

AI and You

Transcript

Guest: Katie King

Episode 28

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Hello, and welcome to episode 28. Last week's episode had quite the long time horizon, but this week we'll be bringing the focus right back to the here and now, because I'll be talking with Katie King, the leader of the [AI in Business](#) consultancy in the United Kingdom, which I am a partner in. She is a member of the UK Government All-Party Parliamentary Group (APPG) task force for the enterprise adoption of AI, and the author of *Using Artificial Intelligence in Marketing: How to Harness AI and Maintain the Competitive Edge*. She has over 30 years' experience and has advised many of the world's leading brands and business leaders, including Richard Branson and Virgin, Accenture, and Harrods, in the process traveling to places like Dubai and China. In this episode we'll be talking about the trials and tribulations of advising businesses on their AI strategies and some of those trends and strategies. So let's get right to the interview with Katie King.

Katie, welcome to the show. It's a pleasure to have you on here. How are you doing right now with everything that's going on in the UK?

Thank you, Peter. It's a pleasure to be with you here on your show. It's tough. Yeah, I have to be honest. It's tough out there at the moment. We're still in our second lockdown for another week or two and economy economically, a lot of businesses are suffering. So I'm not going to pretend it's all roses. It's certainly not at the moment.

It's really brought home to everyone - and I do mean everyone - just what disruption means. This is one kind of disruption but you and I have been working for a while on another kind, which, of course, is effects of artificial intelligence and what that can do for or to or against businesses, what they need to be aware of that. And AI as a popular thing, as a meme, as something that grabs as much national and international attention, has not been on the world stage for that long. So what were you doing before then? And what grabbed you about AI?

Oh, really good question. Well, I've been a consultant for 30 years, the last 12 or 15 very much focused around digital, digital marketing, helping companies with their exits, and their reputation management and thought leadership. And then, being completely transparent, everyone caught up. I no longer had a USP, I turned 50, and I looked around and looked ahead to future technologies, and saw that actually, technologies like machine learning and AI are really going to reshape the job functions we do, and therefore the way we run our businesses. And so about four years ago, I got involved through the Royal Institution of Chartered Surveyors and a couple of other clients, wrote a white paper, deeply researched the subject, and wrote a book. Spent a year dealing with big brands, lots of tech disruptors, politicians, regulators, and my book came out last March. And so really AI is helping me to future proof myself. And that's one of my main messages to everybody, to consumers, and to businesses is that you have to pivot, you have to

put yourself out of your comfort zone, you have to be on a journey of evolution and continuous learning.

As you got into that rhythm of working with businesses, what were some of the ways that your initial thinking was either proved out or overturned and you had surprises?

Well, it's like everything, the more successful companies are those that have a clear vision and a clear purpose. They know where they're heading, they hire in or they skill up, and they have a clear strategy. Others will get distracted and go and start to do things in a very tactical way. And the same happened with people thinking about new technologies like AI and blockchain and others. And so some of them opened up their shopping bag, and very tactically bought AI and some wasted money. And others had a clear business strategy, did a proof of concept or proof of value, saw how it was benefiting in one small part of the organization, and then began to think about wider rollout. So it kind of proved to me, as I'd always realized that there are certain factors that will determine your success with all different kinds of technologies.

So you've been developing a model by the sound of it that has some value that you can use for repeat work that demonstrates perhaps the adoption patterns for artificial intelligence in different sectors?

That's right. Yeah, it does, and that came from-- And it's evolving all the time. And my work in the book where I recommend a scorecard for success, which is a culmination of all of the case studies of successes and failures and learnings. And actually, since then, I've seen some interesting work from McKinsey, which echoes. I'm sure they didn't base it on it whatsoever, but it echoes, and it makes me feel "Yes, very much I'm in that right direction." And so it looks at things like mindset and culture, collaboration, roadmaps, training, and so on. So it's some of those sort of key areas that I apply to the work I do with organizations in all sectors and all geographies where they're thinking about applying AI machine learning to their business. But actually, as a scorecard, and as an approach to change management, you could adopt it to think about how you cope with COVID-19, for example. So it's a methodology and it's a series of applying a score across 10 core areas of your business and seeing where the weaknesses are and how it all joins up together.

Artificial Intelligence as a term is hugely overused at the moment. We're definitely in an AI summer and there's a lot of AI washing going on, people slapping an AI name on things where they have the slightest excuse for doing so. And how would you say it's most useful for businesspeople, business leaders to think about artificial intelligence right now to sort out what's useful from the hype?

Yeah, that's a good question. So I guess if we're really being clear what we mean by it, we're talking about the ability of computers, of software, of all different kinds of tech under this banner of AI to be able to perform human-like cognitive activities. So that might be learning, understanding, reasoning, interacting, and so on. And then within that, we've got that subset of machine learning that's enabling the machines to use patterns and to repeat that without being explicitly programmed. So that's really what we're talking about. When it comes to how you use

it, it varies. The two main benefits on the one hand are this augmented intelligence, I think that's a much better term than artificial. So this augmented intelligence, which is big data insights, for your HR, for your marketing, for your sales, that ultimately can help you either increase revenue or decrease your costs. So businesses across insurance, retail, telecoms, are using these tools to automate tasks and to get much better insights into all different areas of their manufacturing, the way they sell, and so on.

Is there a distinction to be made here between what you're talking about and what 10 years ago was called business intelligence or business analytics?

Yeah, as you say, people have slapped that term AI onto their websites, their products, their services. And I don't know the exact statistic, but I've seen some statistics thrown around saying that around 40% of what you see on the market being termed as AI is really just simple business analytics. And so I guess what we're really saying is, we're talking the ability of a team internally, or an external consultant to be programming these tools in TensorFlow and all different kinds of Python, and so on. And that's the kind of the behind the scenes of how, but what they're really then able to do is to provide tools that are imitating that intelligent human behavior, much, much more than just a simple analytics tool that's giving you some data. So sometimes people are applying it to mean business analytics and technology very generally and that's not really what we're talking about. We're thinking of, for example, interactive AI through smart personal assistants and chatbots, we're talking about computer vision that might be in a driverless vehicle that's around visual AI, or Siri, Cortana, or Google Translate that are text to speech or speech to text. So those are really the sort of family, the umbrella family of AI tools and sentiment analysis, and so on. So that's more really a clearer set of examples of AI in its different forms and some better definitions of it.

And those things are undeniably artificial intelligence, so squarely in the middle of that definition right now. But with the amount of computing firepower we're now able to apply to just straight business analytics problems and the big data that companies get, we are now able to do much more in that field. And I wonder whether we need to draw sharper distinctions so that people are aware, yes, artificial intelligence includes these cognitive reasoning things, natural language processing, human interaction, but also, at the same time, we're applying that label to things that are equally revolutionary, just in an older pattern.

Yes, absolutely. I completely agree. And it's seeping in, isn't it, to our daily lives. It's seeping into giving brands data about us so that they know what we're likely to want to buy before we've even bought it around predictive analytics. We're seeing it in helping medical companies with scans and hopefully shortening the life cycle of coming up with COVID, vaccines, and so on from 20 years down to a year. So you're absolutely right, and it's very positive. And you mentioned an AI summer and AI winter, this has been around seven decades. And we've got that processing power now and we've got the big data that's come from 10 years of smartphone technology that's enabling us if used properly, to get these insights.

What would you say some of the biggest mistakes are that you've seen companies make in trying to adopt AI?

Good question. In my book, I do have a group of failures, success stories and failures. And there's one for example, with a bank, a Danish bank called Saxo Bank. And when they deployed their chatbot assistance, they failed to realize the impact on all of the different stakeholders. And so staff actually hadn't been communicated with properly and they were very threatened by this new technology and these new tools and it didn't work for staff. But equally, they innovated quite early, they were one of the early adopters and the tools were very shallow. And so there's a question there of if you're an early adopter, you've got to be clear when you communicate this with clients that they realize it's quite limited, because clients tried to interact with it and do things beyond its capability, beyond the way it was programmed and they got bored. And in the end, that project was a failure, and they moved on. But then a year or so later, they iterated, and they use the AI for customer onboarding. So I think, like you say, lessons, as I said a little while ago, it's about strategy, it's about having a business issue that needs to be solved, rather than just like picking it out and putting it into the organization. So it's proofs of concept, it's collaboration, it's really good, clear communications, and then working with different stakeholders looking for funding, maybe not doing it all yourself, but finding some of those innovation grants and so on. There are some of the things people can do to avoid falling into some of the traps that might be too much investment or failing to communicate with the right people.

As you hinted at there, if the workforce in a company is not on board with the idea, they're capable of sabotaging any innovation. And to what extent have companies tilted towards adopting AI for reducing headcount because that's where it would make the most difference to costs versus growing the market? And what do you have to say about the success of those two directions?

Yeah, again, a really good question, Peter. It will depend on the industry, won't it? So in parts of the world, and I'm thinking in India, for example, there will still be a lot of manufacturing, there will still be a lot of manual processes, and the AI will be helping some of those organizations to drastically reduce headcount. And for the AI in a manufacturing environment, it might be a robotic arm, it might be all kinds of tools to replace some of the workforce. In a different sort of example, it may well be that the AI is not replacing all of the jobs. I've been working with some publishing companies recently and certainly, some of the tools they're investing in are doing some of the work that their journalists do, and there has been some headcount reduction. But actually, they're growing in other areas of the business because they are changing the dynamics and the nature of what they offer their clients. And had they not invested in these tools, they probably would have gone out of business. So I think we're seeing a big transition. In some industries, dramatic headcount, in others, reshaping the nature of work. And that's what the World Economic Forum is saying, that there will be huge job losses, but there will be greater job creation and that actually there'll be a net gain basically. But it will be uncomfortable. And of course, there will be companies that close and big percentage of staff are made redundant, but then equally, whole new industries have been created in the last years and are being created now. I think back to my transition in traditional marketing to digital marketing to now AI-based marketing, and I've adapted and learned and got to grips with it. People like me who haven't have fallen by the wayside. So, as even a very small business like mine, we can all learn, and we all have to put ourselves out of that comfort zone and evolve.

Well said. You're talking about India there, and you've done a fair share of globe-trotting. And what can you say about different attitudes and beliefs and behaviors towards AI on a country-by-country basis?

Yeah, it's really interesting, and, of course, it changes by the day. But I've been in China, it was a few years ago, it was about three or four years ago, and certainly, in terms of their politics, and their ability to make decisions that have implications for the whole country, they are ahead of the pack. Their approach to ethics is different to many other countries. They have this concept, I don't know too much about it, but they talk about harmony and they discuss that in all of their ethical conversations. Very, very different to the way the US, for example, does things. You know, the US has certainly had long term investments and put a lot of emphasis on the future of work, on security, and access to data. But, of course, hopefully, by the looks of it, we have Joe Biden, but the Trump administration certainly didn't seem to have any real interest in making a national AI strategy. And then you've got, for example, the United Arab Emirates, and I have been there quite a few times and they are pushing really hard on the impact that AI will have, major investment in it, grants, teaching the Emirati, bringing international people like me in, and others to teach their local people and to really have AI played out across their transport, their health, and so on. So I just think pockets of the world are doing things very differently, and certainly, the US and China are quite far ahead. And then in Europe, and certainly in the UK, the UK, and I know this through the work I do on the All-Party Parliamentary Group, we're trying to be a barometer for ethical AI, and to be recommending to countries all around the world and to work with our OECD partners and others on ethical AI and AI for good and making sure it fits in with shared democratic values and so on.

Well, you covered a lot of territory there. I'm going to get into some of those things, but you mentioned the All-Party Parliamentary Group, and I have you to thank for introducing me to that group and my opportunity to speak with them. How did that group start? What do you think they're trying to do? How has that evolved as they have spoken to more and more people? And what is your connection with it now?

Yeah, absolutely. So I am on an, as they call it, an All-Party Parliamentary Group AI Task Force and the task force I'm on is looking at enterprise adoption of AI. There are other task forces around education and cybersecurity and so on, and they have been formed in the past 18 months. And they bring together people from academia, from government, and from business. And the main aim really, because it is a parliamentary group, is to brief parliamentarians so that they have at their disposal a 101 toolkit, so that they understand AI deeply, they understand the issues, they understand the opportunities, the problems, the challenges, and so that they can then share that with MPs. MPs will be working in their constituencies and so on. So actually, the specific role of these groups is quite focused on that as an objective, but of course, it has much wider impacts as well. And so, the evidence you gave, luckily, in the House of Commons, House of Lords, is now happening, those equivalents are happening remotely. We had one on Monday night through Zoom and the work gets shared globally and it's recorded and so on. And I think it is shaping policy and regulation. And so we are debating, we're hearing evidence, usually seven people from all over the world. And on Monday night, it was absolutely incredible evidence again. So I

think it's people constantly learning and seeing how different countries are doing things, impacts that are being made, hearing from different stakeholders about challenges and opportunities, and it changes by the day, by the week. So my book is one point in time, and it's still very valid and it's still being translated in other languages but we still need to be hearing fresh content continuously. So that's an example of the kind of work we're doing.

And I've been impressed with the amount of breadth and the number of sessions that I've seen them conduct - all public. And I'm hard-pressed to see another country that has gone that far. The US had some senate hearings, the Obama administration put out a lengthy and useful paper, but there hasn't been much done publicly in the last four years. Actually, that brings me on to another topic because you were talking a little while ago about what other countries were doing. And Pamela McCorduck, an AI historian who was on a couple of episodes ago, was unequivocal about us being in an AI arms race right now. And certainly, statements and actions on the part of Russia and China suggest that. The US might have some catching up to do. What is the mood in the UK? Is that an "All Hands on Deck" kind of atmosphere? Do you sense an AI arms race there? What would it even look like?

Wow, that's a huge question, isn't it? I mean, I guess one thing I would point to that is not overtly focused on that, but clearly is about trying to mitigate the problems that come with that is the global partnership that was formed back in June. So clearly, not clearly, but China and Russia were not part of this agreement. But what happened was a group of countries - the UK, India, Japan, Mexico, the US, Canada, and many, many others - made very much an OECD led initiative. They came together to form this global partnership on AI. And it's a body, and the aim really is to oversee responsible development of AI. And seems to be more business focused around, for example, shared democratic values and rights and fundamental freedoms. But clearly, there is an important layer there that is about allies and global cooperation and trying to prevent that because if we have international cooperation, that's what we've got to aim towards because clearly, every country has the power, the freedom, the access to AI to use it in a warfare, in a defense capability. But what these kinds of initiatives do is try to route these countries together to say, "Look, we want to stimulate one another's economic growth, we want to protect human rights, we want to avoid--", you know, I know, I'm thinking back to 2018 when the UK came up with its five key points, which were a sort of code of conduct for AI. And protecting everybody against the use of AI being used for the purposes you just outlined was one of the core five areas. And that's what we've got to do and at a time where actually we perhaps are becoming a little bit more focused in on our own countries, I think it's essential that that global cooperation continues to avoid that potential scenario.

I know I said arms race and of course, that leads us to weaponization, I was thinking more of just the competition to develop AI because it is the ultimate dual-purpose technology and the same software that could do medical diagnoses, could defend the carrier battle group.

Absolutely.

I've seen such a piece of software. So perhaps it's not even necessary with AI to explicitly develop it for weaponization because that's just a matter of training it in the different environment.

Exactly.

It's more a question of what is the dominance for development of AI itself?

That's the end of the first part of the interview.

Because this episode will come out just before the end of the year 2020 – I can hear y'all cheering at that – and everyone else is making predictions for 2021, I thought I would too. Now firstly, please don't say that at least 2021 can't be any worse than 2020, because I heard too many people say that over the last year and it was like a triple-dog dare and their bluff got called. So no more tempting fate, okay?

1. No self-driving vehicle will be certified at SAE autonomy level 5 for use on public roads in 2021. This will be the year where the bubble starts popping with self-driving vehicles where more and more people realize that they're not going to get what they've been promised for the last 5 years – and not just by Elon Musk, but by numerous pundits who took the idea of a self-driving vehicle to its most extreme possibility. There's so much to talk about on this topic I'll have to do a whole episode on it, but for now, I'll leave it at saying that the disillusionment with self-driving car progress will become widespread in 2021.
2. There *will* be some deployment of autonomous vehicles in narrow applications at lower autonomy levels. The most obvious one will be self-driving trucks traveling in platoons across the country with only one or two drivers while they're on the interstates. Long-haul truckers will start the transition to becoming short-haul truckers. There is big money to be made in this step and it's already been demonstrated, from a convoy of self-driving trucks going to the port of Rotterdam in Europe to a beer truck making a run in Nevada. The interstate is a whole different environment from complex urban and rural last miles, and with a human riding along to handle things like mud on the cameras or navigating around accidents, we'll start seeing the rubber meet the road.
3. Deployment of narrow AI will explode. This is because machine learning is now being commoditized and operationalized at a dizzying rate. Amazon's re:Invent convention this year rolled out a whole menagerie of horizontal services and vertical applications for plug-and-play machine learning. Their SageMaker platform has over a hundred models to choose from for image processing alone. They had applications specifically for the health care industry, they had sensors to gather data from industrial production lines, and numerous other products, all intended to be about as easy for an enterprise to deploy as you would expect from a company that uses AI to enable you to say, "Hey, Alexa, what's the weather in New Orleans this weekend?" This means that we'll see AI penetrating down the pecking order as it becomes cost effective for smaller and smaller businesses.
4. Speaking of health care, we'll see more breakthroughs in medicine from AI. The avalanche of money funding COVID research is like the space program in the sixties; it will drive all sorts of spin-off effects. AI has already been used to accelerate the development of COVID vaccines and antivirals. In 2021 we'll see it used to drive the massive supply chain logistics to get billions of people vaccinated. It'll be on a scale of the planning of the Normandy invasion. It will also be

focused on monitoring vaccine efficacy and side effects. But then there will be all kinds of collateral benefits. We've just seen the big breakthrough from DeepMind in protein folding. I'll have to talk about that in another episode too. There will be more quantum leaps in the application of AI to medicine and biology, and significant developments in longevity.

5. Online collaboration tools will develop considerably. And it's about time, too. This one is less about AI, for sure, but let's talk about it anyway. The pandemic has put unprecedented numbers of people working from home. It's amazing that the Internet handled all this without a hiccup – I mean, how many other infrastructures do you know that could handle their load going up by 40% within two months? But it really brought home how bad the tools that we have are. Now, don't get me wrong – we've been able to do amazing things. Many businesses kept going without a noticeable pause. Even 10 years ago that would not have been possible. Had COVID hit then, the damage to the economy would have been unimaginably greater. But now we're all connected. So working remotely was possible. But even compared to sitting around a table and talking, the tools we have are far less capable. It's not about the *software* – Zoom or WebEx or Skype are all doing a terrific job – it's about the *hardware*. I don't mean computer speeds or network speeds – for the great majority of people now those are perfectly fine. Again, not something I could have said 10 years ago. It's the audio and video capture and reproduction. A single stereo mike and stereo speakers, and a single video image, is not enough. Regardless of quality and resolution. Think about sitting at a conference table with a dozen other people. Maybe not the most fun you've ever had, but you could do things like murmur to the person next to you, or project your voice to someone across the table to ask something without interrupting the main speaker. You could see a gesture from someone indicating they need to say something. These and many other communication modalities are impossible with the limited capabilities we currently have. Even the simple act of drawing on a whiteboard; how many meetings hinge upon that, and yet, despite the fact that every videoconferencing tool has a whiteboard function, how many of them are any good? Not the fault of the software. It's just that you cannot do freeform drawing with a mouse anywhere nearly as precisely and quickly as you can on a real whiteboard. You have to have the result of your drawing show up underneath your drawing implement to do that. So the only hardware that could do this right now is something like an iPad with an iPencil. So my prediction is that we will see innovation in the hardware for online collaboration, although that's based more on wishful thinking and the fact that a lot of money is going to be chasing development in this area because of the huge payoff if they make any progress.
6. Along with the last prediction, we'll see increased deployment of AI in education. Many post-secondary institutions will fail in 2021, by which I mean go bankrupt and sell off the land for condo development. They were on the brink before and being closed from COVID pushed them over. I mean, think about the cost of a stadium with no spectators and no games? The cost of a lecture hall with no audience? The cost of a cheerleading squad with nothing to cheer? The ones that survive will have to both drive education remotely and deploy AI to shrink their operational costs, and there are now many ways that can be done quite effectively. It's really a question of which elements of a relatively hidebound sector can reinvent themselves before they slide into oblivion.

7. We'll see major deployments in robotic process automation and customer service. That's an easy prediction given we've been going that way for several years, but I'll put it in for the sake of completeness.
8. We will hear artificial general intelligence being talked about seriously instead of in casual speculation from futurists like me. AGI showed up on Gartner's hype cycle curve for AI for the first time this year, right at the beginning. Expect by the end of the year to hear more serious talk about AGI as a thing that's on the way.
9. We'll see some kind of conflict in which AI is part of a cyberwarfare aspect. This is less about what AI will be able to do – because it can already be used in cyberwarfare – than about the likelihood of nation-state conflicts boiling over onto the world stage because of instability stemming from the pandemic. And finally,
10. We'll see more relabeling of AI applications as something else. This has been going on for a while of course, so much that it's been called Larry Tesler's theorem: "AI is whatever hasn't been done yet." The corollary of that of course is that once something is done, it is no longer called AI. I think that in 2021 we'll see a bit of cooling in the desire to attach the AI label to everything in sight and a bit more discrimination in using more specific terms like deep learning, machine vision, or robotic process automation.

I know there's some irony in making these predictions when one of my messages is the increasing futility of trying to make predictions, especially where business changes due to technology are concerned. I can't help it. I suppose it means that if my predictions turn out to be wildly wrong then it will validate that message, so I can always think of it as hedging my bets. We'll see!

Next week, we'll have the second half of the interview with Katie King, and we'll talk about businesses and ethical deployment of AI, and – going along with my prediction #6 – AI in education. Katie has specific examples from her consulting which she'll give along with her tips on how to enter the field of AI consulting. That's next week on AI and You.

Until then, remember: no matter how much computers learn how to do, it's how we come together as *humans* that matters.

<http://aiandyou.net>