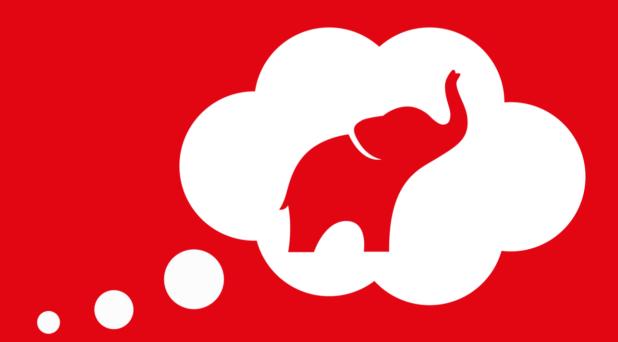


Al in the Boardroom: Al Adoption at the Executive Level

PARLIAMENTARY BRIEF



Al in the Boardroom: Al Adoption at the Executive Level is a Parliamentary Brief based upon the All-Party Parliamentary Group on Artificial Intelligence (APPG AI) Evidence Meeting held in House of Lords: Committee Room 4A on the 23rd of January 2023.

This APPG AI is co-Chaired by **Stephen Metcalfe MP** and **Lord Clement-Jones CBE**.

We would like to express our appreciation to the following people for their oral evidence:

- Prof. Ashley Braganza, Professor of Business Transformation, Brunel University London
- Sue Turner OBE, Founding Director, Al Governance Limited
- Pauline Norstrom, CEO, Anekanta Consulting
- Dr. Andrew Rogoyski, Director of Innovation and Partnerships, Surrey Institute for People-Centred Al
- Richard Foster-Fletcher, Founder & Executive Chair,
 MKAI

Big Innovation Centre is the appointed Secretariat for APPG AI

- CEO, Professor Birgitte Andersen
- Rapporteur, George Farrer

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PARLIAMENTARY BRIEF

Al in the Boardroom: Executive Adoption of Al



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1. Introduction

In this meeting, the APPG AI discussed how Artificial Intelligence (AI) is being implemented in, and across Boardrooms, and used in executive level decision making. The expert speakers at this evidence session discussed comprehensively what is required to make AI adoption in Boardrooms a success. Suggestions raised were, greater education campaigns around the benefits AI has, along with stronger ethics and governance procedures. Critical questions were asked regarding current levels of AI adoption in Boardrooms, and how this is perceived by those at the top, and within organisations. Furthermore, questions regarding governance and accountability of AI within boardrooms.

As AI continues to advance and become more ubiquitous, impacting the way everyone lives, plays and in this instance works, its impact on the boardroom is increasingly significant. Boards that embrace AI can gain a competitive advantage by improving decision-making, reducing risk, and enhancing overall business performance. Therefore, understanding the opportunities and challenges that AI presents to boards is crucial for any organization seeking to stay ahead of the curve.

Main questions:

- Explain AI deployment in executive-level decisions?
- Are current considerations 'AI for the Board' up to date?
- What is the state of adoption of Al governance, by corporate Boards?

List of panellists:

- Prof. Ashley Braganza, Professor of Business Transformation, Brunel University
- Sue Turner OBE, Founding Director, Al Governance Limited
- Pauline Norstrom, CEO, Anekanta Consulting
- Dr. Andrew Rogoyski, Director of Innovation and Partnerships, Surrey Institute for People-Centred AI
- Richard Foster-Fletcher, Founder & Executive Chair, MKAI



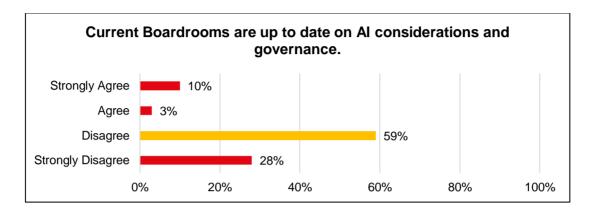
(From L-R: Prof. Ashley Braganza, Prof. Birgitte Andersen, Richard Foster-Fletcher, Pauline Norstrom, Dr. Andrew Rogoyski, Lord Clement-Jones CBE, Stephen Metcalfe MP, Sue Turner OBE)

This meeting was chaired by Co-Chairs Lord Clement-Jones CBE and Stephen Metcalfe MP.

Parliament has appointed Big Innovation Centre as the Secretariat of the APPG AI, led by Professor Birgitte Andersen (CEO). The Project Manager and Rapporteur for this meeting is George Farrer.

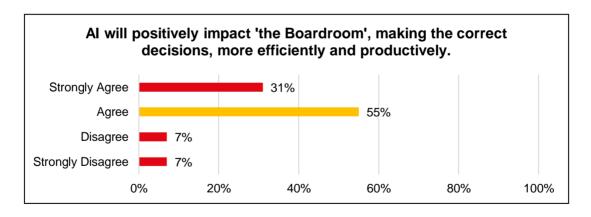
2. APPG AI Pavilion Survey

Prior to the APPG Al meeting, a survey was issued on the APPG Al's Pavilion Platform.



Question 1 asked APPG members whether they thought that 'current Boardrooms are up to date on AI considerations and governance'.

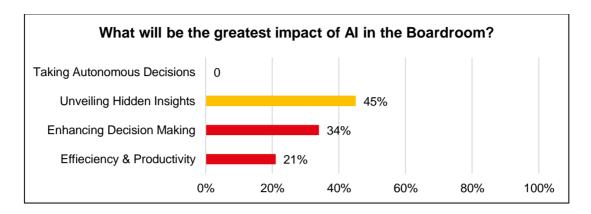
It is clear to see that the majority of the APPG AI Community do not agree that current Boardrooms are up to date. 59% of respondents 'disagreed' with the initial statement, and a further 28% 'strongly disagreed'. In all, only 13% of those that completed the survey felt that current Boardrooms are up to date on AI considerations and governance. This feeling was somewhat shared by the expert panellists at this evidence session.



Question 2 proposed the statement that 'AI will positively impact the Boardroom', making the correct decisions, more efficiently and productively'. Over half (55%) of survey respondents voted 'agree' in response to this statement, and 31% went further, 'strongly agreed'. Therefore, it is evident that the community believe AI will be of great benefit to Boardrooms in the future, leading them to more productive and efficient decisions.

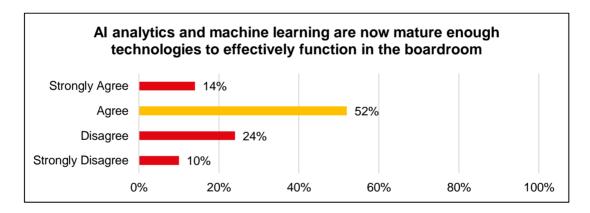
In total 14% either 'disagreed' or 'strongly disagreed' with the initial statement. These

respondents may put forward the argument that AI needs to be developed much further before being able to have any positive impact on the Boardroom, and that the current makeups of Boardrooms are enough to achieve the best decisions.



Question 3 asked members of the APPG AI Community what they believed the greatest impact of AI in the Boardroom to be. 'Unveiling hidden insights' was the highest rated benefit, receiving 45% of the vote, with 'enhancing decision making' second with 34%. 'Unveiling hidden insights' refers to the fact AI can analyse in a way humans cannot and provide information that the naked human eye may miss when attempting to take a decision.

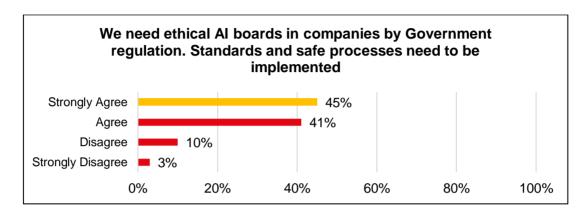
Furthermore, 21% of votes went to 'efficiency & productivity' as the greatest impact of AI in the Boardroom, whilst 'taking autonomous decisions' received no votes from members of the APPG AI Community. This may suggest that those that took the survey still would like a human-in-the-loop in the Boardroom, and not allow AIs to make crucial decisions on their own.



Question 4 asked members of the APPG Al community whether 'Al analytics and Machine Learning are now mature enough technologies to effectively function in the Boardroom'.

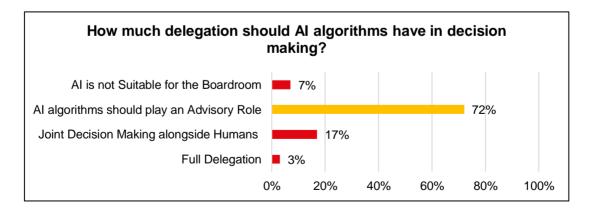
The results indicate that the majority of the respondents, 66%, either 'agree' (52%) or 'strongly agree' (14%) that these technologies are now mature enough to effectively function in the Boardroom. This indicates a growing acceptance and confidence in the potential of AI analytics and Machine Learning to contribute meaningfully to Boardroom decisions.

However, the survey also reveals that a considerable percentage, 34%, either 'disagree' (24%) or 'strongly disagree' (10%) with the statement. This indicates that there are still individuals who may not be convinced of the effectiveness of these technologies in the Boardroom and may need further convincing or education about their capabilities. Additionally, they could believe that Als themselves need to develop further and become more mature before they are able to have an impact in the Boardroom.



Question 5 presented the statement, 'we need ethical AI Boards in companies by Government regulation'. Standards and safe processes need to be implemented. The result from this question, indicates that a majority of respondents, 86%, 'agree' or 'strongly agree' that ethical AI Boards should be established in companies by government regulation. This suggests a growing recognition of the potential risks and challenges associated with AI Specifically, 45% 'strongly agree' and 41% 'agree'. However, 13% either 'disagree' or 'strongly disagree'.

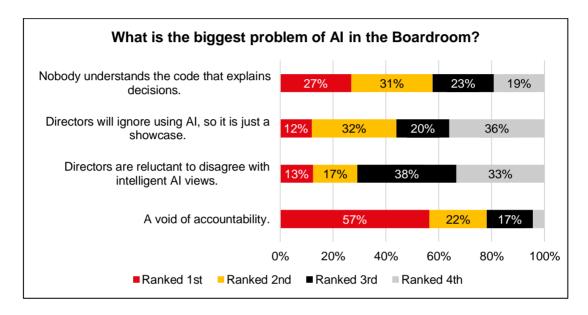
The results suggest a growing recognition of the need for ethical AI practices, but some individuals may still not believe that government regulation is necessary or effective. The question highlights the need for regulatory bodies to play a role in ensuring responsible AI development and deployment.



Question 6 questioned the extent of delegation; Al algorithms should have when it comes to decision making. The results indicate that a significant proportion of respondents, 72%, believe that 'Al algorithms should play an advisory role', while only very a small proportion, 3%,

believe that 'Al should operate without human involvement (full delegation of responsibility to Al)'.

This question also reveals that a considerable minority, 17%, believes that 'Al should operate alongside humans (joint decision-making)', suggesting a belief in the potential of Al to contribute to decision-making processes, but within a collaborative context that involves human judgment. 7% of respondents believe that 'Al is not suitable for the Boardroom', suggesting a growing acceptance of the potential benefits of Al in decision-making processes.



Question 7 asked members of the APPG AI Community what the biggest problem of AI in the Boardroom is. The main concern of the respondents was that there is 'a void of accountability', with 57% ranking this as their main concern, and a further 22% ranking it as their second highest concern of AI's introduction into the Boardroom. The absence of clear accountability in the context of AI in the Boardroom can result in a lack of responsibility for the decisions made by AI algorithms, potentially eroding trust, and confidence in the decision-making process.

'Nobody understands the code that explains decisions' can be considered the second biggest problem of AI in the Boardroom. 27% ranked this their first choice, and a further 31% ranked it as their second choice. This concern underscores the importance of interpretability and transparency in AI algorithms, as a lack of understanding of the decision-making process can lead to distrust and hinder the ability of human decision-makers to make informed decisions.

Furthermore, 'directors will ignore AI, so it is just a showcase' (12%) and 'directors are reluctant to disagree with intelligent AI views' (13%) received the least first ranked votes, and both gained the two largest proportions of fourth ranked votes.

3. Recommendations for policymakers

- 1. It is crucial for policymakers to identify the sectors that have achieved significant strides in the adoption of Artificial Intelligence (AI) and those that have not. By doing so, policymakers can concentrate their efforts on prioritizing the implementation of AI in the Boardroom, thus guaranteeing a cohesive and efficient AI ecosystem that benefits every sector. IT, information services, storage, and logistics are among the sectors that have demonstrated strength in AI adoption. Conversely, the arts, education, construction, administration, and support services have been identified as having low levels of AI adoption.
- 2. There are evident differences between how Board members believe they are adopting AI, and what the rest of their organisations believe to be the case. Surveys detailed by our expert speakers display that senior company members consider themselves to have a strategy around AI, whereas mid-level managers and other workers don't agree. Board members don't have knowledge and a clear vision on how to realise the benefits of AI, something which is paramount when introducing AI into the Boardroom.
- 3. There was agreement from our expert speakers that there is little or no formal governance for Al in organisations, and therefore the extent of whether Al is in the Boardroom, is questionable. It was asserted by our experts that Boards must take responsibility for governing Al within the company, and continuously monitor the regulatory environment. Board accountability is absolutely paramount when it comes to Al.
- 4. Boardrooms are currently ill-equipped to harness the many benefits of Al. This can be counteracted by major investment from Boards to adopt Al properly. Al considerations must be on the agendas of Boards, so they can harness the power of the technology. Boards may have to consult externally to avoid mistakes when deploying Al and have a more successful and agile response to changes within Al.
- 5. Clear definitions of what AI is, are required for AI to be fully adopted in Boardrooms. According to our exert speakers, many Boards struggle to understand what AI is and the use cases of the technology, let alone the risks. Education is required to increase and awareness and understanding of AI within Boards. Many Board members entered business in a pre-digital era, therefore increasing AI skill levels across educational settings in the UK, will help solve this problem in the future.

There was consensus at this evidence session that **Boards are currently ill-equipped to harness the power of Al**. Several of our expert speakers detailed surveys, that stated that Boards believe that they have a strategy for Al adoption, however the rest of the organisations did not believe that the Boards had a cohesive plan for dealing with and harnessing Al. Prof. Ashley Braganza, spoke about how it is believed Boards do not have the required knowledge to reap the rewards of Al. **The root cause of this may be attributed to the absence of robust governance policies and procedures related to Al implementation in organizations**, which was identified as another significant finding in the surveys detailed at this session.

To enhance the correct adoption of AI in Boardrooms in the UK, it was suggested by our expert speakers that **education**, **at all levels**, **is required**. Prof. Andrew Rogoyski, put across the point that many Board members entered business in a pre-digital era, so were not exposed to modern technologies, such as AI, in their formative years; therefore, they may lack understanding of such technologies. As a result, the experts at this meeting suggested that **significant investment in education**, **at all levels**, **is required in order to put AI considerations on the agendas of Boards**. Sue Turner OBE suggests the creation of 'AI for business' training is required to increase knowledge around AI issues, and Pauline Norstrom posits that an educated Board may make better decisions around AI. Conversely, but still on a similar train of thought, Richard Foster-Fletcher states that businesses, and specifically Boards, may have to consult externally in order to counteract the lack of understanding of AI.

Prof. Ashley Braganza, Professor of Business Transformation at Brunel University London, starts by detailing the results of a survey run by Brunel. Results showed **that senior executives in the Boardroom believe they have a strategy for AI**, whereas others in the organisation don't believe this to be the case. This sentiment is followed by another question where 63% of Board members think they are aware of AI or applications of AI in their organisation, yet only 50% of the rest in the organisation thought the Board had awareness of AI.

Following on, Prof. Braganza details how **Board members should really have a high level of awareness of bias in organisations**. However this does not line up with the results of Brunel's survey. Only a third of Board members and 60% of the rest of the organisation think that their company was not aware of how bias was treated, or did not have a clear system for managing bias out of their Al applications.

Finally, the data in Brunel's survey shows that Board members and the rest of organisations agree that there is **limited or no governance of Al**. Moreover, when looking at accountability, despite three quarters of Board members believing they are accountable for Al, just over half of junior managers thought the Board were taking accountability for Al.

Sue Turner OBE, Founding Director of Al Governance Limited, presented to the APPG Al the

results of the Al Governance Report¹, published in December 2022. It was found that 58% of organizations either lack Al expertise on their Boards or are uncertain about their proficiency in this area. This leaves leaders without the necessary knowledge to make informed decisions regarding Al investment and utilization, therefore are unable to effectively choose and utilize Al-powered tools to assist their business decision-making, which causes two issues. Firstly, the economy requires organizations to invest in Al and Machine Learning tools while mitigating their potential negative impacts. Secondly, Al-based tools may enter organizations undetected, as illustrated by an example in the report where a company discovered the presence of Al only after it flagged a call as inappropriate behaviour. This underscores the need for managers and directors to have enough knowledge to inquire about Al in their organizations and supply chains.



¹ Al Governance Limited. **'2022 Al Governance Report'** (2022). https://aigovernance.co.uk/services/research/#AlG-report

Figure 1: Al in the Boardroom - Key points to consider.

Turner also highlights that 91% of organisations have no structures that would control the use of AI within their organisations. Additionally, **that the more Board members know about AI, the more likely they are to spot risks and subsequently control AI use.** Turner states that sectors such as IT, transport, storage and logistics, are in the best position to do this, whereas the construction, energy, utilities and administration sectors are not in a strong position to recognise AI-related risks. Turner states that all sectors need to 'up their game' when it comes to controlling AI use.

Finally, Turner explains the recommendations that she has for policymakers. First, programmes for executive and leader education where directors in the UK need to be brought up to speed on what AI is and how they can harness the power of the technology. Second, an awareness campaign so that Boards understand and take responsibility for the governance of AI. Turners final recommendation was around regulation. The 2022 AI Governance Report found that 59% of Board members were not aware of what AI-regulations were being considered. Turner would like Government to quickly find common areas on which a single set of regulations can be based.

Pauline Norstrom, CEO of Anekanta Consulting, gave evidence to APPG Al surrounding an **Institute of Directors**² Survey around Boards and Al. 17% of those in the survey said that Board members were knowledgeable about the opportunities and risks of Al, with a further 25% stating that there were Al experts on their Boards. However, 33% of respondents detailed that there was no Al expertise on their Board. Furthermore, Norstrom states that there seems to be interest in adding Al to Board agendas, however the survey shows that 80% of Boards did not have a process in place to audit their use of Al.

Additionally, Norstrom explains the **Institute of Directors Al in the Boardroom framework**³, which details principles for which the Board does remain accountable. These include, 'monitoring the regulatory environment', 60% of survey respondents said they were not aware of current developments; 'establishing Board accountability'; 'test and remove Al from use if bias and other impacts are discovered'; and 'continually audit and measure what Als are in use and what they are doing'.

Norstrom finishes with some recommendations for Parliamentarians. She echoes a previous point around education for Boards, putting priority on training of what constitutes AI in businesses. Moreover, highlighting future standards such as ISO/IEC42001⁴, which may close the gap between businesses and regulation. Norstrom final recommendation surrounds the AI white paper, set for release in late 2023. This paper will provide clarity for Boards on a

² Institute of Directors. https://www.iod.com/

³ Institute of Directors. 'Al in the Boardroom: The Essential Questions for your Next Board Meeting' (2023). https://www.iod.com/app/uploads/2023/03/loD-The-Al-in-the-boardroom-3d69e07919bad710b0d29fb309e6d5ce.pdf

⁴ ISO/IEC 42001. https://www.iso.org/standard/81230.html

tangible set of Al risk criteria, from which they can direct their audits. This will help directors become more accountable for the impact of their activities.

Dr. Andrew Rogoyski, Director of Innovation & Partnerships at the Surrey Institute for People-Centred AI, states that it is the **awareness and understanding of digital technology that is difficult to infiltrate into Boards**. Dr. Rogoyski suggests that this may because many Board members entered business in the pre-digital area so therefore may not understand the technology. Furthermore, he expresses that **many Boards look for benchmarking and how their organisation is doing compared to others**, which could be a reason as to why AI take-up by Boards in the UK is poor.

Dr. Rogoyski, proposes that **Boards need to be agile and be better prepared for a quick response**. The AI world is extremely fast moving with new developments such as generative AI, like **ChatGPT**⁵, disturbing businesses. Therefore, Boards need to be thinking on their feet and dealing with this better. Furthermore, Dr. Rogoyski implies that **Boards need to be able to deal with ethical challenges**, such as the implication AI has on job futures. For example, dealing with AI in the supply chain, and AI and safety of life applications has a significant implication on the future of work which Boards need to consider.

Finally, Dr. Rogoyski appeals to policymakers to ensure that AI is implemented in the UK teaching curriculum. **Digital skills will not happen unless AI skills are taught at secondary and tertiary levels**. Dr. Rogoyski explains that there is a quick timeline for this, as AI skills taught at A-Level and at universities can be in the workforce within five years.

Richard Foster-Fletcher, Founder & Executive Chair at MKAI presents some examples of poor applications of AI by corporates and Government's recently. Stories around **Nikola Trucks**⁶, **Lemonade Insurance**⁷, **Zillow**⁸, and the **Dutch Government** who resigned when they wrongly accused hundreds of thousands of people of benefit fraud⁹. **Foster-Fletcher believes** that corporate executives, like the organisations above, are taking shortcuts in the race to deploy AI and are ultimately being reckless.

Foster-Fletcher affirms that MKAI's¹⁰ belief is that companies have to consult externally, to overcome such blind sports with those who are not involved within their

⁵ ChatGPT, developed by OpenAI. https://openai.com/product/gpt-4

⁶ **Nikola Trucks.** 'The founder of a zero-emission truck venture is found guilty of fraud' (2022). https://www.npr.org/2022/10/14/1129248846/nikola-founder-electric-trucks-guilty-fraud

⁷ **Lemonade Insurance**. 'Lemonade faces class action lawsuit over alleged mishandling of customers' biometric data' (2021). https://www.insurancebusinessmag.com/us/news/breaking-news/lemonade-faces-class-action-lawsuit-over-alleged-mishandling-of-customers-biometric-data-308303.aspx#:~

⁸ **Zillow.** 'Zillow's home-buying debacle shows how hard it is to use AI to value real estate' https://edition.cnn.com/2021/11/09/tech/zillow-ibuying-home-zestimate/index.html

⁹ Dutch Government Benefits Scandal. 'A benefits scandal sinks the Dutch government' (2021). https://www.economist.com/europe/2021/01/23/a-benefits-scandal-sinks-the-dutch-government
¹⁰ MKAI. https://mkai.org/

organisations. Foster-Fletcher states that Boardrooms are failing and that companies must start to consult externally and challenge themselves in the race and deploy AI, to curtail the recklessness.

4. Evidence statements

Prof. Ashley Braganza, Professor of Business Transformation, Brunel University London



Brunel Survey

What I'm going to be talking to you about today is one piece of research that we've done very recently. We've been looking at AI in the Boardroom and conducted a very large survey, across large companies (who have 250 employees or more). Of these companies, 60% operate in the UK, and the others have operations either in the UK and Europe, or in the UK and the rest of the EU.

We looked at AI adoption, and for our purposes, we looked at AI adoption conceptually as consisting of six indicators:

To what extent has the organization's strategy...

- Changed its culture.
- Changed its structure.
- Changed the operations.
- Changed the area of ethics.
- To what extent are they taking into account some of the ethical issues?
- We also looked at the area of skills.

For each of these areas, we created a set of measures that we then wrapped up in a survey and sent out. We received over 3,500 responses but had to exclude some because of inconsistencies – they were either incomplete or they didn't meet some of our screening criteria. We ended up with 975 responses, therefore this is a fairly large-scale survey. The angle we've taken in terms of the data is to compare what do chief executives, directors, people in the Boardroom, think about some aspects of AI, as opposed to middle and more junior managers – who we're treating as the rest of the organization.

Here are some of the highlights. At a high level when it comes to strategy, and strategy for adoption, the senior people in the Boardroom seem to think that they have a strategy for Al. Interestingly, the rest of the organization aren't quite as sure. We looked at 22 sectors, and IT and information services seem to be at the forefront, whereas other areas such as education, arts, entertainment, and some of the creative industries, are perhaps not as advanced in terms of Al adoption.

Awareness of and Support for AI Applications

In terms of AI deployment for executive level decision making in terms of awareness of and support for AI applications, 63% of Board members claimed they were aware of AI and AI applications in their organization. Whereas only 50% of the rest of the organization thought that the Board members had any awareness of AI in the organization, or actually disagreed that the Board had awareness of AI in the organization.

Similarly in terms of benefits from AI transformation here, the majority of Board members felt that they did not have a clear picture of benefits of AI through the organization, and that was reflected in what the rest of the organization felt as well.

AI Consideration

The second area was looking at AI consideration, again I've only picked on a couple of issues. We've talked about bias in AI, and you would've thought, given all of the press coverage around bias in AI, that there should be quite a high level of awareness. Yet a third of Board members, and just under 60% of middle managers (i.e., the rest of the organization), felt that their organization was either not aware of how bias was being treated in the organization, or felt that the organization didn't have any clear system for managing bias out of their AI applications. We looked at employee morale, and again, when it came to Board members and middle managers, there was not a high level of consciousness in terms of how AI was going to affect employee morale as it was being deployed through the organization.

Governance of Al

The last question was related to the governance of AI and the state of governance. Again, our data suggests that this is one area where actually the Board members and the rest of the organization all agreed. The agreement was that actually there was little or no formal governance for AI in organizations. I have to say that for me, all of them was, was quite

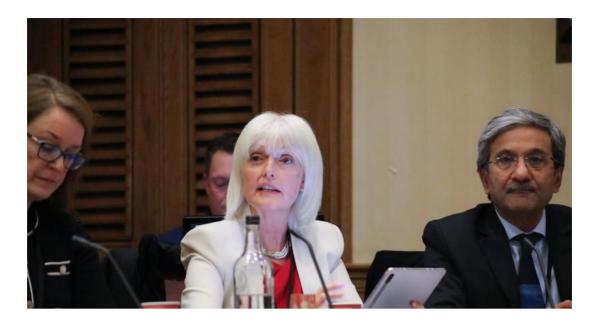
surprising.

We asked about accountability for AI in the organization. 74% of Board members agreed that they were accountable for AI through their organization. Yet only 52% of middle and junior managers felt that the Board members were actually taking accountability for AI.

Concluding Remarks

What does all this mean? Please bear in mind, in terms of data analysis, we're still in the early stages of analyzing the data. Some of the themes that are coming through very clearly, at least from what we've seen, is that there is quite a big discrepancy between what the Board are thinking they're doing in AI and what the rest of the organization thinks is actually happening in AI.

In answer to the question of the title of today is AI in the Boardroom. I think the extent of AI in the Boardroom is questionable.



Introductory Remarks

I'm dedicated to helping people use AI better. My career covers leadership roles in both entrepreneurial private businesses and not for profits. In roles from Non-Executive Director to CEO I was frustrated that data in organisations is kept in silos with too few ways to gain insights that are useful to the organisation. This came to a head back in 2018, as a CEO I'd heard that AI and natural language processing could find patterns hidden in the data in my organisation, but no-one could tell me how to make it work. Cutting a long story short, I realised I would have to find out for myself, so in 2020 I was part of the first cohort to study the new conversion course Masters degree in AI & data science, backed by Government funding.

During my Masters year, I spotted the need to shift power so that more people and organisations can make use of AI & avoid it being the preserve of only large tech companies. So I set up **AI Governance Limited**¹¹ - a micro business with a big mission "To inspire as many organisations as possible to use AI with wisdom and integrity". We provide a range of services, from business consultancy and Board development to executive education and research.

Al Governance Report

And it's the results of our latest research that I'm going to share with you today. **The Al Governance Report**, published last month (December 2022), analyses data from over 700 leaders, mostly in the UK, and revealed that UK leaders are ill-equipped to harness the power of Al in the Boardroom or in their operations.

We asked a lot of questions to find out how well prepared the leaders were to take advantage

¹¹ Al Governance Limited. https://aigovernance.co.uk/

and harness the power of Al.

The headline finding is that 58% of organisations either have no AI expertise on their Boards or do not know what proficiency they may have. Leaders do not have the knowledge to be confident in making decisions to invest in AI, so they are in no position to select AI-powered tools to assist their decision-making in the business, let alone use them wisely.

This spells trouble for two key reasons:

First, because, our economy needs organisations to be investing, and getting the best out of, AI and Machine Learning tools whilst controlling the potential negative impacts.

Secondly, AI-based tools are getting into organisations without management being aware that it's there. I give the example on page 9 of the Report of a company which installed a new phone system and only found out that it used AI-based language modelling and sentiment analysis when the system flagged a call as showing inappropriate behaviour. The presence of AI was never mentioned during the purchase of the system. This highlights how important it is for managers and directors to have sufficient knowledge to ask questions, so they find out where AI is in their organisations and supply chain.

As well as lack of knowledge of AI, the AI Governance Report found that 91% of organisations have no structures or processes in place to control the use of AI internally or in their supply chains.

The Report showed that the more informed Board members are about AI, the more likely they are to recognise the potential risks and put mechanisms in place to control AI use. The sectors best placed to do so are:

- IT.
- Information and Communications.
- Transport.
- Storage.
- Logistics.

On the other hand, Boards in the following sectors have low levels of Board AI knowledge, and low levels of control.

- Construction and property.
- Energy, utilities & waste.
- Administrative and support services.

Even where Boards have some Al knowledge, only 18% have a structure to control Al use so all sectors need to up their game.

In recent years, my clients and Boards I'm a member of, have ratcheted up their risk registers

and undertaken Board development to include issues like cyber security and climate risk as awareness of these issues has grown. We now need a major push to get Al considerations on the Board agenda and risk register too.

Recommendations for Parliamentarians

Turning now to the recommendations to parliamentarians, there are 3 key recommendations from the **Al Governance Report** where action by parliamentarians matters. They cover skills, structure, and regulation.

Firstly skills. For the UK to be world-class in applying AI for decision-making in the Boardroom and across the organisation, we need programmes of executive and leader education. There are well over 1 million Directors in the UK who need to be brought up to speed on what AI is and how to harness its power - not to mention their managers plus leaders in public sector and not for profits. Many "AI for business" courses don't teach what leaders and executives need to know and the good courses are often expensive - the **Oxford Executive Diploma in AI for Business**¹² will cost you over £29,000. That price makes it totally unaffordable for the vast majority. To bridge the gap, **AI Governance Limited** provides an affordable online course to give leaders the essential start they need in understanding AI and considering how to use it wisely in their organisations, but much more needs to be done. I urge you to consider how government and its agencies can incentivise the creation of much more affordable courses and giving broad "AI for business" training.

Secondly, structures. Government bodies have been important in getting Boards to realise that they cannot delegate all thinking about cyber security to IT departments. We need a similar awareness campaign, so Boards understand and take responsibility for governing AI.

When it comes to structures, one size will not fit all - for example, my clients that are "fleet of foot" entrepreneurial businesses are not interested in setting up AI Ethics Committees, it wouldn't fit - so we should promote the questions to ask, rather than mandating specific structures or processes.

The third and final recommendation concerns regulation. The Report found that 59% of Board members are not aware of what AI-related regulations are being considered. As I wrote in my submission to DCMS, whilst there is merit in the planned light-touch, pro-innovation approach to AI regulation, it will take too long for the different regulators to clarify their plans, come up with their own pieces and then put them together. Government should speedily find common areas on which a single set of regulations can be based.

¹² **Oxford Executive Diploma in Al for Business.** https://www.sbs.ox.ac.uk/programmes/executive-diplomas/oxford-executive-diploma-ai-business

Concluding Remarks

To conclude, I ask this APPG has a fantastic role to be like the canary in the coalmine, alerting Government, regulators, and business leaders to trouble ahead so action can be taken across skills, structures, and regulation, to improve them. That way we can accelerate the opportunities - and minimise the threats - from AI in the Boardroom.

Pauline Norstrom, CEO, Anekanta Consulting



Introductory Remarks

I bring evidence on behalf of the **Institute of Directors** (IoD). Its 20,000 membership includes Chartered Directors of all business sizes from a wide range of sectors in the UK. I am a Fellow of the Institute and member for 10 years. I am also the Founder and CEO of **Anekanta Consulting**¹³, an advisory business which is focused on the research and impact mitigation of high-risk AIs, such as those which can be used to make autonomous decisions.

I possess over 20 years Board governance experience in private technology companies prior to Anekanta. In 2014 was elected as a non-exec voluntary Chair of the **British Security Industry Association**¹⁴ responsible for governance. I sit on a number of ethics and standards committees such as **BSI**¹⁵ and the **Digital Catapult Machine Intelligence Garage**¹⁶, driving trustworthy, ethical AI frameworks for the UK and internationally.

The IoD's members have recognised the need to guide Directors towards a better understanding of certain technologies, and in response its expert advisory group recently published a glossary of terms explained in plain language. Furthermore, IoD's new Al in the Boardroom framework informs Directors from a top-down perspective, to help them to ask the right questions of their organisations and to implement Al technology ethically, legally and for the benefit of stakeholders.

¹³ Anekanta Consulting. https://anekanta.co.uk/

¹⁴ British Security Industry Association. https://www.bsia.co.uk/

¹⁵ British Standards Institution. https://www.bsigroup.com/en-GB/

¹⁶ Digital Catapult - Machine Intelligent Garage. https://migarage.digicatapult.org.uk/

Institute of Directors Survey

The global spending on AI based technologies topped \$100 Billion in 2022¹⁷ (according to the International Data Corporation). However, are Boards in step with their organisation's use of AI? We were informed through wider research and an a IoD survey of 700 members. We asked whether Boards have an internal process in place to check whether AI is being used by their business and supply chain?

- 8% said they already do.
- 32% said they were planning to do so in the future.
- 54% said it was not relevant to their business.
- 6% didn't know.

A growing Board interest in AI is reinforced by our findings when we asked how knowledgeable the Board members are about the potential opportunities and risks of AI?

- 17% said that Board members were.
- 25% said they have experts on their Board who lead Al issue this is encouraging.
- 10% of respondents said that AI is not a Board issue.
- 33% said they had no expertise on the Board.

It can be assumed that there is interest in doing something, however, the research indicates that 80% of Boards did not currently have a process in place to audit their use of Al. It could also be argued that is it difficult, if not impossible, for a Board to assess risk with so little visibility. This suggests a gap between the grass roots of the organisations and their accountable body.

It appears that AIs may be adopted without Governance oversight. When asked about Board awareness of the Government's plans to regulate AI...

- 24% of respondents felt that regulating aspects of the use of AI would provide a level playing field.
- 5% said that regulation may introduce barriers for their business.
- 60% were not aware of any regulation being considered.
- 12% didn't know about the issue at all.

The research showed that Boards would like clear definitions for different Als and legal certainty for those which can cause the greatest harms, such as recruitment bias. They said they didn't know what questions to ask the organisation.

Our researchers asked ChatGPT what the most used AI is in business in the UK, and

¹⁷ 'Worldwide Spending on Al-Centric Systems Will Pass \$300 Billion by 2026, According to IDC' (2022) https://www.idc.com/getdoc.jsp?containerId=prUS49670322

unsurprisingly it said that "over 86% of businesses already use chatbots however Boards may not be aware of this". It stressed that a "process for reviewing AI usage and risks is a crucial step for companies to ensure that their AI systems are being used ethically, and that they are aligned with the company's goals and values". This all seems obvious if you know about AI. However, for many Boards the field of AI seems complex, and they are struggling to understand the use cases let alone the risks, although their organisations are likely to be purchasing AI based tools already. Boards generally respond to regulatory risks, yet there is a low awareness of the Government's plans. Boards may be caught out through the opaque nature of AI usage and may be left to unravel costly reputational mistakes later.

To keep things straightforward for non-Al developing businesses, the **loD's Al in the Boardroom framework** sets out a number of principles for which the Board remains fully accountable. They include:

- 1. To monitor the evolving regulatory environment (60% said they weren't aware).
- 2. To continually audit & measure what Als are in use and what they are doing.
- 3. To undertaking impact assessments which consider the business and the wider stakeholder community.
- 4. Establish Board accountability.
- 5. Set high level goals for the business aligned its values.
- 6. Empowering a diverse, cross functional ethics committee that has the power to veto.
- 7. To document & secure data sources.
- 8. Train people to get the best out of it and to interpret the results.
- 9. Comply with privacy and secure by design requirements.
- 10. To test and remove from use if bias and other impacts are discovered.
- 11. Review regularly.

We believe that the framework will equip Directors to be ready to govern when AI based products find their way into their business. Directors respond to risk, and currently they do not have a consistent way of assessing risk due to a lack of government regulation and the opaque nature of business tools which embed AI technologies.

Recommendations for Parliamentarians

An education process is clearly needed to inform Boards what may constitute AI in their businesses. Also, to encourage leadership to maintain the guardrails which encourage ethical use and limit potential harms. An educated Board may increase the demand for skills and expertise needed to implement AI for good and in doing so achieve the maximum competitive benefits.

The Centre for Data, Ethics, and Innovation¹⁸ may provide certainty through a layered approach to impact and risk assessment through to audit and certification. We believe that

¹⁸ **Centre for Data Ethics & Innovation.** https://www.gov.uk/government/organisations/centre-for-data-ethics-and-innovation

software and hardware which embeds AI should be transparent and explainable. Standards such as the AI management system **ISO/IEC42001** (an ISO9001 equivalent) when ratified this year, may bridge the gap between regulation and business. It is for any business developing or using AI based technologies.

However, we believe that the greatest impact will be achieved if the AI regulation white paper provides much needed clarity. Such clarity may provide Boards with a tangible set of AI risk criteria through which they can direct their audits. New AI regulation combined with a change to the **Companies Act 2006 Section 172**¹⁹ may set out clear guardrails for potentially harmful AIs and compel the Directors to be accountable for the impact of their activities on the stakeholder community.

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¹⁹ Companies Act 2006: Section 172. https://www.legislation.gov.uk/ukpga/2006/46/section/172

Dr. Andrew Rogoyski, Director of Innovation & Partnerships, Surrey Institute for People-Centred AI



I spent 30 years in tech industry before rejoining academia, and during that time, I had the good fortune to work in a large number of cybersecurity companies. It's that parallel that I wanted to bring out. This included two years in The Cabinet Office as part of the **National Cybersecurity Program**²⁰, and then creating and running probably the UK's largest cyber business. The parallels between cyber in the Boardroom, and AI in the Boardroom, are very striking. Cyber probably has a five-year head start, so I think there are lessons to be learned. I just wanted to share 10 points that I think are the hard earned lessons.

Starting with psychology of communicating with Boards. It is a digital technology and awareness and understanding of digital technology, that remains persistently difficult to get into Boards. This is probably because, dare I say, Boards are typically of an age where they entered businesses in a pre-digital era and have not necessarily understood their DNA - they're not disciplinated. There are a number of other characteristics, such as: the difference in language for different parts of the Boards; the tendency to want to appoint someone to be responsible to take it off their hands; the tendency to get fatigued by hype, both in cyber and now with AI; the tendency to look for benchmarking, to understand how their organization is doing in relation to other organizations – that's a very powerful driver actually, and something that we can leverage.

²⁰ National Cyber Security Centre. https://www.ncsc.gov.uk/

Reaching for policies for standards and regulation, 'what do we have to do', was a very common story in the cyber world, and is seen recurring in the AI side. There's, there's a long history to both, these are not sudden subjects that have come into the fore in the last five years, they've been around for 25 or 30 years. The smart Board members will know that and prepare in the context of hype.

The second thing is Boards need to be agile, they need to be prepared for quicker response. In the cyber world, this was all about responding to breaches. In the AI world, it's actually recognizing that the field is changing extremely fast. As mentioned earlier, **ChatGPT** has actually disturbed a number of businesses and given a very real example of how it's impacting our world, including the world of education.

The third is that AI, like cyber is an international game, not necessarily driven, much as we invented the stuff, by the UK. It's driven by the US and increasingly China. China has overtaken the US in terms of scientifically cited AI research, and that's changing the geography, the geopolitics of innovation around the world.

We've touched on legislation and regulation. The high-tide mark in cyber was probably an introduction of GDPR that drove a lot of businesses to pay attention. But we've now got the **EU AI Act**²¹, we've got the **US Bill of Rights for AI**²², and we've got the promised white paper the later in the spring²³. There is a tendency for businesses to say that it's a government problem, we look to government to make that leadership without necessarily understanding the role of regulators. One of the interesting things that came to the fore in cyber was the introduction of cyber insurance, of recognition from some businesses that there was an opportunity to drive behaviors, through the use of insurance. That changed behaviors as well - I'm not sure the parallel with AI, but it was an interesting turning point for cyber.

Fifth point, ethical challenges. Lots of people struggle with the idea of cyber hacking - we just wanted to hack them back, can't we do what they're doing to us? No, you can't. The same pervades Board decision making on AI. The reality of adopting AI, the reality of dealing with AI in the supply chains, when you don't necessarily know that you've got AI coming into the businesses and the imposition of AI and safety of life applications, the implications for job futures. People like PWC saying, well the GDP could grow by 10%, but the ONS saying, well, actually 20 million workers²⁴ are going to be impacted by the rise of automation.

Point, six, which is the Board's engaging through industry bodies. Through the IoD, the CBI²⁵

²¹ **EU AI Act**. https://artificialintelligenceact.eu/the-act/

²² Blueprint for an Al Bill of Rights. https://www.whitehouse.gov/ostp/ai-bill-of-rights/

²³ The UK Office for Artificial Intelligence is currently producing a white paper, due for release in 2023.

²⁴ Office for National Statistics. **'Which occupations are at highest risk of being automated?'** (2019).

https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/whichoccupationsareathighestriskofbeingautomated/2019-03-25

²⁵ Confederation of British Industry (CBI). https://www.cbi.org.uk/

through **TechUK**²⁶, has a great normalizing effect on businesses. So, when you are unsure on a Board as to what to do, actually seeing your peers talking about the subject, again is an immensely powerful motivator. Seven, both require its significant investment. One of the interesting things about AI is you can do AI on the cheap, because you can download models from the open-source community and stick it into products where actually you don't really know the provenance of the software that you're running, and that's potentially quite dangerous.

Point eight, cyber and AI are inimically linked. Increasingly AI is being used in some cyber-attacks and cyber needs to be a part of the use of AI. So, the two are intertwined there.

Number nine is skill shortages. That's a ubiquitous request. Every organization I ever talk to, number one is that our seniors don't understand it, and we actually can't recruit enough juniors. A **DCMS** report in 2021²⁷ did some analysis on this and found that half of those classified as AI specialists and organizations had PhDs, which is a very high level to try and recruit to.

My final point which is really an appeal to not just get AI into the Boardroom, but get AI into the curriculum. Until we start populating AI skills at, at the secondary, tertiary level and getting it into every course, making sure that it's part of our educational DNA, we will not get the digital skills. Actually it's a very quick return rank to buck because AI skills taught at A-Level, and university level can get into the workforce and into effect within five years potentially. And I think that's a very powerful lever.

²⁶ **TechUK**. https://www.techuk.org/

²⁷ Department for Digital, Culture, Media & Sport. 'Understanding the UK Al Labour Market: 2020' (2021). https://www.gov.uk/government/publications/understanding-the-uk-ai-labour-market-2020

Richard Foster-Fletcher, Founder & Executive Chair, MKAI



I want to explore the relationship between shareholder pressure, the race to deploy AI, and the requirement that we believe for external diverse stakeholder input through our experiences and to our empirical evidence.

Examples of Poor Al Corporate Applications

For context, in 2020, Trevor Milton, CEO then of **Nikola Truck**s authorized a truck with no engine, and the doors gaffer tape shut, to be rolled down a hill whilst they presented on Twitter their new hydrogen truck that would outpace any fossil fuel truck. He's no longer in employment and that looks like it's going to cost him a billion dollars. We all know the **Theranos story**²⁸, the pressure on these people to deliver something in a world where Uber can still not make a profit.

The list goes on with AI. **Lemonade Insurance** claimed they could tell if you were lying with their AI, incorrectly. **Zillow** siloed their decision-making algorithm data science department, on house prices, and in doing so lost 25% of their valuation, through getting it wrong. The **Dutch Government** all had to resign when they incorrectly accused 100,000s of people of benefit fraud, putting people's lives into misery.

In the race to deploy AI, corporate executives are taking shortcuts. They're not overcoming their blind spots and they're being reckless. Perhaps that's why Gartner says that 44% of all

²⁸ **Theranos Trial.** https://www.bbc.co.uk/news/topics/cgv37j8z65mt

Al projects fail for ethical reasons. **The Online Safety Act**²⁹ is something to be celebrated, and governance of course is critical. But testing, expertise and research are not enough. Al is not food - Al is not pharma. Testing, expertise, and research are not enough. We're talking about a technology that's exponentially developing.

What has to Happen?

It's our opinion that if we don't employ the external validation questioning of diverse stakeholders, that AI ethics is going to go exactly the same way as 'Environmental, Social & Governance'. Every company's going to have somebody with a fancy title and a big pay check, and they're going to have no empowerment, they're not going to be able to make a change. Consulting and software aren't going to change that.

So, it's our opinion, and only our opinion that these companies by force or by will, have to consult externally. They have to overcome those blind spots with people who aren't homogenized inside of their corporations or governments. That's what a company is. It's a group of people brought together to agree eventually and be able to deploy amazing things. It simply doesn't line itself up to be challenged in the race to deploy AI.

Just last year we saw **Canva**³⁰ deploy AI in that race. They heard about text to image generation tools, and they implemented it. When you search on Canva for CEO, you get a balance of genders and ages and skin colour. You get the same when he put in nurse or carer. When you do the same query with their text to image generation tool, you don't get that. Time and time again, we saw white, 30 something, men in suits when you put in the request for images of CEOs. We saw exclusively women when we asked for pictures of carers or nurses. How does that happen? That's not even a technology thing. That's an Australian company, run by a female that hasn't got the processes in place for somebody to speak up and say, 'does that generative AI represent the value of Canva?' How can nobody speak up in our organization to say that - an organization led by a woman with a sexist AI. They've got to go external. They've got to speak to people with different lived experiences.

It's what we're building. A collective, hundreds and hundreds of people soon to be thousands of people. We have 97 countries in our collective so far. We're working with CEOs right now, CEOs that are willing to be challenged to talk about their expectations, their own experiences, and see those gaps in their AI.

Concluding Remarks

To summarize, as we head into a climate crisis and mass extinction, at what point are we willing to admit that our Boardrooms are failing? They're failing to make the right decisions; they're failing to put planet and people over profit and continue to do so. Hopefully we can see AI ethics go a different way. Again, in our opinion, only if companies are willing to open up the

²⁹ Online Safety Bill. https://bills.parliament.uk/bills/3137

³⁰ Canva. https://www.canva.com/about/

discussion, speak externally, and be challenged in that race, deploy AI, so the mistakes, the shortcuts, the blind spots, and the recklessness are curtailed.

5. Speaker Bios



EVIDENCE MEETING:



AI IN THE BOARDROOM: AI ADOPTION AT THE EXECUTIVE LEVEL

MONDAY 23 JANUARY 2022 5:30 PM, UK PARLIAMENT - HOUSE OF LORDS











EVIDENCE GIVERS FROM LEFT TO RIGHT

- Prof. Ashley Braganza, Professor of Business Transformation, Brunel University London
- Sue Turner OBE, Founding Director, Al Governance Limited
- Richard Foster-Fletcher, Founder & Executive Chair, MKAI
- Pauline Norstrom, CEO, Anekanta Consulting
- Dr. Andrew Rogoyski, Director of Innovation and Partnerships, Surrey Institute for People-Centred Al

https://bicpavilion.com/about/appg-artificial-intelligence

<u>Prof. Ashley Braganza, Professor of Business Transformation, Brunel University</u> London

Professor Ashley Braganza is Professor of Organisational Transformation Change at Brunel Business School. His research interests encompass big data, change management, strategy implementation, process and knowledge management, and transformation enabled information systems. He completed a study of CEOs and CIOs to gain fresh insights into the role of CEOs in large-scale transformation programmes. He has published three books and over a hundred research articles, conference papers and working papers covering a range of topics on big data, business processes, change management, process orientation, knowledge management, governance, and organisation structure.

Sue Turner OBE, Founding Director, Al Governance Limited

Sue Turner is dedicated to using her expertise in AI and data governance and ethics to inspire organisations to use AI with wisdom and integrity. One of the first 14 people globally to be accredited in the Foundations of Independent Audit of AI systems, and with an MSc in Artificial Intelligence and Data Science, in 2020 she established AI Governance Limited to advise businesses and policy makers on pragmatic AI, data ethics and governance issues and making a positive societal impact.

She is a Non-Executive Director for a waste management company and for a financial services mutual. Her career spans entrepreneurial private businesses and not for profit organisations where she has led significant organisational growth, raised £27 million for charity and collaborated to shift power to help people improve their prospects. She was awarded the OBE in 2021 for Services to Social Justice.

Publications:

 Al Governance Limited, 'Al Governance Report' (2022). https://aigovernance.co.uk/services/research/

Pauline Norstrom, CEO, Anekanta Consulting

Pauline Norstrom has extensive Board Governance experience in international R & D and innovation companies focused on the commercialisation of sensor and analytics technology for security, transportation, smart cities and aviation. She brought Anekanta Consulting to life as its founder and CEO at the end of 2019 to focus on the ethical application of Al and biometrics technology. Alongside this role, she is also an Al ethics advisor to start-ups with the Digital Catapult and Board advisor to Archangel Imaging.

Pauline is a champion of ethics and good practice working in a voluntary capacity to drive forward good technology governance. As a Fellow of the IoD and member of the Expert Advisory Group for Science Technology and Innovation she and the team have created the IoD's Al Governance framework for Directors. This work was also recently cited in the IoD's Governance and Innovation Report published 2022.

Pauline has over two decades of technology ethics and governance experience in the security domain. She is an elected Honorary Member of the British Security Industry Association (BSIA) and a former Chair, now voluntary advisor on ethical AI and facial recognition software. She presented the BSIA's guide to the ethical and legal use of facial recognition software to the APPG AI evidence session on National Security and AI-driven Live Facial Recognition Software in 2021. She is also part of the BSI committee which is writing a new British Standard for the ethical use of facial recognition technology, and a member of the national standards committee for Artificial Intelligence.

Pauline completed the University of Oxford, Said Business School, Artificial Intelligence Programme early 2020, is working towards the IoD's Chartered Director programme and is a current LLB (Hons) undergraduate with the Open University. Pauline is a regular commercial author and public speaker on the ethical application of AI in Industry.

Publications:

Institute of Directors, 'AI in the Boardroom: The Essential Questions for your
 Next Board Meeting' (2023). https://www.iod.com/app/uploads/2023/03/IoD-The-AI-in-the-boardroom-3d69e07919bad710b0d29fb309e6d5ce.pdf

<u>Dr. Andrew Rogoyski, Director of Innovation and Partnerships, Surrey Institute for</u> People-Centred AI

Dr. Andrew Rogoyski is particularly interested in talking about some of the similarities, some of the differences and some of the lessons learned from the "Cyber in the Boardroom" campaigns run over recent years. Joining The University of Surrey after 30 years in the technology industry, working in the defence, security and space sectors, developing new technologies incorporating AI and cyber, Andrew formed and chaired TechUK's cyber group for over 10 years, working with the Government on a number of initiatives, from export controls to Board advice.

He was seconded into the Cabinet Office's OCSIA (Office of Cyber-Security and Information Assurance) for two years, acting as industry proxy and civil servant to create the "cyber in the Boardroom" agenda which later contributed to the formation of the NCSC, Cyber Essentials and other initiatives. Andrew was vice president of CGI's cyber businesses, one of the largest cyber groups in the UK.

Now returning to AI, Andrew advises the University of Surrey on industry engagement, including initiatives to deliver better understanding of AI to Boardrooms (and sitting rooms) as part of the university's investment in AI teaching and research.

Richard Foster-Fletcher, Founder & Executive Chair, MKAI

Richard Foster-Fletcher is the Founder and Executive Chair of MKAI: Morality and Knowledge in Artificial Intelligence. Richard speaks about AI ethics, digital inclusion, and the convergence of technologies. His first book will be published in 2023 by Bloomsbury about digital trust. Richard leads the MKAI initiative to connect diverse perspectives to potential AI risks, supports several climate change adaptation blockchain projects and has collaborated with the United Nations to support their behavioural change for sustainability agenda via his media work.

6. Contact

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