

Industry News

Artificial Stupidity

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The use of AI and machine learning to improve operations, products and productivity is increasingly the differentiator between successful and unsuccessful companies. Successful companies disproportionately install and benefit from AI and digitalisation, and we may be rapidly approaching a tipping point beyond which those companies which have not already invested, will find it impossible to catch up.



To make the right investment in AI and digitalisation you need to identify the projects which will bring a good return. But to make the technology really sing, you have to put in place the right training and interfaces to make sure that all staff, even those without a digital education, can use the systems. In addition, you may have to overcome some real resistance to the introduction of digital and AI systems from those who may fear the loss of their jobs or becoming slaves of the robots.

Speaking at the Interact* conference in London in October, Peter Cheese, of the Chartered Institute of Personnel and Development noted that sickness absence is now higher than it's been for a decade, primarily due to stress. Like other speakers, he drew attention to the links between productivity and mental health and made a plea to put the human at the centre of new developments. Ben Armstrong from the Massachusetts Institute of Technology agreed, questioning whether Tesla's attempts to achieve a 'lights out' factory, where all the work is done by robots, is a viable or even a desirable goal: "Why would I want a lights out factory? A factory without people is not innovating."

The link between innovation and digitalisation will be explored at the GAMBICA lab industry conference in March 2024 - *Strategic success in a future full of AI* where Ved Sen, Head of Innovation at Tata Consulting Services, will offer a blue sky vision of what AI can do for UK SMEs, and Marks and Clerk will give a portrait of what is already being achieved today.

But fear of cramping human creativity is not the only reason why UK companies have failed to move forward in an area which is essential to staying competitive. Lack of access to funds, fear of making the wrong decision, and in the case of labs, the lack of a single communication standard, have led to a situation where the UK lags behind its major competitors on digitalisation, and laboratories generally lag behind the rest of UK industry.

Laboratories often provide access to a range of devices and instruments from different suppliers. While each is well suited to a specific task, users have often been frustrated at the difficulties in integrating operations in the support of automation and digitisation. There is a simple solution to all this, a single language for control of lab equipment; but while one standard language would be a big step forward, lots of competing languages may make the situation worse.

At the Lab Innovations exhibition in November, GAMBICA will be hosting a seminar on lab automation, exploring the benefits of automation for laboratories and offering contacts and funding to get projects off the ground. This session will feature a presentation on the progress in open interoperability standards with an emphasis on communication and data exchange.

Because of IT projects' scary history of run-away costs and failure to deliver, the Lab Innovations seminar has been designed to empower lab managers and research scientists to identify projects for their lab that will yield real benefits, while minimising the costs and risks. One case study, from automation experts SMC, will explain how they created a simple automated solution to replace a manual process of unscrewing and screwing container caps. This simple, stand-alone process improvement allowed lab technicians to spend much more of their time on technical work and drug development. The automation solution also embraced digitisation as part of the development of a truly smart lab and Gary Haynes of SMC will offer insights on both large and small projects which have really made a difference.

Many organisations are data rich but information poor. Laurie Wiseman from Binary Vision (specialists in making data usable) who will also be speaking on 1st November says: "We find a repeating theme; organisations are collecting or generating huge quantities of data, but not realising any monetary value, efficiency or intelligence from this information. Simple data analysis tools which make information available throughout an organisation, allow the generation of ideas about how the data can be exploited. There are hundreds of real-life case studies out there," says Laurie, "and once you've seen it done somewhere else, you can really get a handle on how you could do something similar in your organisation. For example, one of our clients has hugely improved equipment uptime, benefiting both them and their clients, by means of a very simple website."

Steve Smith, Scaleup Director for Innovate UK and senior advisor for Inventya will also be explaining how businesses can access the right support for their digitalisation projects and indeed any innovation based developments, so if you are attending Lab Innovations, do come along.

It's clear that to achieve a successful, sustainable future we must embrace and exploit AI and digitalisation and we need to start setting out the ground rules with which everyone must abide.

Stephen Hawking said: "One can imagine such technology outsmarting financial markets, out-inventing human researchers, out-manipulating human leaders, and developing weapons we cannot even understand. Whereas the short-term impact of AI depends on who controls it, the long-term impact depends on whether it can be controlled at all."

Well, it's here, and we must control it, so we need to engage with it, disseminate greater understanding of it, use it to make human life better, and collaborate, nationally and internationally to make sure that AI and the way we all use it, considers the human first.

UK is the world's 8th biggest manufacturer

Another interesting snippet which emerged from the Interact conference was about perceptions of UK manufacturing. A large sample of economically active people in the UK was asked where they thought the UK ranked in world manufacturing output. The average estimate was that we were in 43rd place. Five years ago a similar group ranked us 56th. In fact, the UK is the 8th biggest manufacturer in the world – I wish more people, and particularly those in Government realised this!

* Interact is a £4.4 million, Made Smarter Innovation funded network which brings together economic and social scientists, UK manufacturers and digital technology providers to address the human issues resulting from industry's take up of new technologies. They are doing some interesting research on our major problem in the UK - that we are just not installing enough robots.



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