

Editorial

Between ghostwriting and cowriting: AI as a transformative force across writing practices, literacies, and pedagogies

New media and technologies of writing have always been met with skepticism. The fear was that they would alter fundamental dimensions of human expression, cognition, subjectivity, and embodiment. It was claimed, for example, that print diminished the vitality of language use (Rousseau), the typewriter undermined the individual character of writing (Heidegger), and the computer strained the body (Auster; see Wilder & Lordick, 2026). Are widespread fears that generative AI impairs human thinking and learning, then, merely the recurrence of a media-historical figure of thought whose earlier manifestations now appear exaggerated?

No, because AI is far more disruptive. It brings to an end the human monopoly on language processing in general and text production in particular. Unlike all earlier writing media and technologies, texts are no longer merely shaped; they are generated (Robinson, 2023). The integration of AI further reduces the need for physical text production by enabling users to produce text without having to type or dictate it themselves. In this sense, AI partially assumes a function that was previously associated with ghostwriters, but in an automated and widely accessible form. Second, and more fundamentally, automation brings with it a detachment from the intellectual production of an individual person. AI thus appears less as a writing tool, such as a keyboard or word processor, than as a content-generating “participant” (Hirschauer, 2005) in writing practices, thereby calling established notions of human authorship into question. More than that, AI surpasses human writing in speed and often in quality as well. Compounding this, it is being developed with considerable rapidity, is backed by substantial financial investment, and is attracting a remarkably broad social response. Venture-capital investment in AI reached nearly USD 260 billion in 2025 alone (OECD, 2026a), and ChatGPT, at the time of writing this editorial, has more than 900 million weekly users worldwide (OpenAI, 2026).

What further distinguishes AI from other writing media and technologies is that its use invariably also raises serious ethical, political, and legal concerns including environmental costs, discriminatory harms such as sexist and racist stereotypes, concentration of power, surveillance, and issues surrounding data protection and copyright (Huang et al., 2026). These concerns arise within a field shaped by economic and political interests, including the strategic rivalry among some of the world’s largest technology companies and most powerful states whose interests are not necessarily compatible with those of education or the public sphere. Writing with AI is thus not merely a matter of writing, but also of power, control, governance, and ethical responsibility. From a didactic perspective, one question that this raises is how the use of AI in the classroom can be connected to forms of critical reflection on its output. At the same time, it remains a pedagogical challenge to operationalize the notion of critical

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thinking—a term that surfaces almost reflexively in these discussions—in ways that translate into concrete ideas and practical measures for classroom teaching.

This challenge has become more urgent, because writing with AI has already turned into an everyday practice for teachers and learners in schools and universities in many countries, as international surveys suggest (Digital Education Council, 2025; UNESCO, 2025). This uptake has outpaced regulatory oversight, institutional norm formation, curricular adaptation, and didactic reflection. As a result, writing with AI often takes place in a gray zone (“Shadow AI”) (Silic et al., 2025): widely practiced; variously tolerated, ignored, or underestimated; and only partially governed (Freeman, 2025; OECD, 2026b). This is precisely what makes the current situation so consequential. Educational institutions are confronting a new paradigm of writing that remains informal, opaque, and pedagogically underdefined. The pressing question, then, is not only under what conditions this already widespread configuration of writing can be pedagogically integrated in a meaningful, transparent, and accountable way, but also whether, and in what form, writing should remain a central educational aim at all.

What is at stake, first of all, is writing itself. Writing is a central medium of the individual’s broader literate socialization across school, university, and numerous professional domains (Graham et al., 2026). In planning, formulating, and revising texts, individuals learn to communicate across time and space and acquire extensive linguistic, worldly, disciplinary, and aesthetic resources. Second, writing supports the development of other core language practices on which education depends—above all reading, but also speaking and listening—and, in so doing, fosters the acquisition of academic language. Third, AI bears not only on writing itself, but also on the learning culture of contemporary education more broadly, including its assessment culture. Until now, writing is embedded in everyday practices of schools and universities: Students read and annotate texts, take notes during lectures, combine written language with images and video in presentations, compose source-based assignments, and articulate understanding in writing across subjects.

What happens to all of this under conditions in which writing is increasingly shaped by, or shared with AI? If the role of writing in education changes, this will reshape not only how students write, but also how they read, study, demonstrate understanding, and are assessed. Without an adequate response from education policy and didactics, it may foster forms of “cognitive surrender”—that is, the uncritical adoption of AI-generated outputs in place of independent judgment and deliberation (Shaw & Nave, 2026); and, in the longer term, it may contribute to “deskilling” by reducing opportunities to practice central cognitive and linguistic operations. Moreover, one increasingly visible effect is the unprecedented pressure placed on both students and teachers. Students report being asked with growing frequency to verify the authenticity of their work, especially when it is judged to be good. Teachers, in turn, are reading student writing with increasing doubts about authorship and heightened sensitivity to possible rule violations and attempts at deception.

In general, three scenarios seem conceivable here (Steinhoff, 2026). One is “delegation”: Writing is increasingly handed over to AI—for example, when the human activity is reduced to prompting, selecting, and editing—and gradually abandoned as an educational aim. Another is “conservation”: Writing continues to be cultivated, in conscious distinction from AI, much as before—for example, by privileging handwriting or by more tightly regulating assessments. A third is “transformation”: Writing is reworked under the conditions of AI and redefined as an educational aim accordingly, with writing with AI increasingly becoming the new default form of writing—for example, by shifting attention from finished products to writing processes, from isolated performances to portfolios, and from individual text production to more explicit forms of collaboration.

Taken together, these scenarios challenge writing research to reconsider its objects, models, methods, and instructional designs. Most fundamentally, however, the scenario of transformation requires approaching AI as a reconfiguration of writing. Its objects of inquiry thus extend beyond human writing processes and texts to include human–AI writing constellations and writing practices that emerge from them, and even forms of automated text production in which human involvement may be minimal or absent. In doing so, research should take into account not only classical forms of text production, but also more interactive writing processes such as chats with so-called “AI companions,” which, in 2025, were used regularly by 52% of 13- to 17-year-olds in the United States (Robb & Mann, 2025, pp. 2–4).

One way of conceptualizing these expanded objects of inquiry is offered by Steinhoff and Lehnen (2025) who propose a model of roles and practices: AI may act as “ghost,” “partner,” or “tutor,” while the human counterpart appears as “client,” “explorer,” or “learner.” These role constellations correspond to different communicative practices—“chat-to-generate,” “chat-to-create,” and “chat-to-chat”—which make clear that writing with AI ranges from delegated text production to quasidialogical cocreation and tutorial support. The boundaries between these roles and practices are not rigid; they overlap in various ways and may shift within a single writing process. Especially relevant in this context is how these roles shift when writing becomes collaborative and several writers must negotiate how a text should be formulated. In such constellations, roles are no longer simply distributed between human and AI, but are reconfigured through processes of attribution, coordination, and negotiation among the participants. This raises important questions about authorship, authority, and responsibility when decisions about content, wording, and structure are no longer made by a single writer. It also invites a reconsideration of collaborative writing in school—a practice with a well-established didactic tradition—under conditions in which AI enters the process not merely as a tool, but as an active contributor.

This makes it all the more crucial to recognize that assessments of the opportunities and risks of AI for human writing are often implicitly tied to the “ghost” role. Its pedagogical potential, by contrast, is more likely to emerge in constellations in which AI is configured as a “partner” or “tutor”—roles that may, in a broader sense, be subsumed under “cowriting.” Beyond this, the question arises whether and how writing with AI can be incorporated into models of competence structure and competence development, how writing with AI relates to basic writing and reading competencies, and whether AI may begin to take on quasisocializing roles in literacy development that were previously conveyed primarily by human interlocutors. This possibility seems all the more plausible given that AI use extends well beyond educational contexts and has long since become embedded in everyday practices, fulfilling a broad range of needs and functions—in some cases, even as an object of emotional attachment.

Methodologically, this calls not for a replacement of established approaches, but for their extension (Anson & Cole, 2026). Product analyses, process studies, and experimental designs remain indispensable. Accordingly, methodological pluralism is required. Established designs therefore need to be complemented by approaches capable of capturing the coactivity of human and machine more directly—for example, through screen-based process data, ethnographic observation, case studies, and mixed-method designs that treat writing as an embedded, multimodal, and interactional practice. Alongside this, research also needs to examine the professionalization of writing educators in this field, including the beliefs, orientations, and competencies that shape how AI is understood, adopted, and pedagogically integrated into writing instruction.

The reorientation of writing research also concerns the role of researchers themselves. The call that “academics need to wake up on AI” (Kustov, 2026, title) points to a broader shift: As AI increasingly contributes to literature synthesis, data analysis, interpretation, and textual formulation, it may also transform academic socialization. This is particularly evident in doctoral education, where established standards of authorship, independence, and scholarly performance may no longer be taken for granted; and where findings themselves risk becoming rapidly outdated as models, interfaces, and practices evolve.

With regard to instructional design, research needs to explore how AI can be used in ways that support learning—for example, in the roles of partner and tutor such as for teachers’ task design, feedback within secondary and tertiary students’ writing processes, or the personalized support of learners in multilingual and inclusive educational contexts. One promising option is that of “didactic agents” that extend the tradition of pedagogical agents into the context of AI (Corvacho del Toro et al., 2025). Didactic agents are AI applications that teachers develop for specific learning objectives and learner groups by supplementing, on suitable learning platforms, the system prompts of models such as ChatGPT, Claude, or Gemini with prompts of their own. In doing so, they do not merely adapt these models, but align them with specific instructional purposes and pedagogical concepts, delimit their affordances through the narrowing and shaping of possible outputs, and specify the informational basis on which those outputs are to draw.

Because AI has become a globally pervasive, conceptually challenging, empirically complex, and pedagogically consequential force in writing, it forms the subject of this journal’s first international special issue. It approaches this development at the interconnected levels of practices, literacies, and pedagogies: as a shift in writing practices; as a challenge to established literacies; and as a task for the pedagogies through which writing is taught, learned, and assessed. The issue serves both as a forum for international voices in the debate and as an opportunity for research from the German-speaking world to present itself to an international audience.

Moreover, this English-language edition marks a first attempt to experiment with new formats while combining them with more established ones. The issue brings together **invited statements** in which authors from different disciplines reflect on questions they consider especially relevant to the present situation and its likely future trajectories, **empirical research articles** that present ongoing work in the field of schooling and share initial findings, and **methodological articles** that address how writing with AI can be studied.

The issue opens with five **statements** ranging from assessment, pedagogy, and writing instruction to automated text production, digital life, and the promises and risks of writing with AI. **Bradley Robinson** emphasizes the pedagogical value of friction and resistance in writing processes. **Jin Joy Mao** argues that writing should remain a medium of learning and assessment even under AI. **Cerstin Mahlow** insists on a clearer distinction between writing and automated text production. **Isabel Pedersen** frames AI as part of students’ digital life and stresses AI and privacy literacy in postsecondary education. And **Justin Lewis** highlights both the emancipatory promise and the alienating risks of AI-supported writing.

The issue then turns to four **empirical research articles** from the German-speaking context. **Afra Sturm, Valentin Unger, and Fabian Grünig** address the question of AI-based text assessment in elementary education. Using benchmark-rated narrative and instructive texts written by students in Grades 4 and 5, the article examines whether large language models can be employed for the evaluation of writing in psychometrically meaningful ways. **Maurice Fürstenberg** examines AI-generated

feedback in writing education. Combining conceptual work on feedback quality with an empirical comparison of teacher- and AI-generated feedback on texts from 6th-grade students, the article investigates how generative AI can be described and analyzed as a source of feedback in educational contexts. **Maxi Kupetz** investigates the use of an AI-based application for text revision in a German-as-a-second-language classroom for 11th-grade students at a secondary school. Based on video data from secondary-school support lessons, the article reconstructs how revising a self-written text with AI is interactionally accomplished. And **Alyssa Kutzner** investigates AI-assisted writing in multilingual secondary education. Drawing on a mixed-methods study with 9th-grade students writing in German and English, the article explores how AI-mediated writing strategies are used across languages and how they relate to proficiency, strategy transfer, and metacognitive awareness.

A third format is provided by the **methodological articles** that reflect on how writing with AI can be adequately described, modeled, and investigated. **Nina Schnatz, Aline Bieri, and Cerstin Mahlow** argue for methodological triangulation in AI-supported writing research, combining student texts, prompting journals, surveys, and case studies. **Gloria Goller and Nadine Anskeit** address methodological challenges in empirical research on AI-assisted writing, emphasizing mixed methods, long-term effects, and transparent ethical-technological conditions. **Daniela Matz and Carolin Führer** discuss qualitative approaches to writing-process research under conditions of AI, using creative and literary writing to show how individual and collaborative processes can be reconstructed.

Taken together, the contributions to this special issue make clear that writing with AI is not simply a new tool to be integrated, but a development that forces us to rethink what writing is, what it is for, and how it should be studied, taught, and assessed.

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Katrin Lehnen/Torsten Steinhoff

References

- Anson, C. M., & Cole, K. (2026). Empirical studies of writing and generative AI: Introduction to the special issue. *Journal of Writing Research*, 17(3), 371–385. <https://doi.org/10.17239/jowr-2026.17.03.01>
- Corvacho del Toro, I., Fuhlrott, M., & Steinhoff, T. (2025). Didaktische Agenten: KI als Lehr-/Lern-partner im Deutschunterricht im Forschungsprojekt KIMADU. In M. Fürstenberg & H.-G. Müller (Eds.), *DeutschGPT – Deutschunterricht im Dialog mit künstlicher Intelligenz* (pp. 65–86). Frank & Timme. https://link.springer.com/content/pdf/10.57088/978-3-7329-8796-2_3
- Digital Education Council. (2025). *Global AI faculty survey*. https://cdn.prod.website-files.com/65f1d299b87bcc50550a6398/678a9e0aa38a44fdac1d53a8_Digital%20Education%20Council%20Global%20AI%20Faculty%20Survey%202025-1.pdf
- Freeman, J. (2025, February). *Student generative AI survey 2025* (HEPI Policy Note 61). Higher Education Policy Institute & Kortext. <https://www.hepi.ac.uk/wp-content/uploads/2025/02/HEPI-Kortext-Student-Generative-AI-Survey-2025.pdf>
- Graham, S., Skar, G. B., & Myhill, D. (2026). Why writing? *Scientific Studies of Reading*, 30(2), 95–104. <https://doi.org/10.1080/10888438.2026.2614774>
- Hirschauer, S. (2005). On doing being a stranger: The practical constitution of civil inattention. *Journal for the Theory of Social Behaviour*, 35(1), 41–67. https://www.theorie.soziologie.uni-mainz.de/files/2019/09/2005_TheSoBe_On-Doing-Being-a-Stranger.pdf
- Huang, Y., Arora, C., Huong, W. C., Kanij, T., Madugalla, A., & Grundy, J. (2026). Ethical concerns of generative AI and mitigation strategies. *Applied Soft Computing*, 193, Article 114789. <https://doi.org/10.1016/j.asoc.2026.114789>
- Kustov, A. (2026). *Academics need to wake up on AI. Ten theses for folks who haven't noticed the ground shifting under their feet*. Popular by Design. <https://www.popularbydesign.org/p/academics-need-to-wake-up-on-ai>
- OECD. (2026a). *Venture capital investments in artificial intelligence through 2025*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2026/02/venture-capital-investments-in-artificial-intelligence-through-2025_3bcb227f/a13752f5-en.pdf
- OECD. (2026b). *OECD digital education outlook 2026: Exploring effective uses of generative AI in education*. <https://doi.org/10.1787/062a7394-en>
- OpenAI. (2026, February 27). *Scaling AI for everyone*. <https://openai.com/index/scaling-ai-for-everyone/>
- Robinson, B. (2023). Speculative propositions for digital writing under the new autonomous model of literacy. *Postdigital Science and Education*, 5, 117–135. <https://doi.org/10.1007/s42438-022-00358-5>
- Robb, M. B., & Mann, S. (2025). *Talk, trust, and trade-offs: How and why teens use AI companions*. Common Sense Media. https://www.common Sense Media.org/sites/default/files/research-report/talk-trust-and-trade-offs_2025_web.pdf
- Shaw, S. D., & Nave, G. (2026). *Thinking fast, slow, and artificial: How AI is reshaping human reasoning and the rise of cognitive surrender* [Wharton School research paper]. https://doi.org/10.31234/osf.io/yk25n_v1
- Silic, M., Silic, D., & Kind-Trüller, K. (2025). From shadow IT to shadow AI: Threats, risks and opportunities for organizations. *Strategic Change*. Advance online publication. <https://doi.org/10.1002/jsc.2682>

Steinhoff, T. (2026). Zur Zukunft des Schreibens in Schule und Universität: Delegation, Konservation oder Transformation? In S. Ballestracci, M. Foschi, M. Lefèvre, & T. Steinhoff (Eds.), *Digitale Wissenschaftskommunikation in Deutschland, Frankreich und Italien am Beispiel der germanistischen Linguistik* (pp. 233–250). *Lingue e Letterature d'Oriente e d'Occidente*.

<http://dx.doi.org/10.36253/lea-1824-484x-10>

Steinhoff, T., & Lehnen, K. (2025). Schreiben mit Künstlicher Intelligenz: Das GPT-Modell (Ghost, Partner, Tutor). *Leseräume*, 12(11), 1–14. <https://xn--leserume-4za.de/wp-content/uploads/2025/06/Steinhoff-Lehnen-2025-LR-JG12-H11.pdf>

UNESCO. (2025). *UNESCO dedicates the International Day of Education 2025 to artificial intelligence*. <https://www.unesco.org/en/articles/unesco-dedicates-international-day-education-2025-artificial-intelligence>

Wilder, N., & Lordick, N. (2026). *Werkzeuge, Techniken und ihre Kränkungen des Menschen: Versuch einer historischen Rekonstruktion von Schreib- und Denkwerkzeugen vor dem Hintergrund des aktuellen Diskurses um künstliche Intelligenzen*. Kieler Universitätsverlag.

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Authors' addresses:

Katrin Lehnen, Justus-Liebig-Universität Gießen, Otto-Behaghel-Str. 10 B, 35394 Gießen, Germany

katrin.lehnen@germanistik.uni-giessen.de

Torsten Steinhoff, Universität Siegen, Hölderlinstr. 3, 57076 Siegen, Germany

steinhoff@germanistik.uni-siegen.de