



From Digital to Computational to AI Anthropology

Matt Artz

To cite this article: Matt Artz (19 Oct 2026): From Digital to Computational to AI Anthropology, Practicing Anthropology, DOI: [10.1080/08884552.2026.2736659](https://doi.org/10.1080/08884552.2026.2736659)

To link to this article: <https://doi.org/10.1080/08884552.2026.2736659>



Published online: 19 Oct 2026.



Submit your article to this journal [↗](#)



Article views: 2



View related articles [↗](#)



View Crossmark data [↗](#)

ESSAY



From Digital to Computational to AI Anthropology

Matt Artz 

Azimuth Labs, USA

ABSTRACT

This article distinguishes AI anthropology from its two closest neighbors, digital anthropology and computational anthropology. The claim is that each field names a different relationship between the anthropologist and the machine, one defined by what the machine is taken to be. Digital anthropology treats digital technology as an object of study, a fieldwork tool, and the medium of contemporary life. Computational anthropology treats the machine as an indispensable instrument for reaching cultural material, at a scale ordinary fieldwork cannot, using tools drawn from data science. AI anthropology treats the machine as an interlocutor, a collaborator steered through natural language in real time, so that researcher and system reshape each other as the exchange unfolds. Drawing on Pickering's "dance of agency" and on cybernetic feedback, the article argues that what separates the three fields is not a new instrument but a new relation, from acting on technology to acting with it. Rather than a succession, the three overlap, with AI anthropology folding the other two into a single practice organized around anthropology of, by, and for AI, unified by a recursive, co-becoming relationship with the machine.

PLAIN LANGUAGE SUMMARY

Anthropologists who work with AI are not all doing the same thing. Some study AI the way they might study social media, as a technology shaping people's lives. Some use AI as a tool to analyze data at scale. This article argues for a third approach, AI anthropology, where the researcher builds an ongoing relationship with an AI system, and each shapes how the other thinks and works over time. The difference is not which technology is used. It is the relationship, whether the researcher treats the machine as something to study, a tool to run, or a collaborator to work with.

KEYWORDS

AI anthropology; digital anthropology; computational anthropology; co-becoming; cybernetics

Introduction

In a recent article, I called for an AI anthropology (Artz 2026b), a relational practice in which anthropologists collaborate with AI and in turn, mutually shape each other. The rationale is that the machines in question have become interlocutors we collaborate with through natural language, not only objects we study, instruments we operate, or systems we help build. The argument seems to have landed, judging by how quickly it circulated. However, it left one question unanswered, one that kept reaching me in different forms in the weeks that followed. On a podcast, an interviewer asked how AI anthropology differs from digital anthropology. After a talk, a colleague wanted to know how it differs from computational anthropology. Each time I gestured

toward a distinction, and each time I left the exchange suspecting that the person asking still had questions.

The earlier piece made the case for the field, but it did not pause to say, with enough precision, how it differs from the neighboring fields it is most likely to be confused with. Those neighbors themselves circulate loosely and are sometimes treated as interchangeable, yet the slippage matters, because it obscures what is genuinely distinctive about each, and what is new about the present moment.

My argument is that the three fields each name a different relationship between the anthropologist and the machine, one defined by what the machine is taken to be. As a field, digital anthropology treats digital technology and

the social relations it generates as simultaneously objects of study, fieldwork tools, and the medium through which contemporary life now unfolds (Geismar and Knox 2021; Horst and Miller 2012). In computational anthropology (Breslin and Albris 2026), including its machinic articulation (Pedersen 2023), the machine is an indispensable instrument for reaching cultural material at a scale ordinary fieldwork cannot, using tools drawn from data science. In AI anthropology (Artz 2026b), the machine becomes something else again, an interlocutor and collaborator that can be steered in real time through natural language, the two reshaping each other along the way (Artz and Koycheva 2026). What separates digital, computational, and AI anthropology is not a change of instruments but a change of relation, from acting on technology to acting with it (Pickering 2025). That shift, I will argue, is what turns three adjacent activities, what I elsewhere call the anthropology *of*, *by*, and *for* AI (Artz 2026a), into the integrated practice of AI anthropology, a framework I return to below.

I should say at the outset, though, that I do not take digital, computational, and AI anthropology as a neat succession in which each supplants what came before. Instead, they overlap, they coexist, and AI anthropology in particular folds the other two into itself rather than discarding them. What follows is less a chronology than a way of seeing what changes as the machine moves from digital object to computational instrument to interlocutor. I take each in turn, and then ask what kind of practice the third relationship calls for.

Digital anthropology: the machine as object

Digital anthropology took shape around a deceptively broad question. How do people live with and through digital technologies, and how do those technologies shape, and become shaped by, social and cultural life (Geismar and Knox 2021; Horst and Miller 2012)? The digital here is at once a field site and a condition, a place where culture is made and a medium that saturates the rest of experience. The field did more than choose new objects, though; it developed a repertoire of

digital methods, from netnography (Kozinets 2010) to digital ethnography (Pink et al. 2016) to visual network analysis (Venturini, Jacomy, and Jensen 2021), building on an anthropological pedigree of social network analysis (Mitchell 1974), that extend interpretive fieldwork into digitally mediated life rather than necessarily turning toward computation at scale. What defines the orienting relationship is that the technology is at once what the anthropologist studies, what they study with, and where the studying happens.

Whether the object is social media, platform labor, or the recommender systems that quietly reorganize cultural life (Artz 2024b; Seaver 2022), the stance is interpretive and frequently critical, attentive to how digital infrastructures encode assumptions and redistribute power. The questions are posed about the technology rather than with it.

When AI began to draw sustained attention, it entered this tradition first as one more object of inquiry, studied much as any other digital technology had been. That framing was productive, and it remains so. Yet it positions the machine as something the anthropologist primarily observes or operates in the course of fieldwork, rather than an interlocutor. Breslin and Albris (2026) describe that move, from fieldwork tooling to analysis at scale, as a short jump, and one not every digital anthropologist makes. Making that jump is what I am calling the passage to computational anthropology, not because the instrumental relation crowds out others but because the machine's part in it is settled in advance, executing rather than conversing.

Computational anthropology: the machine as instrument

If digital anthropology keeps the machine as object and field site, computational anthropology turns it into an instrument, one that typically reaches cultural material at a scale ordinary fieldwork cannot. The two are not separated by whether a project uses digital or computational tools; either can scrape, map networks, or run models. Scale is often where the difference shows, but scale alone is not what does the separating. What separates them is not how much of the

project computation occupies but the direction of the relationship. In computational anthropology, however central or peripheral the computational component, the machine's part is fixed once the analysis begins. It executes, and the anthropologist reads the results. Though both work through digital technology, the two look different in practice. Digital methods like netnography and digital ethnography stay closer to traditional ethnography, extending fieldwork into online settings. Computational methods draw on computer science and data science instead, often turning to machine learning to work with cultural material.

The same line runs through the social sciences more broadly. Venturini and Rogers (2025) distinguish computational social science's pursuit of scale and quantity from digital methods' attentiveness to platform-specific bias and medium diversity, the latter closer in spirit to digital anthropology's critical stance. Charting the same passage from the digital to the computational, Breslin and Albris (2026) distinguish two tendencies within the field, computation folded into ethnographic work, where thick description still leads, and data science trained directly on questions of anthropological interest that fieldwork cannot reach on its own. The move is not toward a new field site but toward a new mode of analysis within the anthropologist's own practice.

Under headings such as computational ethnography (Munk and Winthereik 2022; Beaulieu 2017) and the techno-anthropology developed at Aalborg University (Jensen 2013), researchers use techniques like supervised classification of cultural material (Munk, Olesen, and Jacomy 2022) alongside controversy mapping (Venturini and Munk 2021) to read cultural data at a scale that manual reading, and ordinary digital ethnography, cannot reach. Computation folded into ethnographic work in this way is not abandoning interpretation but extending its reach, though not without strain. Beaulieu locates that strain not between the computational and the analogue but between the computational and the narrative, the unfolding of events that ethnographic accounts are built to carry. The more formalizing wing of the field, training data science directly on anthropological questions, pushes further still.

Pedersen's (2023) machinic anthropology is one of the more ambitious articulations of this impulse, and reading it clarifies both what the family shares and where its members differ. Where computational ethnography stays close to existing digital-methods tools and remains tied to digital phenomena specifically, Pedersen presses toward a more thoroughly quantitative anthropology, building custom algorithms and proposing to separate ethnographic data from anthropological analysis so that the former can be formalized and scaled. Stephen Paff's (2022) anthropology by data science is a near cousin, arguing that machine learning and ethnography are alike in being abductive practices. Paff anchors this in Bayesian machine learning, where initial probability assumptions function as provisional beliefs revised incrementally as evidence accumulates. He reads this as a mode of inference already ethnographic in spirit, in contrast to Pedersen's drive to formalize ethnographic data into something scalable in the first place.

What unites them, for all their disagreement over how far to formalize, is that direction. The anthropologist acts on data through the machine. In my own account of an AI anthropology lifecycle (Artz 2026a), this is the register I have called anthropology *by* AI. It is genuinely powerful, and AI anthropology inherits rather than rejects it. What computational anthropology does not yet do is treat the machine as more than an instrument, a participant that might share in producing an interpretation rather than only executing one. Even the most recent surveys of the field, which now involve large language models (LLMs), still treat these systems primarily as tools to be evaluated rather than partners in analysis, and though they acknowledge that it may not be irrelevant whether a person or a machine arrives at an interpretation, they set the question aside rather than answer it (Breslin and Albris 2026). That question is where the third relationship begins.

AI anthropology: the machine as interlocutor

What makes a third field more than a relabeling is the machine itself. The computational instruments just described, however sophisticated, did

what their designers had specified in advance; their behavioral repertoire was settled upstream. One could run a topic model or map a controversy, but one could not hold a conversation with the model, negotiate analytical priorities with it turn by turn, or hand it a goal and let it decide how to pursue that goal. Agentic AI built on LLMs has begun to change this (Artz 2026d). Part of what these systems do is now decided in the exchange itself, the aim stated, revised, and contested turn by turn, in natural language, between researcher and machine. They carry on open-ended conversation and can be steered in real time, which is the literal sense of the Greek *kybernetes*, the steersman from which Wiener (1948) drew the word cybernetics.

Once the machine can be steered through conversation, the relationship becomes recursive in a way the earlier ones were not. Outputs become inputs, and both parties are altered by the exchange, in the manner that Wiener's (1948) feedback loop and the later second-order cybernetics described, where the observer is never wholly outside the system observed (von Foerster 1974). This is why AI anthropology cannot be folded into digital anthropology, which studies the machine, or computational anthropology, which computes with it. Neither converses with it. When the system talks back and decides for itself, using it stops being the operation of an instrument and becomes something closer to acting with the system than acting on it. The distinction echoes Andrew Pickering's (1995) account of practice as a "dance of agency," in which what gets done emerges from the back-and-forth between human and machine rather than belonging to the human alone. Building on Pickering's dance of agency and Haraway's (2008) becoming-with, I have referred to the relational dynamic this produces as co-becoming, a term drawn from Bawaka Country et al. (2016) and Peschl (2019), naming a process in which human and AI are mutually constituted through their ongoing exchange (Artz 2026c). The researcher who works this way with agentic AI does not simply acquire a faster instrument; over many exchanges, the questions they think to ask, the distinctions they learn to draw, and the

attention they bring to their material are themselves shaped by the system they are shaping.

None of this requires grand claims about the machine's intelligence. The becoming lies in the relationship rather than in the system's interiority, though it does depend on mundane technical facts (persistent memory, logs and files it can read and write to) that let the relationship accumulate knowledge rather than reset with each exchange. The anthropologist, though no longer the sole author of the analysis, is still the one doing anthropology, steering the loop even while being steered by it.

The difference shows most clearly in practice. In the earlier piece I described a multi-agent ethnography in which several AI agents, each configured to embody a competing epistemological stance, analyze the same material while the researcher adjudicates the divergent interpretations they produce (Artz 2026b, 2026e). The agents are not automating the analysis, and they are not replacing interpretive judgment; the value lies in the multiplicity of interpretive voices their disagreement sustains rather than resolves (Artz and Koycheva 2026), and in the friction it generates (Madsen, Munk, and Søltøft 2023), the productive unease that arises when a system's reading of your material feels wrong in ways that clarify what you actually think. That is an analytic relationship of a different kind than running an algorithm over a corpus, and it is the kind the older labels were not built to name.

The test, then, is not which instruments a project uses but what relationship it enacts. The same LLM can be an object, when an anthropologist studies how a community makes sense of it; an instrument, when it classifies a corpus on the researcher's instructions, executing the task on their behalf without drawing them further into the process; or an interlocutor and collaborator, when a system is deliberately designed to bring the researcher into the exchange, so that researcher and system reason toward an interpretation together. What distinguishes AI anthropology is that third relationship, and the recursive, mutually transforming character it gives to the work, not the presence of any particular technology.

Why a new name

Seen this way, AI anthropology does not so much replace its predecessors as subsume parts of them into a single field grounded in the relationship. Studying AI critically continues digital anthropology's attention to power and cultural meaning; using computational methods continues the work of computational and machinic anthropology; and a third commitment, to building, designing, and helping govern these systems, adds a dimension the other two largely set aside. In an earlier essay I described these as anthropology *of* AI, *by* AI, and *for* AI, an iterative loop rather than three separate jobs, echoing, though not reproducing, Paff's (2022) fourfold typology of anthropology's relations to data science (Artz 2026a). What I would add now is that they hold together only because of the relationship that runs through them. Because the anthropologist works inside that relationship, studying a system blurs into shaping it, and building one blurs into studying it. Design becomes a way of tending that mutual shaping deliberately, what I think of as co-becoming by design (Artz 2024a), redirected here toward the deliberate making of human-AI systems (Artz 2026c). The fuller case for treating this as a field in its own right I take up elsewhere (Artz forthcoming); here it is enough to say that what binds the three modes, *of*, *by*, and *for* AI, together is the willingness to act with these systems rather than only on them.

A new name is warranted, then, not because the discipline is short of banners, and the steady proliferation of anthropological turns is a fair thing to be wary of, but because the referent has changed and the practice changes with it. How we name a relationship shapes how we conduct it. An instrument invites use and critique, while an interlocutor invites negotiation, judgment, and responsibility for what the exchange produces. And renaming the discipline each time its relation to the machine shifts is itself a familiar habit, reaching back at least to the cyborg anthropology of the 1990s (Downey, Dumit, and Williams 1995). So my cleaner answer is finally available. Digital anthropology studies the machine, computational anthropology computes with it, and AI anthropology converses with it, the conversation

producing a collaboration in which the two mutually shape each other.

That this returns anthropology to the cybernetic questions it once helped raise, with Mead and Bateson at the table at the Macy Conferences, and Mead herself later urging the cyberneticians to turn their own theory on themselves (Mead 1969), is less a coincidence than a homecoming. The earlier call for an AI anthropology (Artz 2026b) asked whether the discipline would meet this moment at its center or only at its margins. I have tried to say here, with more precision, what that meeting requires, not a new set of instruments but a new relationship, one in which the anthropologist acts with the machine rather than only on it, and both are transformed in the process.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on Contributor

Matt Artz is an anthropologist, designer, and technologist specializing in AI product strategy and innovation. He is the founder of Azimuth Labs, host of the Anthropology in Business and Anthro to UX podcasts, and co-editor of EmTech Anthropology and Anthropology and AI. He has had his work featured on TEDx, UNESCO, South by Southwest, and Apple's Planet of the Apps.

ORCID

Matt Artz  <http://orcid.org/0000-0002-3822-1429>

References

- Artz, Matt. 2024a. "Design Anthropology by Co-Becoming: Reimagining Participation in the Pursuit of New Possibilities." In *The Routledge Companion to Practicing Anthropology and Design*, edited by Jenessa Mae Spears and Christine Z. Miller. 374–385. New York, NY: Routledge. <https://doi.org/10.4324/9781003340188-31>.
- Artz, Matt. 2024b. "Reimagining Recommender Systems: Towards a More Equitable Model for Creators." In *EmTech Anthropology: Careers at the Frontier*, edited by Matt Artz and Lora Koycheva. 40–63. New York, NY: Routledge. <https://doi.org/10.4324/9781003458555-3>.
- Artz, Matt. 2026a. "Artificial Intelligence: The AI Anthropology Lifecycle (of+by+for AI)." In *Practicing Digital Ethnography*,

- edited by Devin Proctor. 241–259. New York, NY: Routledge. <https://doi.org/10.4324/9781032672663-29>.
- Artz, Matt. 2026b. “A Call for an AI Anthropology.” *General Anthropology* 33 (1): 23–28. <https://doi.org/10.1111/gena.70007>.
- Artz, Matt. 2026c. “Co-Becoming with AI: An Anthropological Framework for Equitable Human-AI Systems.” In *Anthropology and AI*, edited by Lora Koycheva, Angela K. VandenBroek, and Matt Artz, 45–65. New York, NY: Routledge. <https://doi.org/10.4324/9781003532750-4>.
- Artz, Matt. 2026d. “From Digital Turn to Agentic Turn: Continuity and Rupture in Business Anthropology.” *Journal of Business Anthropology* 15 (1): 149–164. <https://doi.org/10.22439/jba.v15i1.7816>.
- Artz, Matt. 2026e. “Multi-Agent Ethnography: Post-Conventional Anthropological Practice Through Human-AI Collaboration.” *Anthropological Forum* 36 (2): 222–40. <https://doi.org/10.1080/00664677.2026.2614501>.
- Artz, Matt. Forthcoming. “AI Anthropology: The Future of Applied Anthropological Practice.” In *Routledge Handbook of Applied Anthropology*, edited by Christina Wasson, Edward B. Liebow, Karine L. Narahara, Ndukuyakhe Ndlovu, and Alaka Wali. New York, NY: Routledge.
- Artz, Matt, and Lora Koycheva. 2026. “Who Designs the Loop? Anthropology and the Cybernetics of Human-AI Relations.” *Human Organization* 85 (3): 241–249. <https://doi.org/10.1080/00187259.2026.2715691>.
- Bawaka Country, Sarah Wright, Sandie Suchet-Pearson, Kate Lloyd, Laklak Burarrwanga, Ritjilili Ganambarr, Merrkiyawuy Ganambarr-Stubbs, Banbapuy Ganambarr, Djawundil Maymuru, and Jill Sweeney. 2016. “Co-Becoming Bawaka: Towards a Relational Understanding of Place/Space.” *Progress in Human Geography* 40 (4): 455–475. <https://doi.org/10.1177/0309132515589437>.
- Beaulieu, Anne. 2017. “Vectors for Fieldwork: Computational Thinking and New Modes of Ethnography.” In *The Routledge Companion to Digital Ethnography*, edited by Larissa Hjorth, Heather Horst, Anne Galloway, and Genevieve Bell, 29–39. New York, NY: Routledge. <https://doi.org/10.4324/9781315673974-13>.
- Breslin, Samantha, and Kristoffer Albris. 2026. “Computational Anthropology.” In *Handbook of Digital and Computational Research Methods*, edited by Anders Koed Madsen and Anders Kristian Munk, 48–64. Cheltenham, UK: Edward Elgar. <https://doi.org/10.4337/9781802208993.00010>.
- Downey, Gary Lee, Joseph Dumit, and Sarah Williams. 1995. “Cyborg Anthropology.” *Cultural Anthropology* 10 (2): 264–269. <https://doi.org/10.1525/can.1995.10.2.02a00060>.
- Geismar, Haidy, and Hannah Knox, eds. 2021. *Digital Anthropology*. 2nd ed. London, UK: Routledge.
- Haraway, Donna J. 2008. *When Species Meet*. Minneapolis, MN: University of Minnesota Press.
- Horst, Heather A., and Daniel Miller. 2012. eds. *Digital Anthropology*. London, UK: Berg.
- Jensen, Torben Elgaard. 2013. “Techno-Anthropology: A New Move in Science and Technology Studies.” *STS Encounters – DASTS Working Paper Series* 5 (1): 1–22.
- Kozinets, Robert V. 2010. *Netnography: Doing Ethnographic Research Online*. London, UK: Sage.
- Madsen, Anders Koed, Anders Kristian Munk, and Johan Irving Søltoft. 2023. “Friction by Machine: How to Slow Down Reasoning with Computational Methods.” *Ethnographic Praxis in Industry Conference Proceedings* 2023 (1): 65–88. <https://doi.org/10.1111/epic.12153>.
- Mead, Margaret. 1969. “Cybernetics of Cybernetics.” In *Purposive Systems: Proceedings of the First Annual Symposium of the American Society for Cybernetics*, edited by Heinz von Foerster, John D. White, Larry J. Peterson, and John K. Russell, 1–11. New York, NY: Spartan Books.
- Mitchell, J. Clyde. 1974. “Social Networks.” *Annual Review of Anthropology* 3 (1): 279–299. <https://doi.org/10.1146/annurev.an.03.100174.001431>.
- Munk, Anders Kristian, and Brit Ross Winthereik. 2022. “Computational Ethnography: A Case of COVID-19’s Methodological Consequences.” In *The Palgrave Handbook of the Anthropology of Technology*, edited by Maja Hojer Bruun, et al., 201–214. Singapore: Palgrave Macmillan. https://doi.org/10.1007/978-981-16-7084-8_10.
- Munk, Anders Kristian, Asger Gehrt Olesen, and Mathieu Jacomy. 2022. “The Thick Machine: Anthropological AI between Explanation and Explication.” *Big Data & Society* 9 (1). <https://doi.org/10.1177/20539517211069891>.
- Paff, Stephen. 2022. “Anthropology by Data Science.” *Annals of Anthropological Practice* 46 (1): 7–18. <https://doi.org/10.1111/napa.12169>.
- Pedersen, Morten Axel. 2023. “Editorial Introduction: Towards a Machinic Anthropology.” *Big Data & Society* 10 (1). <https://doi.org/10.1177/20539517231153803>.
- Peschl, Markus F. 2019. “Design and Innovation as Co-Creating and Co-Becoming with the Future.” *Design Management Journal* 14 (1): 4–14. <https://doi.org/10.1111/dmj.12049>.
- Pickering, Andrew. 1995. *The Mangle of Practice: Time, Agency, and Science*. Chicago, IL: University of Chicago Press.
- Pickering, Andrew. 2025. *Acting with the World: Agency in the Anthropocene*. Durham, NC: Duke University Press. <https://doi.org/10.1215/9781478060499>.
- Pink, Sarah, Heather Horst, John Postill, Larissa Hjorth, Tania Lewis, and Jo Tacchi. 2016. *Digital Ethnography: Principles and Practice*. London, UK: Sage.
- Seaver, Nick. 2022. *Computing Taste: Algorithms and the Makers of Music Recommendation*. Chicago, IL: University of Chicago Press.
- Venturini, Tommaso, and Anders Kristian Munk. 2021. *Controversy Mapping: A Field Guide*. Cambridge, UK: Polity Press.
- Venturini, Tommaso, and Richard Rogers. 2025. *Digital Methods: A Short Introduction*. Cambridge, UK: Polity Press.
- Venturini, Tommaso, Mathieu Jacomy, and Pablo Jensen. 2021. “What Do We See When We Look at Networks:

- Visual Network Analysis, Relational Ambiguity, and Force-Directed Layouts.” *Big Data & Society* 8 (1): 1–16. <https://doi.org/10.1177/20539517211018488>.
- von Foerster, Heinz. 1974. *Cybernetics of Cybernetics or The Control of Control and the Communication of Communication*. Biological Computer Laboratory, Champaign-Urbana, IL: University of Illinois.
- Wiener, Norbert. 1948. *Cybernetics: Or Control and Communication in the Animal and the Machine*. Cambridge, MA: MIT Press.