

***Writing Futures: Collaborative, Algorithmic, Autonomous.*** Ann Hill Duin and Isabel Pedersen. Springer, 2021. 162 pp.

*Reviewed by Thomas Deans, University of Connecticut*

When ChatGPT arrived in late 2022, many of us in composition studies scrambled to catch up on even the basics of large language models. We might have been more prepared if we had read Ann Hill Duin and Isabel Pedersen's prescient *Writing Futures*, published in 2021. Working from the perspective of technical and professional communication scholars, Duin and Pedersen raise questions and deliver concepts for reckoning with teaching writing in the age of AI.

Duin and Petersen promise "a future-driven framework for investigating and planning for the social, literacy, and civic engagement implications...of writing futures" (15). As the book's subtitle suggests, they do this by investigating three elements: emerging modes of collaboration; ever more complex and pervasive algorithms embedded in our phones, tablets, laptops, wearables, search engines, learning management systems and more; and evolving uses of AI that write for us—or more realistically, with us. These three threads overlap, given that collaboration between humans and various forms of AI is a central theme of the book. But by parsing the three threads before weaving them, the authors keep readers from getting too overwhelmed.

*Writing Futures* is tethered to a curated collection of online resources, *The Fabric of Digital Life*. This is a shrewd move to keep the material current as technologies advance. The print book holds up even without its web companion, although that resource will prove more important for those who read this book in coming years or who plan to use it in a teaching context.

The book originated as a graduate seminar—the syllabus of which is included as an appendix—and residues of that remain, such as occasional textbook-like prompts that invite readers to reflect on scenarios. While some may find those cloying, I didn't, perhaps because I do not have a strong computers and composition background, although I've been playing catch up on AI since joining engineering colleagues last year on a National Science Foundation project that is piloting innovative ways to support neurodiverse graduate students, including AI writing tools like GPT-3, the precursor to ChatGPT.

The first of the three core chapters takes up collaboration. While earlier generations of scholars might have assumed that collaboration refers to interactions among learners or workers (mirrored in classroom practices like peer review or collaborative learning), Duin and Pedersen are more keen to investigate collaboration between humans and non-human technologies, what they sometimes call "socio-technical assemblages" (3). They note how technological

dimensions of collaboration became more obvious and intense during the pandemic when we were all on Zoom and working through platforms such as Microsoft Teams, but going forward we will also be increasingly enmeshed technologies such as wearables, virtual reality, and AI assistants, which can actively learn human patterns and adjust in real time. They claim that no comprehensive model exists for conceptualizing such immersive digital literacy where we routinely compose with nonhuman actors, so they outline one that emphasizes visual literacy, augmented reality, technological embodiment, human-machine collaboration as a dialogic conversation, and consideration of how one's body adapts to networks. All of these are, preferably, in service to the collective good, though the authors are stronger on naming the general characteristics of such a literacy than showing how to impart it.

The next chapter surveys how algorithms collect immense amounts of data and drive all our devices and online interactions—that is, we can't escape big data, neither as consumers nor as writers. After mapping the broader landscape, the authors focus on the local case of learning management systems and academic analytics. We're already enmeshed with these systems, but how much do we reflect on how they frame learning, gather data, protect (or not) privacy, shape our teaching, influence our students' writing? In one sense, Duin and Pedersen simply want readers to better understand the sociotechnical ecologies in which we teach, work, learn, and write, but they also emphasize “ethically aligned design” (17) mostly by reviewing frameworks proposed by scholarly, government, industry and non-profit groups, including the Principled Artificial Intelligence project at Harvard and the IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems.

The chapter on autonomous writing futures is in many ways the most alluring because it speaks more directly to modes of composing than to contexts for writing than earlier chapters. Automation is the most provocative change instigated by AI, and it has been taken up enthusiastically by computer scientists and businesses but largely ignored by educators (at least until ChatGPT triggered panic). Duin and Pedersen address virtual assistants (think not just Siri and Alexa but also humanoid/social robots) and natural language generation. They review the current state of such technologies and explore their implications for literacy and civic life. As with earlier chapters, they foreground the ethical priorities of fairness, equity, transparency, and explainability (this last being the notion that not just experts should be able to understand such systems).

Nestled between chapters are three brief “Intertexts,” and they are gems. The voices Scott Sundvall, Heidi McKee and James Porter, and Jennifer Keating and Illah Reza Nourbakhsh offer welcome departures from the dutiful prose of Duin and Pedersen as these invited scholars affirm and extend the book's themes. For example, Sundvall spins a playful analogy to illustrate how new

modes of digital literacy are emerging, and McKee and Porter emphasize how AI learning systems work rhetorically.

Duin and Pedersen engage in neither moral panic nor pollyanna-ish futurism, and often declare that their purpose is to investigate and plan, not offer prescriptions, even if their final chapter does outline a number of recommendations for further research. They prompt us to embrace realities, reflect on our relationships with non-human agents, insist on transparency, and imagine more collaborative and technologically immersive futures for work, schooling, and civic life. Meanwhile, they emphasize how much difficult ethical work is ahead of us.

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