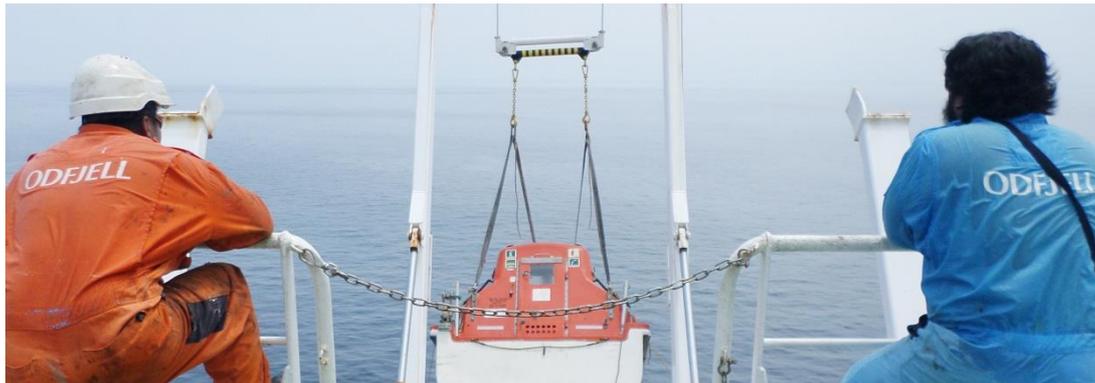# Digital Technology and Seafarers' Mental Wellbeing

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**In September 2015, ISWAN published an article on its website about social isolation. Seafarers live and work for months at a time in small, multi-cultural crews with little contact with their home lives on land. The maritime industry has been alert for a long time to the detrimental effects this can have on seafarers' wellbeing and on the recruitment and retention of quality crew. Yet it seemed there was confusion about what precisely was meant by 'social isolation' and how it does (or doesn't) relate to loneliness and mental ill-health. The 2015 article sought to work through some of those issues, to highlight initiatives promoting mental health at sea and to set the stage for further discussion and innovative thinking in this area.**

More recently concern about the mental health of seafarers seems to have been gaining prominence. In addition to existing schemes outlined in the social isolation article, new activities have been taking place. In June of this year, The Seafarers' Hospital Society started funding the introduction of the Big White Wall: an online, mental health and wellbeing service for all UK-based serving merchant seafarers. The Big White Wall, already used to good effect in a range of organisations, including the UK's Armed Forces and National Health Service, is a free, safe and supportive space providing information, self-help resources, peer-to-peer support from other users - all of whom are anonymous - as well as one-to-one help from trained counsellors. It covers a breadth of issues from managing anxiety and depression to quitting smoking, alcoholism and healthy eating. Access for UK based seafarers is available here. In October 2016, the ITF Seafarers' Trust ran a two-day workshop with an 'all-angled' approach to mental health at sea, designed to

culminate in a clearer set of priorities for action and research.

All these established and newer activities are welcome. While comprehensive data is lacking about the extent to which mental-health problems and suicide are a problem at sea and whether this is rising or falling, there is agreement that on pragmatic, compassionate and moral grounds combined, more can and should be done to alleviate suffering and suicide: that even one death is one death too many.

What precisely can be done across the sector, beyond the valuable but fragmented initiatives above, is more difficult to navigate. Some interventions and improvements are more feasible than others. Improving systems of medical records and networks of support, while not straight forward, is for example more conceivable than a fundamental change in the contractual nature of seafarers' employment – if jobs were more secure, the logic follows that seafarers would be more likely to seek support for mental ill-health - which can affect anyone. According to the WHO, the most common mental-health problem – depression - is the world's leading cause of disability[1].

In this article, the focus is on mental health in 'the digital age' and more specifically, how connectivity and social media help and/or hinder seafarers' mental health and social cohesion onboard, based on existing research. This is partly because an article about seafarers' mental health and factors relating to it needs narrowing if it's to be useful. And it's

partly so as to explore the evidence in relation to a familiar binary: does onboard connectivity support or threaten seafarers' mental health and crew cohesion? Arguments for both positions are familiar. In many ways, this binary is just one version of the two camps that have formed around mental health in the digital age more broadly, with challenges such as violent video games on the one hand (the evidence is clear that video-game violence does lead to increased offline aggression)[2], and 'seeming digital wonders', such as online therapy, on the other.[3] This article hopes to help get beyond this divide.



The effect of connectivity on crew cohesion has not been the topic of extensive research because in few land-based settings is there a comparable issue. There is an oft-heard concern in the industry that seafarers able to access the internet

on their own devices in their cabins will no longer socialise together, to the detriment of the ship's overall operations. The counterargument's logic is that in today's world, connectivity can't and/or shouldn't be avoided and that the issue is how to manage the challenges it brings. Some would add that connectivity actually aids cohesion. Internet-based gaming between crewmembers, for example, is a very real example of how social bonds are reinforced in a digital context onboard. And there is an entire field within gaming that's 'cooperative' and appears to increase cooperation in analog reality[4], which has the potential to be used onboard as a planned intervention.



Research into the effects of digital technology on mental health is more plentiful although very little takes seafarers as its focus. Among the most widely cited is Futurenautics' Crew Connectivity survey[5], which in 2015 reports that the 'vast majority' of seafarers do not believe that improved access to communications has had a negative impact upon safety. 73% said that levels of communications available influenced their decisions about which company they worked for and of these, 78% deemed this

influence to be a 'strong' or 'very strong' one.

The data also highlights, however, that 40% (down 6% from 2014) of seafarers (typically the older and less technically literate) felt connectivity reduced social interaction onboard. 16% (down from 22% in 2014) also felt crew communications to impact on safety. Of these, 23% (down from 54% in the previous year) felt this influence to be a positive one, based on beliefs that communications made for happier, less stressed (and hence accident-prone) seafarers and that they also enabled better access to information effecting work processes and events (e.g. medical information or piracy reports). In contrast, 77% of the 16% of seafarers believed improved communications to have reduced ship safety because of increased levels of fatigue and distraction, personal devices being unsafe and because of concerns about cybersecurity.

Similar data has been collected from the British Armed Forces. Among service personnel, communication (digital and other forms) has been found to reduce boredom and isolation and help maintain marriages and relationships with children[6]. Personnels' communicating with home also supports mental health, morale and occupational effectiveness, while a lack of contact increases the risk of developing mental-health conditions[7]. Echoing Futurenautics' findings, contact with home was found to also have negative effects on some occasions, especially when problems arise at either end, or if levels of communication are less than

expected. The research also found too much contact with home could be problematic for operational effectiveness. In both the military and merchant marine contexts, further research is needed to ascertain optimal levels of communication between deployed personnel and loved ones back home. Nonetheless, the research shows that overall, being able to communicate with home is advantageous. A study of UK peacekeepers[8] found that when it came to seeking support during stressful experiences at work, only 23% made use of formal support mechanisms while 80% turned to their families. While the equivalent data does not exist for merchant seafarers, we can assume there to be clear mental-health benefits to enabling and improving communication between seafarers and their loved ones back home.

Other research sheds light on the relative benefits of different forms of communication in the military context. A study of the influence communicating with wives has on levels of Post-traumatic Stress Disorder (PTSD) among married, recently deployed servicemen[9], found that marital satisfaction and the form of communication were crucial in determining levels of PTSD symptoms. Among happily married couples, greater communication tallied with fewer symptoms although interestingly, this was only true for delayed forms of communication - letters, emails and care-packages - possibly because they provide tangible, effortful objects or documents to which servicemen can return for repeated support and/or because care is taken to provide positive content in the crafting of these. If similar findings were found among merchant seafarers, they would suggest that a) there is value in companies facilitating a broad range of communication with home and b) that for seafarers with more problematic marriages especially, other sources of support are particularly important when dealing with the stresses and strains of working life.

Beyond the military context, research into the impact of the digital revolution on mental health and mental-health care is accruing. 'mTherapy' – therapeutic mobile interventions or apps for mental health – is now a burgeoning area of health technology although there is little evidence that the vast majority of the publically available mental-health apps are effective, partly because it seems that the majority of apps once downloaded are used too little, if at all, to bear any benefits[10]. That said, early research indicates that 'tracking' apps – that allow users to track in real time their various symptoms, mood, sleep and energy levels – do improve symptoms as a result of the increased awareness
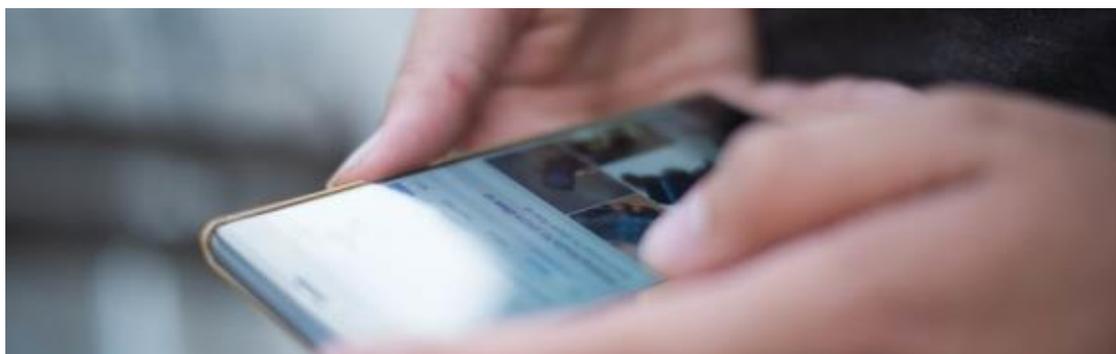
these apps enable. Similarly, mobile narratives used for relaxation, for example, do seem to help decrease anxiety. In contrast, there is not yet sufficient evidence about the benefits of apps, phone calls and games based on CBT (cognitive behavioural therapy) to warrant their promotion[11]. While a useful tool among many for supporting mental health, mTherapies are best embedded within pre-established systems and frameworks for mental-health provision - tailoring apps to individuals using a prescription system with support from their general practitioners and therapists[12] – although how this would work at sea needs some thought.

In addition to these uses of mobile technology, much mental-health support is delivered through the internet, with different levels of therapist involvement (non-guided, guided or in real-time with full therapist involvement). Compared to mTechnology, internet-based psychotherapy has been far more widely researched. Notably, both guided and non-guided CBT therapy delivered in this manner has been shown to be effective for the treatment of a wide range of conditions[13][14].

The significance of the internet for extreme outcome of mental-health problems – suicide – has attracted sensationalist media coverage of pro-suicide websites, pacts and webcam suicides. A few years ago, a Google search of 'suicide' would pull up much of this worrying content. Fortunately, research[15] shows that times are changing: online-treatments, sophisticated outreach efforts and increased awareness are on the rise

and it's expected that in time, the internet and related technologies will be more of a deterrent than an enabler to anyone considering taking their own life.

Research paints a mixed picture when it comes to the relationship between social media use and depression[16]. While much of this research has looked at Facebook (by far the most popular social-media platform among seafarers[17]) use specifically, more recent research[18] based on a large-scale survey of young U.S. adults' use of a range of social media platforms shows a clear link between these habits and depression although what is less clear is whether this is because depressed people tend to use more social media or because those who use increased amounts of social media go onto develop increased depression.

Whether the study's reported correlation between social media use and depression would carry across to a mixed age and nationality population of seafarers living very different lives, whose access to social media is limited and interrupted, is impossible to say. Certainly research into how seafarers and their families use social



media and the challenges and opportunities it brings would be welcome. And the opportunities are

extensive, for as well as being part of communicating with home and the largely positive effects that brings, social media can also help identify individuals at risk of mental ill health and decrease stigma surrounding it[19]. There is scope, for example, for doing more along these lines with online forums frequented by seafarers – data already available from Futurenautics[20].

The British Armed Forces were ahead of the maritime industry in this regard when they part funded[21] research[22] into the current and future use of social media by military personnel and their families and the effects this has on them and on operational and managerial processes. Social media was shown to be something service personnel expected to be available to them while on deployment – with implications for recruitment and retention. A significant generation gap was found to exist – with younger military personnel having more social-media expertise - which could be usefully harnessed were the military less constrained by hierarchy. In essence, social media was found to be central to military life and a critical component of future policy development and welfare planning. The research found the military to be lagging behind other organisations in its understanding and use of social media. Perhaps the military would find comfort in the knowledge that commercial shipping lags further still.

Indeed, there is scope for much research and action in the area of digital technology and its effect on seafarers' mental health. This tour of relevant research in other fields has shown that there is no unanimous verdict about whether improved connectivity and use of digital technologies is 'good' or 'bad' for seafarers' mental health and social interactions onboard ship. However, in general, the signs are that communication with home *per se* is beneficial, that there is potential in a range of mobile and internet based models of mental-health support, that the internet increasingly acts to deter rather than encourage suicide and that while the link between social media use and depression is unclear in the seafaring context, there is a case to be made for joined-up thinking and policy development around social media usage at sea. In other words, we should not fail to invest in seafarers' access to digital technology on the basis that doing so is detrimental to their wellbeing or that of the crew.

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