What Is Agentic AI and How Can You Prepare Your Enterprise?

As generative AI disrupted businesses two years ago, agentic AI is poised to take the next step. Agentic AI, agent-based workflows, or agentic workflows involve giving AI agents autonomy to complete more complex tasks. While generative AI involves very linear tasks and responses, agentic AI can take initiative, plan multiple steps, problem-solve, learn, and adapt.

But should you rush to "make your AI agentic" right away? Maybe not. While agentic AI is still in its early growth stages, there is plenty your enterprise can and should do to prepare.

What Is Agentic AI?

Agentic AI refers to AI systems with a degree of agency, allowing them to act autonomously to pursue specific goals or objectives. An AI agent is a software program that interacts with its environment, collects data, and autonomously performs tasks to achieve predefined goals. It makes rational decisions based on data, optimizing its actions to produce the best possible outcomes.

The main concept of agent-based workflows is to set goals for the AI agent and then allow it to go out and leverage the resources needed to achieve those goals. The AI isn't just going to focus on answering the query or prompt. It will take more initiative.

Agentic AI is less of a binary classification and is better understood as a philosophy for organizing data, infrastructure, and assigning tasks to AI. Amazon Bedrock offers a more nuanced view of agentic systems where the concept of "agentic" represents a spectrum of agent-like qualities instead of viewing it as "traditional AI" vs agentic AI.

How Is Agentic AI Different From Generative AI?

One common misconception is that agentic AI will replace generative AI. In fact, agentic AI is simply one way to organize generative AI to make it more effective and do things that wouldn't be possible with traditional generative AI.

Most generative AI models take a linear approach. If you ask ChatGPT to write an essay it will write the entire essay from start to finish with no revisions. Generative AI wrapped in an agentic workflow has the ability to first outline the essay, identify and perform any necessary research, write a first draft, and continue to research and revise until it achieves an optimal result.

This iterative approach creates better results and allows AI agents to tackle more complex tasks and multi-step workflows.

OpenAI o1 uses some of the concepts of agentic AI. These new AI models spend more time thinking before they respond and develop a chain of thought. This allows them to refine their

thinking and approach to content generation *before* beginning to recognize mistakes and tackle more complex problems.

Andrew Ng, agentic AI leader and founder of DeepLearning.AI, recently presented his findings on agentic AI. Andrew Ng and his team found that using GPT 3.5 with an agentic workflow outperformed zero-shot GPT-4 by 10-40%.

How Can Agentic AI Transform Your Business?

The use of agentic workflows allows enterprises to give AI more expanded work. It also creates new use cases that can help transform your business. Benefits of agentic AI include:

- **Autonomy**: AI agents can take initiative, plan actions, and make decisions based on the goals of their task without needing as much human input.
- **Resilience**: Agents are more resilient to information or tasks that fall outside their current training, allowing them to better respond to failures and automatically recover.
- **Easier UX:** Agentic workflows offer a better user experience due to increased productivity and performance and the ability to generate more nuanced and detailed outputs.
- **Problem-solving:** Giving agents the ability to utilize tools, access data, and work with other AI agents offers increased problem-solving capabilities.

Practices for Governing Agentic AI Systems

Given the benefits of agentic AI systems, your enterprise should immediately prioritize this AI opportunity, right? Probably not.

Unless your organization is already deeply invested in AI, your data, infrastructure, and AI culture are most likely not ready to adopt agentic AI workflows. However, there are steps you can take to begin governing agentic AI systems.

Prepare Workflows and Infrastructure

In general, AI shouldn't work in isolation. It is best when it is tied into business processes. This is especially true for agentic AI. The main promise of agentic AI is the ability for AI agents to use tools, collect data, and tie into existing workflows.

To implement principles of agentic AI you need to look at how AI agents will tie into different sources of data and workflows within your organization. AI will need to interface with different systems that you already have in order to query info, request resources, and start the process. Any analog processes in your organization will be roadblocks. Your entire organization needs to be more programmatically accessible to allow AI agents to be effective.

Increase Data Readiness

Agentic AI systems rely on high-quality, well-structured data to make decisions, learn, and act autonomously. The best thing you can do now to prepare for any artificial intelligence project is to create a comprehensive data strategy for collecting, managing, and utilizing data effectively.

Your data strategy should include data integration to tie together relevant data sources and both structured and unstructured data. Data governance protocols will need to be put into place to maintain data quality, security, and access.

All AI models are only as good as the data used to train them. Agentic AI in particular needs well-organized and managed data to operate most effectively.

Get Your Core AI Working

With all artificial intelligence implementations, there is a risk of overcomplicating things. Trying to jump straight to agentic AI workflows runs the risk of creating a sorcerer's apprentice situation. If your core AI isn't built well, you may find it has run out of control and become very difficult to stop.

Generative AI is particularly difficult to debug because it is non-deterministic - it may not give you the same answer when given the same prompt at different times. It can be difficult to troubleshoot multiple agents processing hundreds or thousands of inputs and outputs.

The answer is to be disciplined when implementing AI. Gigster recommends choosing a single business function - or 5-10% of the organization - to transform with an initial AI development project. Once that implementation has been fully adopted you can move up in your AI maturity level and start to transform more of the business.

While agentic AI is still in the early stages of adoption, you can expect it to dramatically expand the tasks that AI can do. As this technology evolves, users will need to get used to delegating tasks to AI agents and waiting for responses, much like assigning work to a human colleague.

If you're interested in agentic AI or generative AI, Gigster can help you find the right artificial intelligence development services to fit your needs. Our focus is integrating AI into business processes to see the most impact and success from AI initiatives. Contact us today to learn more about our AI development teams.