AI and e-commerce—a perfect storm for retail jobs

April 25 2017, by Greg Katski

Credit: Missouri University of Science and Technology

If you work in retail sales, it might be time to explore a new career, according to a Missouri S&T researcher.

Dr. Keng Siau, chair and professor of business and information technology, writes in a new research paper that the problem for retail salespeople is two-fold.

Online retailers like Amazon are "crushing" brick-and-mortar department stores in terms of sales, Siau writes, and these online retailers are replacing their retail salespeople with "AI, robotics, and machine learning," or, as Siau has taken to calling them, "salesmachines."

"In a face-to-face environment, people may still prefer to interact with another human," says Siau. "In a virtual environment or a non-face-to-face context, people could not care less about who or what is on the other end of the line or responding to online queries."

Among other advantages over humans in the online retail market, salesmachines can be programmed to use "Segment-of-One Marketing" to track and understand individual customer behavior, according to Siau.

"That will enable customizing the product and personalizing the service to the individual customer," says Siau. "As robots gain more intelligence and have access to vast amounts of customers' data, they can process the data much faster than humans and will be able to serve every single shopper in a personalized way. Humans may become replaceable."

Siau doesn't expect every retail salesperson to be replaced overnight, but he does expect that many salespeople will be replaceable eventually.

"In the beginning, both can supplement and complement one another," Siau says. "As AI gets more advanced and achieves super intelligence, humans will become redundant."

So what can salespeople do about the impending doom of their industry? Siau recommends that they focus on what salesmachines can't easily

replicate in people – such as a unique personality, unlimited creativity and a sharp wit.

"In short, marketers and salespeople need to do what robots are not capable of," says Siau. But, he warns, "The limitations of robots, fortunately or unfortunately, will reduce overtime."

Siau and co-author Yin (Sara) Yang, a Missouri S&T graduate student in information science and technology, will present the paper, titled "Impact of Artificial Intelligence, Robotics, and Machine Learning on Sales and Marketing," at the 12th Annual Midwest Association for Information Systems Conference in Springfield, Illinois, on May 18-19.

Provided by Missouri University of Science and Technology