome of AI use. Such research would build upon findings like those of AI-assisted simulations in nursing education (Labrague, Al Sabei, & Al Yahyaei, 2025), which demonstrated measurable improvements in students' communication and empathy skills. For example:

- Virtual reality-based AI systems enhanced interprofessional communication skills.

- AI-driven simulations allowed students to practice real-world communication scenarios, leading to better interpersonal outcomes.

Rigorously controlled studies of AI-assisted communication center instruction could illuminate more precisely the roles AI could play in developing communication competencies. Research could track students using AI-infused communication center consultations to prepare for a specific assignment in a course. The consultations employing AI would use the same type of tools to perform specific tasks, such as brainstorming topic ideas or co-creating outlines. The outcomes—both performative and attitudinal—could be compared with students in the same course who provide control groups: students who consulted with the communication center but did not use AI tools, and students who did not work with the communication center at all. Ideally, students would complete pre-tests and post-tests that measure to what extent the targeted communication competencies improved. Studies could employ a methodological design similar to that offered in Table 1 to identify the influence of AI as an independent variable.

Independent Variables	Communication center usage with AI	Communication center usage without AI	No communication center usage (control)
Conditions	Specific amount of communication center activity (time on task or number of interactions), consistent for all participants		Null
	Same communication task/assignment		
	Pre-/Post-test of targeted competencies before/after communication center consultations		Pre-/Post-test of targeted competencies before/after conducting study

Table 1. *Research Design for Comparative Controlled Studies of AI in Communication Centers*

Gaps in Existing Research

The growing body of evidence supporting AI's role in communication instruction remains fragmented. Most studies focus on immediate or short-term impacts of AI interventions, leaving several key questions unanswered:

1. How does long-term, sustained AI usage influence students' communication competencies over time?
    - Does AI-assisted instruction support the development of critical communication skills like rhetorical awareness, clarity, and interpersonal engagement?
2. What patterns emerge as students refine their use of AI tools?
    - For example, do students become more skilled at prompt engineering or rely more heavily on AI to generate content as time progresses?

3. How does trust in AI evolve alongside communication competency?
    - Longitudinal studies could reveal whether students become more discerning and effective in their collaboration with AI tools, thereby improving their own learning outcomes.

The Role of Communication Centers in Longitudinal Research

Communication centers are uniquely positioned to support and study these longitudinal dynamics. Given their direct engagement with students' communication development, centers can implement research frameworks that track how students interact with AI tools over extended periods. Such studies might include:

- Tracking Competency Growth: Measuring changes in written and oral communication abilities among students using AI for tasks like brainstorming, drafting, or revising assignments.
- Analyzing Interaction Patterns: Documenting how students' use of AI evolves (e.g., from passive reliance to active, iterative prompting).
- Assessing Student Reflections: Capturing students' perspectives on their learning processes, including how AI tools support or hinder their competency development.

To achieve the most insightful results, communication centers can employ mixed-method approaches, combining quantitative measures (e.g., rubric-based assessments) with qualitative data (e.g., student reflections, focus groups). For example, surveys could measure self-reported improvement in communication skills alongside actual performance changes in assignments or presentations.

The findings from longitudinal studies could inform key institutional decisions regarding AI adoption and its ethical use. Specifically:

- Policy Development: Clear, evidence-based guidelines could be established for responsible AI use, helping educators strike a balance between leveraging AI tools and preserving human agency in learning.
- Pedagogical Innovation: Insights could guide the creation of curricula that emphasize AI literacy, critical thinking, and prompt engineering as essential components of communication instruction.
- Student Training: Communication centers could develop workshops and resources to help students harness AI tools effectively while fostering their independent communication skills.

Toward Further Research

The need for longitudinal studies cannot be overstated as institutions grapple with the rapid pace of AI integration. Future research must explore how AI usage behaviors correlate with

tangible improvements—or potential declines—in communication competencies. This research should also consider variables such as disciplinary differences, student familiarity with AI, and evolving institutional policies. By addressing these gaps, longitudinal studies would provide a more comprehensive understanding of AI's role in shaping communication education. Such studies are not merely academic exercises but essential tools for ensuring that AI supports, rather than supplants, the fundamental human skills at the heart of communication. As AI adoption continues to rise, longitudinal research will enable communication centers to remain dynamic, adaptive spaces where students and educators critically engage with AI to foster meaningful, lasting learning outcomes.

Conclusion

Infusing AI into communication centers involves a more nuanced approach than simply flipping a switch and universally embracing AI. Communication centers can take cues from the successful and problematic ways that businesses have adopted AI. As extensive cases of AI uptake in the corporate realm have shown, AI implementation requires careful deliberation and planning to assure alignment with the center's values, objectives, and processes (Thorpe, 2024a). Crafting an approach to AI calls for horizontal alignment to achieve compatibility (although not necessarily an exact match) with AI policies of other units (e.g., writing centers and other academic support services, course policies of instructors whose students seek assistance). Furthermore, vertical alignment requires consistency with institutional AI policies. Implementation of AI also should be strategic, focusing on how AI can improve specific aspects of the communication center's work. A new technological tool, no matter how revolutionary, should be used in ways that leverage its strengths in ethically informed ways, not uncritically universalized as the norm.

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