Call for Papers: Effects of Artificial Intelligence Tools in Technical Communication Pedagogy, Practice, and Research

A 2024 special issue of Journal of Business and Technical Communication

The rapid popularization of artificial intelligence tools such as ChatGPT and Midjourney has resulted in a wide range of responses from the public and academy (Davis & Taczak, 2023). Concerns range from dire proclamations of large-scale labor replacement to sunny proclamations of greater productivity for workers solving the world's problems. Between these two poles lie a wide variety of opinions debating the merits and detractors of the new tools available to professionals and the public (Duin & Pedersen, 2023).

Technical and professional communication (TPC) is squarely in the middle of the conversation about artificial intelligence (AI) tools, particularly large language models such as ChatGPT and Google Bard (Card & Duin, 2023). As people work with new tools and discover their limits (Owusu-Ansah, 2023), these tools may have effects on individual workers' tasks (Ziegler, 2022), organizational capabilities and policies (Cardon et al., 2023), large-scale labor trends (Sherrill & Salvo, 2022), and the type of work the field does (Baro, 2022). As workplaces take up these new tools, educators inside and outside university settings may need to respond to and train students on these tools in order to prepare them for a changing workplace (Berger & Pigg, 2023; Hocutt et al., 2022; Luo et al., 2022). The realms of social justice (Graham & Hopkins, 2022) and ethics (Lee, 2022) have much to say about AI. Most pressingly, many changes related to AI-tool use have already happened (Little, 1988; Boettger & Ishizaki, 2018), some are currently happening (Getchell et al., 2022), and many are yet to happen (Verhulsdonck & Tham, 2022). Due to the relatively short amount of time that AI tools have been popular, this moment offers many opportunities, gives rise to many fears, produces many questions, and has yet to resolve into answers.

This special issue of the *Journal of Business and Technical Communication* invites authors to contribute short pieces (1,500–4,000 words) about the effects of AI tools in TPC pedagogy, practice, and research. Each piece should center on how AI tools change or do not change aspects of TPC work. The more specific and grounded the claims are, the better: experience reports from classrooms, observations of workplaces, practitioner reports of AI efficiencies or inefficiencies, analyses of organizational policies, and manager/administrator viewpoints on implementation, for example. The issue's goal is to survey the wide landscape of TPC and determine what changes have happened and what changes are happening, with an eye toward what those existing changes may mean for the future. Software companies are creating AI tools for a wide variety of functions in TPC with a wide variety of goals: Some pieces may suggest that enormous changes are coming in a certain area while some may suggest that very few changes are foreseeable for another area. Both types of pieces are encouraged.

Given the speed of change in AI tools, authors may be concerned that what they write about AI will be outdated by the time the article is published. This lag is unavoidable. But this should not stop scholars and practitioners from marking this particular moment—as short as that specific moment may be—with discussions of where TPC has been, where TPC is, and where TPC might be going with AI tools. Thus, we look for authors to write confidently and yet humbly about the current moment, reporting and analyzing the current conditions while knowing that things will change.

We seek applied articles, short empirical studies (pilot studies welcome), narrative-based inquiry, experience reports, and analysis pieces. Scholars are encouraged to bring stances informed via a wide range of concepts, such as Black rhetorics (e.g., Byrd, 2022, 2023), disability studies (e.g., Palmeri, 2006; Stanton, 2023), queer rhetorics (e.g., Cox, 2019), indigenous rhetorics (e.g., Itchuaqiyaq, 2021), Latinx rhetorics (e.g., Gonzalez & Turner, 2017), critical making (e.g., Faris & Holmes, 2022), ethics frameworks (e.g., Walwema et al., 2022), user-centered design (Campbell & Katan, 2022), rhetorical genre studies (Cheek, 2023), and activity theory (Karanasios et al., 2021), among many possibilities. All pieces should identify and discuss one specific change instead of making large-scale predictions concerning all AI tools in TPC at large. Articles need not be heavily cited (8–12 citations are sufficient). Articles must cite from at least two TPC sources to demonstrate the ongoing relationship of the concept discussed to TPC work. Articles that represent viewpoints and experiences from Black, indigenous, Latinx, LGBTQ+, disabled, marginalized, and multiply marginalized scholars and/or research participants are particularly encouraged. Scholars and practitioners throughout the world are invited to submit.

Overall, the goal of this special issue is to produce a collection of short responses to the contemporary moment: the short breath after the rapid emergence of artificial intelligence tools. This issue will help teachers, practitioners, and researchers understand the potential impact of emerging AI technologies for a wide array of areas in technical and professional communication.

Topics of interest include but are not limited to the effects of AI tools on

- practitioner activities: workflows (including teamwork and collaboration), types of projects undertaken, user experience work, efficiencies and inefficiencies
- in-person and online class practices
- graduate-student training
- labor concerns in TPC organizations: hiring and firing patterns, rules or policies for AI tool use, implementation processes, and effects on bottom line
- labor concerns of independent freelancers, consultants, entrepreneurs, and solopreneurs: workflows, types of projects undertaken, experience of hiring and firing patterns, efficiencies or inefficiencies, short-term versus long-term career planning

- research in TPC: workflows, methods, types of projects undertaken, rules for AI tools in research
- administration in TPC: tool use, decision-making processes, scholar–administrator relations
- policy or rules in TPC: local, regional, federal
- ethics in TPC: student ethics, teacher ethics, university ethics, practitioner ethics, organizational ethics, ethics in civic/federal policymaking, social justice/societal ethics

Instructions

- 1. Write an article between 1,500–4,000 words, with an abstract of 100 words or fewer that does not count toward the word count.
- 2. Identify one specific concept, tool, area, practice, concern, or issue in TPC.
- 3. Demonstrate how AI tools are being proposed or implemented in that concept, tool, area, practice, concern, or issue; this can be done through a data collection, a case study, an experience report, or another analysis method.
- 4. Suggest whether AI tools will make no changes, little change, large changes, or groundbreaking changes to the concept, tool, area, practice, concern, or issue; explain why.
- 5. Submit to Stephen.Carradini@asu.edu with the subject line *JBTC* Special Issue Submission [Last name of first or only author].

Format

Beyond submitting your files directly to the special issue editor, please format your papers according to *JBTC*'s Submission Guidelines:

https://journals.sagepub.com/author-instructions/JBT. Please submit at minimum three files: a title page, a main document blinded for peer review, and an author biography (or biographies) file. All tables or figures should be submitted in individual files, which would increase the number of files submitted. For large files, multiple email submissions or a link to a cloud storage folder may be necessary.

Timeline

September 15, 2023: Articles due to Stephen.Carradini@asu.edu.

September 22, 2023: Authors are notified if their articles are going out for review or are not accepted for the special issue.

October 13, 2023: Reviews returned to authors.

November 8, 2023: Revised articles due.

July 2024: Publication of special issue.

Guest Editor

Stephen Carradini, Assistant Professor of Technical Communication, Arizona State University, Stephen.Carradini@asu.edu.

References

Baro, D. (2022). Metadata and content management bridging technical documentation and automation technology. *SHS Web Conf*erence, 139.02001. https://doi.org/10.1051/shsconf/202213902001

Berger, A., & Pigg, S. (2023). Peer-led professional development: How one technical communication team learns on the job. *Journal of Business and Technical Communication*. Advance online publication. https://doi.org/10.1177/10506519231179964

Boettger, R. K., & Ishizaki, S. (2018). Introduction to the special issue: Data-driven approaches to research and teaching in professional and technical communication. *IEEE Transactions on Professional Communication*, 61(4), 352–355. https://doi.org/10.1109/TPC.2018.2870547

Byrd, A. (2022) Black professional communicators testifying to Black technical joy. *Technical Communication Quarterly*, *31*(3), 298–310. https://doi.org/10.1080/10572252.2022.2069287

Byrd, A. (2023). Truth-telling: Critical inquiries on LLMs and the corpus texts that train them. *Composition Studies*, *51*(1), 135–142.

Campbell J. L., & Katan, D. (2022). User-centered design (UCD) and transcreation of non-profit communications in a technical communication classroom. In *2022 IEEE International Professional Communication Conference* (pp. 444–450), Limerick, Ireland. https://doi.org/10.1109/ProComm53155.2022.00087

Card, D., & Duin, A. H. (2023, March). Generative AI: Productive paths forward. *Intercom*. https://www.stc.org/intercom/2023/04/generative-ai-productive-paths-forward/

- Cardon, P., Getchell, K., Carradini, S., Fleischmann, C., & Stapp, J. (2023). Generative AI in the workplace: Employee perspectives of ChatGPT benefits and organizational policies. Osf.io. http://dx.doi.org/10.31235/osf.io/b3ezy
- Cheek, R. (2023) Making a case for political technical communication (Pxtc). *Technical Communication Quarterly*, 32(2), 121–133. https://doi.org/10.1080/10572252.2022.2079726
- Cox, M. B. (2019). Working closets: Mapping queer professional discourses and why professional communication studies need queer rhetorics. *Journal of Business and Technical Communication*, 33(1), 1–25. https://doi.org/10.1177/1050651918798691
- Davis, M., & Taczak, K. (2023). Editorial introduction: Why write? *Composition Studies*, 51(1), 10-18.
- Duin, A. H., & Pedersen, I. (2023). Augmentation technology and artificial intelligence in technical communication: Designing ethical futures. Routledge.
- Faris, M. J., & Holmes, S. (Eds.). (2022). *Reprogrammable rhetoric: Critical making theories and methods in rhetoric and composition*. University Press of Colorado.
- Getchell, K. M., Carradini, S., Cardon, P. W., Fleischmann, C., Ma, H., Aritz, J., & Stapp, J. (2022). Artificial intelligence in business communication: The changing landscape of research and teaching. *Business and Professional Communication Quarterly*, 85(1), 7–33. https://doi.org/10.1177/23294906221074311
- Gonzales, L., & Turner, H. N. (2017). Converging fields, expanding outcomes: Technical communication, translation, and design at a non-profit organization. *Technical Communication*, 64(2), 126-140.
- Graham, S. S., & Hopkins, H. R. (2022). AI for social justice: New methodological horizons in technical communication. *Technical Communication Quarterly*, *31*(1), 89–102. https://doi.org/10.1080/10572252.2021.1955151
- Hocutt, D., Ranade, N., & Verhulsdonck, G. (2022). Localizing content: The roles of technical & professional communicators and machine learning in personalized chatbot responses. *Technical Communication*, 69(4), 114–131. https://doi.org/10.55177/tc148396
- Itchuaqiyaq, C. U. (2021). Iñupiat Ilitqusiat: An Indigenist ethics approach for working with marginalized knowledges in technical communication. In R. Walton & G. Y. Agboka (Eds.), *Equipping technical communicators for social justice work: Theories, methodologies, and pedagogies* (pp. 33-48). University Press of Colorado.

Karanasios, S., Nardi, B., Spinuzzi, C., & Malaurent, J. (2021). Moving forward with activity theory in a digital world. *Mind, Culture, and Activity*, 28(3), 1–20. https://doi.org/10.1080/10749039.2021.1914662

Lee, D. (2022) The ethics of extrapolation: Science fiction in the technical communication classroom. *Technical Communication Quarterly*, *31*(1), 77–88. https://doi.org/10.1080/10572252.2020.1866678

Little, S. B. (1988, October). The future of technical communication instruction. In *IPCC* '88 Conference Record: On the Edge: A Pacific Rim Conference on Professional Technical Communication (pp. 45–48). https://doi.org/10.1109/IPCC.1988.23995

Luo, M., Alias, N., & DeWitt, D. (2022). Investigating the needs of technical communication for TVET Students: A case study of manufacturing students in the central part of China. *Journal of Technical Education and Training*, *14*(1), 128–137. https://penerbit.uthm.edu.my/ojs/index.php/JTET/article/view/10508

Owusu-Ansah, A. L. (2023). Defining moments, definitive programs, and the continued erasure of missing people. *Composition Studies*, *51*(1), 143–148.

Palmeri, J. (2006). Disability studies, cultural analysis, and the critical practice of technical communication pedagogy. *Technical Communication Quarterly*, *15*(1). 49–65. https://doi.org/10.1207/s15427625tcq1501_5

Selber, S. A. (1994). Beyond skill building: Challenges facing technical communication teachers in the computer age. *Technical Communication Quarterly*, *3*(4), 365–390. https://doi.org/10.1080/10572259409364578

Sherrill, J. T., & Salvo, M. J. (2022). Automated infrastructures: Participation's changing role in postindustrial work. *Communication Design Quarterly Review*, 10(2), 22-31. https://doi.org/10.1145/3507857.3507860

Stanton, C. (2023). A dis-facilitated call for more writing studies in the new AI landscape; or, finding our place among the chatbots. *Composition Studies*, 51(1): 182–186.

Verhulsdonck, G., & Tham, J. (2022). Tactical (dis)connection in smart cities: Postconnectivist technical communication for a datafied world. *Technical Communication Quarterly*, *31*(4), 416–432. https://doi.org/10.1080/10572252.2021.2024606

Walwema, J., Colton, J. S., & Holmes, S. (2022). Introduction to special issue on 21st-century ethics in technical communication: Ethics and the social justice movement

in technical and professional communication. *Journal of Business and Technical Communication*, 36(3), 257–269. https://doi.org/10.1177/10506519221087694

Ziegler, W. (2022). New roles and competencies in technical communication induced by semantics and analytics. *SHS Web Conference*, 139.02004. https://doi.org/10.1051/shsconf/202213902004