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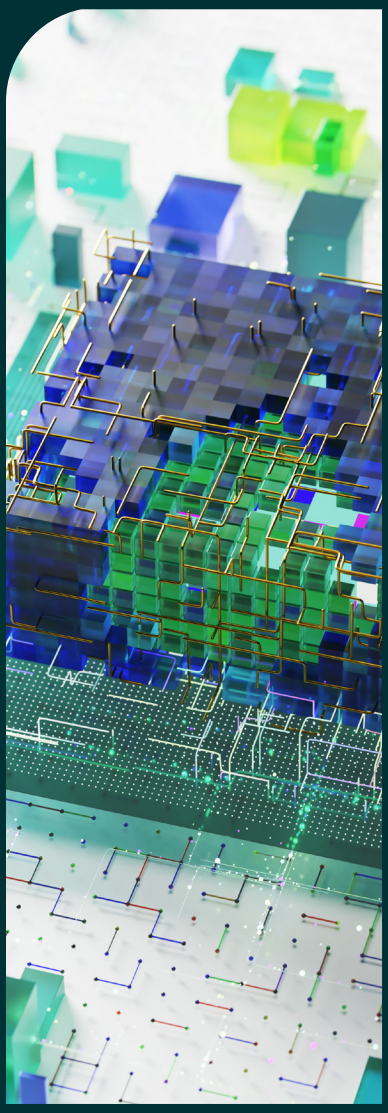
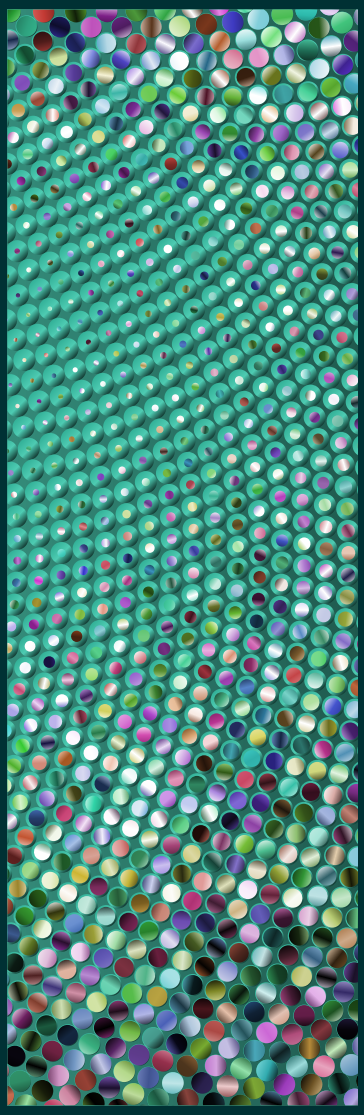
Unleashing the ultimate AI use case: empowering productivity





The buzz around artificial intelligence (AI) technology is intense. Search for "artificial intelligence," and you'll receive more than 1.4 million hits on Google. A search for "AI" returns more than 11 million hits. While just 15% of organizations have integrated AI into their business DNA, the annual growth rate of the global AI market is expected to be 37.3% between 2023 and 2030.

The recent AI hype traces its beginnings to conversations in the 2000s about the potential of data-based machine learning. This continued into the 2010s, with significant investment and research into deep learning models that could assist with recommendation engines, image detection and cybersecurity initiatives.

Eager to harness AI's power, organizations — including tech giants like Amazon, Google and Microsoft — are investing in AI technologies. They're making AI accessible through their cognitive services and pushing for AI use cases. Much of the enterprise-level focus has been on using AI to improve and speed processes and decision-making through AI-assisted automation. This enables more complex work to be completed in less time. This approach is understandable because efficiency is a major advantage of AI automation:

- Using learning patterns to detect anomalies much faster than a human can
- Using learning patterns to detect anomalies that a human would not be able to detect at all
- Enabling quicker decision or reaction time, even with the human in the loop

Financial institutions are using AI and machine learning to detect fraud because human analyst teams have trouble sifting false positives to identify actual fraud instances. Other organizations are using AI-powered monitoring systems to analyze business and IT data and predict future IT problems to head off issues. And some are turning to chatbots to handle customer inquiries, including frequently asked questions with already scripted answers.

While these uses of AI are remarkable, there is significant value left on the AI table if productivity isn't just as much a consideration as efficiency. For the sake of this discussion, we'll define productivity as the ability of an individual, team or organization to work more efficiently to maximize **quality** output.

The rise of generative AI technology

Generative AI — a type of AI that can create content such as text, imagery, audio and video — makes it much easier for knowledge workers to leverage AI technology for creative tasks. It introduces exciting new possibilities for AI, elevating AI from a conversational interface to a ubiquitous tool for productivity — meaning more creative and high-quality work can be completed in the same amount of time.

The hype around generative AI algorithms is not new. Generative AI has been around since 2014, with the exposure of the first generative AI algorithm: generative adversarial network. This algorithm created new images and videos that resembled their training data. The term "deepfake" was coined in 2017 to refer to these realistic videos and photos made with AI for the specific purpose of deception. However, the widespread release of ChatGPT, an artificial intelligence chatbot, and DALL·E, a deep learning model to generate digital images and other generative AI applications for the general population, precipitated the current peak in excitement over AI.

Some of the recent daily bombardment of news about AI stokes fear and sparks discussions about regulating advanced AI systems. However, there's plenty of excitement about how generative AI can help people be more productive and creative. For instance, the ability to quickly create new promotional videos can shape and strengthen organizations.

That excitement will likely grow as people and organizations get more familiar and comfortable with AI technologies. AI is not here to replace us. After all, human ingenuity created the algorithms that power generative AI in the first place. It isn't going to replace all other types of algorithms either but instead will be a companion to them. And when set up properly, AI can be a tremendous productivity boon.

Handle generative AI with care

The potential of generative AI is vast, but it must be used cautiously. Some underlying models are trained on open-source material available on the internet. The model can become out-of-date quickly, as it is not continuously trained on new and updated data. You have to use the underlying model judiciously and add new content for your particular scope and purpose.

Protect your organization if open-source material is used, and fine-tune your data output by taking these steps:

- Read the data use policy for all generative AI-based tools carefully. Some applications require that your input prompts and data can be used to retrain their models.
- Use applications that will not publicly release any proprietary or personal information you feed as input to the application.
- Use applications that help guarantee that no copyrighted material was used in training.
- Understand the scope of the training data for the underlying model; for example, how recent the training data is.
- Use applications that allow you to "tune" to help prevent "hallucination" — the making up of information by the model.
- Learn prompt engineering to guide generative AI applications on how to behave.
- Add your own trusted data sources through prompt engineering and/or the combination of other cognitive services, such as semantic search.
- Verify the accuracy of the output.

Empowering your knowledge workers with AI

While AI's undeniable impact on efficiency has garnered the most attention, AI's unmistakable impact on productivity cannot be denied. Consider productivity the cousin of efficiency and a major advantage that deserves the spotlight when discussing AI.

A perfect storm of available computer power, data availability and algorithm availability make AI more accessible to everyone, including the knowledge workers whose productivity can impact business outcomes. AI can be a partner for these knowledge workers.

While AI may replace some transactional jobs, it won't replace human creativity and ingenuity. In fact, AI can free knowledge workers to be more creative with their projects and innovative with their thinking. It supplements rather than replaces. Generative AI can help organizations reach the next level of productivity — not simply letting workers complete more tasks in the same amount of time but enabling them to do work that is more transformative.

Get started with generative AI

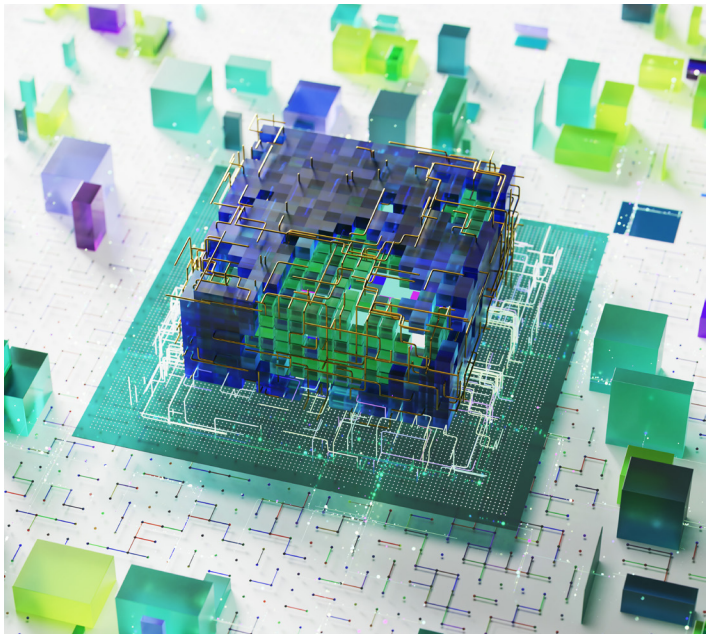
As your organization ventures into business applications of generative AI, here are some steps you can take to do so responsibly:

- Create a safe and secure environment for people to experiment with AI using proprietary data so you're confident it won't be released into the wild.
- Find the best use cases — like creating marketing content or responding to proposals — and build from there. Using it internally first lets you discover other use cases and grow AI expertise and talent.
- Engage IT, security, legal and marketing from the beginning so they're on board if you commercialize an application using generative AI. Understand the proposed regulations in regions such as the European Union if you operate in or plan to do business in countries and/or sectors impacted by this.
- Set up guardrails for responsible AI use in partnership with legal and IT.
- Engage experts who can judge the initial AI output for accuracy or intent.
- Learn how to use prompt frameworks and craft successful prompts because the output is only as good as the input. The prompt is the common way people communicate what they want from generative AI.
- Establish a forum for people to share experiences, best practices, failures and triumphs.
- Consider a contest to recognize the best use of the technology among your employees,

How AI can boost productivity

Organizations are growing more focused on identifying the right use cases to leverage or monetize new AI models to drive value, differentiation and/or cost savings. Those that have achieved the most monetary success from their AI investment spend about 10% on algorithms, 20% on technologies and 70% on integrating AI with their business processes and agile work.

With the additional capabilities of generative AI to create new content, it's not just about doing things faster but rather getting more done. Now, we have tools to accelerate creativity and imagination across the entire enterprise.



It follows that for the first AI use cases for productivity, we should look for one that will assist knowledge workers and small teams. This will free up the knowledge workers' time, giving them more space for creativity, but the tools themselves will enhance the creative process as well. This, in turn, will drive innovation and lead to new revenue opportunities.

Microsoft has embedded generative AI into its Office 365® Suite. These tools can be a starting point. Cloud providers are making "safe" versions of AI technology that alleviate concerns about releasing proprietary information into the wild. As an added benefit, the collective knowledge will help organizations discover enterprise-class and revenue opportunities. And we can think of applying generative AI to our productivity in new and exciting ways.

Automating repetitive tasks are typically relegated to robotics process automation and scripting, but now you can automate more-repetitive tasks that require more intelligence. For instance, you can use AI to seek information on a particular topic and summarize its findings regularly.

Ultimately, you can count on AI to work on tasks without necessary prompts. The seminal autonomous agent BabyAGI was created by Yohei Nakajima, a venture capitalist, coder and experimenter. Nakajima describes BabyAGI as an "autonomous AI agent that contains an AI task manager."

Recognizing that BabyAGI had applications beyond why he created it — to research new technologies and companies — he uploaded a stripped-down version to GitHub for others. Since then, creative developers have added moderation functions, parallel-task capabilities, and code-writing and robotics functionality.[7]

It's serving as a jumping-off point for innovation.

AI use cases for productivity

Information search: Move beyond search engines to semantic searches, and summarize results to find information more effectively.

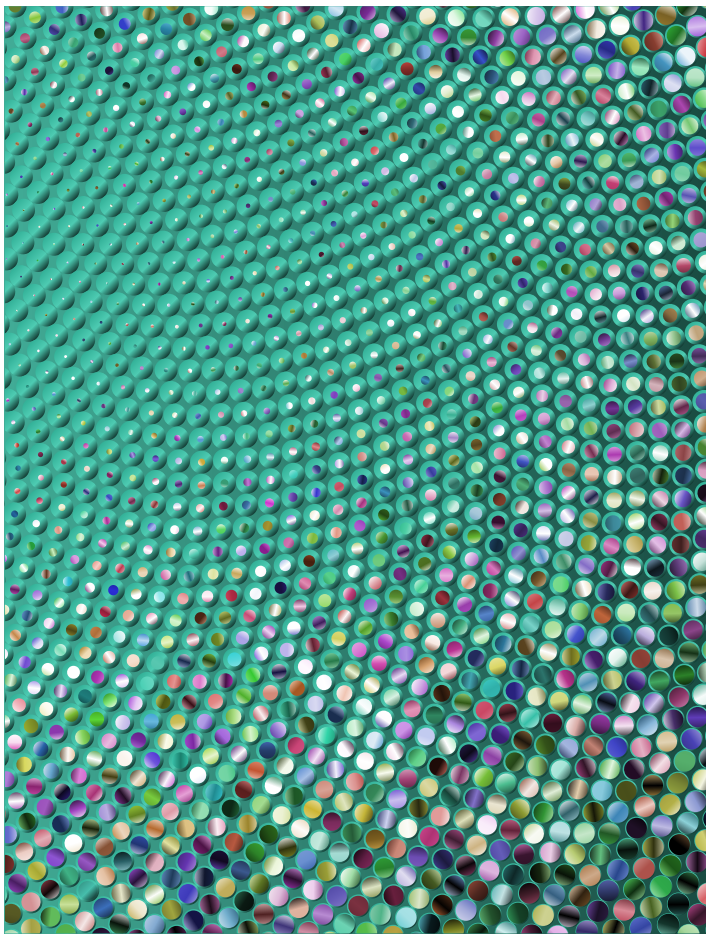
Linguistics support: Graduate from spelling and grammar checkers, sentence completion, and translation; AI models create new, longer content — paragraphs, essays and poetry.

Code assistance: Treat computer code in the same way as spoken language. AI can guide coding and create new code.

Decision-making support: Gain greater sophistication, specificity and personalization with things like product recommendations, identifying trends and detecting anomalies.

Information synthesis: Go beyond transcription to summarize meeting notes, annotate images and extract key points.

Content creation: Use AI to edit, enhance and create new videos, images, prose and art.



AI is a productivity opportunity. Seize it.

The proverbial horse is out of the barn. AI isn't going anywhere. But neither are people and the ingenuity that created AI. Proceed carefully because every technological advancement in history has had unintended consequences. But acknowledge that AI is here to stay. Now it's time to consider the positive and productive ways to use AI to better your organization.

More organizations are embracing the development and integration of AI, recognizing its importance in the future of the digital landscape. Join them to take advantage of the productivity promise AI offers. By leveraging these technologies responsibly and strategically, organizations will position themselves to capitalize on the opportunities and navigate the challenges of the digital era.

Read "From Barriers to Breakthroughs: Unlocking Growth Opportunities with Cloud-Enabled Innovation" for more AI findings and recommended steps to make the most of AI.

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