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Beyond the Human Metaphor: Integrating AI into 21st-Century Business Culture

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Abstract

The accelerating integration of Artificial Intelligence into organizational life is prompting a critical reckoning with how we conceptualize, deploy, and co-exist with these technologies. In this essay, I argue that the prevailing tendency to anthropomorphize AI fundamentally misrepresents the capabilities and limitations of these tools, and gives short shrift to the human qualities that drive innovation, judgment, and connection in the workplace. Business anthropologists have a crucial role in shaping how to best integrate these powerful amplification tools with human cognition. As tools evolve, the boundaries will undoubtedly shift, necessitating our expertise to help navigate the front lines of human and machine interplay, and to remind business leaders of the ongoing need to nourish and invest in people as well as technology in order to address complex organizational challenges.

Keywords

Artificial Intelligence, Large language models, Worker training, Human cognition.

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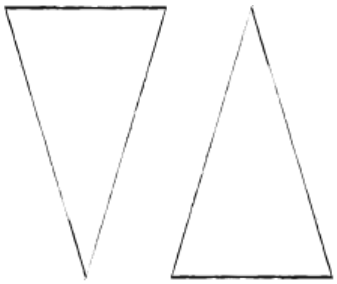

As business anthropologists, our purview has traditionally been to understand human behavior in the context of organizational problems. That, of course, covers a lot of ground – everything from organizational theory to consumer needs – encompassing the complex ecosystems of people and the environments in which they operate and the tools with which they engage (Denny and Sunderland 2014). It can also raise a tension between studying business from an anthropological viewpoint versus applying anthropological perspectives to business practices (Moeran and Garsten 2012; Moeran 2014). As digital technologies have become integrated across various aspects of business, this has also expanded not just the areas of ethnographic exploration into studies of human-computer interaction and design of digital services, but also provided a new set of tools for anthropologists to employ in their work (Artz 2023).

With the development of commercial large language models (LLMs), the digital landscape is shifting rapidly, potentially upending models of work and changing what it means for humans to interact with computers. The speed of this change may be its most distinguishing characteristic. The capabilities of the different tools and models are evolving faster than previous technologies. Non-technical people can now create websites and apps with vibe coding, and agentic systems can piece together complex series of tasks. Some

companies are reflexively starting to assign work to AI agents rather than humans. Such haste gives rise to soul searching questions: What are the obligations to people whose skills may not be needed? What are the true costs of the technology – in terms of energy consumption and lost human opportunity? How are these human-machine interactions changing human-human interactions? From inside the storm, it is difficult to see the landscape on the other side, beyond "it will be different." Just as Walter Ong (1982) explored the introduction of reading and writing as a fundamental technological shift that reworked how humans think, the digital age precipitated a similar shift that is now accelerating. How we, as humans, frame this change is still up to us.

Anthropologists bring a set of knowledge, tools, and perspectives to what it means to be human and, thus, have an imperative to ensure that we are not simply passive observers providing insights but active shapers of this future. Even as we may grapple with our colleagues with how we will work with the new technologies, we must also develop clear points of view about the objects of our work, in particular around the interplay between people and machines. An anthropological perspective must first recognize both the transformative potential of these new technologies and their fundamental differences from human cognition.

There is a tendency in both the tech industry and popular culture to use a human metaphor for artificial intelligence (AI) and LLMs in particular. It is a practice that predates the technology. Automatons such as Talos, who protected Crete in Greek mythology, or the Golem of Jewish folklore have appeared in human lore for millenia, and science fiction over the last two hundred years has further developed concepts of what "artificial intelligences" may one day be capable of. While this familiarity arguably makes complex technology more accessible to non-technically trained people, it can also prevent us from developing language that enables us to talk about the current technologies in more accurate ways. The core problem with anthropomorphizing AI is the simple fact that machines are not human. People are inherently contextual and often (seemingly) irrational. There is no set of rules that can accurately predict what a human will do in every situation. This complexity is something that many in business, particularly those without a background in social sciences, often fail to fully grasp. They miss key components of what makes us human, including our ability to act unpredictably, to be influenced by subtle contextual cues, and to make decisions that defy logical

explanation and yet are "mutually intelligible" to other humans (Suchman 1987). These factors come into play in a few major areas of distinction that cannot be fully coded or replicated, at least with current technologies.

Humans rarely make decisions solely based on abstract logic. We read environments, interpret body language, and shift our choices based on histories of relationships or momentary cues. A single phrase, gesture, or silence can alter the meaning of an interaction. This ability to contextualize is fundamental to what are often referred to as "soft skills" in the workplace. While these skills are often invisible and undervalued, the ability to coordinate teams, diplomatically talk to clients and executives, mentor colleagues, and take into account "unknown unknowns" is critical. The human way of thinking has evolved so successfully over millions of years. This includes lateral rather than linear thinking, counterintuitive problem-solving, and the ability to navigate the complex nature of individual relationships and make nuanced judgments about people, even those recently met.

AI, on the other hand, operates based on rules and algorithms. It predicts likely responses based on data patterns, but it does not "understand" context in a human sense (Mitchell 2025a, 2025b). While these responses can be incredibly sophisticated and powerful, they are fundamentally different from human cognition. That is not the same as saying humans are "better" than AI. Machines have the ability to process vast amounts of data and identify patterns, and are "better" than humans at many tasks that require speed and volume. For instance, AI has sped the pace of drug development by finding patterns in large databases of past research and providing models that enable researchers to focus on the most promising possibilities (El Arab et al. 2025). The key issue is simply that AI is fundamentally different from *homo sapiens*, and we should treat it as such, especially if we want to best utilize it for broader benefit. By anthropomorphizing AI, we risk obscuring these crucial differences, and we may start to expect human-like behavior from AI systems, leading to misunderstandings about their capabilities and limitations. This risks us starting to expect AI to understand nuance, context, or emotion in ways it simply cannot, or to over rely on it for tasks that require human judgment. Moreover, it may limit our ability to envision distinctly new things this technology might enable, which go beyond computing faster than humans.

Instead of trying to make AI more human-like, we should focus on developing a nuanced understanding and utilizing AI for what it is: a powerful tool with its own unique strengths and limitations. This will involve developing new metaphors and terminology. AIs could be seen as instruments that can create an infinite array of new orchestrations, depending on how they are played by the people who use them. Recognizing these differences and framing AI in its own terms, rather than through a human lens, will allow us to leverage AI for broader and more meaningful benefits. I have observed three key characteristics of successful integration of AIs into business:

1. **Specificity of Application**

   The best implementations address real, clearly defined problems rather than serving as solutions thrown at a wall to see what sticks. They solve genuine pain points that have been clearly identified and articulated. Consider the Philadelphia Inquirer, which created an AI-powered "research assistant" based on its archives. It was not a solution in search of a problem. Instead, it addressed a real need for journalists to quickly access relevant historical context (Chivers 2025).

2. **Curated Data Inputs**

   Effective AI applications do not try to process the entire web's worth of information. Instead, they operate on known, carefully curated datasets that are relevant to the specific problem at hand and thoughtfully added to as new data becomes available. This curation ensures accuracy, relevance, and accountability in the AI's outputs. Models built on carefully managed knowledge within biological domains, for instance, have been fundamental to speeding drug development (Alucozai et al. 2025).

3. **Clear Role Delineation**

   The best AI implementations treat AI as a tool with defined boundaries, while keeping human roles equally well-defined and understood. The best outcomes emerge when organizations define what AI does and what humans do, ensuring that judgment, creativity, and interpersonal work remain in human hands. As Zhang Bin and Wu Zhenyao (2026: 15) note: "Human vision commands AI capability."

Business anthropologists can and should be on the front lines of identifying distinctions between human and machine capabilities, enabling effective implementations that maintain clear boundaries while leveraging each for their distinct strengths. In this respect, we have a particularly crucial role in shaping how organizations integrate these powerful tools with human cognition. Bringing a unique perspective that recognizes both the social and technical dimensions of organizational change, we understand that tools do not solve problems on their own – people do.

This means that it is crucial to understand which jobs are best done by which kind of "brain." Just as importantly, it is critical to understand how work gets done – how decisions are made, how information flows, and where inefficiencies live. Strategic use of AI must be paired with thoughtful organizational design and genuine support for the people who will be using these tools while continuing to work with other people.

The knowledge, tools, and perspectives anthropologists bring make us uniquely positioned to advise organizations on how people actually work – not just how processes look on charts. Direct observations, in-depth interviews, and a holistic view of how systems and people interact enable us to uncover hidden friction points, informal practices, and tacit knowledge that shape performance. Such insights can help organizations distinguish between tasks best suited for machines and those requiring human judgment, empathy, or creativity, and provoke the conversations around when and why to use these technologies. Within organizations, critical questions should be asked: What specific problem are you solving with AI? Why are you using AI, and why is it better than the alternatives? Once these questions are answered, anthropological input can inform how to implement AI so that it integrates with and enhances existing workflows and organizational culture.

In this way, anthropology is not simply observing AI adoption. It is actively shaping it, helping businesses design strategies that balance technological efficiency with human flourishing. In doing this work, anthropologists can help safeguard what makes us human by advocating for investments in people – not just technology – ensuring that employees develop the adaptability and meaning that make work sustainable. For instance, as AI technology advances, prompt engineering has become a requisite skill across industries. Essentially, prompt engineering is framing a question or command to an AI model in a way that provides the best output – ideally an accurate response

that addresses all aspects of the intended request. In order to get accurate, productive outputs from these programs, people need to input the right context and questions. In this sense, employees become "managers" of the AI. The ability to provide clear instructions is dependent on the ability to understand the full task and the end results desired, which is a new skill for many employees who have formerly been asked to perform tasks themselves. The employers need to provide training for their employees if they want their investments in AI to pay off. At the same time, while there is a nascent industry building up around teaching people how to talk to machines, training is also needed in the essential skills of maintaining and enhancing human-to-human communication, as AI will not replace the need for personal interactions and relationship building.

A key challenge will be to demonstrate the value of investing in skill development and career paths to organizations. The fact that human learning is rarely smooth and often time consuming can make it appear expensive, in particular compared to training an AI. Humans acquire skills through trial and error, repetition, and moments of struggle. While "10,000 hours to mastery" is an urban myth, research shows that practice and difficulty build retention. Friction – whether rewriting a draft, grappling with an unfamiliar problem, or making mistakes – cements knowledge (Bijlsma-Frankema 2006). AI, which is designed to remove friction and deliver instant answers, risks short-circuiting this process. However, there is a return on investment for businesses that look beyond the immediate payoffs. When organizations outsource too much intellectual labor to machines, employees may gain efficiency but lose depth of understanding (Melumad and Yun 2025). Organizations may gain efficiency in the short run, but the long-term consequences could be severe. While some experiments have shown that AI as a "teammate" can boost team performance, this is not the same as replacing the human expertise on these teams – which, as noted above, is fundamental to ensuring the best results from the AIs (Dell'Acqua et al. 2025). Not only does providing pathways to learn ensure that younger employees develop the judgment, creativity, and resilience needed to both work with new technologies and grow into senior roles, hiring people who bring a range of experiences and backgrounds introduces lateral thinking and new approaches to problem solving. Anthropologists deeply understand how to help businesses harness the power of diversity of thought to bring new value.

Anthropologists can also inform how we prepare for a future where we do not know what skills the workforce will need. As technological change accelerates, we should train people for adaptability, relational skills, and life-long learning, ensuring they can thrive alongside AI. People need to expect fluid trajectories rather than fixed careers. Soft skills are especially critical – communication, collaboration, and critical thinking cannot be automated, yet they are precisely the skills that are often taken for granted in organizations. While the nature of work will shift as AIs help accelerate particular tasks, core interactions such as aligning teams, harnessing diversity of thought, and identifying subtle cues and disconnects will still be fundamental to business success and require deep understanding of people, not data.

Organizations that succeed in this new era will be those that design the work intentionally: specifying AI's role, curating its data, and investing in their people as much as their technologies. They will recognize that friction can be productive, that glue work sustains collaboration, and that adaptability is the true foundation of resilience.

Anthropology provides a lens to understand this transformation, and, more importantly, anthropologists bring the expertise to impact its direction. In order to have that impact, we will need to step out and actively engage with organizations to navigate the front lines of human and machine interplay by:

- Providing terminology that places technology in its context in relation to people, not as replacements for people.
- Demonstrating how work processes – the formal procedures for accomplishing tasks – differ from work practices – what people actually do – and exploring the outcomes that emerge from collaboration, trust, and the convergence of different approaches to shared challenges.
- Defining future visions that accommodate the shifting boundaries between human and machine capabilities as tools evolve.

Work and business value are not only about efficiency, but about meaning, relationships, and identity. By keeping these human dimensions at the center, we can ensure that, in the rush to implement AI, we do not lose sight of the human qualities that drive innovation, judgment, and connection in the workplace.

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