—

The people are ready – but is the industry?

As society rushes to surf the surging waves of connectivity that are changing the way we live and work, many shipowners seem content to let their crew ride the gentle swells further out at sea, removed from the revolution taking place on shore.

"Only around 50 per cent of seafarers have access to the Internet onboard," says David Appleton of Nautilus International, "and when they do it is often poor quality, and then they have to pay through the nose for it."

Does this sound like a recipe for attracting the next generation of seafarers to the next generation of shipping? Appleton is Professional and Technical Officer with Nautilus, a global crewing company operating out of London, and his reply is a resounding 'No!'

—

Only around 50 per cent of seafarers have access to the Internet onboard, and when they do it is often poor quality, and then they have to pay through the nose for it.

"I remember when the e-mail server on the ship was turned on once a day, and all e-mails went through the captain," he recalls. "In 2017, the youngest of those leaving school and embarking on their careers at sea will have been born in 2001. These young men and women literally do not know a world without the smartphone, Facebook, Twitter or Instagram. They are not only used to being connected 24/7, but they demand it."

This might sound like the echo of a youthful lament from connected millennials, but put up against the reality of crewing in the 4th industrial revolution, it becomes one of the major issues facing shipping and crewing companies today, and into the future.

"The current and predicted shortage of officers to meet demand is a well-known issue, but not one that is going away anytime soon," says Appleton. According to the latest BIMCO/ICS manpower report there is currently a shortage of some 16,500 officers, predicted to rise to 92,000 by 2020 and to 147,500 by 2025.

"Far and away the biggest challenge today is ensuring that there is a ready supply of seafarers to meet demand and, more importantly, ensuring that those seafarers are competent and appropriately trained to operate modern ships," Appleton maintains.

These challenges can only increase in the future as technology changes the way work is carried out on board, he says, and the way we live our everyday lives, all of which will have a dramatic effect on the expectations of prospective new entrants to the industry.

"This is the crux of the issue," he says. "It is not that ships will not sail. It is that standards will fall across the board, and therefore risk will be greatly increased."

—
David Appleton,
Professional and
Technical Officer,
Nautilus International

Now, back to those connected millennials: by not keeping them happy, shipowners may in fact be increasing the risk of accidents at sea. Doesn't sound so superficial when you put it that way.

You get what you pay for
Then there's the issue of 'pay for play'. Shipping can be noisy, dirty, vulnerable to economic unrest, and with long periods away from home, friends and family. "People want to sail, but it needs to be made worth their while," says Appleton.

The root of the problem, he says is a well-known symptom of shipping: "Shipowners always can find something cheaper. In fact, many shipping companies are not sure just what they want. Any cost drivers are resisted, yet they still complain of lack of qualified new officers."

Exaggerating the problem is the fact that training is often slow to catch up with the fastest-moving technological developments in shipping. With more technology onboard, a different skill set is required. Some companies are advancing fast to meet these challenges, while others are still keeping a slower pace – more typical of shipping, at least historically.

Keeping up, keeping safe
In this way, the impact of digitalisation and connectivity on safety at sea as it relates to training can be even more dramatic than the impact on recruiting and crew welfare.

Statistics show that maritime safety in general has improved, but there are still too many accidents, says Appleton. "90 per cent of accidents are caused by human error. Only this year has Electronic Chart Display and Information System (ECDIS) training become mandatory, after the system's first approval in 1995," he reports.

—

Far and away the biggest challenge today is ensuring that there is a ready supply of seafarers to meet demand and, more importantly, ensuring that those seafarers are competent and appropriately trained to operate modern ships.

"In these cases, the IMO can be excruciatingly slow. It has taken nigh on 22 years for it to be made mandatory that a navigation officer has had some kind of training in the use of what is in most instances the primary means of navigation,"

Appleton explains. "As usual, the changes only came about as a result of numerous accidents attributed to incorrect use of the equipment."

With more and more technology coming aboard, suppliers are looking at ways to make it easier to use, including improved displays to ease operations, augmented reality, and shore connectivity.

Virtual reality and advanced simulator training represent a big boost in training capabilities, and they are becoming more and more common, Appleton observes. "Now you can take a theoretical discussion and convert it into a realistic scenario for training."

Joining the more cautious observers of the onrushing digital future of shipping, Appleton has his reservations about the highest of ambitions: autonomous shipping.

"Autonomous basically represents a risk. In order for it to be feasible, it will have to be not just profitable, but practical. Right now it is easy to place responsibility on a ship. But interaction from shore can actually add risk, with the possibility of interference or unclear responsibilities. Until these uncertainties are resolved, the legal responsibility will remain unchanged: the Master is responsible for decisions on board."

Appleton even believes that 'autonomous light', or assisted shipping, will not come overnight. "It will be a long process, and we will see a gradual introduction, mostly with menial tasks at first. As the pace increases, we may see jobs being moved to shore."

—

Now you can take a theoretical discussion and convert it into a realistic scenario for training.

But moving jobs ashore also has its consequences, "When a change comes about, initially everyone has experience from the old system. Then eventually no one has hands on experience, because no one has done these jobs at sea."

"There are a lot of different opinions on how things will shake out, but whichever way it goes, the new ships of 10-15 years' time and the way of work onboard is likely to be very different from how it is now," he assures. "There may be fewer seafarers per vessel but the skills and expertise required by those seafarers is likely to be at a significantly higher level than it is today."

Appleton also recommends looking outside of shipping for solutions, pointing out that maritime competency requirements and training programs lack ambition compared to other industries. "For example, the British police now require degree-level qualification. They saw a need to raise training levels in order to be prepared for the demands of the 21st century. Shipping will follow suit, but probably more cautiously."

So what are the most likely solutions to these problems of maritime recruiting, attractiveness, and training in the 4th industrial revolution?

—

Shipping will follow other industries, but probably more cautiously.

Appleton knows there are no quick fix answers, but he believes one thing is certain: "As the operation of modern ships evolves, so too will the recruitment, education and onboard working conditions of the seafarers employed on them."

Rather than recruiting seafarers on considerations of cost, he believes it will become necessary to recruit based on skillsets, many of which will fall outside of standard training requirements, or STCW.

Appleton trains his future focus on two key points he hopes will stick in the minds of shipowners and operators: "Training will need to be seen as more of a holistic process where knowledge is kept continually up to date, rather than waiting for mandated requirements, and working conditions will need to change to ensure that a maritime career remains attractive to future generations."

04