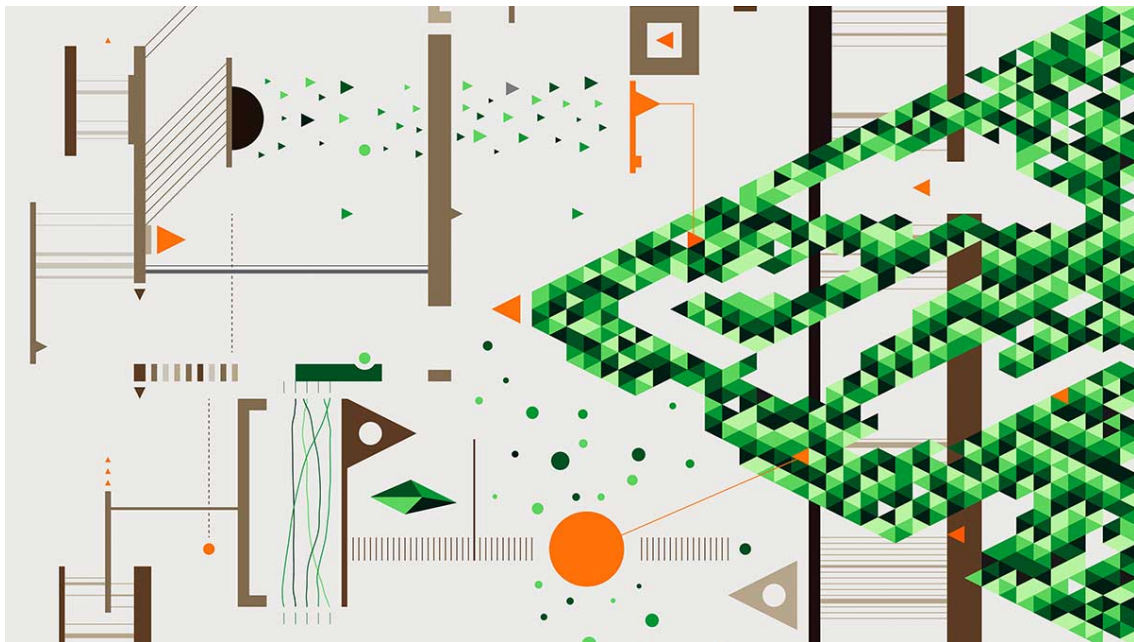


Leadership

Hiring Your First Chief AI Officer

by Andrew Ng

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A hundred years ago electricity transformed countless industries; 20 years ago the internet did, too. Artificial intelligence is about to do the same. To take advantage, companies need to understand what AI can do and how it relates to their strategies. But how should you organize your leadership team to best prepare for this coming disruption? Follow history.

A hundred years ago, electricity was really complicated. You had to choose between AC and DC power, different voltages, different levels of reliability, pricing, and so on. And it was hard to figure out how to use electricity: Should you focus on building electric lights? Or replace your gas turbine with an electric motor? Thus many companies hired a VP of Electricity to help them organize their efforts and make sure each function within the company was considering electricity for its own purposes or its products. As electricity matured, the role went away.

Recently, with the evolution of IT and the internet, we saw the rise of CIOs to help companies organize their information. As IT matures, it is increasingly becoming the CEO's role to develop their companies' internet strategy. Indeed, many S&P 500 companies wish they had developed their internet strategy earlier. Those that did now have an advantage. Five years from now, we will be saying the same about AI strategy.

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AI is still immature and evolving quickly, so it is unreasonable to expect everyone in the C-suite to understand it completely. But if your industry generates a large amount of data, there is a good chance that AI can be used to

transform that data into value. To the majority of companies that have data but lack deep AI knowledge, I recommend hiring a chief AI officer or a VP of AI. (Some chief data officers and forward-thinking CIOs are effectively taking on this role.)

The benefit of a chief AI officer is having someone who can make sure AI gets applied across silos. Most companies have naturally developed siloed functions in order to specialize and become more efficient. For the sake of argument, let's say your company has a gift card division. There is a reasonable chance that AI could make the selling and processing of gift cards much better. If the team has the expertise to attract and deploy AI talent, by all means let them do so! However, in

most cases, that's unrealistic. Because AI talent is extremely scarce right now, it is unlikely that they will attract top talent to work on gift cards at the division level.

A dedicated AI team has a higher chance of attracting AI talent and maintaining standards than a single gift card division does — and anyway the new talent can be matrixed into the other business units in order to support them. But the dedicated team needs leadership, and I am seeing more companies hire senior AI leaders to build up AI teams across functions.

Hiring the right AI leader can dramatically increase your odds of success, but only if you pick the right person. Here are some traits I recommend you look for in a chief AI officer or a VP of AI, based on my experience in leading and nurturing some of the most successful AI teams at Google, Stanford, and Baidu:

- **Good technical understanding of AI and data infrastructure.** For example, they should ideally have built and shipped nontrivial machine learning systems. In the AI era, data infrastructure — how you organize your company's databases and make sure all the relevant data is stored securely and accessibly — is important, though data infrastructure skills are arguably more common.
- **Ability to work cross-functionally.** AI itself is not a product or a business. Rather, it is a foundational technology that can help existing lines of business and create new products or lines of business. The ability to understand and work with diverse business units or functional teams is therefore critical.
- **Strong intrapreneurial skills.** AI creates opportunities to build new products, from self-driving cars to speakers you can talk to, that just a few years ago would not have been economical — or might even have been in the realm of science fiction. A leader who can manage intrapreneurial initiatives will increase your odds of successfully creating such innovations for your industry.
- **Ability to attract and retain AI talent.** This talent is highly sought after. Among new college graduates, I see a clear difference in the salaries of students who specialized in AI. A good chief AI

officer needs to know how to retain talent, for instance by emphasizing interesting projects and offering team members the chance to continue to build their skill set.

An effective chief AI officer should have experience managing AI teams. With AI evolving rapidly, they will need to keep up with changes, but it is less important that they be on the bleeding edge of AI (though this helps attract talent). What's more important is that they can work cross-functionally and have the business skills to figure out how to adapt existing AI tools to your enterprise.

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