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future nautics

the maritime future



The New Seaconomics

Why shipping can't right itself in the digital age

the futurenauts

A close-up portrait of K D Adamson, a woman with short, wavy blonde hair, looking slightly to the left. She is wearing a dark, ribbed turtleneck sweater and a silver hoop earring. The background is a blurred outdoor setting, possibly a waterfront or harbor, with buildings and water visible.

K D Adamson

Futurist & CEO
Futurenautics Group

As part of our mission to chart shipping and maritime's technology-enabled future, we're profiling some of the people shaping that future, and this issue I have a very tough job, *writes Amy Berry*. When the Maritime Future magazine from Futureautics first appeared in 2013 covering subjects like autonomous ships, analytics, Big Data and changing generational attitudes and mindsets in the shipping industry, its content and tone was unique in the industry.

Its strategic, hard-hitting articles about the digital transformation the industry was going to undergo quickly found an enthusiastic and broad readership both inside and outside the shipping industry, helped by its determination to make as much of its resources as possible free to access.

Those resources also include a range of industry-leading market research studies, white papers and senior-level round table events, but that is only a part of the broader Futureautics operation.

Futureautics exists to identify and contextualise how the technology-enabled future will impact the lives and expectations of human beings whilst equipping them with the information, insight and appetite to fully participate in its creation.

Working with individuals and organisations of all types and all sizes, across every industry, Futureautics drives a better understanding of what the future is likely to look like, and why, helping to create the digital vision and transformations that will benefit businesses, consumers and society around the world. Futureautics founder, futurist K D Adamson is ex-

pert in the impact of new digital paradigms, the exponential growth of technologies, global megatrends and new generational mindsets on business and society.

From the future of work, healthcare, education and regulation to resource scarcity, privacy, prediction, cyber security, connectivity and transparency she identifies how the combinatorial effects of a range of technologies will transform our lives radically in the coming decades and offers a visionary perspective on the threats and the opportunities we face.

The CEO of Futureautics Group, member of The Futures Agency, author, presenter and keynote speaker, she has advised a diverse range of major companies and organisations from FMCG, pharma, high-tech manufacturing and shipping & maritime, to consumer electronics, feature film, publishing, advertising, big brands, TV and media companies and the EU.

Acknowledged as the world's foremost 'blue' domain futurist she has an unparalleled understanding of the strategic global economic, business and technology context for the rapid change the shipping and maritime industry is experiencing, consulting and inspiring its leaders towards new digital visions and transformations.

She also works with start-ups, institutional investors and private equity, shaping the exponential organisations of the future. Kate, as she's better known, becomes the first futurist, and second female, Futureaut. I asked her some of the same hard questions she poses to others, and here's what she told me.

Q What do you need to be a futurist, and why do there seem to be so few female ones?

Technically anyone can be a futurist, but actually earning your living as one is something else. I think that's partly what I like about it—it's very meritocratic. If I don't deliver I don't eat.

Like Liam Neeson's character in the movie *Taken* says, I have a very particular set of skills. I'm burdened by both insatiable curiosity and a fierce need to solve problems and I get bored very quickly, so being a futurist is the ideal job.

There are all sorts of people involved in the field from very scientific, technical foresight people who develop clever models, to some bloke I saw on the BBC who was interviewed wearing two ties round his neck because that's what the *Back to the Future* movie said would happen. You didn't need to be a futurist to predict that he was going to be a bit of a pillock.

Why aren't there more female futurists? Lots of people have suggested it's because women tend to fear being wrong, or just not being liked. There's probably something in that. I think that your drive to bring information and enlightenment has to be stronger than your fear of people disliking what you say. But that's a judgment we all make day to day. For me it's a moving target—the ratio shifts constantly—there are things I make a choice not to say.

Q The Maritime Future magazine has a big readership but people don't always realise there's more to Futureautics. Should you be doing more marketing?

In the maritime industry Futureautics is like an iceberg—maybe I should think this analogy through first—the most visible bit, the magazine and the public research represents three-tenths of what's going on, with the consultancy, advisory, executive coaching and private market research and analysis the seven-tenths that's underwater. Should we do more marketing? Maybe, but in the shipping and maritime industry at least Roger (Adamson, CEO of Futureautics Maritime) is well known and the kind of work we do is often a result of recommendation. The depth of his experience and knowledge is a real differentiating factor.

Across the board though what people are looking for isn't slick marketing, it's an organisation that they can trust. In a world moving so fast people need to have impartial, trustworthy partners for their business. I hope that's what Futureautics is. We do have fun too, actually.

One more thing, the reason that this magazine has been such a success was because there were people who got behind us from day one. We are, and remain, very grateful to those people from KVH, InterManager, Intelsat, Inmarsat and others who believed what we were saying was important and didn't demand editorial coverage in return. They deserve recognition for that from everyone who finds the magazine useful.



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Q People say that the maritime industry is behind others in digital transformation, is that the case?

Well we're going to be able to judge that definitively pretty soon thanks to the survey we're currently undertaking with Ericsson. It's a popular refrain, that shipping and maritime is lagging behind and I think it is in certain respects, but the actual technology-deployment isn't as key right now as having the right mindset.

I often remind audiences that there's a difference between predictive and visionary. Shipping needs to be both. Shipping spends a lot of time working out what it thinks will happen based on past events, rather than deciding what it wants to happen and making it so.

We also need different skillsets and organisational approaches, read *Time for T* this issue. Instead of one defined problem companies these days are faced with multiple scenarios and variable parameters. That requires people who combine deep cognitive, analytical and/or technical skills in a specific discipline, with broad multidisciplinary, social skills. Without them you end up with paralysis.

Perhaps the key problem is that you aren't always going to get it right, and the mindset of this industry—understandably sometimes from a safety point of view—is box-ticking compliance. Until we accept experimentation and failure as a necessary part of growth we're going to struggle.

Q DNV GL's *The Future of Shipping* report outlines a scenario where States, charterers and NGOs begin to take a larger role in regulating international shipping, developing and enforcing more rigorous standards and rendering IMO obsolete by mid-century. What's your reaction to that view?

I've talked before about the 'bureaucratic singularity' when the exponential growth of technology outpaces the ability of regulators to regulate it. That's not a problem exclusively for maritime, it's a global issue. But in maritime there are some very specific problems it creates.

I think perhaps cyber-security is the inflection point for IMO, because whatever you say about it, until now IMO has managed to deliver a global framework which allows ships to trade anywhere if they're compliant.

IMO's failure to take a proactive role on cyber security and resilience could well see individual Flag States bringing in their own requirements—actually I've been fortunate to talk to some very clever people who are tasked with doing that right now. And if you think what we have now is complex then different sets of cyber rules will be incredibly challenging.

If anything is going to set in train the scenario DNV GL outlines then I believe cyber is the most likely candidate. Having an insecure link in your supply or value chain makes everyone vulnerable, so I can see that acting as a catalyst for charterers etc. to get more involved. But we'll see.

Q Autonomous ships are the big change everyone is talking about in shipping, what kind of impact do you think that will have on the industry?

Of all the disruptive trends autonomy will probably have the most visible impact, not just in maritime but everywhere. There are some overlapping revolutions going on in genetics, nanotechnology and robotics which are likely to profoundly change the world, but seeing a vehicle suddenly animated affects us on a deep level.

For shipping and maritime the autonomous ship will be a catalyst for change but I agree with Inmarsat Maritime president Ronald Spithout when he says the journey to get there will be the most interesting part. What autonomous ships represent is shipping becoming part of extremely complex, smart logistics and value chains, integrating with its suppliers, customers and their end-customers, the consumers, and becoming a proper part of Industry 4.0.

The likelihood is that it will transform everything from the way ships look and are sailed and maintained to how they are owned and invested in, and by whom. It's a question of what won't change, rather than what will.

Q You operate in commercial maritime, but you're also very active with different technology projects and companies outside the maritime sphere. How important is that broader view when it comes to the maritime industry?

Essential. We have a range of breakthrough technologies experiencing exponential growth, coupled with global megatrends and new generational mindsets. In the past vertical markets and industries tended to concentrate on a few technologies which were particularly relevant to them, but that's not enough any longer.

These technologies are combining together to create totally new business and technology paradigms, any of which could utterly disrupt your industry. Concentrating on one industry or one technology mean that you can miss the broader combinatorial impacts and opportunities which are being driven by the convergence.

Q Big Data is a buzzword in shipping now with lots of organisations talking about it. Do you think the industry has realised its potential?

Not even close. The discussions are still mostly around technical, engineering data which is a very small subset. Big Data and big analytics which is what turns it into information, are about answering questions. Solving problems, which is kind of my thing—see above. But we aren't asking the big questions yet.

For example, people are rightly concerned about the degree of automation and reliance on non-human intelligence we're going to see. When you look at the data 85 per cent of claims on ships are caused by 'human handling'. But no one has yet asked the question, what accidents and issues have been avoided because there were humans in that loop which wouldn't have been avoided in an automated environment. That's the kind of question that's really hard to answer, but Big Data and analyt-

ics might be able to. Imagine how that would inform the way the industry implemented automation, how much more intuitive and intelligent we could make our systems and how much clearer we would be about where we have to preserve human presence? What a hugely valuable and fascinating exercise that would be. Instead of everyone bleating on about how important seafarers are, we could actually capture that value, express it and quantify it.

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Q What will be the next major technology disruption in shipping? Who will it most affect?

The next really big disruption won't just affect shipping and maritime, I think it's going to be an awakening, an individual emancipation led by the ability of technology—automation, data and analytics—to deliver truly personalised experiences.

In the nineteenth century in Europe we saw the rise of the nation-states based on the principles of self-determination, and I think technology is going to enable a similar wave at an individual level. You have to realise that what we're seeing now isn't even the start of the disruption we're likely to see.

Everyone talks about these Internet giants and their unicorn status, but we haven't actually created a new business paradigm yet. Their profits come from taking your data and using it to sell you to advertisers. It's fantastically ironic when you think about it. Advertising—probably the second oldest profession—is what drives the profits of these 'new' businesses, so digital hasn't created new businesses, it's created a technology-enabled method of making money in a really old-fashioned way.

But new regulations are already ending that model where you can take data, give a service for 'free' and then effectively monetise the data as you please. Google and Facebook could not be founded today and follow the same growth model they have. Data is the new oil, and in the same way that colonial powers sucked it out before the locals realised its value, we're going to see consumers become rich once they understand how to use their own data. Companies may well be paying us in the future to be part of their world. Imagine that ad revenue that WPP posts every year going to the individuals watching the television—or whatever screen—instead? And imagine the impact that personalisation paradigm will have on shops full of identical merchandise. You know, the stuff we ship about. There's much more to this, but you get the idea.

Q

Which do you think are the most potentially disruptive digital businesses in maritime at the moment?

Right now, this month, I'm calling out KNL Networks, and WAVE, but it's very fluid.

We advise a lot of people on where they should be looking for M&A growth and very often companies which you might not consider to be particularly disruptive—or indeed digital—suddenly make a highly strategic acquisition and get super-charged.

There are a whole load of potentially very disruptive businesses, particularly start-ups, looking at this sector, and you have to watch them very carefully. Then there are the likes of RightShip, ShipServ, Danelec, Xeneta, Freightos, digital pioneers with very smart leadership who you want to keep a close eye on too.

And you mustn't underestimate the big incumbents, because necessity is often the mother of invention, and with their margins and revenues under pressure, a big strategic shift from one could change the market very fast. Like I said before, mindset and leadership is a huge part of this. It's really fascinating.

Q

What advice would you give to someone with a killer technology idea for the maritime market?

It's not enough. Technology can only enable the competitive advantage, it's rarely the advantage in itself. What you really want is a solution to a big problem, and you'd be surprised how many business ideas fail that test in maritime.

Countless start-ups are looking at fuel savings, but the reality is that a couple of per cent saving on the fuel bill just isn't a big enough idea, or big enough payback.

I chatted with Google on stage at Posidonia and someone suggested that Google wouldn't be interested in shipping because it was too 'niche'. The response from Google was that it was interested in solving big problems which affected the world and if they existed in shipping then they were interested. And they do—look at emissions, for example.

I think that Big Hairy Audacious Goals + Technology = success. In maritime or anywhere else. What a lot of people lack is the understanding of how shipping works and the complex web of stakeholders, which is the kind of context we can give as consultants, and try to give via the magazine free to anyone who wants to understand it. If you've got a BHAG, my door is always open.

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Q How important do you think gender diversity is for the maritime industry? There is evidence that having women on boards can increase profitability, so should companies take it more seriously?

Diversity is important, in shipping and maritime it's cognitive diversity that we really lack—we have a dangerously homogenous mindset.

What you want are people who think differently, challenge established beliefs and force you to re-evaluate the group-think everyone's comfortable with. I think shipping is fascinating in this respect because we do ethnic, religious, national diversity better than just about any other industry in the world, but we've managed to create a culture where regardless of all that everybody still thinks the same.

I'm fond of telling people that Silicon Valley and the shipping industry are very similar in one important respect—there are precious few women in either. But whereas there are vocal groups of women in technology trying to change that, in shipping those voices are missing.

I've never really defined myself by my gender, but I've been struck by how inspired all sorts of people—women and men—are when they see me doing what I do on stage at maritime and shipping conferences. I hear again and again that it's good to see a woman on the stage. I can see no good reason why there aren't more.

Once again, you hear a lot of whingeing about why there aren't more women in the industry, but no one is standing up and asking how we show women it's the right place for them when an average conference has something like a 5% female speaker participation rate. It's beginning to annoy me, so watch this space.

Q If there was one thing you could change about the industry, what would it be?

There are some extremely clever people in this industry who have the potential to do amazing things, but they're fighting an inertia that's created by complex stakeholders, misaligned financial objectives and an outdated mantra that the industry is cyclical and everything will be alright if we hang on long enough.

What these innovators need—and they are in ship managers and owners, suppliers, customers and start-ups—is a new narrative about what the challenges really are and where the opportunities lie.

The magazine has pioneered that narrative, and in less than three years I think it's punched well above its weight in terms of influencing the industry. But I'm still seeing too many events reinforcing the old ideas. What the industry needs is a platform to champion that narrative with sufficient critical mass to permanently change the conversation and signal long-term intent.

That's why Futureautics has partnered with KNect365—that's Informa to the uninitiated—to create the Shipping2030 event series. People have been saying Futureautics should put on a conference for a long time, but collaborating with the wealth of expertise and talent at KNect365 is going to create

something far better than we could ever have done alone.

We need to find and share the big ideas and accelerate our speed of innovation. Connecting people, with technology, ideas and each other—from ship operators to customers, suppliers, start-ups and regulators—will enable companies to be more agile, collaborative, knowledgeable and attractive to new talent, and guide them as they invest in the digital infrastructure and competence they need to thrive in the future.

That's the thing I'd like to change, and with KNect365's help I'm going to give it my best shot.

Q You are following future trends and technologies all the time, you advise companies on their future strategy, keynote and present around the world, write articles and books and also novels. When do you sleep?

I shall sleep when I am dead.

Q What was the last piece of technology—consumer, industrial or professional—which made you say "Wow!"?

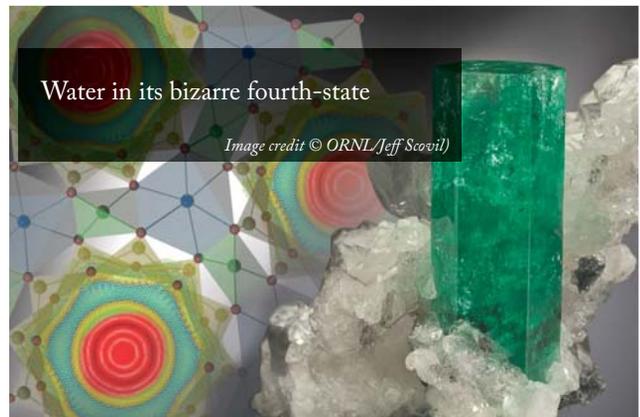
Earlier this year scientists discovered a fourth state of water. They found that under certain circumstances water could not only be a liquid, a solid or a gas, but it could also be a 'tunnel'.

Tunnelling is a quantum state where a particle, or in this case a molecule, can overcome a barrier and be on both sides of it at once, or anywhere between.

For anyone who works in maritime there are some basic rules about water we all take for granted, and I think that discovery underlines just how profoundly our understanding of the world is going to change, and what massive uncertainties and opportunities that change will bring.

I also really like the idea of something which can be in two places at once. That, I would find very handy indeed.

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K D Adamson is a futurist and CEO of Futureautics Group. Visit them at www.futureauticsgroup.com

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