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Ahoy! Crewless Ships are Just Over the Horizon

by Neal Leavitt

Arghhh! To use some parlance from any of the 'Pirates of the Caribbean' movies, in the next few years, that's how some naysayers may react once they see crewless ships on the high seas. While they won't be ghost ships like the Black Pearl that was captained by both Jack Sparrow and Hector Barbossa, initially it may seem unnerving to watch giant super tankers sail into a port without captain or crew in sight.

Pirates and ghost ships aside, crewless ships are viewed by many as the future of shipping. Adam Minter, writing in *Insurance Journal*, said that the U.S. Coast Guard estimates that human error accounts for a whopping 96 percent of all marine casualties. And crews in certain regions of the world are still vulnerable to piracy.

Going crewless can also significantly reduce shipping costs; e.g., sailors by some estimates accounts for 44 percent of a ship's costs. Minter added that crew quarters, air-conditioning units, and a bridge (requiring heavy ballast for balance) also take up valuable space that could be used for cargo.

"And that dead weight contributes to a bigger problem," said Minter. "Maritime shipping accounts for about 2.5 percent of global greenhouse gas emissions. Barring a radical change, those emissions are set to surge in the decades ahead."

Meanwhile, next year the $25 million Norwegian-built Yara Birkeland is expected to launch and become the world's first crewless, automated ship. It will utilize GPS, sensors, camera and radar to navigate and will be fully autonomous by 2020. Initially the ship will transport fertilizer 37 miles down a fjord from a production facility to the port of Larvik, Norway. And the vessel is expected to reduce air pollutants by removing up to 40,000 truck journeys in populated urban areas.

The world's largest mining company, BHP Billiton Ltd., is also studying introducing giant automated cargo ships.

"Safe and efficient autonomous vessels carrying BHP cargo, powered by BHP gas, is our vision for the future of dry bulk shipping," said VP of Freight Rashpal Bhatti. BHP currently charters about 1,500 yearly voyages encompassing 250,000,000 metric tons of coper, coal and iron ore.

Rolls Royce Holding PLC is also investing in autonomous shipping technology with plans to launch robotic ships by 2020. *The Wall Street Journal* recently reported that the first vessels will probably be tugboats and ferries. Rolls Royce estimates it will be able to cut sea transport costs by about 20 percent.

There are other significant issues that will affect widespread adoption. Cybersecurity is an increasingly important part of maritime risk management, and while there haven't been many recorded maritime cyberattacks, it's not 'if' but 'when' a more serious attack

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AI Helping Marketers Better Engage Customers

Tuesday, Apr 25, 2017

BLOG POST Artificial intelligence (AI), to use a hackneyed term, is already causing a paradigm shift for marketers. AI, in brief, is helping brands to rapidly collaborate with and learn from online followers. And while there probably exists many a Luddite that deems AI a pervasive jobs threat, the flip side is that it may be a golden opportunity to let the machines do mundane stuff like customer support, enabling humans to become more creative.

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Friday, Feb 3, 2017

BLOG POST Marketers can learn a thing or two from our furry (and scaly for those who may own reptiles, snakes, other creepy-crawlers) friends. While the fast-growing $61 billion a year pet product industry is wooing new consumers with disruptive marketing campaigns, e-Commerce and digital marketing to pet owners is still the new frontier. According to Annalect, a New York City-based data

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will occur.

"Increased automation will make shipping more efficient, but will also leave the industry increasingly vulnerable to cyber-criminals," said Joseph Carson, head of cybersecurity at ESC Global Security in Estonia. "Critical systems could be prevented from functioning, resulting in collision, pollution and environmental damage, and possibly ships being redirected. Ship and cargo hijacking is a possibility."

Added Dr. Robert Oates, a product cybersecurity specialist with Rolls Royce, "autonomy means more software, more functionality, more sensors and more intelligent nodes sitting on the network. This means more potential routes for infection."

Lastly, maritime insurers will need to figure out how to properly cover a crewless ship for risks at sea. Sam Woolerson, a London-based senior partner at JLT Specialty Ltd., said a vessel being operated remotely from onshore "will bring unique challenges in developing a fully automated complex key component for the supply chain, some of which include pirates, a fire at sea and the time involved to reach the ship if a computer malfunctions."

Granted, these are all considerable obstacles but ultimately autonomous ships will change the way maritime transport systems are designed and operated.

For the maritime shipping industry, that centuries old command, "all hands on deck" may morph into an entirely new meaning – fingers on a tablet, joystick or keyboard!

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