



# Against the Hype

**Professor J. Mark Bishop challenges common assumptions on AI and calls for logic before belief.**



Interview by Islam Salahuddin

Professor J. Mark Bishop is not your typical AI evangelist. In fact, he might be one of the most prominent voices urging us to rethink what AI can truly achieve. As Professor of Cognitive Computing (Emeritus) at Goldsmiths, University of London and Chief Scientific Adviser to FACT360, Bishop brings to the table over four decades of academic and practical experience in artificial intelligence. He has helped develop AI tools for the European Space Agency and the UK National Health Service, and has advised global institutions including the UN, EU, and UK Parliament. And yet, for all his involvement in cutting-edge systems, Bishop remains a persistent critic of many popular narratives about AI's supposed capabilities.

In this wide-ranging interview, Bishop takes us through the lessons he learned from both successes and failures in AI deployment, the practical utility of tools like FACT360 in insider threat detection, and his deeper philosophical arguments about the limits of machine intelligence. With one foot planted in industry and the other in academia, he invites business leaders to think more critically about the systems they are adopting and to do so before the next hype cycle leaves them misinformed and misled.

**What has drawn you to work in such diverse sectors as healthcare, space exploration, and fraud detection? What links them together for you?**

For most of my academic career, if I said I was working in AI, I would receive a blank expression. It was a niche area. Nonetheless, I've always known that AI is one of the most fundamental research areas there is. If it delivers, it has applications virtually everywhere.

Throughout my career, I've been involved in delivering AI systems in the fields of healthcare and space exploration. In the UK NHS, our software identified potential savings of £500 million in annual consumable spend. Although very few of these savings were realized due to complex real-world buying behaviors, it nevertheless informed NHS purchasing policy. At the European Space Agency, we optimized satellite slingshot trajectories using cutting-edge AI methods. Despite the variety of applications, what links them is that the underlying research questions and AI techniques are the same.

**Why didn't the NHS project achieve the intended results despite identifying huge savings?**

The software worked perfectly. It identified where NHS trusts could buy items more cheaply. But I was naive. I assumed everyone would go to the cheapest supplier. In reality, purchasing decisions are affected by relationships, trust, and other complexities. Here's the lesson for business leaders: there's often a gap between what AI solutions

**Be skeptical about the claims made by vendors of their AI systems.**

technically deliver and what can be implemented in the real world.

**Tell us about FACT360 and how your technology is used.**

Our first client, Quinn Emanuel, used an early version of our system to identify key bad actors within four minutes of ingesting over 1.3 million emails. These were people they already had suspicions about, and our system immediately brought them to the surface.

We have two levels of analysis. First, we analyze metadata—who is talking to whom, when, and how often. If anomalies are found, we then analyze content using natural language processing (NLP). Our USP is a graph structure that positions incidents temporally, allowing us to apply classical statistics to detect anomalies and predict how they might evolve.

**When should companies reach out to you—only when there's a suspected threat?**

It's better to work before problems arise. But the reality is that many small companies don't prioritize cybersecurity until it's too late. Fortunately, our tools help in both cases—either after incidents or as a proactive monitoring system. The same tech also provides HR analytics, helping assess team health, communication patterns, and even potential harassment.

**What legal or ethical considerations are built into the system?**

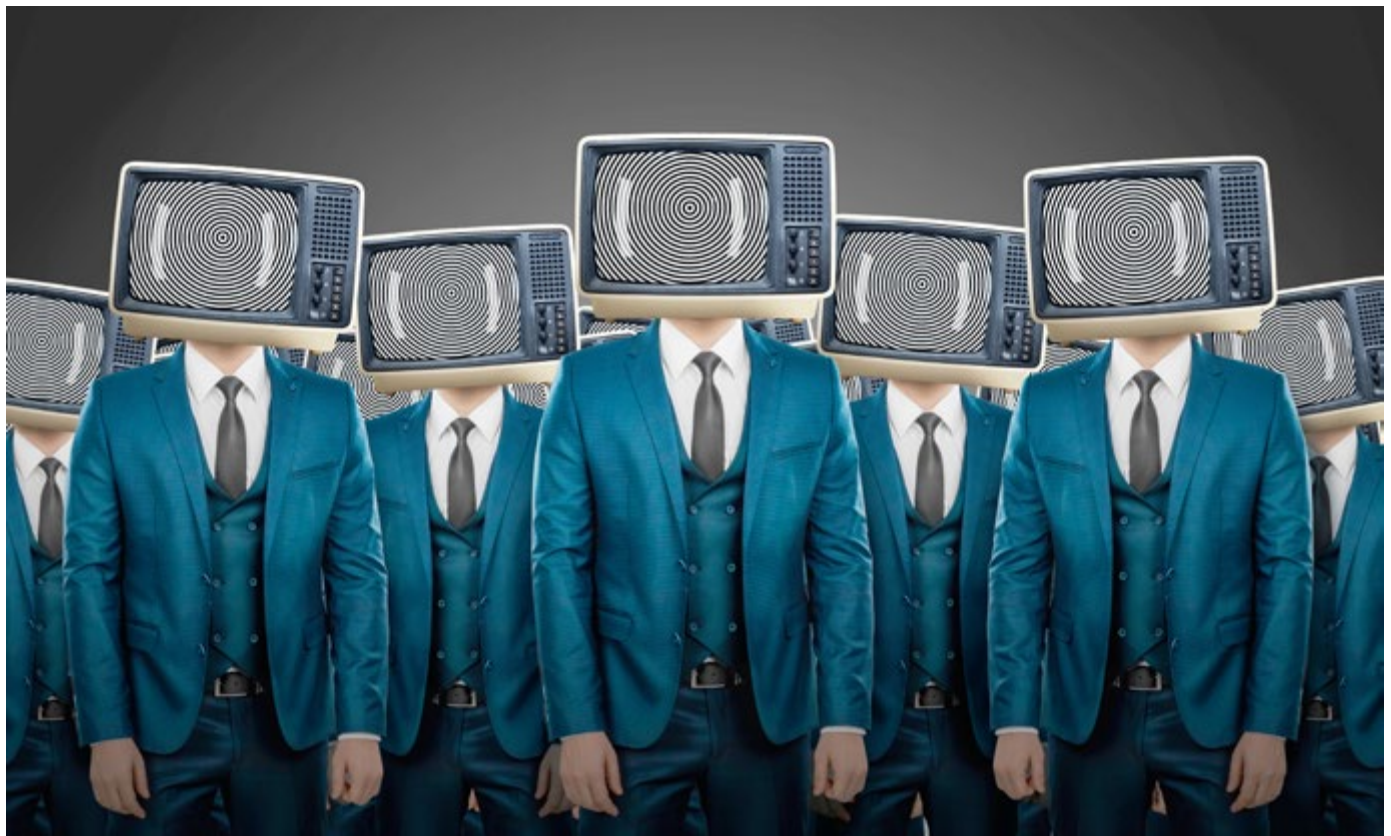
We have a two-tier design. The first tier uses metadata and doesn't look at content. Only when there's a belief that wrongdoing has occurred do we analyze message content. In the UK, if a crime is suspected, the company has the right to do this. Also, in most UK employment contracts, employees sign away their digital privacy within work systems. We restrict access so that even cyber staff can't see content unless authorized.

**But how do you handle employee concerns about being monitored?**

That's a brilliant question. Early on, when I proposed deploying our system at the university, the union reacted strongly. I didn't know how to sell our solution to skeptics. Since then, we've changed how we position the tool. We highlight how it can help employees by detecting harassment, showing the impact of poor management decisions, and providing hard metrics to HR. It's not about spying; it's about workplace health and fairness.

**Let's shift to your academic perspective. You've argued there's an unbridgeable gap between human cognition and machine intelligence. Could you explain that view?**

My most downloaded paper is titled "[Artificial Intelligence](#)



is Stupid and Causal Reasoning Won't Fix It." In it, I present three arguments as to why machines can't replicate human mentality. First, John Searle's Chinese Room shows that no amount of symbol manipulation creates understanding. Second, Roger Penrose argues that humans can see mathematical truths that no algorithm can prove. Third, my own argument, "Dancing with Pixies", uses logic to show that if computation gives rise to consciousness, then everything, even a button, could be conscious.

### Should business leaders be concerned about this gap?

Only if they expect AI to replicate full human cognition. For example, Elon Musk admits we need AGI to achieve level five autonomous driving. I believe AGI will never happen. For applications that don't require human-level insight, like route optimization or fraud detection, this isn't an issue. But when lives are at stake, as in autonomous vehicles, then yes, this matters deeply.

### Should businesses be more engaged in ethical debates around AI?

Yes. Not only because it's the right thing to do, but because legal consequences are real. Meta is facing lawsuits for scraping personal data to train LLMs without consent. Similarly, there's active debate over using copyrighted material to train models. Companies operating in Europe

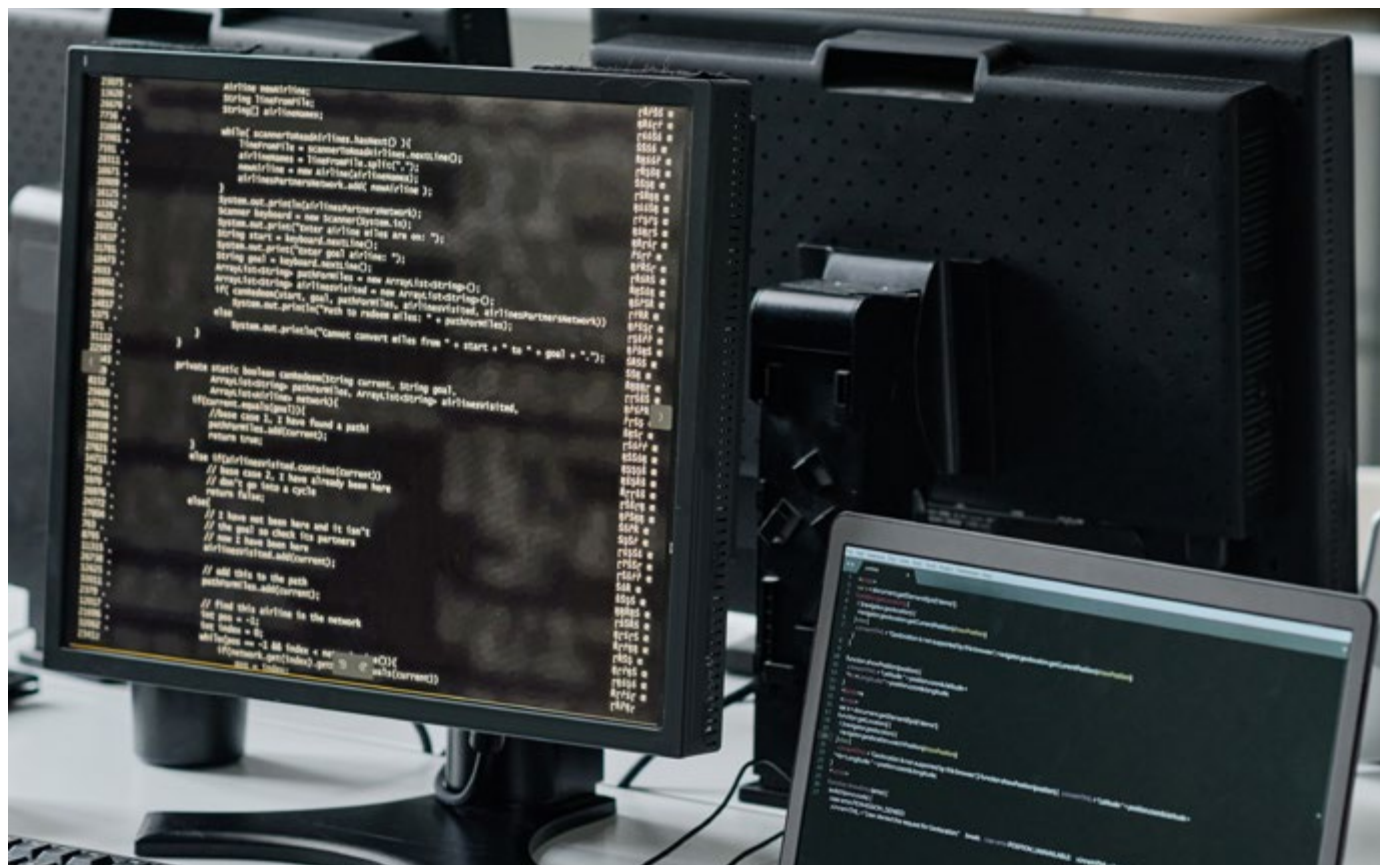
or the UK need to be especially mindful of data protection and ethical compliance.

### You've advised global bodies like the UN and EU. How do you see AI regulation evolving?

My concern is that AI should always be a tool for humans, not their master. In healthcare, for example, AI can support diagnosis, but decisions should rest with doctors. More generally, AI can help surface organizational memory, i.e., knowledge that often disappears as staff rotate out. But it must be human-checked. AI will go wrong. That's not a risk; it's a certainty.

### Finally, are there AI trends that business leaders should monitor closely? Any last recommendations?

Be skeptical about the claims made by vendors of their AI systems, and I am one such vendor who uses AI in my role at 360L. No doubt, sometimes we overstate what the technology can deliver. You've always got to be critical and not buy into the hype when you do deploy AI, because I do think it can give your company massive advantages. If you don't use AI, you risk being left behind. So yes, I advocate AI use—I advocate AI use with caution—and most of all, just check, check, and check again because these systems will make mistakes. Don't think it's always going to be right because it won't be.





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