Caltech Center for Technology & Management Education

# Unlocking AI for Everyone:

## A Guide to Practical Adoption and Upskilling

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## Integrating AI Tools

**Generative AI has emerged as a powerful productivity driver (2, 3, 6, 7), yet many organizations have not provided formal upskilling opportunities to help employees adopt these tools effectively (3, 4). As a result, employees often take it upon themselves to explore AI independently—motivated by a desire to stay relevant and competitive in a rapidly evolving workplace.**

This paper explores the growing accessibility of generative AI tools for non-technical users and offers practical guidance for individuals and organizations. We identify potential use cases, outline adoption strategies, and highlight considerations for change management. Whether you're an individual user or an organizational leader, the goal is to move from experimentation to confident, responsible integration of AI tools.

## Generative AI: A Quick Overview

The enhancement of personal and professional capabilities provided by artificial intelligence–particularly generative AI and the ideal possibilities it can offer humans in the future–has prompted Mo Gawdat, a leading voice in ethical AI advancement and former chief business officer for Google X, to refer to these complex computer systems as "intelligence augmentation" (1). Users are delighted by their ability to interact with the AI tools in natural language and the straight-forward user experience.

Artificial intelligence has quietly powered many aspects of everyday life for years—from self-driving cars to voice assistants to Netflix recommendations. Public awareness of AI took a major leap in November 2022, when OpenAI made ChatGPT available to the public. Its easy-to-use interface gave millions their first hands-on experience with AI-generated conversation, igniting a wave of global interest and adoption. ChatGPT and similar tools—such as Claude (Anthropic) and Gemini (Google)—use generative AI, a branch of artificial intelligence that creates new content, including text, images, video, and music. These systems are built on large language models trained on massive datasets to understand and generate human-like outputs.

## The Accessibility of AI Tools

Barriers are low to using these generative AI tools—no coding or technical skills required—which has catalyzed the exponential adoption. Furthermore, users communicate with the AI tools with natural language, simplifying the interaction to what feels like a conversation. In the past, producing an output or result from computer systems required either knowing code or being adept at a particular software. Now, due to simplified user design and a mechanism called *natural language processing,* users need only rely on clearly communicating their desired result.

The communication of that result is referred to as "prompt engineering," considered a misnomer by many in the field because communicating with AI tools does not require "engineering" in the technical sense; it merely requires offering the AI tool the appropriate, concise context needed to generate the user's desired result. For instance, it is recommended that a user asking for assistance in writing an email or report provide concise context around their business, role, audience, and intended purpose.

These AI tools are also easy to use because many offer limited free use. However, using a free tier, the interaction (including any attachments) may be used to train the model and is not secure or private. However, paid subscriptions offer the ability to opt out of using one's data in model training and can be switched on or off in the user settings. Many new users purchase a subscription, delighted with the ease of use and productivity potential. Subscriptions for most generative AI tools are around $20 per month, and many generative AI tool providers provide free tier, limited-use access.

## A Non-Linear, Iterative Adoption Journey

The adoption journey of generative AI, like any learned skill, is non-linear, and it is recommended to approach generative AI tools with this in mind so as not to pause the upskilling journey due to frustration. In the beginning, users may experience a "honeymoon period" when using AI tools until they understand their limitations. When the initial discovery excitement passes, we recommend thoughtful consideration when applying AI tools to daily personal tasks, goals, or processes. Then, after continued experimentation and iteration, clear workflows will emerge, sometimes even utilizing several AI tools (often referred to as an "AI tool tech stack"). With additional features like projects or custom GPTs included in subscriptions, there are innumerable benefits for personal and professional use, including support with ideation, enhanced productivity, and time savings.

For personal use, AI tools can help with planning travel (e.g., itineraries), events (e.g., finding locations and brainstorming supplies needed), and menus (e.g., a budget-friendly meal plan for a picky eater). The AI tools can also act as a tutor by creating a study plan, generating quizzes (based on its trained data or notes you upload), and answering questions as you are learning, among numerous other educational applications. Using the voice mode capabilities of many AI tools, one can practice pitches, speeches, or presentations and receive analysis and constructive feedback. Many are also using AI tools to support learning languages. There are a myriad of ways to leverage AI tools for daily tasks and personal pursuits.

In professional settings, there are also numerous applications. One example is use of automated meeting note-takers like Read.ai or Firelfies.ai to enhance productivity by releasing attendees from furiously taking notes during the meeting, allowing them to be present, provide thoughtful responses, and increase congeniality. Many AI-powered note-takers provide summaries, identification of action items, the ability to search the meeting transcript, and even coaching tips (e.g., filler words, interrupting others, and speaking time). The transcripts from these meetings can be leveraged with general-use AI tools like ChatGPT in several valuable ways, including producing custom meeting reports or proposals using a concise prompt tailored to your specific needs.

## Suggested Steps Toward AI Tools Adoption

Identification of uses for AI tools will increase with familiarity, frequent use, and iteration, and the adoption process for individuals and organizations should be approached thoughtfully.

**To thoughtfully adopt AI tools, individuals may consider the following approaches:**

1. **Consider internal motivations.** Believing one is late to learning AI tools will negatively frame the journey and is essentially relative. Rather than comparing, focus on developing curiosity about applying tools to personal and professional tasks (8).
2. **Remember that learning a new skill requires grit.** Learning to use AI tools can be delightful and challenging, so approach the learning process with determination (9).
3. **Augment critical thinking skills with AI tools.** When seeking support on new or challenging tasks, query the tool to provide its reasoning and learn. Offloading critical thinking tasks could increase the risk of dependence on AI tools and a reduction of analytical or creative skills (4).
4. **Teach others (reinforcing what you have learned).** Sharing knowledge of new AI tools with others will help you acquire new skills (10).

**To implement AI tools effectively, organizations should:**

1. **Ensure leadership agrees.** This initial step can allow for an uninhibited and collaborative adoption journey of AI tools, establishing trust and continued open communication during an evaluation or implementation.
2. **Train leadership and have them test first.** Providing AI tools training first to leadership allows them to test the tools and be informed in planning a pilot of AI tools implementation, identifying departments or groups through which these processes can begin.

3. **Identify explicit objectives.** Suppose leadership has seen an example of a successful implementation of AI tools in their industry or particular workflows. In that case, identifying objectives, hypotheses, or the real problem to solve is key; but this may not always be feasible, especially with smaller organizations new to AI tools.
4. **Start small.** Before embarking on an organization-wide rollout, it may be helpful to identify a group of pilot users in one or more departments who can dedicate an allotted time to testing AI tools.
5. **Create a space for collaboration and communication.** A dedicated communication channel and hub to share and store resources is key to discussing ideas, sharing wins, offering suggestions, and referencing, and also allows for documentation of the iterative process for future use and analysis.
6. **Train staff.** An initial custom AI tools training is necessary to educate staff and allow discussion of possible applications with an AI tools educator. Focused skill-building can save time because one of the most time-consuming elements of adoption is exploring available tools and their capabilities. Additionally, this group can act as AI tool mentors for a more extensive rollout.
7. **Identify possible applications.** Trained teams can more effectively identify and experiment with a few low-risk administrative workflows in which AI tools may be valuable. It may also be helpful for them to compare the time spent completing these tasks without AI tools.
8. **Share wins, determine impact, and document.** These steps allow for the group to take their successes and create, with leadership, a more extensive rollout informed by an analysis of what was practical.

Leaders should approach the steps above—for individuals and organizations—with change management considerations because adopting new tools can be daunting to everyone. Firstly, with leaders at the forefront of AI tool adoption, employees will be encouraged in their AI adoption journeys. Leaders should also recognize that some may be hesitant or reluctant to learn due to reports that AI would replace their jobs, so we often recommend providing straightforward communication about the impact of AI on the organization. Providing a clear roadmap with informed expectations and training in AI tools is key because, without those elements, employees may feel confused, overwhelmed, or motivated to search for more innovative employers (5). Creating collaborative, reward-based training as incentives can improve learning and bolster communication and team camaraderie (3).

## Building AI Capability Through Practical Training

Generative AI tools are increasingly accessible—even to non-technical users—but thoughtful integration into daily work requires more than experimentation. As adoption spreads organically across organizations, leaders need to understand these tools and responsibly guide their teams. Many employees are already using AI informally and are eager for structured support and training from their organizations (11).

Partnering with academic institutions can bring an essential layer of objectivity, helping organizations evaluate AI tools beyond vendor promises and hype. University-based programs are often better aligned with workforce learning and development goals, offering curriculum structures designed to build lasting skills, not just tool proficiency. Expert-led training—from instructors with both research insight and industry experience—can help organizations move from curiosity to capability. Programs from institutions like Caltech CTME support leaders in navigating critical topics such as bias, privacy, and ethical use while tailoring learning to each organization's strategic needs.

**Citations:**


1. Galloway, S. (Host). (2025, February 8). Mo Gawdat – The future of AI and how it will shape our world | Prof G conversations [Video]. YouTube. https://www.youtube.com/watch?v=Q6B2ceRNKL8

2. Boston Consulting Group. (2024, September 5). Generative AI boosts productivity of knowledge workers: BCG consultants find. Boston Consulting Group. https://www.bcg.com/press/5september2024-generative-ai-knowledge-workers-consultants

3. Mayer, H., Yee, L., Chui, M., & Roberts, R. (2025, January 28). Superagency in the workplace: Empowering people to unlock AI's full potential at work. McKinsey & Company. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/superagency-in-the-workplace-empowering-people-to-unlock-ais-full-potential-at-work

4. Lee, H.-P., Sarkar, A., Tankelevitch, L., Drosos, I., Rintel, S., Banks, R., & Wilson, N. (2025). The impact of generative AI on critical thinking: Self-reported reductions in cognitive effort and confidence effects from a survey of knowledge workers. In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '25) (pp. 1–23). ACM. https://doi.org/10.1145/3706598.3713778

5. Upwork Research Institute. (2024, July 23). From burnout to balance: AI-enhanced work models. Upwork. https://www.upwork.com/research/ai-enhanced-work-models

6. Robinson, B. (2024, October 17). Microsoft 365 Copilot drove up to 353% ROI for small and medium businesses—new study. Microsoft 365 Blog. https://www.microsoft.com/en-us/microsoft-365/blog/2024/10/17/microsoft-365-copilot-drove-up-to-353-roi-for-small-and-medium-businesses-new-study/

7. Google Cloud. (2024). The ROI of generative AI: How enterprises are capturing value. Google. https://services.google.com/fh/files/misc/the_roi_of_generative_ai.pdf

8. Reio, T. G., Jr., & Wiswell, A. (2000). Field investigation of the relationship among adult curiosity, workplace learning, and job performance. Human Resource Development Quarterly, 11(1), 5–30. https://onlinelibrary.wiley.com/doi/10.1002/1532-1096(200021)11:1%3C5::AID-HRDQ2%3E3.0.CO;2-A

9. Duckworth, A. (2016). Grit: The power of passion and perseverance. Scribner/Simon & Schuster.

10. Martin, J.-P. (1985). Zum Aufbau didaktischer Teilkompetenzen beim Schüler: Fremdsprachenunterricht auf der lerntheoretischen Basis des Informationsverarbeitungsansatzes. Narr Verlag.

11. Fleming, O., Hancock, B., Schaninger, B., & Weddle, B. (2024, March 19). Gen AI's next inflection point: From employee experimentation to organizational transformation. McKinsey & Company. https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/gen-ais-next-inflection-point-from-employee-experimentation-to-organizational-transformation

## Works Consulted


Acemoglu, D., Autor, D., Johnson, S., & Restrepo, P. (2024). The simple macroeconomics of AI (Working Paper No. 24-05). MIT Economics. https://economics.mit.edu/sites/default/files/2024-10/The%20Simple%20Macroeconomics%20of%20AI.pdf

Bick, A., Blandin, A., & Deming, D. J. (2024). The rapid adoption of generative AI (NBER Working Paper No. 32966). National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w32966/w32966.pdf

Salesforce. (2025, February). Top generative AI statistics for 2025. Salesforce Newsroom. https://www.salesforce.com/news/stories/generative-ai-statistics/

World Economic Forum. (2025). AI in action: Beyond experimentation to transform industry. World Economic Forum. https://reports.weforum.org/docs/WEF_AI_in_Action_Beyond_Experimentation_to_Transform_Industry_2025.pdf

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