AI IN TEAMS

Edited by Susannah B. F. Paletz
and Samantha R. Dubrow

RESEARCH ON MANAGING
GROUPS AND TEAMS

VOLUME 21

AI IN TEAMS

RESEARCH ON MANAGING GROUPS AND TEAMS

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RESEARCH ON MANAGING GROUPS
AND TEAMS VOLUME 21

AI IN TEAMS

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INVESTOR IN PEOPLE

For Dalia, who knows what AI should and should not be and deserves a good, not dystopian, AI future; for Chris, without whose support this book would never have been developed; and for David, who always wants his children to generate books and whose support was also invaluable. S.B.F.P.

To my growing family. Thank you for being the light of my world. S.R.D.

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FOREWORD

When Susannah and Samantha asked me to write the foreword for this book, I was both honored and excited. The topic of technology and teams is one I've engaged with for many years. As a linguist and research scientist, I've spent over two decades using, overseeing, and evaluating advanced technology like artificial intelligence (AI) in various government contexts. My initial focus was the field of human language technology, specifically in the speech domain (machine translation, speech recognition, and speaker recognition) before expanding to AI evaluation, and then trustworthy and responsible AI.

I started my civil service career as a forensic scientist where I used several specialized tools developed for the laboratory. This led to advising U.S. government agencies about how to develop and implement AI technology that supports practitioners in high-risk operational settings. These experiences were instrumental in my final position in the government, at the U.S. National Institute of Standards and Technology (NIST), where I led the agency's initiatives on AI bias, created the Assessing Risks and Impacts of AI (ARIA) Evaluation Program, and was a member of the core writing team for NIST's AI Risk Management Framework (AI RMF) and the chief architect of the AI RMF Playbook. The consistent thread across my work has been translating between expert end-users and technology development teams. My goal has been to not just improve the performance of technology but to build understanding between different fields to solve hard problems.

I first met Susannah through a mutual friend when I was working on a DARPA program helping government analysts leverage data-driven approaches in their workflows. Since then, I've teamed up with Susannah to help researchers understand the operational challenges that expert teams encounter in their various contexts. This has been invaluable in revealing the evolving needs and demands that affect how teams adapt to and integrate technology in their own settings.

Many teams looking to integrate AI struggle with communicating their needs and expectations during the system design or procurement process. While describing workflows and tasks is relatively straightforward, articulating implicit factors like organizational demands, procedural requirements, internal communication, and inter-team coordination can be more demanding. The tendency in technology development to rely on readily available data, familiar models, and established algorithms can also inadvertently narrow problem definitions. This narrowing effect can limit exploration of more adaptable or creative solutions, restrict the options available to teams and, ultimately, constrain the path for AI integration.

Technologists often mistakenly believe that a team's lack of understanding the technical aspects of AI prevents them from fully embracing it. However, my experience shows that trust is the key element and building it takes time. Like

other subject matter experts who use AI, I want these tools to help me interpret complex information, so I can apply my own expertise. Even if an AI system performs well in optimized development settings, real-world implementation exposes new complexities and limitations. Identifying when and how these limitations and failures occur is a time-consuming process for team members. These operational realities underscore the importance of communication and coordination when integrating AI into existing team processes and intuitions, especially in high-stakes environments.

The rapid integration of generative AI in the workplace has heightened awareness of these factors, and this book arrives just in time to comprehensively tackle them and offer unique perspectives about human–AI teaming that you won't find in other resources. Instead of purely theoretical perspectives or technical guidance, the authors combine empirical research and case studies to offer practical insights for human–AI teams. As an interdisciplinary researcher, I am especially impressed by the diverse backgrounds, fields, and experiences of the authors. This breadth has allowed them to cover the most pressing topics in human–AI teaming and produce a breadth of coverage unattainable by more homogenous teams.

The book's emphasis on real-world applications should empower organizations to not only implement AI but also foster a culture of collaboration that elevates human intelligence alongside artificial capabilities. Readers will find details and actionable strategies that allow them to navigate the interplay between technology, human behavior, and organizational culture in an increasingly automated world. It also provides an in-depth review of the requirements for building trust and maximizing the potential of human–AI teams to improve outcomes and organizational resilience.

Figuring out where, how, and when to integrate which type of AI into teams is difficult. The conventional wisdom has been to allocate tasks by "letting the system do what it does best, and the human do what it does best," but the authors point out that the rapid advancement of tools like AI agents makes such coordination even more challenging. Expanding beyond the technical capabilities of AI and robotics, the authors also cover a dizzying array of practical, societal, and ethical factors that teams need to stay on top of, including intellectual property, informed consent, upskilling, security, and surveillance. For each of these concerns, the book provides a thorough analysis and reminds the reader about the importance of recognizing and communicating system limitations and clarifying the level of autonomy within the human–AI team.

Much of the current discussion around AI is dominated by concerns about economic and workforce shifts. The authors dive into this topic from the outset by exploring the ongoing debate about whether AI is a tool or a teammate, landing on the need for AI to always be human-centered and in support of humans rather than to replace or diminish them. Their thoughtful exploration of these themes and the role of humans in the human–AI team is carried throughout the book and positions it as an essential guide for anyone seeking to understand and effectively navigate the evolving discourse on human–AI teaming. It will undoubtedly be the definitive guide to human–AI teaming for years to come.

Reva Schwartz

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We are grateful to various professional communities that have provided enabling environments for discussing, learning about, and debating these topics, particularly the Organizational Teams and Technology Research Society (OTTRS) out of the University of Maryland, College Park (https://ottrs.info.umd.edu) and the Interdisciplinary Network for Group Research (INGRoup, https://ingroup.net/), which is how we met. Not all of our colleagues in these institutions had time to write chapters, but we are grateful to them, nonetheless. We would like to thank in particular OTTRS past and present members Wei Ai, Susan Campbell, Marine Carpuat, Melissa Carraway, Breana Carter, Joel Chan, Luis Cortes, Hal Daumé, Kimberly Do, Ciara Fabian, Ge Gao, Sharon Glazer, N. Sharon Hill, Xiaodi (Sara) Hu, Noel Kuriakos, Paris Lane, Polly O'Rourke, Jay Patel, Deborah Shapiro, Snehesh Shrestha, Connie Siebold, Josh Strauss, Sarah Vahlkamp, Stephanie Valencia Valencia, Susan Winter, and Siyi Zhu, as well as the various speakers in the speaker series who sparked lively conversations on this and related topics. INGRoup colleagues include Steve Zaccaro, who suggested we put this book together and gave us comments on an earlier draft of the Conclusion, and others who have been active in this area such as Sydney Bergowski, Anita Blanchard, Nancy Cooke, Steve Fiore, Alexandra Harris-Watson, Lindsay Larson, Marissa Shuffler, and Anita Williams Woolley. We appreciate Ben Shneiderman for his wisdom and inspiration to always push for human-centered design and also for acting as a necessary foil for us to refine our thinking with precision regarding any issue involving AI and teams. We are also grateful for our colleagues in our institutions at the College of Information at the University of Maryland, College Park, and at the MITRE Corporation for providing engaging intellectual environments. Of course, we are grateful to our chapter authors for bringing their disciplinary and expert perspectives to this book. Last but not least, we would like to thank our patient families: Susannah's husband, Christopher Hatty, and daughter, Dalia R. H. Paletz, and Samantha's husband, Samuel Canter, and son, Seth Harrison Canter, and our respective parents for their support for this book.

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CHAPTER 1

INTRODUCTION: ARTIFICIAL INTELLIGENCE IN TEAMS*

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ABSTRACT

Advances in artificial intelligence (AI) and related technologies have stormed into workplaces and education. This book presents a variety of chapters from different disciplinary perspectives. The chapters draw on extant or new research, and they theorize on different roles that AI could play in teams. This introduction defines AI and teams and discusses one of the key current debates about whether AI can ever be a teammate or must be a tool. While we provide guidelines on these issues, we allowed the chapter authors to approach those questions from their own disciplinary perspectives. We also describe some ways in which AI can influence teams and teams' influence on AI and summarize the key sections of this book: trust and AI in teams, AI and team processes, AI and team cognition, AI in teams in context, and reflections on AI in teams.

Keywords: Artificial intelligence; teams; future of work; multidisciplinary; human–AI teams; human–agent teams; human–autonomy teams; augmentation

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INTRODUCTION: AI IN TEAMS

It is a cliche for books on AI to begin with the complaint that the state of the technology has advanced quickly between the beginning and end of writing the book and from submission to publication. This book fully embodies the cliche. When we proposed this book in Fall 2023, chatGPT had just arrived. As of fall 2025, Gemini, Claude, Perplexity, Copilot, and others compete for market share; Google search has an AI Overview before showing search results; mammogram results are regularly offering an optional AI diagnosis in conjunction with doctor diagnoses; and nearly every application on computers and smartphones has some sort of built in AI feature. By summer 2026, companies will have achieved even more impressive advances in AI, as well as new integrations (or invasions) of AI into existing products and processes. Human *teams*, meanwhile, are historically and persistently ubiquitous in both work and leisure (Mathieu et al., 2019). This book addresses how different types of AI agents, both physically embodied and digital, influence the work of teams.

The current wave of AI has both a real and perceived impact on work and education (e.g., Chiang, 2024; Ivanova, 2025; Litwin, 2023; Liu, 2023; Ruddick, 2025; Tang et al., 2023; Zheng, 2025; Zhou, 2025). The considered societal impact of the development, use, and recovery from AI is growing (Shah & Bender, 2024), be it from the increase in energy required to create and maintain AIs (e.g., de Vries, 2023), the political and psychological costs of creation (e.g., extraction and exploitation, Crawford, 2021; e.g., having to review hate speech and violent images, Rowe, 2023), bias being built into algorithms (e.g., Buolamwini & Gebru, 2018; Fayola et al., 2023; Ferrer et al., 2021), the potential positive impacts of AI on productivity and creativity (e.g., Liu et al., 2025; Wang & Fan, 2025), and the potential negative impacts of AI use on human skills, also called de-skilling (e.g., Budzyń et al., 2025; Kosmyna et al., 2025).

AI is in our phones, our appliances, our schools, our offices, and more, fulfilling a variety of roles with varying degrees of obviousness. A great deal has been written about AI: how we can design and use it effectively, including human-centered design perspectives (e.g., Shneiderman, 2020, 2022; Steckman et al., 2025; Zhang & Reicherts, 2025); how AI affects individuals and society as a whole (e.g., Buolamwini & Gebru, 2018; Crawford, 2021; Major & Shah, 2020; National Academies of Sciences, Engineering, and Medicine, 2024; Noble, 2018); and legal and policy approaches to AI (e.g., Cwik et al., 2024; National Institute of Standards and Technology [NIST], U.S. Department of Commerce, 2023). There have been an increasing number of academic articles about human–agent teams (HATs) (also commonly referred to as human–AI teams, human–robot teams, human–machine teams, etc.), but most of that research has focused on designing and integrating agents to work with teams with little consideration for the human team dynamics affected by the insertion of agents.

We hope that this book in your hands (or on your screen, or the AI summary of the book that you are reading) provides something new while building on current thinking. This book focuses on AI in teams (Carter et al., in press; Fiore, 2025; Myers et al., 2024; National Academies of Sciences, Engineering,

and Medicine, 2021). What roles can AI play in human teams, and what roles *should* AI play in human teams? How does, or could, using an AI change human teamwork and influence team behaviors? How does this evolving technology and these impacts change our perceptions of humans and AI? What are the future considerations for integrating AI into teams? In this exciting and dynamic time, the purpose of this book is to engage various disciplines in a conversation of how AI is affecting teamwork. Leading scholars whose research has implications for how we should grapple with AI for productive, satisfying, and ethical teamwork have provided chapters discussing the various aspects of this problem. This book draws on expertise from psychology (applied, social, industrial/organizational, experimental, educational), management, computer science, cognitive science, robotics (including healthcare robotics), education, communication, sociology, human–computer interaction, human factors, information science, systems engineering, and military science. The intended audience for this book includes team research scholars who want to engage in learning about the potential impacts and roles of AI, and AI scholars who want to learn about how AI can be designed for teams.

While we welcomed dissenting opinions from the authors, the book starts from the idea that AI will play a role in human teams, regardless of whether the AI technology in question is true "artificial intelligence," whether one considers an AI a teammate now or in a hypothetical future, and whether AI is a tool (either in addition to or instead of a teammate, or on some kind of continuum). One commonality in this book is that the authors take seriously that AI should be human-centered (Shneiderman, 2022; Winter, 2024). Technology is often developed to serve the needs of organizations rather than individual workers, but we increasingly see movements to create technology, including AI, to support the needs of individual humans (Winter, 2024). This book adds to that perspective that AI should also be designed to serve *teams* of humans.

TERMINOLOGY: WHAT IS A TEAM, AN AI, AND AN HAT?

Before discussing HATs, we need to define a team. Various researchers (e.g., Guzzo & Dickson, 1996; Hackman, 2012; Kozlowski & Ilgen, 2006; Salas et al., 1992) have identified teams, particularly work teams, as a type of group that has members with differentiated roles, who interact, and have interdependent tasks and shared goals. Many teams also have a definable life span (beginning and end, Salas et al., 1992). In addition, teams have boundaries such that members and non-members can be identified. Some scholars argue that a team must have a minimum of three people because the dynamics of three-person teams are inherently more complex than dyads, whereas others argue for a minimum of two in order to include small teams such as pilots in planes (Kozlowski & Ilgen, 2006; Salas et al., 1992). The specific maximum number of humans in a team is often not discussed, above and beyond that the team should be the right size appropriate to the work (O'Neill et al., 2023). Chapters in this book address teams of a

variety of sizes. Due to the focus on team dynamics affected by AI, most chapters discuss teams that have two or more humans and/or two or more agents.

What is an AI? Loosely speaking, an AI is some kind of software, including a robot, designed to perform tasks associated with what is considered to be some aspect of human intelligence, such as learning, reasoning, or generalization (Copeland, 2025). Winter (2024) points out that this anthropomorphizing language lacks precision. For instance, what is deemed an AI might have the technological capability of data pattern matching, but this capability is not exactly the same as human intelligence or learning. Relatedly, "synthetic teammates" are generally defined as "artificially intelligent systems capable of interacting with humans to produce desired results" (Myers et al., 2024, p. 380).

Some of the confusion and conflict about AI stems from the term referring to different specific technologies with different features, costs, impacts, biases, and strengths (Narayanan & Kapoor, 2024). Narayanan and Kapoor (2024) make the analogy that discussions about AI are as if instead of distinguishing between bicycles, cars, trucks, and rockets, we only had one word – "vehicles." AI systems, be they rule-based systems, supervised or unsupervised learning systems, reinforcement learning systems, hybrid systems, generative AI, or others, have different applications and types of human involvement in their creation (Jarrahi & Glaser, 2025). Related literature and conferences include the fields of human–machine teaming and human–robot interaction. However, not all machines are AI, and not all AI are robots or embodied machines. We examine AI in any form: the authors of these chapters approach the different kinds of AI as relevant to their foci. These include anything currently termed AI, such as large language models (LLMs), generative AI (genAI), natural language processing, and more.

For this book, we choose to use the term human–agent teams or human–agent teaming (HATs). That said, the terminology is always evolving. Scholars also use HATs to mean human–autonomy teams or teaming (e.g., Myers et al., 2024; O'Neill et al., 2022, 2023), and more recently, we see "human-AI teams" or "human-AI teaming" (e.g., Fiore, 2025; National Academies of Sciences, Engineering, and Medicine, 2021). In the U.S. military, the terminology of "human-AI teaming" is widely used to refer to a single human and a single AI. We chose HATs because the level of AI autonomy can vary due to research questions and/or practical requirements and design of the AI. In other words, we do not presume a specific level of autonomy of either the human or the AI. Shneiderman (2020), for instance, argues for a two-dimensional structure with the levels of autonomy for the human and the AI are separate, such that both human and AI autonomy can be high. The two-versus-three person minimum distinction may be important for HATs. Some scholars currently argue that a HAT would require at least one AI that can interact, for whatever definition of interaction, with at least two humans (e.g., Carter et al., in press; see also Sebo et al., 2020). The National Academies of Sciences, Engineering, and Medicine (NAS, 2021), however, argues that a HAT requires "two heterogeneous entities, each with their own roles and responsibilities" (p. 19). O'Neill and colleagues (2022, 2023) similarly argue that a HAT is when there is at least one human and

one autonomous agent that are interdependent and have a shared goal. For the purposes of this book, we allow any of these related definitions: at least one human and one AI with enough autonomy to "count" for the chapter authors as a teammate; interdependent and interacting with each other, with their own distinct roles, but goals shared across the team; and in a group where members are perceived as inside the team rather than outside or not members. This definition, which suits the needs of this book, does not deny the many reasons why many scholars argue that AI can never be a teammate.

THE TEAMMATE VERSUS TOOL DEBATE

One question being vigorously debated is whether an AI could – now or in the future – qualify as a teammate. This debate tends to be framed as a dichotomy: an AI is either a tool or a teammate. Some scholars argue that an AI can never be a teammate, and any attempts to characterize different AI technologies in that way are, at best, anthropomorphizing in a mistaken attempt to increase acceptance of AI, or, at worst, using a poor metaphor that interferes with designing AI (e.g., Shneiderman, 2022). In arguing against the teammate classification, Shneiderman (2022) and others note that computers and software *are not* and *cannot* be responsible parties, legally or ethically. And yet, DARPA (the U.S. Defense Advanced Research Projects Agency) funded a program on Artificial Social Intelligence for Successful Teams, with the goal of developing artificial social intelligence that would be necessary for AI to work as an appropriate teammate (e.g., Fiore, 2025; Williams et al., 2022). For an AI to effectively support teamwork, this program proposed, it should have a theory of mind such that it could anticipate and understand human behavior from a human's perspective (Williams et al., 2022).

Other researchers study the question of perceptions of AI based on different characterizations directly (Larson & Harris-Watson, forthcoming). Drawing on earlier literature regarding the role of technology in human lives, we suspect the distinction can be fuzzier than many scholars would prefer. Some ways of conceptualizing human–AI interactions in the past have included "centaur" teams, in which humans use an AI in an interdependent way (e.g., as with Centaur Chess, see Cooke et al., 2023). Relevant here is the concept of shared cognition with and within sociotechnical systems (Hutchins, 1995). In a sociotechnical system, a human's memory, knowledge, and attention can all be extended and augmented by the technical part of the system (e.g., flight information; pdfs of virtual piles of articles stored in a searchable database) which is made by and used by groups of humans. Thus, the line between a tool that augments and a teammate depends in part on what a teammate really is.

Interestingly, in the current team science literature, "teammate" is rarely (if ever) clearly defined, even when "team" is. As noted previously, a team is "a distinguishable set of two or more people who interact, dynamically, interdependently, and adaptively toward a common and valued goal/objective/mission, who have each been assigned specific roles or functions to perform, and who have a

limited life-span of membership" (Salas et al., 1992, p. 4). One could simply identify those "people" to include non-human agents: an agent teammate would similarly need to hold a differentiated role, interact, be interdependent with others in the team, have shared goals, and be perceived as inside the team. In its current and future forms, AI often serves as a tool, but could potentially be considered a teammate when contributing to transition, action, and interpersonal processes (Marks et al., 2001; O'Neill et al., 2023). Steve Zaccaro (personal communication, July 19, 2025; Zaccaro, 2025), for example, argues that an AI is a teammate if contributes not only to tasks and action processes interdependently (e.g., systems monitoring, coordination) but also to transition processes (e.g., goal specification, mission planning) and interpersonal processes (e.g., conflict management, affect management; Marks et al., 2001).

We agree that there are presumptions of what makes a human a teammate that need to be made explicit for an AI to be a teammate (Carter-Browne et al., 2021). For instance, we (and others) assume that agency and responsibility over one's own actions are necessary to be perceived and to actually be a teammate, even though there are situations where human teammates may have low autonomy, as with students, trainees, or people in very low-status positions (Carter-Browne et al., 2021; Newton et al., 2024; O'Neill et al., 2023). Current AI is considered to have a level of agency, in general, somewhere between humans and other technology, and trust in AI may be influenced by perceptions of its agency (Vanneste & Puranam, 2024). Harris-Watson and Larson (2025) examined perceptions of an AI when it was characterized as a teammate or tool. AI teammates were assumed to have more agency than when it was labeled as a tool. Importantly, they also examined how being characterized as a teammate affects perceptions of *conscious experience* of the AI, which then was positively related to affective trust. They concluded that labels between tool and teammate could be helpful in appropriately understanding the role of an AI in the context of a team.

We agree with several of the arguments put forth by the National Academies of Sciences, Engineering, and Medicine's (NAS, 2021) report on human–AI teaming: (1) human–AI teaming is a step beyond simple human–AI interaction, in terms of numbers (one human and one AI vs. more), complexity, and other characteristics of teams (e.g., interaction, interdependence); (2) for AI, animal teammates are a better analogy than human teammates, although there are differences (see Lum et al. (2026)'s chapter in this volume, as well as Cooke et al., 2023; Darling, 2022; Kapalo et al., 2016; Lum & Phillips, 2024); (3) accordingly, one *can* discuss an AI teammate without presuming humanness to the AI; and (4) discussions of HATs do not mean anthropomorphizing an AI is necessary or desired, AI designed for HATs should still be human-centered, and humans should or could still have appropriate levels of autonomy. Thus, we considered, but discarded, the idea of clearly defining a tool-to-teammate spectrum for this book. Due to the interdisciplinary nature of the book, we wanted to allow the chapter authors to come to their own conclusions about the tool to teammate spectrum. Most chapters skip the "tool" or "teammate" debate altogether, and many choose to focus on the verb "teaming" rather than on the noun "team."

In other words, several chapters argue that agents can act/engage in teamwork as a verb, regardless of whether they are technically qualified as teammates. Agents can *contribute* to teamwork processes (e.g., communication, leadership), teamwork emergent states (e.g., shared situation awareness), and teamwork outcomes (e.g., innovation, performance). For instance, a human teammate can have shared cognition leveraging the capabilities of an AI (or other tool or representation of information) without needing it to be a teammate.

That noted, we agree that AI should be designed to help individuals (Winter, 2024), individual workers (Begerowski et al., 2023), and teams. AI should be human-centered (NAS, 2021; Shneiderman, 2022), regardless of whether different specific AI fulfill team roles or are perceived as teammates. There are also moral and practical concerns with AI as teammates. So far, people in general do not attribute full moral agency to AI technologies, but the degree to which people attribute moral agency (and grant moral concern as targets) to AI depends on a range of swiftly changing factors (e.g., anthropomorphization, social functions; Ladak et al., 2024). Systems can fail due to a variety of problems with design, maintenance, regulation, and interacting and multiple factors, without the immediate operators (consumers or workers) being the direct cause (Elish, 2019). Nevertheless, perceptions of AI as teammates should not absolve humans of their own individual or collective agency or morality (Shneiderman, 2022). There are also practical reasons that it may be important to consider something a teammate (or not) that may be different from academic definitions. For example, human life is the most delicate part of military operations. There are times when military teams may choose to destroy or leave a drone, such as when it is headed toward the wrong target, because otherwise it might cause the human team to get detected. In these cases and more, humans and agents need to be considered differently. Even outside emergency situations, there are ethical and legal considerations in business for how AI versus humans are selected, recognized, compensated, and blamed. We agree that it is important not to dehumanize humans in an attempt to characterize AI as teammates or anthropomorphize them (Bender, 2024; Kwan & Fiske, 2008).

In 2025, people in the workplace are being laid off and replaced with AI. Recently, some companies have brought people back to work upon realizing that the AI cannot, in fact, replace their human workers (e.g., Ivanova, 2025). Professional organizations such as the American Psychological Association (APA) have rules regarding the use of LLMs, specifically generative AI: APA dictates that an AI cannot be named as an author on an APA scholarly paper, AI use must be disclosed in methods sections and cited, and the full output of an AI used must be uploaded as supplemental material (APA, 2023). The publisher of this book, Emerald Publishing, similarly has strict rules about what is and is not allowed in terms of AI (Emerald Publishing, 2025). In other words, for the same reasons that it is important not to anthropomorphize AI, it may be important in some situations to not consider AI as an equal teammate even if it is contributing to teamwork processes, states, and outcomes. Some kinds of AI may in time or even now may be considered teammates, and some never will.

AI INFLUENCES ON TEAMS, AND TEAMS INFLUENCE ON AI

Regardless of the teammate versus tool debate, and regardless of whether specific AI technologies are built to work in human teams, AI will have influence on human teams. The current (fall 2025) most relevant debates are about the unanticipated effects of AI on human cognition and productivity. Rather than how to trust AI in general, the question is how to trust different, specific AI appropriately – neither overly trusting nor overly distrusting – and how to build AI that is worthy of trust (e.g., NIST, 2023). Does the use of LLMs and/or generative AI interfere with human information seeking processes and information interpretation (Shah & Bender, 2022)? Or, can some improve learning productivity (Wang & Fan, 2025)? With regards to creativity, can AI use help overcome cognitive fixedness (Liu et al., 2025) and improve creativity, specifically for higher skilled employees (Jia et al., 2024) or for general topics (but not for domain-specific topics, Fukumura & Ito, 2025)? While there are currently debates about whether generative AI can "scheme" (covertly pursue alternate goals; Meinke et al., 2025; Summerfield et al., 2025), an established limitation of LLMs is that information generated can be inaccurate because the goal and function of the technology is to closely mimic human language, not to fact check (Bender & Hanna, 2025; Hicks et al., 2024; Narayanan & Kapoor, 2024).

Current research is also examining whether relying on AI to augment decision making can lead to a degradation of skills, such as detecting fewer adenomas with colonoscopies (Budzyń et al., 2025) and deskilling in writing essays after months of using an LLM (Kosmyna et al., 2025). This research is in its infancy, with some papers being reported in the news before peer review (e.g., Kosmyna et al., 2025). Still, the concerns are valid. We lack a deep or nuanced understanding of the effects of different AI technologies on individual cognition and affect, team processes, or societies as their use becomes widespread. This widespread use is sometimes voluntary but also has been deployed without request, such as when Google search now has its "AI Overview" dominating the top of a search result. A greater understanding of the tradeoffs and both immediate and distal effects of the different technologies and use cases is necessary. Even perceptions of increased efficiency and when and how to use critical thinking can change when using generative AI (Lee et al., 2025). The next few years will see research on these topics and more.

What the current research tends to ignore is the effects of AI use on teams or on humans embedded in teams. Understanding AI from a teaming perspective is likely important in any scenario when the AI has an interdependent role with one or more humans and is perceived as a teammate, rightly or wrongly, even as a non-human one. Different configurations of AI and humans could exist: one AI affecting many people; many AI, including with different functions, influencing many people; and, depending on the perceptions of the AI, many AI and a single person. This last case presumes perceived teammate qualities of the different AI; otherwise, it is simply a person with their set of helpful technologies.