

AI Technology and the Critical Role People Will Play in Driving AI Forward

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In this special guest feature, Mark Sears, Founder and CEO at [CloudFactory](#), provides a few ways people are involved in making AI-powered systems work better, faster and more accurately. After doing tech startups in Canada and the US for about 10 years, Mark is driven daily by his passion for technology, business and people. Mark lived in Durham, NC the last 3 years to help grow sales and marketing and now is building out CloudFactory's global HQ in Reading, UK. He started his career as a software developer with Sun Microsystems before finding his groove in the world of startups. Moving into technology evangelism and product management roles he helped a 5 person startup grow to 130 employees across 4 international offices after raising \$48 million in venture capital. Mark then raised angel investment, launched and managed his own startup company for 6 years before coming to Nepal and starting the CloudFactory adventure.



The cacophony around AI is deafening. While at this point it might be more smoke than fire, there's agreement that AI is closer to reality than ever, and tech disruptors are racing to deliver the next big breakthrough. Whether or not these developments lead to a robot revolution, the truth is that for AI to reach its potential and deliver the innovation everyone expects, it's going to require a lot more than many realize. Most of all, it's going to require people.

Think of AI's development in terms of making a movie. Most people tend to think of movies in terms of actors and story, and these are usually the first things we praise when we see a good one. But when the closing credits come up, we realize just how many people it takes to bring the finished product to the big screen. And in the same way great movies need smart people managing a variety of processes—from costumes and makeup to cinematography and film editing—AI needs skilled humans working hard behind the scenes to bring complex visions to life.

Here are a just a few ways people are involved in making AI-powered systems work better, faster and more accurately:

- **Powering the Autonomous Vehicle** – Companies employ people to draw bounding boxes around cars, trees, pedestrians and other common items in video footage taken

from test vehicles. Companies developing self-driving vehicles use the data to train computer vision software.

- **Boosting Retail Intelligence** – Workers tag images for predictive analytics engines that produce real-time recommendations for product placement, pricing and promotions. These systems allow retail intelligence companies to tag images for retailers that give them visibility into how their products are being stocked and displayed on shelves.
- **Language Processing** – Workers prepare data that will teach natural language processing (NLP) algorithms through a process of repeated trial and error. Technology security companies use people power to create NLP systems that allow companies to enhance their competitive advantages and mitigate risks.

Like rehearsals for a performance, it can be arduous and time-consuming to train AI, but it's essential to the success of the project. In a process data scientists often call "data wrangling," for example, people spend countless hours cleaning and combining data sets for AI systems to operate accurately and optimally. It can take hundreds of hours to label images, frame by frame, to transform a single hour of video (unstructured data) into useful, structured data that can "teach" a machine how to drive a car

A few years ago, [NY Times reporter Steve Lohr](#) shared insights on how much time data workers spend in the tactical data gathering and organizing processes. Based on interviews and expert estimates, Lohr reported that data scientists "spend from 50 percent to 80 percent of their time mired in this more mundane labor of collecting and preparing unruly digital data, before it can be explored for useful nuggets."

Advances in AI and other disruptive technologies don't just happen. They take well-trained, tech-savvy people who can process massive amounts of data quickly and accurately to help companies get solutions to market, or scale a critical data process fast.

As developments in AI, machine learning and automation become more sophisticated, their effects will continue to grow, creating new opportunities and solving painful business problems across a variety of industries. Looking ahead, companies may need to examine the tools they use and how they strategically deploy people in their tech-and-human stacks. Because as the curtains rise on future AI innovations that are sure to dominate headlines, it will be the hard work of people behind the scenes that makes it all possible.

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