How to Build an AI Roadmap

By Brooks Hamilton

AI is more than a buzzword; it is necessary to compete in a global, omnichannel world. The big tech players in the market have and are investing heavily in AI. In 2023 alone, enterprise tech firms invested more than $15 billion in purchasing AI software:

- Microsoft, $10 billion in OpenAI
- Amazon, $4 billion in Anthropic
- Google, $300 million in Anthropic

While these are just three examples, they're indicative of a trend that is trickling innovation down to the companies that benefit —including distribution companies.

What is it about AI that has everyone talking, and why are distributors about to experience a significant shift in how they do business, all thanks to these innovative tools?

The State of AI

The productivity gains from AI software are real. Harvard Business School, MIT Sloan School of Management, Wharton School at the University of Pennsylvania and the University of Warwick teamed up with Boston Consulting Group (BCG) to study the application of AI in their global consultancy.

The research applied generative AI to the professional services offered by more than 750 BCG consultants. It found that 90% of the participants experienced a 40% improvement in productivity by using OpenAI's GPT-4. Note this productivity increase occurred when the consultants *did not attempt to improve the output generated by the AI platform.*

There were three key areas of performance improvement:

1. **Output** – Test subjects finished 12% more tasks when using AI
2. **Speed** – Test subjects completed tasks 25% faster
3. **Quality** – Test subjects produced 40% higher quality results

As these models scale, they increase their efficiency and accuracy. When ChatGPT-4 launched earlier this year, it put AI on everyone's short list. This was only underscored by stories of its prowess: It out-scored about 90% of humans when taking some of the toughest exams in the United States, such as the SAT reading and math exams and the LSATs.

AI developers never trained ChatGPT-4 how to pass these tests, focusing instead on what the next token is. In human terms, this means the AI software was trained to complete sentences like, "I couldn't see in the dark room because the light was____." ChatGPT scans to determine the answer to the question is "off." Machine learning algorithms take that response and "learn" from it, constantly improving in an iterative process that makes these machines increasingly accurate in their ability to mimic human thought.

Think about what it takes to complete a sentence. The complexities of the English language require an understanding of *the context of the sentence* to complete it. AI understands human language and the context of sentences, allowing these tools to respond appropriately to the point where it can ace the GRE.

As tech companies work to scale these tools, they've noticed [emergent behaviors](). If you have seen dozens of birds flocking together or a school of fish moving together, you've witnessed emergent behaviors where the individual creatures act like a single organism. It isn't planned behavior, but the animals form groups and shapes in response to different rules and interactions.

We see this emergent behavior in AI software. These models are not learning just facts but grouping words to form and understand context. As we increase training time for AI models, their ability to discern context increases. [Google did quite a bit of work in this area](), studying how their AI handled reasoning and decision-making beyond just taking the best guess at completing a sentence. The more data the AI consumed, the more sophisticated the model became. The icing on the AI cake occurred when a Google intern suggested telling the AI to improve its reasoning capabilities—and it did. The result was an astonishing jump in correct answers from 18% to 82%.

Now understand this: Startlingly, by all accounts, AI is just getting started.

Why Now?

There are a few key assumptions around AI adoption today:

- **The primary engineering and theory work around AI is complete.** There's a lot to do, but even if we never conduct another piece of research, we still can apply what we've learned, working through new use cases and data, to enormous impact throughout the economy.
- **Each tech revolution occurs faster and faster.** [Vanity Fair says](), "One of the aspects of technological change is how it grows exponentially, so the speed of change actually grows faster with each new advancement." Modern technology takes this theory to the extreme, building upon prior innovations at cloud-generated speeds.
- **The rollout of AI, unlike prior technologies, won't require massive new infrastructure buildouts to move through the general economy.** Each piece of the AI technical stack is mutually reinforcing and any improvement in one might mean the general improvement of all of them.
- **The limiter of AI will not be the technology itself.** It will be the uneven transformation of the processes and organizational structures when we take advantage of this technology.

Over time, the speed at which we adapt to new technology has increased exponentially.

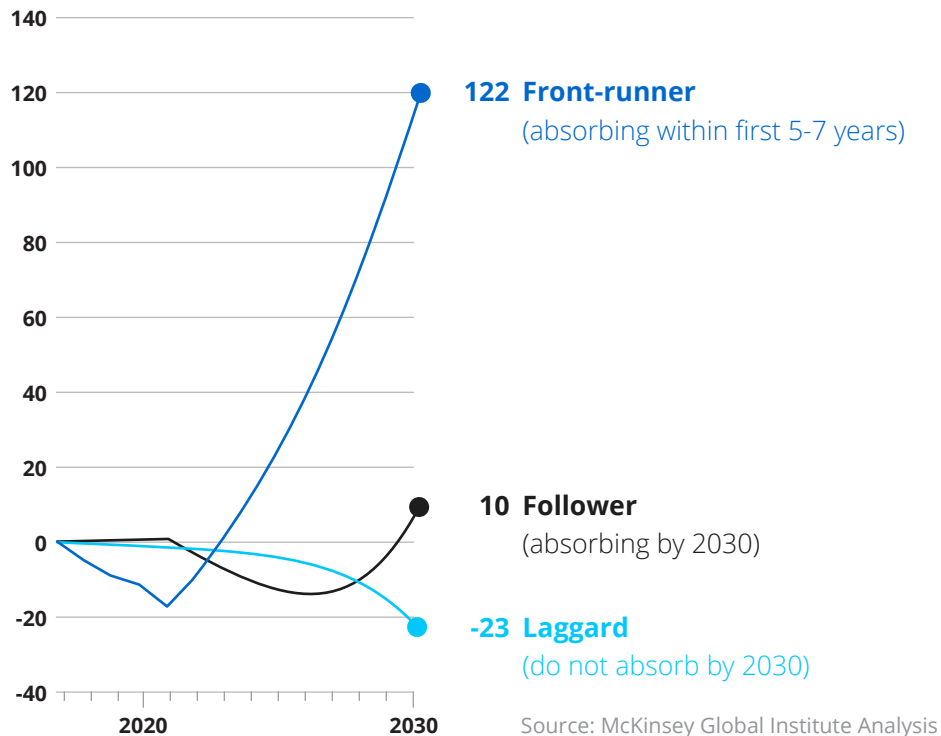## New Technology Adoption Has Accelerated Over Time
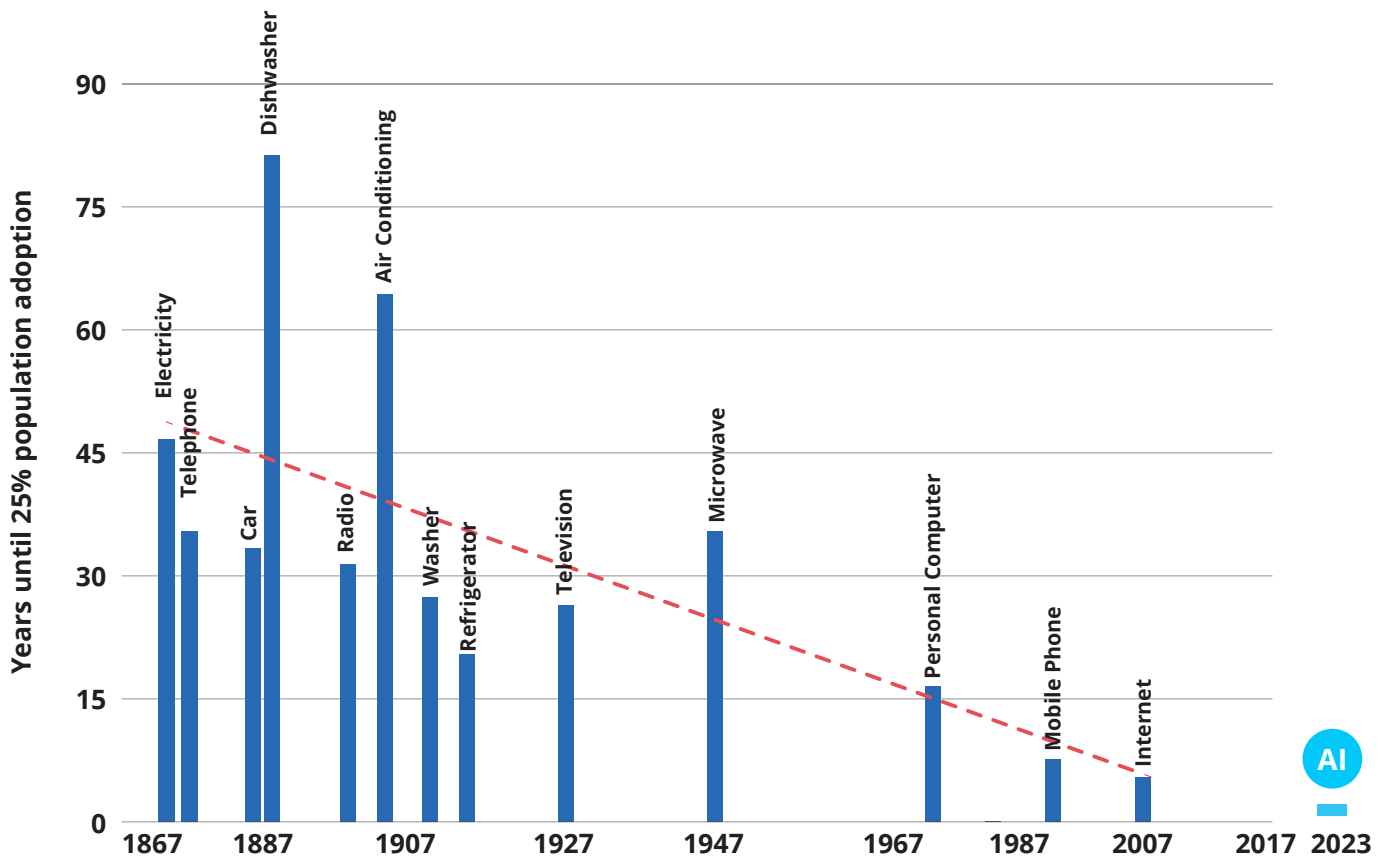
[Harvard Business Review says](#), "It took decades for the telephone to reach 50% of households, beginning before 1900. It took five years or less for cellphones to accomplish the same penetration in 1990."

ChatGPT reached the first 100 million users within two months of its inception, according to [Swiss bank UBS analysts](#).

But this hyper-speed technology adoption trend does not necessarily apply to the distribution industry.

[McKinsey laments](#) that industry, in general, is slow to adopt AI solutions and the opportunity they bring. Instead, they suggest, "Rather than endlessly contemplate possible applications, executives should set an overall direction and roadmap and then narrow their focus to areas in which AI can solve specific business problems and create tangible value."

Relative changes in cash flow by AI-adoption cohort (cumulative % change per cohort)

122 Front-runner
(absorbing within first 5-7 years)

10 Follower
(absorbing by 2030)

-23 Laggard
(do not absorb by 2030)

Source: McKinsey Global Institute Analysis

It's good advice, particularly for the distribution industry, which generally takes a wait-and-see approach to AI. There are better approaches. AI is here and it is far from going away. While we may not know what AI will become, it's a good idea to heed the advice of another global consultancy, Bain & Company, which says, "You're out of time to wait-and-see on AI."

Creating an AI Roadmap for Your Business

The reality of AI is that some people in your company are already using the generative version of these tools. Sales members may be using AI to clean up their customer emails. Marketing could be using it to generate content. Your recruiting and HR team may use AI to create job descriptions.
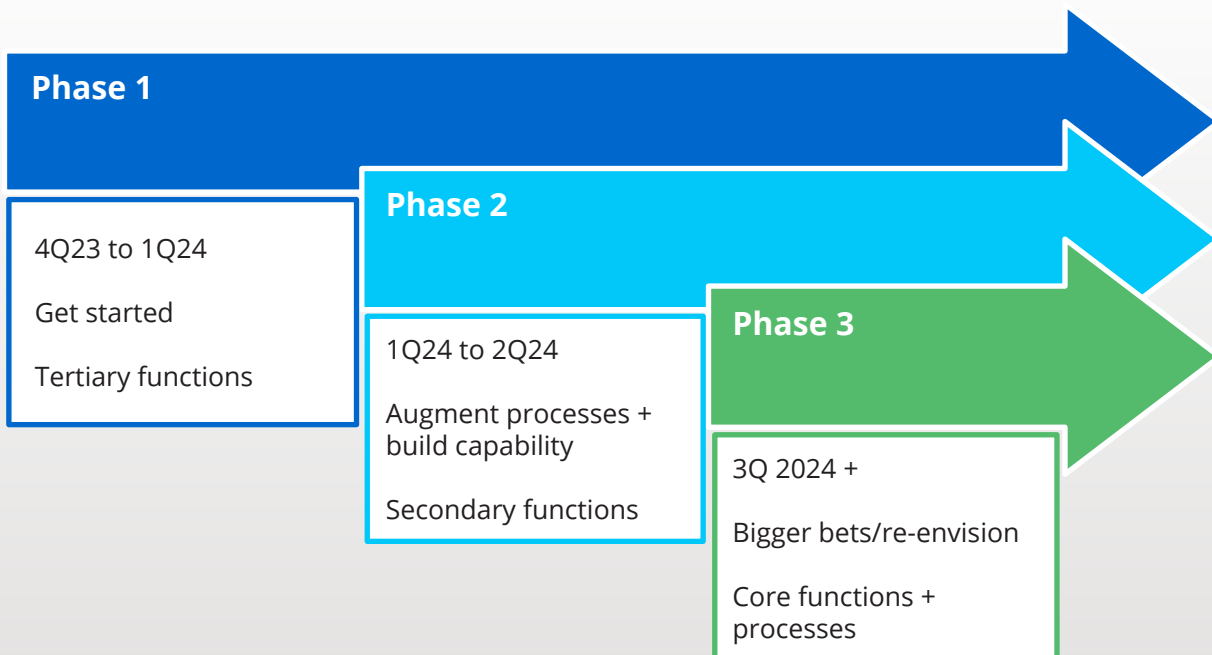
But increasingly, AI is used to improve itself not just by applying machine learning to improve the accuracy of its responses but by writing the code behind the application. AI is used now to score and find better data, to separate good from bad. Watch for the AI improvement cycle to accelerate, with new releases coming out faster and faster. The way we've begun using these tools is increasing in sophistication and breadth of use cases.

The problem for distribution companies is that, while the Ferris wheel may be slow-moving for the moment, once it gets going, jumping onto a fast-moving Ferris wheel is much more challenging. Every organization in every industry needs a forward-thinking approach to these tools and a roadmap for their adoption.

Distribution companies need to take three key steps now to prepare for what will eventually be AI as the standard, not a buzzworthy sci-fi event.

- **The first phase** is a lower-cost, lower-risk entry point for getting started now.
- **The second phase** looks at how to build organizational capability around AI.
- **The third phase** is identifying big bets for using AI in core processes and functions, even if it changes workflows, to achieve the high ROI that may accompany these tools.

Plan for Approaching AI

Phase 1

4Q23 to 1Q24

Get started

Tertiary functions

Phase 2

1Q24 to 2Q24

Augment processes + build capability

Secondary functions

Phase 3

3Q 2024 +

Bigger bets/re-envision

Core functions + processes

AI Roadmap Phase 1:
Embrace, Educate and Expand

Members of your organization are already using generative AI – as you're first step, consider where they're using AI currently and how. Identify which tools you're using and what functions do you leverage AI for? Consider setting up working groups of current users to begin to extrapolate what these end-users experience and what they learned or are learning. The idea is to begin to formulate road rules for AI usage in your business.

Part of the concerns around AI have more to do with fear and a lack of change management than anything else. Your inside sales reps may wonder if AI will take their job. The C-Suite may worry about the cost. Operations managers may approach workflows with a heel-dragging "if it isn't broken," mentality. Phase one of your AI roadmap should include educating staff and the C-Suite around how you could use these tools in your business to help, not harm productivity.

This process should look at the AI software currently available and how it could be used in your organization. In an increasingly AI-driven world, we typically see distribution businesses segment tasks by:

- Tasks that can be fully automated, such as recording meetings and transcribing them or routing purchase orders.
- Tasks where AI can augment human efforts. For example, some AI software aids sales reps in identifying products customers should purchase but haven't yet.
- Tasks that are human-centric, meaning, AI cannot perform or enhance these tasks.

As tasks begin to group based on AI's potential impact, companies can begin to establish acceptable best practices for using these tools. Work with legal and the C-Suite to determine rules of use around areas of data privacy, for example, and begin to formalize how these tools will be used now and in the future.

AI Roadmap Phase 2:
Build Organizational Capacity

Phase one is to understand and establish usage cases and acceptable best practices for AI adoption. Phase two begins to build the infrastructure to support your new AI-driven business. Here are the steps:

1. **Build the Team: Technical Roles**
   Key questions include what IT roles could be upskilled in-house or hired externally. Consider the types of AI solutions and the third-party consultants who are already entrenched in the space. These vendors may be key initially to help the organization implement AI tools.

2. **Build the Team: Non-Technical Roles**
   As you develop a sense of where you'll apply AI software, turn your attention to how it will change job descriptions. One key infrastructure area will be in change management to drive AI adoption. This role could encompass new project management responsibilities for AI rollouts or possibly early adopters to help facilitate AI within an existing department or team. Who do you have available currently to support AI, who needs upskilled, and who should you hire?

3. **Create Processes**
   Challenge and invigorate your functional teams to figure out how to use AI for good. 75% of executives today say AI exceeds their expectations in areas of process improvement. Task your teams with determining how they'll use these tools to work smarter, increase productivity, and improve the bottom line.

Even AI developers say they don't know where this technology is taking us. Currently, there are a few areas where AI could have an impact on the typical distribution business:

Sales

- Prospect or opportunity identification
- Automating emailed orders
- Upselling more products with each order
- Personalizing customer outreach

Supply Chain/Pricing

- Matching product IDs from vendors
- Vendor cost updates
- Recommended pricing based on rebates
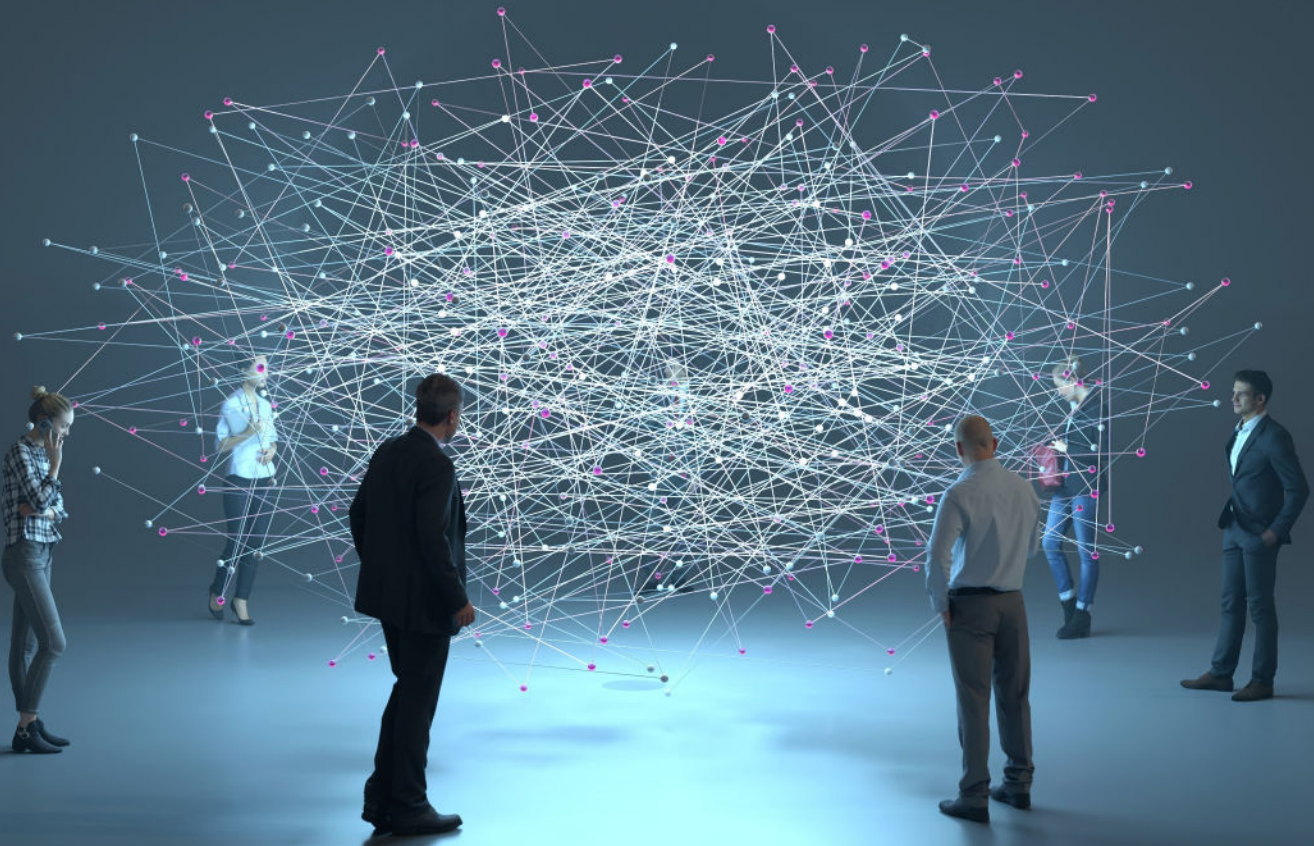- Demand forecasting

eCommerce

- Product titles and descriptions
- Product keyword attributes for better searchability

Customer Support

- Automated FAQs
- Call transcription
- Call summary
- Call scoring
- Analysis and summary

General Corporate

- Draft communications

AI Roadmap Phase 3:
Build Organizational Ability

Finally, the third phase in your AI roadmap is to systematize the infra-structure and approach toward AI adoption. This deliverable will vary by company and industry.

Accenture recently completed a study of AI's impact on specific indus-try segments. They evaluated more than 19,000 tasks in banking, software, retail, industrial and specialty chemicals for the degree of communication, reasoning and validation they required. They found:

- 24% of all evaluated tasks had a high potential for transforming with AI software.
- While other functions have more language-specific tasks, the supply chain "will still see dramatic benefits."
- Of the 43% of supply chain tasks that will transform with AI, 29% will benefit from automation and 14% will be augmented.
- In 7 of 15 supply chain occupations, generative AI could affect over half of all hours worked.
- More than 30% of the tasks studied could automate.
- Average productivity with the use of AI could increase by nearly 20%.

Next Steps for AI Adoption in Distribution

We must map the potential opportunities for your organization and their respective cost savings. Waiting to create your AI roadmap will drop the organization even further behind the adoption curve. It isn't just the fear of losing out to a competitor that should drive you. Instead, it should be the exciting possibilities for increasing profitability.

McKinsey just released a new global survey of attitudes around AI adoption. They found one-third of survey respondents use AI regularly now — just a year after the launch of the first generative AI tools. However, the firm predicts manufacturers will have less of a disruptive impact from AI over some other industries like IT, banking, and big pharma. The survey also showed among AI high performers, twice as many adopters see significant opportunities to create new business revenue from these tools. At the same time, they found that "few companies seem fully prepared for the widespread use of gen AI — or the business risks these tools may bring."

AI is ushering us into a new era of risks and responsibilities. One thing is certain — how your company prepares now will set you up for the disruption that is sure to follow.

About the Author

Brooks Hamilton is the founder of Hamilton AI Strategy Advisors, which helps large enterprises build and implement AI strategies. With a deep understanding of both AI technology and business operations, his company is positioned to help organizations navigate the rapidly evolving AI landscape. Previously, Brooks held executive positions at Zilliant, where he worked with dozens of leading distributors to design and deploy AI sales, pricing, and revenue management applications.

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