

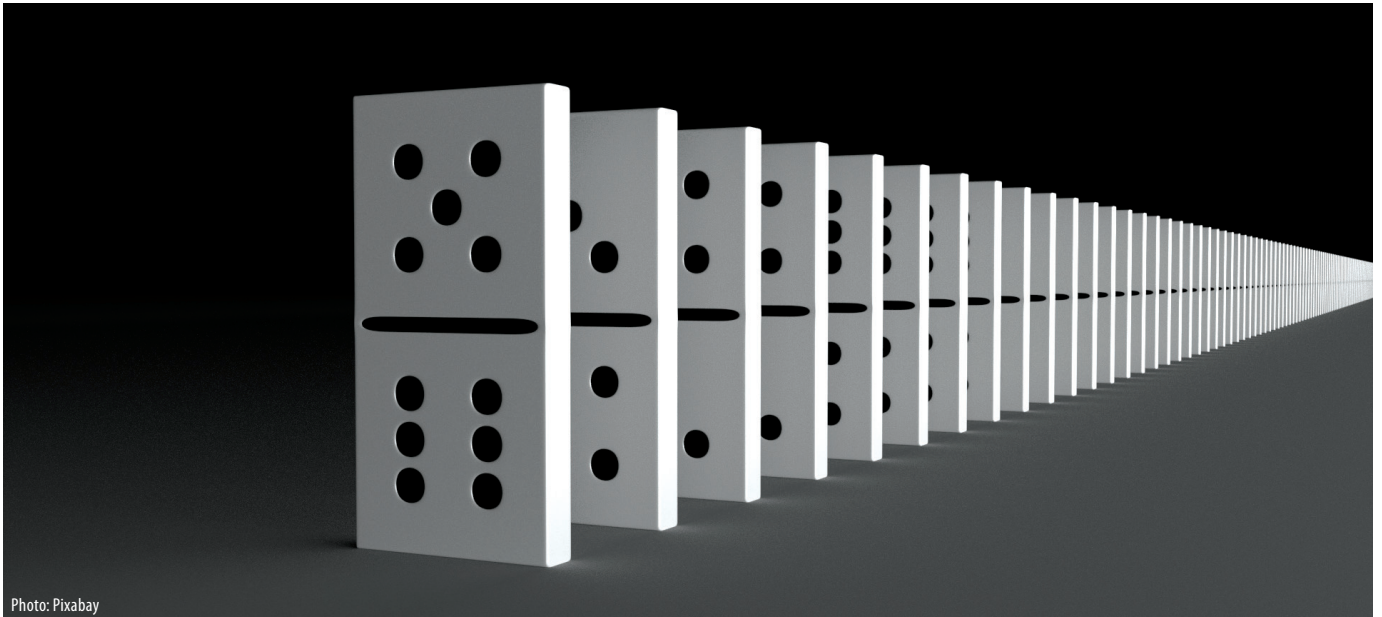


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Interconnectivity: the key to maritime digitalization

by Lars Jensen, CEO & Partner, SealIntelligence Consulting

Digitalization of the maritime industry has been topping the “hot topics” list for a few years now and the interest in who, what, and when will digitally disrupt seaborne trade has been only gaining traction. Hundreds – if not thousands – of both established companies and start-ups are developing soft- and/or hardware solutions for the industry, while many maritime companies are working on in-house developments, too.

This inevitably leads to the questions raised during many shipping conferences and in private chats: what will be the winning technology?; who will be the Uber of maritime freight?; or how will blockchain disrupt shipping (because it will, right)?

To add to the general apprehension about the future relationship between the maritime business and technology, let me just say, somewhat provocatively, that these inquiries are, at the same time, interesting and utterly irrelevant.

Scratch the surface a little more

Offhand, such questions are of course interesting – the entire industry is ripe for making a breakthrough with the use of

digital tools. The emergence of hundreds of freight tech companies and billions of dollars in venture capital is clear proof of it.

But what are all those companies trying to achieve beneath the surface? They are all developing tools or solutions targeting specific pain points within the maritime supply chain. That’s good because it also means much of the development is focused on actual real-world problems.

The really hard-nut-to-crack issue lies elsewhere and is most often noticed when the conversation moves on to discussing the so-called end-to-end solutions. You know, the “magical” digital end-to-end solution which will automate the entire shipping process (apart from the inevitable exceptions). But here precisely lies the key problem – what exactly does “end-to-end” mean? As lawyers would put it – it depends, specifically, on the perspective of the individual stakeholder.

Shipping is an industry with a large array of stakeholders involved – ship owners and

operators, shippers, consignees, port authorities, terminal operators, customs authorities, health inspectors, equipment providers etc. They manage a specific task or process, a lot of them related to either a physical task, such as load- or unloading a container, or an administrative task, like customs clearance or health inspection, which are mandatory by law in most places. The end-to-end process would appear very different to each of the stakeholders.

By way of example, for a cargo owner, this would be from the receipt to the delivery of the cargo, with each of these places actually being different depending on the International Commercial Terms in effect for the shipment. For a container shipping line, in turn, this would have to include the round trip planning of not only the vessel but also equipment (re) positioning.

Naturally, although they’re sometimes very different from each other, stakeholders have overlapping processes. For

#Inside
#Maritime#Ports#Shipping#Shippers
#Customs#Digitalization#End-to-end
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#Flexibility#Data standardization



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instance, by having a customs clearance tool that matches the needs of both the authorities and the shipping line, cargo owners and ports benefit as well (the latter requires this process to feed their terminal operating system with data that's of use for other parties, but it doesn't work in the opposite direction, as customs has no use for such a system). This is of course just a very simple example to draw your attention to the bigger picture. Overall, we won't experience the emergence of an all-embracing end-to-end tool, simply because stakeholders have fundamentally different needs.

This, by extension, implies that the supply chain, so to speak, of new digital tools and services, will remain fragmented, as each solution will be tailored to take care of only a part of the process. In reality, though, this shouldn't surprise anyone. This is something we're all familiar with elsewhere. We all use a multitude of different digital tools in our daily lives. We do this partly because each tool is designed to help us with a specific task – and partly because this provides the flexibility to exchange one tool for another if a particular need changes, without us having to change everything we do fundamentally. A simple look at the technological development that's been taking place for the past couple of decades amply demonstrates that nothing is future-proof, and even the best thought-out solutions can quickly become obsolete.

Interoperability: the key to unlocking the power of flexibility

The real strength lies in not having a single end-all solution, but, instead, using a combination of different tools for different tasks. But, with the end-to-end master tool Holy Grail out of the way, one could nonetheless reasonably ask: given a plethora of digital tools and the ease with which companies can arrange their own tech landscape, are we sure these 21st century 'state-of-the-art', as they're often called, solutions will talk and work together in the end?

As such, in order to utilize this flexibility, one thing is more important than anything else in the development of maritime digital solutions, and that's interoperability. It's the ability of different systems, built by various vendors, to communicate automatically and easily.

An interoperable system awards all the benefits of flexibility. In contrast, one without this capability will only lead to a significant amount of resources being spent on manually making it do so – as no process in the supply chain is

truly stand-alone, and therefore information exchange is absolutely pivotal. Furthermore, even though such workarounds can be devised, slowing down the flow of information, particularly automated one, can quickly cause problems, because when another system, for example with a client, has been suddenly upgraded, then the custom-built communication protocol is also likely to fail. Hence, when choosing to implement new digital tools into the maritime supply chain, functionality is of course key, but interoperability has to be seen as equally important.

What's more, at a layer that's deeper even than interoperability, we find standardization of data. Without this, interoperability is hard to achieve. It is urgently needed in the container shipping industry to see a set of standards for data not only be decided upon and emerge but actually being adopted as well. As long as this is lacking, it will act as a brake on digitalizing the industry. Now, that's an interesting puzzle to solve (and who knows, the solution might as well include blockchain)! ■



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