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Two Ways AI Will Fundamentally Reshape Enterprise SaaS

From tech stack to team composition, AI-first companies marks a break from traditional SaaS.



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Technological evolutions are like biological evolutions — with each iteration of evolution, new species are born out of mutation and natural selection and old species die out due to their inability to adjust. However, just like biological evolutions, technological evolutions are complex and sometimes beyond our comprehension and imagination.

The evolution of software powered by AI and large language models (LLMs) is a prime example. As human researchers feed AI models massive amounts of data and compute, the models get significantly better and sometimes display "emergent capabilities" that surprise even their creators. The same goes for AI-powered products — as the underlying models become more

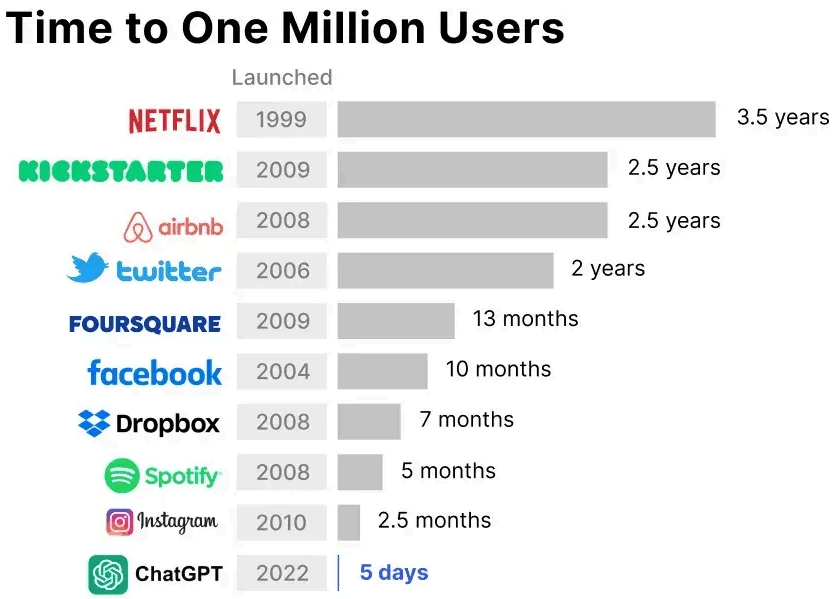
intelligent, the products and companies they power undergo transformative changes that often defy conventional expectations.

When unveiled our thesis on backing "AI-first companies" back in 2020, we described the unique traits of this new species that are fundamentally different from traditional SaaS companies. Most notably, powered by a new ML/LLM tech stack, **AI-first companies are 10x more capital efficient and can deliver a 10x stronger value proposition enough to skip long sales cycles**.

What does this mean for the evolution of enterprise SaaS? And how will AI evolve to shape the future of software? In this blogpost, we will build on our earlier thesis about investing in AI-first companies and lay out our predictions about the two ways that AI will fundamentally transform enterprise SaaS. [1]

The Speed of AI-First Companies

A product has to be 10x better than its predecessor to be adopted quickly. Just like the killer apps in the mobile era (e.g., Uber and Snapchat), the AI-era's first killer app — ChatGPT — also has a value proposition that is 10x stronger than its traditional SaaS predecessors (research and editing tools). In fact, it introduced functionalities that were impressive in the previous age. That's why ChatGPT was able to hit 1 million users in merely 5 days, while it traditional apps months, if not years to reach the same level of distribution.



*Source: Statista (2022), Visualization: Leonis Capital.

There are two implications from AI-first companies' stronger value proposition. First, **the obvious value proposition will shorten the traditional lengthly enterprise sales process** while achieving the same, if not more annual contract value (ACV). We have seen this in many of our portfolio companies, such as Motion, an AI-powered project manager, which has shown impressive revenue growth in a short period of time. Second, **when AI-first companies hit product-market fit (PMF), their top-line revenue surges become much bigger than traditional SaaS**.[2] The combination of these two factors indicate that AI will bring about a much faster and larger scale transformation that enterprise SaaS has ever seen.

We are still in the early days of AI's multi-decade transformation of our society. ChatGPT is a good preview of what these new "AI-first species" can do. Just like Uber did not come from incumbent taxi companies, **the best AI-first products are not going to come from traditional enterprise SaaS companies**. Instead, iconic AI-first enterprise SaaS companies will emerge from the LLM revolution.

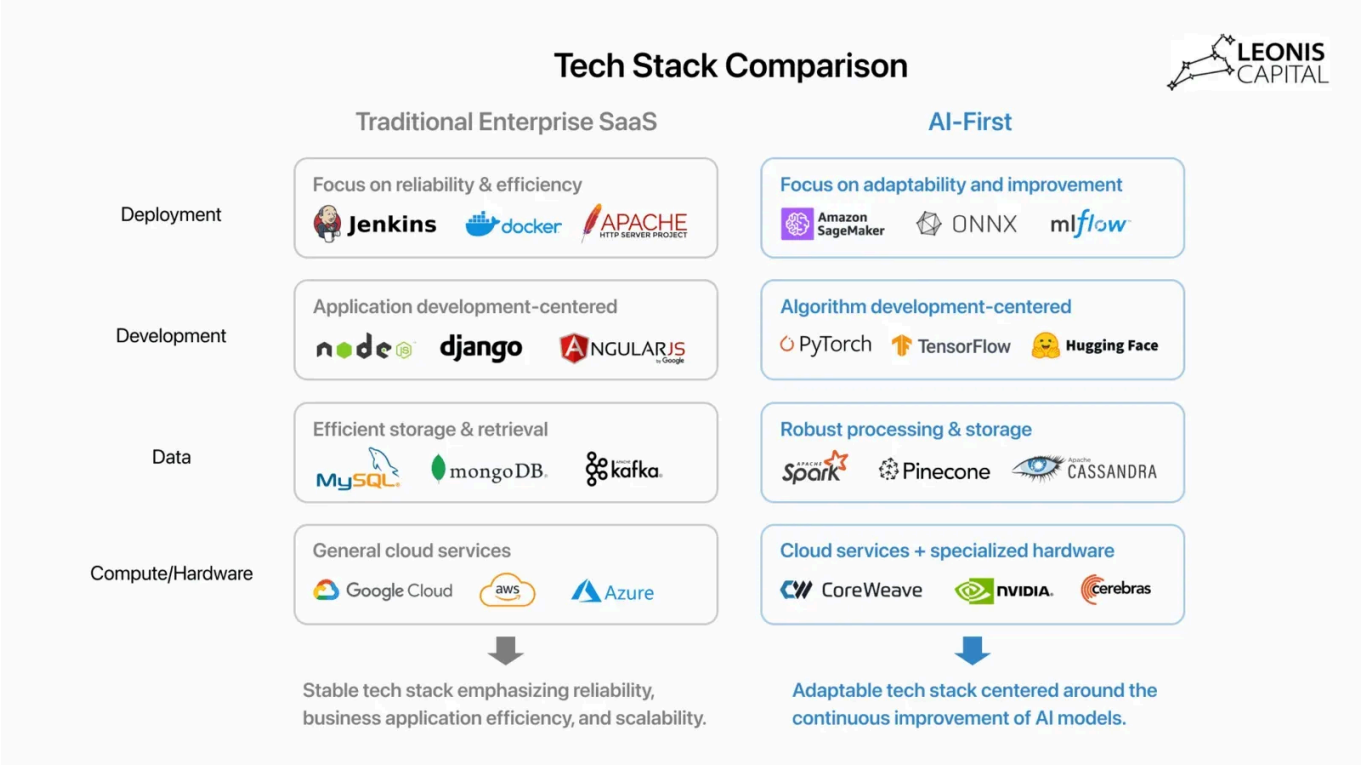
AI-First Companies vs. Traditional Enterprise SaaS

How are AI-first companies different? Can't existing enterprises add AI features to their products? These are some questions that we get asked frequently at Leonis Capital.

Having invested in both tradition enterprise SaaS companies ten years ago and AI-first companies in the last two years, we realized that **these two types of companies are different in at least two ways: their tech stack and their team composition**.

Tech Stack: Software's DNA

AI-first companies run on an significantly different tech stack compared with traditional enterprise SaaS companies. **The AI-first tech stack is centered around the continuous integration and continuous deployment (CI/CD) of AI models.** Every part of the tech stack is designed to be nimble so that the company can process large amounts of data, continuously update their models with new data, integrate new open-source models developed by academic labs, and adopt new training and deployment methods.



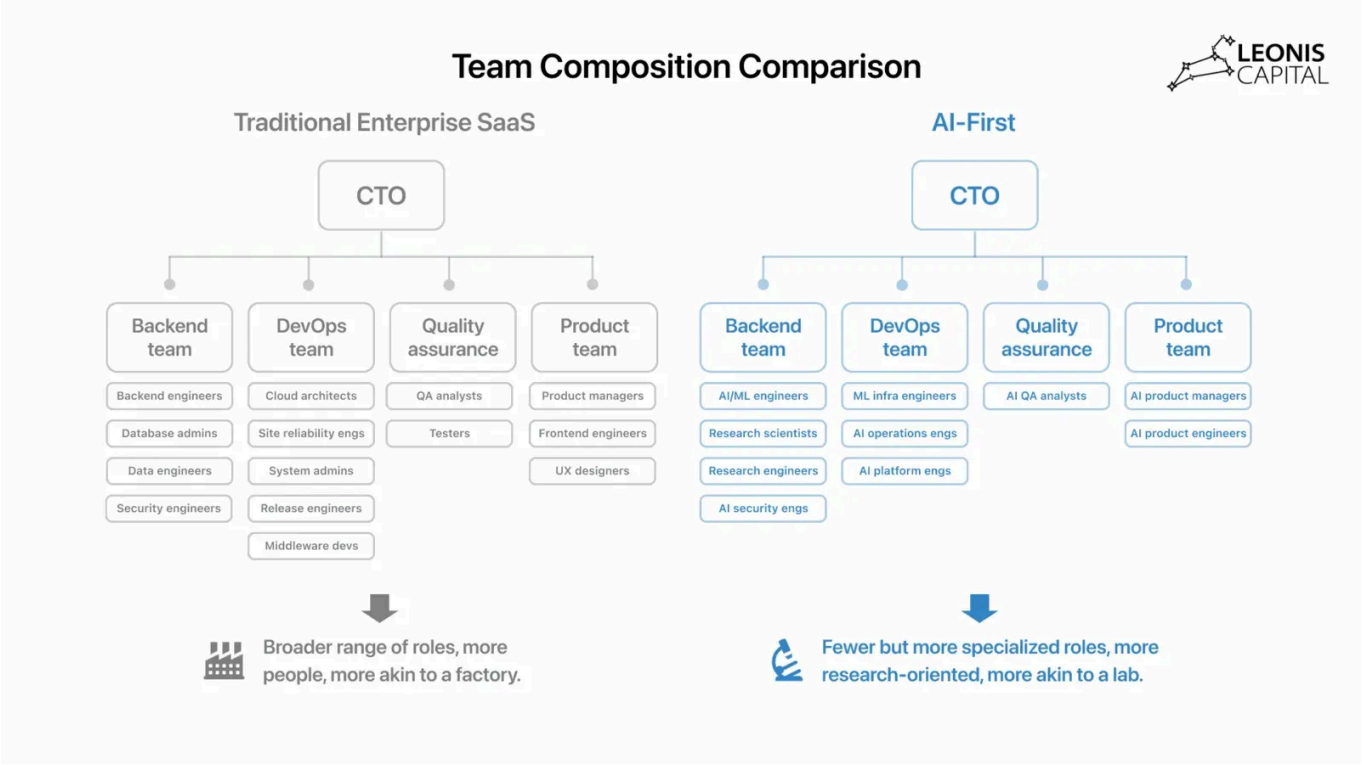
In contrast, traditional enterprise SaaS often operates on a stable tech stack that emphasizes reliability, efficiency, and scalability instead of adaptability. These companies often operate on legacy systems and infrastructure that's incompatible with AI.

For example, a legacy enterprise CRM company might face at least four issues when trying to develop AI features:

1. **Lack of real-time data processing:** AI applications require real-time or near-real-time data processing. Legacy systems are often optimized for batch processing and may not offer the speed needed for real-time insight analysis or recommender systems.
2. **Limited integrations:** Legacy systems may lack the necessary connectors to integrate seamlessly with modern AI platforms. This can make it difficult to pull data from the CRM into AI models and push AI-generated insights back into the CRM.
3. **Insufficient unstructured data handling:** AI models benefit from large amounts of unstructured data, such as customer email interactions, social media, and customer support chat logs. Traditional CRMs are not equipped to handle and store such unstructured data efficiently.
4. **Insufficient data granularity:** AI models require fine-grained data for training and inference. But traditional CRMs might not have the data needed to capture nuanced customer behaviors and preferences. For example, sentiment analysis, which is crucial for understanding customer satisfaction, is challenging without more detailed data.

Team Composition: Software Company's DNA

In addition to the incompatibility in tech stacks, traditional enterprise SaaS do not have the team to build top-tier AI products. [3] **AI-first companies have a very different team composition.** With a focus on specialized roles in AI/ML, AI-first companies operate with leaner teams, thanks to scalable models and efficient tech stacks. This contrasts with the broader range of roles in traditional enterprise SaaS and more personnel for legacy tech stack maintenance, sales, and customization.



AI-first companies often have much fewer headcount than traditional enterprise SaaS companies. Fewer engineers are needed because the model is highly scalable and is built on a more efficient modern tech stack. Fewer sales and marketing personnel because of the strong value proposition of the product. And less customization is needed per customer because the AI system can naturally accommodate different needs.

An AI-first company operates more like a research lab where a small number of experts with specialized skills collaborate to build highly scalable systems. The nature of work is much more exploratory and research-oriented.

In contrast, traditional enterprise SaaS teams require many more people to maintain a legacy tech stack, conduct sales, and offer customization. **Traditional SaaS companies operate like**

factories where a larger number of people are required to keep the business running. The nature of the work is also more deterministic, as the underlying technology remains constant.

Another thing that we observe is that AI-first companies' teams are more nimble because they adopt the latest AI tools to amplify their own productivity. Many of our portfolio companies have demonstrated the ability to scale revenue quickly without significantly adding headcount — largely thanks to their adoption of AI tools.

Predicting What's Next in the AI Evolution

Similar to how a biologist studies the dynamics of natural evolution, at Leonis Capital, we take a long-term viewpoint on looking at how AI will shape our society. Our observations and predictions influence how we spend time as a firm conducting research and investing in enterprise SaaS.

Envisioning the next decade, we anticipate three transformative stages in SaaS evolution driven by breakthroughs in AI technologies.

Stage One (2020-2023): AI permeates SaaS, with AI-first startups taking market share from traditional SaaS companies. This is the foundational thesis of Leonis Fund I (vintage 2021). Since we published this thesis back in 2020, we have seen AI-first startups take market share from traditional SaaS companies founded decades ago. Despite trying to incorporate AI features, these incumbents can't act fast enough to defend their markets and face the threat of becoming obsolete. For example, it's not hard to imagine customers would expect the next generation of AI-first CRM solution to be more than Salesforce + ChatGPT.

In this wave, we have seen many opportunities to invest in the AI-first equivalent of enterprise SaaS companies. In our Fund I, we have backed Motion (AI-first Monday.com), Kubit.ai (AI-first Amplitude), and Layup (AI-first Zapier). As investors, we want to understand how AI can make a 10x better product and create extra capital efficiency. We have already seen this in many of our portfolio companies. We believe that these AI-first companies will eventually be rewarded by the public market with higher multiples than traditional SaaS because of their higher growth rate and higher degree of capital efficiency.

Stage Two (2023-2027): AI-agent based companies emerge, tackling specific domains. AI models will not only summarize information but also take action on behalf of human users. This is a step-up in the evolution of AI-first companies but AI still requires structured context to perform well. This is why AI agents will first be adopted in specific domains like finance and legal tech. Once the technology becomes more mature with more guardrails and less room for error, agents will be adopted in more regulated domains like healthcare. The value proposition of stage two AI-first companies will be another 10x more pronounced than the previous generation of copilots

and chatbots. The strong value proposition will propel these large but slow-moving industries to adopt new technologies and unleash their value creation.

Stage Three (2027 and beyond): AI-first companies enter the age of AGI, automating a significant portion of white-collar work. Most (>80%) of white collar work will be automated by AI and most non-AI software companies will be rendered irrelevant. This is an entirely different world — software is no longer just a tool but an integral part of human teams. They work *with* humans and not just *for* humans to create value and free up human workers time to do only the most creative part of their job.

The specifics of the second and third stage are speculative, yet the transformative potential of AI and AGI are unlimited. We have already started to research and support founders building AI agent-driven products that will become the next phase of enterprise software.

Call for Founders

At Leonis Capital, our long-term perspective on AI's role in society informs our research and investments. The current AI-first revolution offers a glimpse into the transformative potential ahead.

FOOTNOTES

1. In future blog posts, we will offer our thesis on investing in other areas of AI, including developer tools and specific verticals like healthcare and fintech.
2. Another implication here is that when AI-first companies reach PMF, their valuation will increase tremendously. This is because larger funds will want to invest in things that are obviously working. As a result of the capital influx, the company's upside is priced in and capital becomes commoditized. However, the real value creation and the highest alpha return opportunities exist at the pre-seed and seed stages, before these companies hit PMF.
3. So why can't traditional enterprise SaaS companies just evolve to become an AI-first species? Anyone who believes that an enterprise can just "buy" top-tier AI talent should look no further than at Marc Benioff, the Salesforce CEO who offered to "match compensation" to any OpenAI employee who would leave the company and join Salesforce instead. Even at the height of the drama at OpenAI, no one took Benioff's offer too seriously. AI researchers and engineers want to work for AI-first companies that share their culture, background, and vision. Money is not all you need.