

## Augmenting Human Intelligence

As technology has progressed through the centuries, more and more tasks have been automated—that is, more work that previously was performed by humans is now being performed by machines. We've had such success in this endeavor that we often take it for granted, but automation is not a given. Innovation requires a thorough understanding of the task, how it is currently performed by a human, and how a machine could perform it, if possible.

The way humans and machines do work is very different. Machines are good at repeating operations a truly astounding number of times, while humans are good at solving novel problems. Machines can handle complicated tasks, but they must be designed to do so by a human (for now at least). In situations where there can be a wide variety of unpredictable challenges, it is simply not possible to design for them all.

So, by and large, jobs where the tasks are predictable can be automated, like fabricating and assembling automobiles, and jobs where the tasks are unpredictable cannot be automated, like performing exploratory surgery or training horses. Does this mean that technology has nothing to offer the surgeon, horse trainer or customer service rep? Of course not! Rather than attempting to design for every possible situation, if we design machines that are appropriate for a majority of the situations a worker will face, we will greatly improve their productivity, while relying on the abilities of the individual to handle the unforeseen. Luckily, there's a word for such a machine, intended for use by humans: a tool.

At Sensentia, this ancient understanding of the relationship between humans and machines is what directs our innovation. Our technology is developed not to replace humans, but to help them perform even better, by giving them the best possible tools for the job.

### About the Author

Nick Farmer is a manager of the Knowledge Engineering team at Sensentia. Nick's background in linguistics serves as a foundation for programming and natural language inquiries. In his spare time he can be found restoring his Edwardian era home or creating constructed languages for popular science fiction TV shows such as Star Trek and The Expanse.