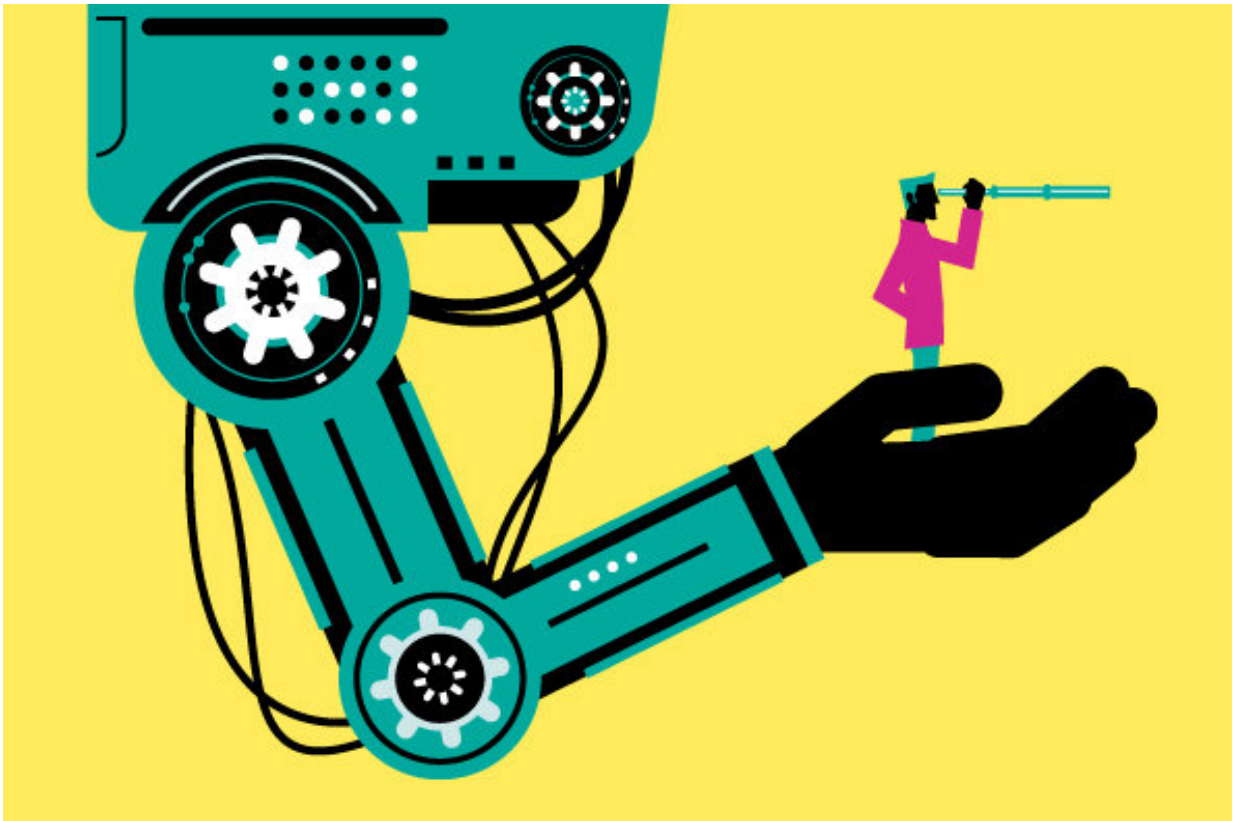


How artificial intelligence is reimagining work

May 15 2018, by Brian Eastwood



Credit: MIT Sloan School of Management

Paul Daugherty, chief technology and innovation officer at Accenture, sees three myths surrounding artificial intelligence: Robots are coming for us, machines will take our jobs, and current approaches to business

processes will still apply.

The three myths represent "conventional changes to linear processes," he said. The reality is more transformative. An example: Newark, New Jersey-based AeroFarms grows seeds indoors without soil or sunlight. Seeds are harvested in less than three weeks and the process requires 95 percent less water than conventional farming methods.

AI plays a key role, Daugherty said. AeroFarms' scientists monitor 130,000 data points, analyzing everything from light sensitivity to nutrient absorption.

"How do we get the conventional mindset [of AI] from beating Go to reimagining business?" he said. "That's what we like to think about."

Along with H. James Wilson, who leads Accenture's information technology and business research, Daugherty co-wrote the book "[Human + Machine: Reimagining Work in the Age of AI](#)." The pair spoke May 9 in Simon Johnson and Jonathan Ruane's Global Business of AI and Robotics class at MIT Sloan.

Here's what will be new as [artificial intelligence](#) helps us reimagine work.

New executive, management roles

The increased use of AI for day-to-day business operations will force enterprises to create new executive and management roles, the authors said.

First and foremost is a chief AI officer, Daugherty said. This person will understand and manage an organization's data and ensure that AI is used responsibly. The role will merge the skill sets of the chief information

officer and the human resources manager, requiring a leader who is comfortable introducing people into a process that is heavily dependent on technology.

Meanwhile, new [management roles](#) will focus on the use of data, though they will not necessarily be traditional STEM—science, technology, engineering, and math—roles, Wilson said. A data compliance officer will help a company make ethical decisions about how data is used, he said, while an algorithm forensic analyst will explain the data models to internal and external stakeholders.

However, as with previous technology trends—client/server, internet, cloud, mobile, cybersecurity, and so on—AI will be so firmly integrated into the business that it will be a priority for all executives. "What we learned from digital transformation is that it requires CEO and board-level sponsorship," Daugherty said.

New concerns about responsibility

Executives managing AI must ensure the validity of the data sets that AI systems use, the authors said. The MIT Media Lab's Algorithmic Justice League has demonstrated that biased data sets can lead to biased results, whether companies realize it or not.

"You need data custodians and stewards, algorithm evaluators, to make sure they don't amplify biases that were inherent in the data," Daugherty said.

In addition, executives must apply their own intuition when an AI system recommends a course of action. Uber is under investigation in Massachusetts for keeping surge pricing in place during a state of emergency in March 2018. An algorithm may say that is a good idea, but a machine is not accountable for a company's business decisions,

Daugherty said.

"I tell executives, it's going to be you in front of Congress if you don't pay attention to these types of issues," he said.

New approach to work

Reimagining work is more than automating processes that humans currently do, the authors said. Even Elon Musk recently admitted that there is such a thing as too much automation. Instead, Daugherty said, companies should develop a type of "collaborative intelligence" where humans help machines just as much as machines help humans.

Five characteristics define a process that can be reimagined, Wilson said: Flexibility, speed, scale, decision making, and personalization.

After realizing that even a multinational firm does not have enough recruiters, Unilever has automated the first two rounds of its interview process, he said. AI can do the initial vetting and sorting of candidates, which shortens the timeline and also allows Unilever to draw candidates from a larger, more diverse pool.

"This frees up recruiters to focus on the more important, later rounds of interviews, where the recruiters' social acumen and feel for whether a candidate is a good fit is so important," Wilson said.

New front-line skills

Unilever's recruiters are just one set of workers who will have redefined roles as enterprises adopt AI. Accenture automated the process of loan and mortgage claims verification, then transitioned the operations staff that had previously verified claims into a role where they analyzed

claims, Daugherty said.

The authors take this issue of "mid-career re-skilling" seriously. Royalties from sales of "Human + Machine" will be donated to organizations such as Skillful that help train workers for jobs in a digital economy. One key focus is developing soft skills such as problem solving and analysis, which allow workers to do more than basic data entry.

"There's a lot of human labor that goes into making algorithms work effectively," Wilson said. "How can we upskill them to do more sophisticated AI tasks, making their jobs more interesting, so it's not a hidden form of global labor?"

Provided by MIT Sloan School of Management

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