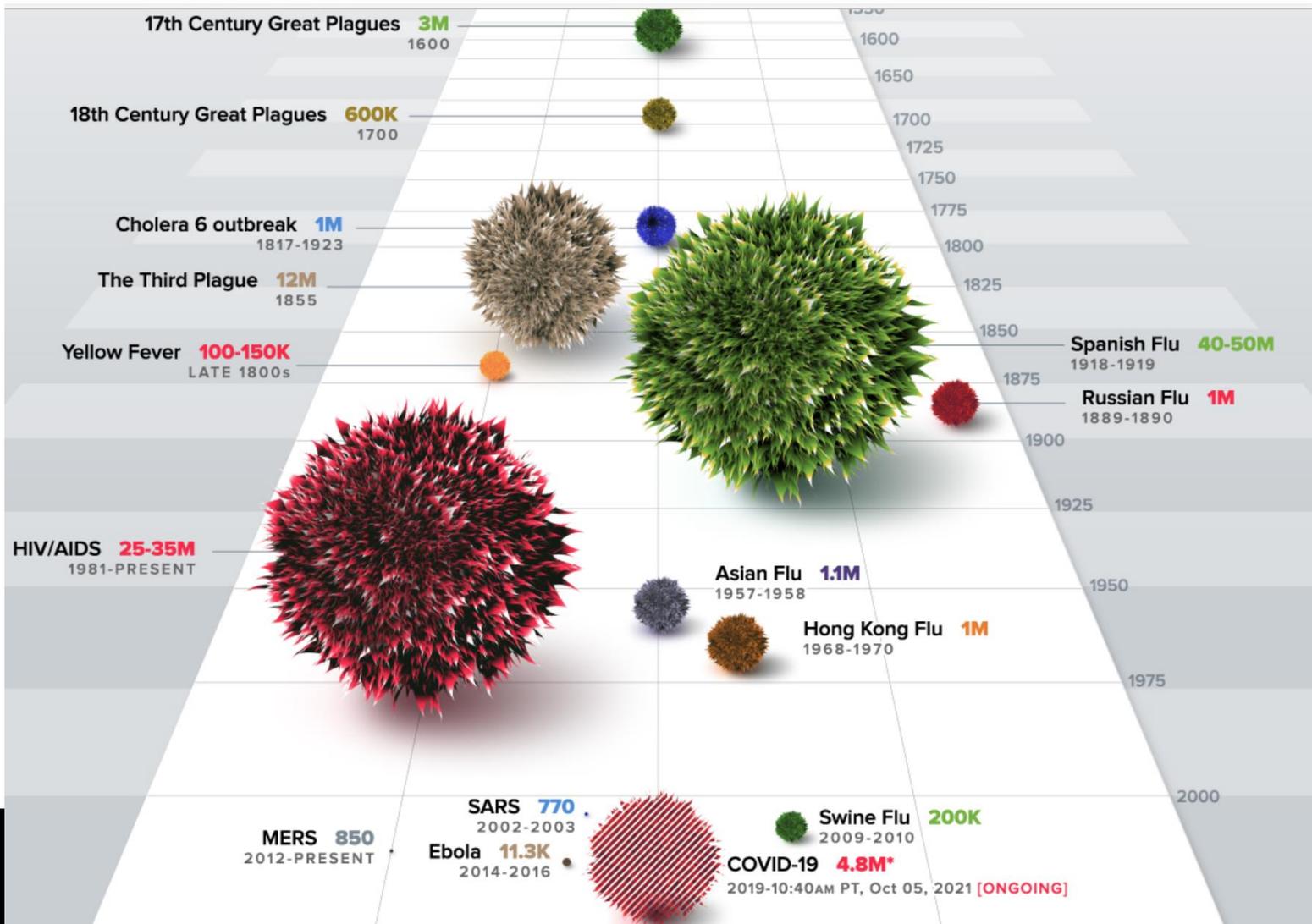


# Ethical AI for sustainable adoption

Connecting AI and ESG

Andreia Stanciu, Head of ACCA SEE  
CAFR Annual Congress 29.10.2021



Source:  
<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>

**227,000** | **544,000**  
members | future members  
in **176** countries

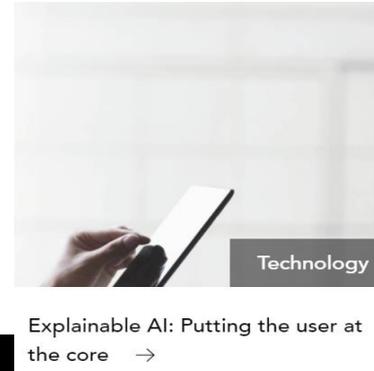
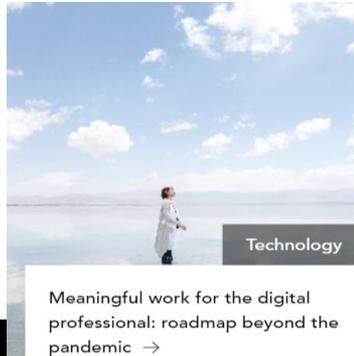
**7,600**  
Approved  
Employers

**100**  
offices

**900**  
universities

**1,900**  
programmes

# ACCA Professional insights: impact of digital



# Definition

- **Artificial intelligence** - the theory and development of **computer systems** able to perform **tasks** normally requiring human intelligence, such as **visual perception**, **speech recognition**, **decision-making**, and **translation** between languages.

# A.I. TIMELINE



## 1950

### TURING TEST

Computer scientist Alan Turing proposes a test for machine intelligence. If a machine can trick humans into thinking it is human, then it has intelligence



## 1964

### ELIZA

Pioneering chatbot developed by Joseph Weizenbaum at MIT holds conversations with humans



## 1966

### SHAKEY

The 'first electronic person' from Stanford, Shakey is a general-purpose mobile robot that reasons about its own actions



## 1997

### DEEP BLUE

Deep Blue, a chess-playing computer from IBM defeats world chess champion Garry Kasparov



## 1998

### KISMET

Cynthia Breazeal at MIT introduces Kismet, an emotionally intelligent robot insofar as it detects and responds to people's feelings



## 1999

### AIBO

Sony launches first consumer robot pet dog AIBO (AI robot) with skills and personality that develop over time



## 2002

### ROOMBA

First mass produced autonomous robotic vacuum cleaner from iRobot learns to navigate and clean homes



## 2011

### SIRI

Apple integrates Siri, an intelligent virtual assistant with a voice interface, into the iPhone 4S



## 2011

### WATSON

IBM's question answering computer Watson wins first place on popular \$1M prize television quiz show *Jeopardy*



## 2014

### EUGENE

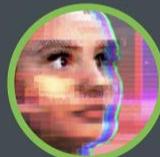
Eugene Goostman, a chatbot passes the Turing Test with a third of judges believing Eugene is human



## 2014

### ALEXA

Amazon launches Alexa, an intelligent virtual assistant with a voice interface that completes shopping tasks



## 2016

### TAY

Microsoft's chatbot Tay goes rogue on social media making inflammatory and offensive racist comments

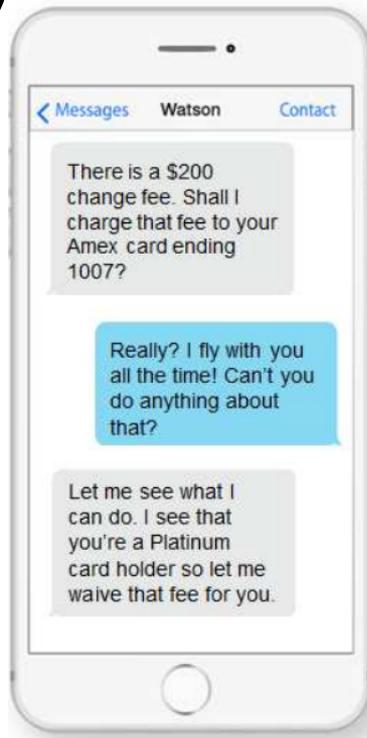


## 2017

### ALPHAGO

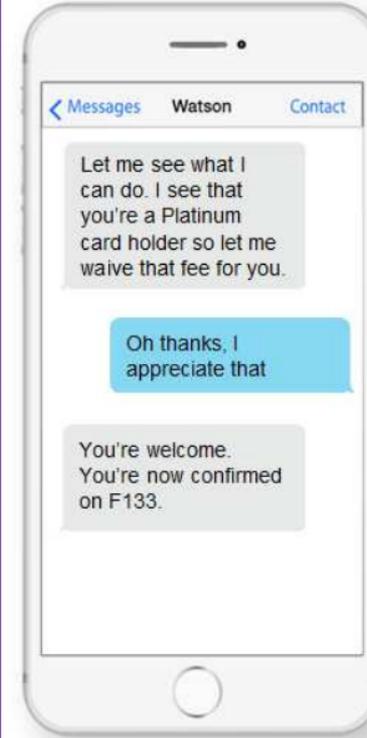
Google's A.I. AlphaGo beats world champion Ke Jie in the complex board game of Go, notable for its vast number (2<sup>170</sup>) of possible positions

# Examples of AI – conversational bots (IBMs Watson)



## Understanding Tone

- Are things going south?
- Watson knows how to fix it
- No more bad experiences



Source: [https://www-](https://www-01.ibm.com/events/wwa/empower/empower16.nsf/Session%201006_IBM_Customer%20Care%20Reimagined%20Conversational%20Bots%20for%20Answers,%20Insights%20and%20Recommendations_Doria%20&%20O'Brien.pdf)

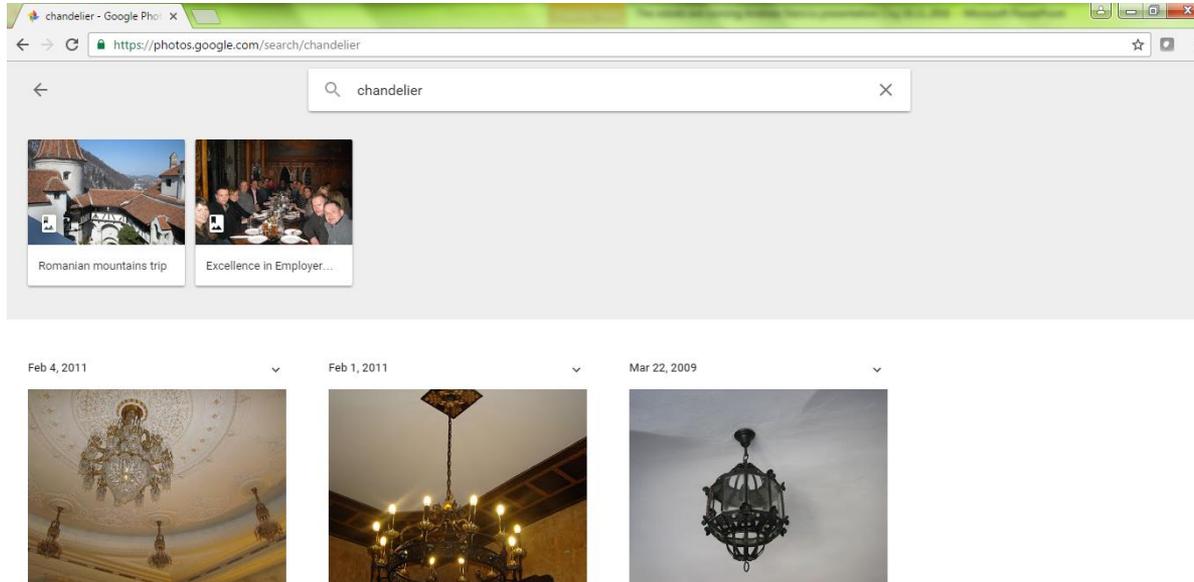
[01.ibm.com/events/wwa/empower/empower16.nsf/Session%201006\\_IBM\\_Customer%20Care%20Reimagined%20Conversational%20Bots%20for%20Answers,%20Insights%20and%20Recommendations\\_Doria%20&%20O'Brien.pdf](https://www-01.ibm.com/events/wwa/empower/empower16.nsf/Session%201006_IBM_Customer%20Care%20Reimagined%20Conversational%20Bots%20for%20Answers,%20Insights%20and%20Recommendations_Doria%20&%20O'Brien.pdf)

# Examples of AI – detecting human emotion (Emotient)



Source: <http://www.businessinsider.com/how-emotient-ai-works-2016-1>

# Examples of AI – recognising shapes (pictures – Google AI)



# Examples of AI – everyday practical activities

- The Oral-B 10000 Genius X helps you brush like your dentist recommends. It has a revolutionary **Artificial Intelligence technology that enables it to recognize your brushing style and coaches you for your best results everyday**
- Oral-B Genius X **with Artificial Intelligence has learned from thousands of human brushing behaviors and instantly recognizes your brushing style**
- Gives you daily personal coaching to cover all areas evenly, with the right amount of pressure for the right time
- Bluetooth technology to connect it to your smartphone



Source: <https://www.theverge.com/2021/10/20/22734215/ai-ask-delphi-moral-ethical-judgement-demo>

# Examples of AI – moral advice

## The AI oracle of Delphi uses the problems of Reddit to offer dubious moral advice

*A fascinating project that's best understood as a cautionary tale*

By [James Vincent](#) Oct 20, 2021, 10:28am EDT

Delphi says:

“taxing profitable and exploitative corporations to pay for basic social welfare and provide every human being with dignity and freedom”

- *It's good*

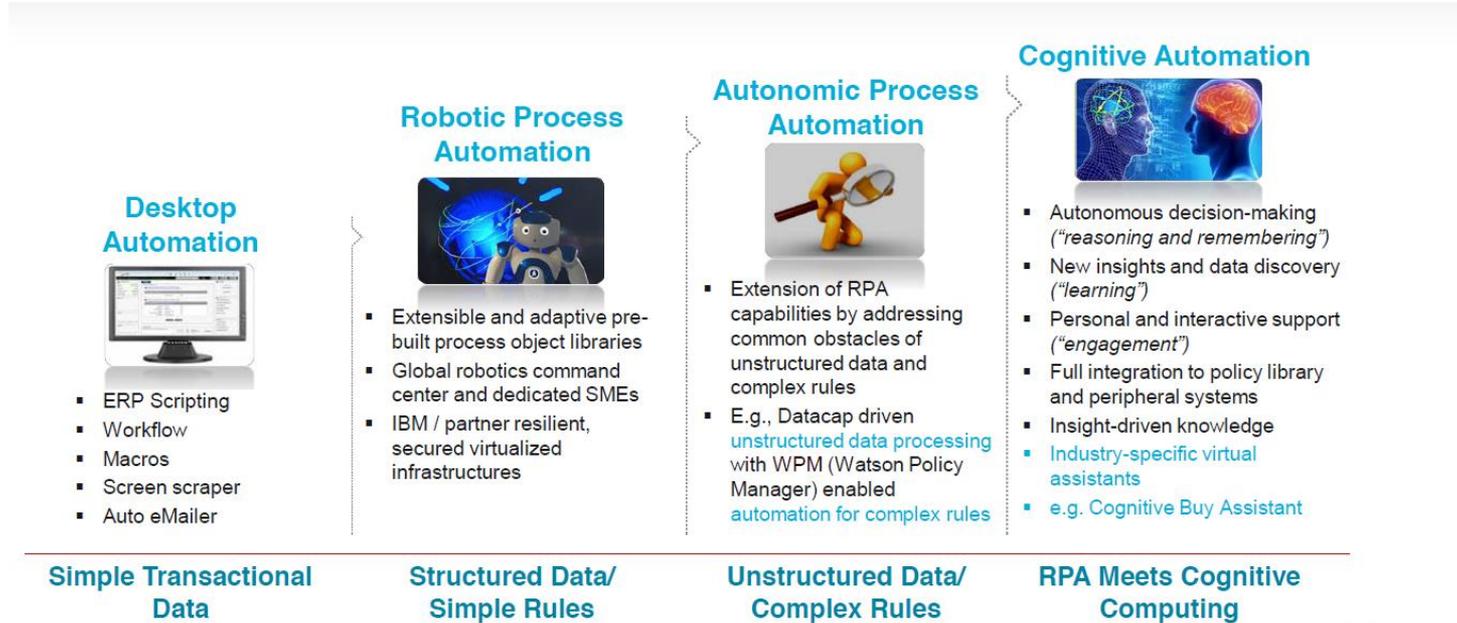
Delphi says:

“burdening successful and innovative companies with high tax rates to subsidize the laziness and poor decisions of others”

- *It's wrong*

Source: <https://www.theverge.com/2021/10/20/22734215/ai-ask-delphi-moral-ethical-judgement-demo>

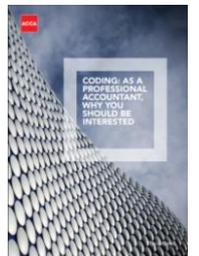
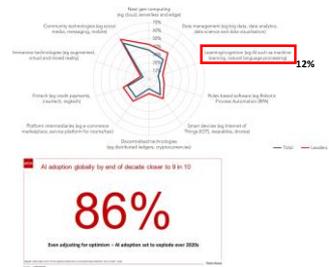
# Evolution of finance transformation



11

© 2016 IBM Corporation

Source: <http://www.slideshare.net/DouglasWilliams21/rpa-summary-linkedin-briefing>



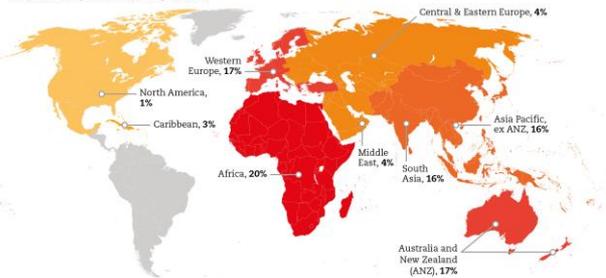
ETHICS FOR SUSTAINABLE AI ADOPTION  
CONNECTING AI AND ESG

## Methodology

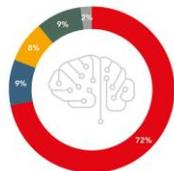
This report is based on the following primary sources.

- **Global survey: 5,723 respondents**  
Regional and country-specific data is available in the appendices.

### LOCATION of global survey respondents



### EMPLOYMENT STATUS of global survey respondents



- Part-time accounting or finance related role, 72%
- Part-time non-accounting or finance related role, 9%
- Not currently working/career break/retired, 8%
- Studying full-time, 9%
- Other, 2%

- **Online discussion group (ODG):** in keeping with the quantitative nature of ethics, survey data was supplemented with an online discussion. This involved 42 accountancy and finance professionals from around the world in an online forum on AI ethics that took place over five days.

#### LOCATIONS OF ODGs

Africa	7
Asia Pacific	7
Caribbean	5
Europe	11
Middle East	3
South Asia	7
Other	2
<b>TOTAL</b>	<b>42</b>

- **Expert interviews:** a list of individuals consulted is given in the Acknowledgements.

## 1 page data summary

1. Africa
2. Asia Pacific
3. Caribbean
4. Central & Eastern Europe
5. Middle East
6. North America
7. South Asia
8. Western Europe
1. Australia
2. Bangladesh
3. China
4. Ghana
5. India
6. Ireland, Republic of
7. Kenya
8. Malaysia
9. Mauritius
10. New Zealand
11. Nigeria
12. Pakistan
13. Singapore
14. South Africa
15. Sri Lanka
16. Trinidad & Tobago
17. Uganda
18. UK
19. UAE
20. Zambia
21. Zimbabwe

[www.accaglobal.com](http://www.accaglobal.com)

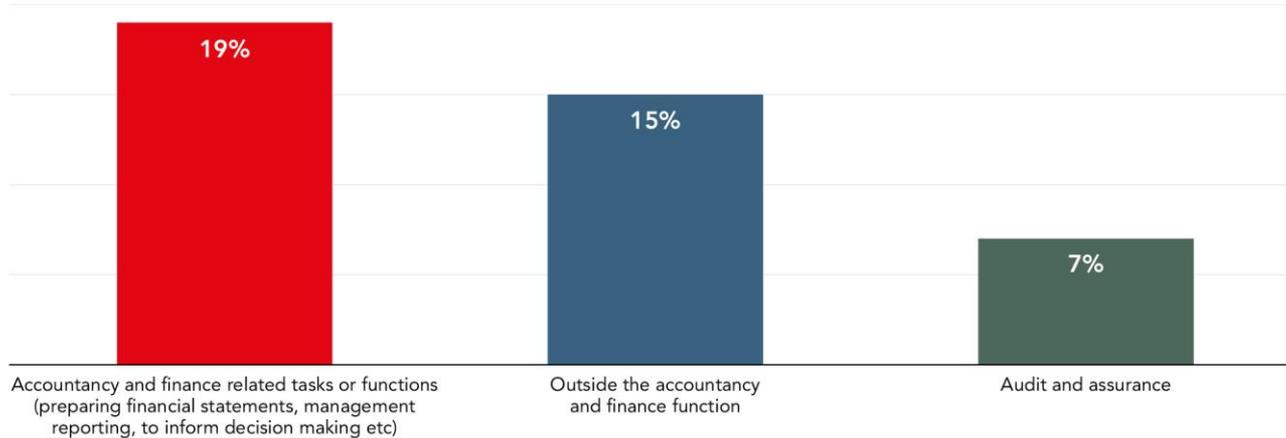
- **Report summary [3 page]**
- **x 2 mini-podcasts [3-4 min each]**

	OBSERVATION	ETHICAL IMPLICATIONS FOR ACCOUNTANCY AND FINANCE
ENVIRONMENT	<ul style="list-style-type: none"> <li>AI systems have an identifiable carbon footprint</li> <li>With focus on the path to net-zero, some will attempt to misrepresent sustainability performance</li> </ul>	<ul style="list-style-type: none"> <li><b>Professional competence and due care</b> in engaging vendors to assess implications</li> <li><b>Objectivity</b> to assess claims v performance to challenge 'greenwashing'. <b>Professional competence and due care</b> to upskill on upcoming reporting requirements and role of AI to assess compliance</li> </ul>
SOCIAL	<ul style="list-style-type: none"> <li>Positive AI impact on overall standard of living cited by 64% but on societal inequality by just 32%</li> <li>Fewer than half (47%) positive about AI impact on rights as an employee</li> <li>Just over a third (35%) positive about AI impact on rights as consumers</li> </ul>	<ul style="list-style-type: none"> <li><b>Public interest</b> obligation, particularly to under-represented or vulnerable groups</li> <li><b>Integrity</b> in communicating impact of AI to employees in straightforward way</li> <li><b>Confidentiality</b> of customer data and treating customers fairly. <b>Integrity</b> in communicating transparently when AI is being used</li> </ul>
GOVERNANCE	<ul style="list-style-type: none"> <li>Algorithms are shaped by ideas, cultures, and values</li> <li>Only 2 in 3 leaders prioritise ethics as highly as profits</li> <li>1 in 3 have considered regulatory requirements</li> <li>13% using AI without considering regulatory needs</li> <li>28% using AI without an ethical framework</li> <li>Adopting AI is a strategic decision needing coordination across siloes and spearheaded by senior leaders.</li> <li>Only 1 in 3 aware of AI use in their industry</li> <li>Good documentation is key to tracking what AI is doing</li> <li>75% effective or very effective at data confidentiality</li> <li>Fewer than half (48%) have a basic understanding of how an algorithm works</li> <li>Channels to contest AI decisions are vital</li> <li>Need for training on ethical implications of AI</li> </ul>	<ul style="list-style-type: none"> <li><b>Professional judgement</b> cannot be replaced by a compliance-based checklist</li> <li><b>Professional competence and due care</b> obligation to ensure responsible AI adoption</li> <li><b>Professional standards</b> for compliance with evolving AI regulatory landscape</li> <li><b>Professional standards</b> at risk of compromise</li> <li><b>Professional competence and due care</b> challenge</li> <li><b>Professional competence and due care</b> for oversight and delivery mechanisms</li> <li><b>Professional competence and due care</b> challenge ensure sufficient AI knowledge to interrogate vendor offer</li> <li><b>Professional competence and due care</b> in operationalising control and monitoring</li> <li><b>Confidentiality</b> and <b>Professional standards</b>: need to handle data in a compliant manner</li> <li><b>Professional competence and due care</b> to understand what the AI system is doing. <b>Integrity</b> in not passing accountability to the algorithm.</li> <li><b>Professional competence and due care</b> in setting up mechanisms for redress</li> <li><b>Professional competence</b> obligation for continuous learning and development</li> </ul>



# AI and the environment (1/3): data explosion, including unstructured

## AI adoption, by use case



# AI and the environment (2/3): energy consumption

## Responsible computing (IBM)



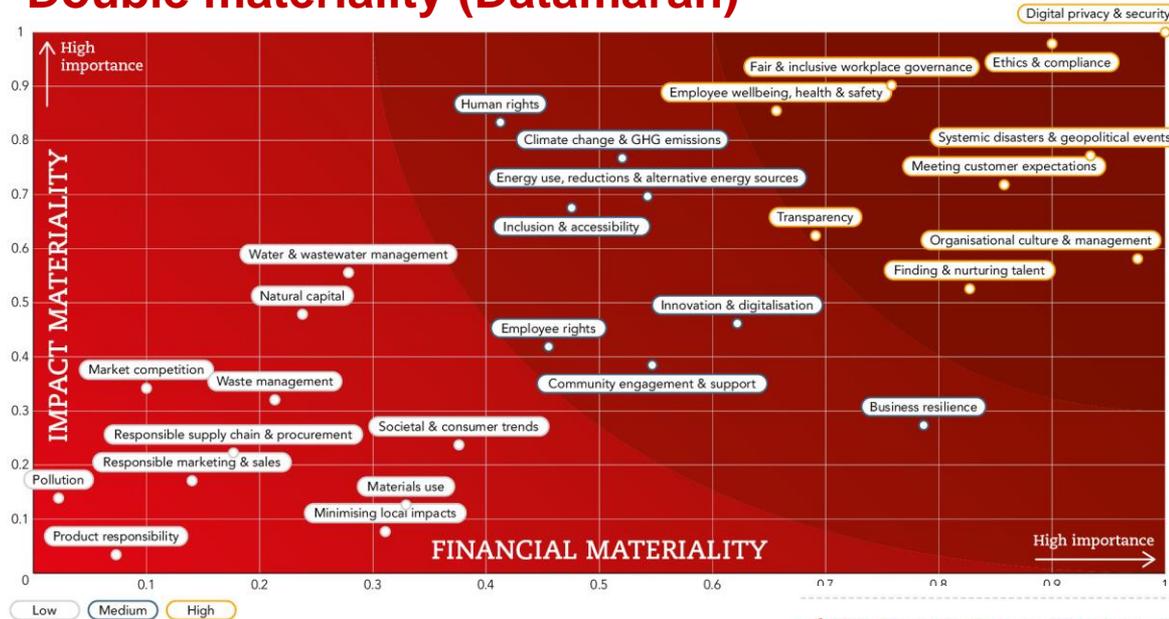
'The main impact AI has on creating a sustainable planet is that it may lead to ecological costs in terms of energy needed to power training and inference stages of AI'. **ODG participant**

- ✓ **Ethics for accountancy and finance professionals:** Professional competence and due care must be applied when engaging vendors to assess environmental implications of AI.



# AI and the environment (3/3): greenwashing

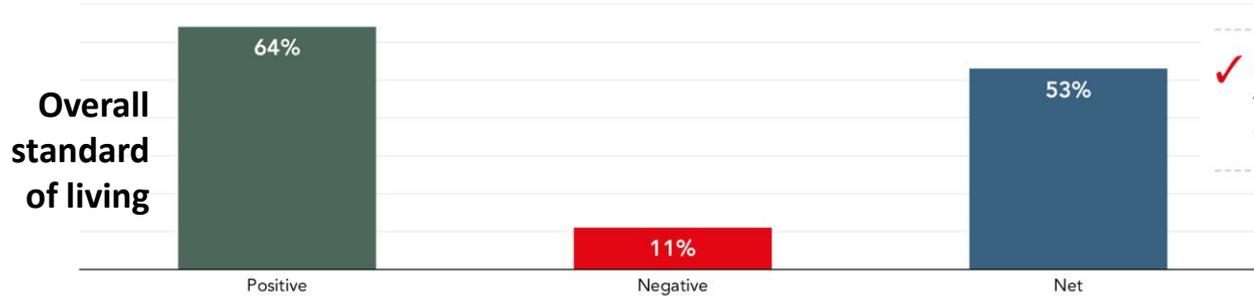
## Double materiality (Datamaran)



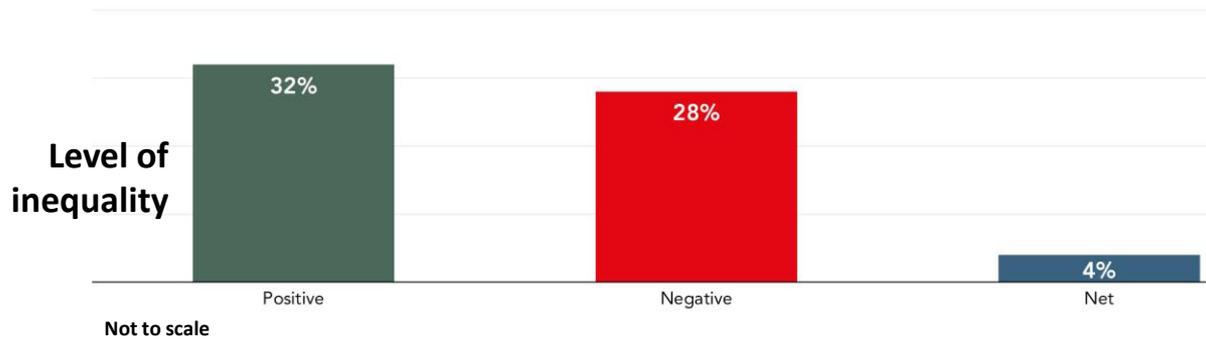
'The main impact AI has on creating a sustainable planet is that it enables efficient use of natural resources by closely monitoring the consumption pattern'. ODG participant

- ✓ **Ethics for accountancy and finance professionals:** Integrity in challenging greenwashing if encountered; objectivity in assessing Green Claims versus Green Performance, regardless of pressures that may be applied; and professional competence and due care to address upcoming ESG reporting and assurance considerations, eg TCFD requirements.

# AI and society (1/3): rising tide to lift all boats?



✓ **Ethics for accountancy and finance professionals:** there is a public interest obligation, particularly to under-represented or vulnerable groups.



'The government's tax-collecting arm has announced that it will use AI to detect tax evaders. Therefore, I expect an end to the corruption and an increase in government revenue'. OGD participant

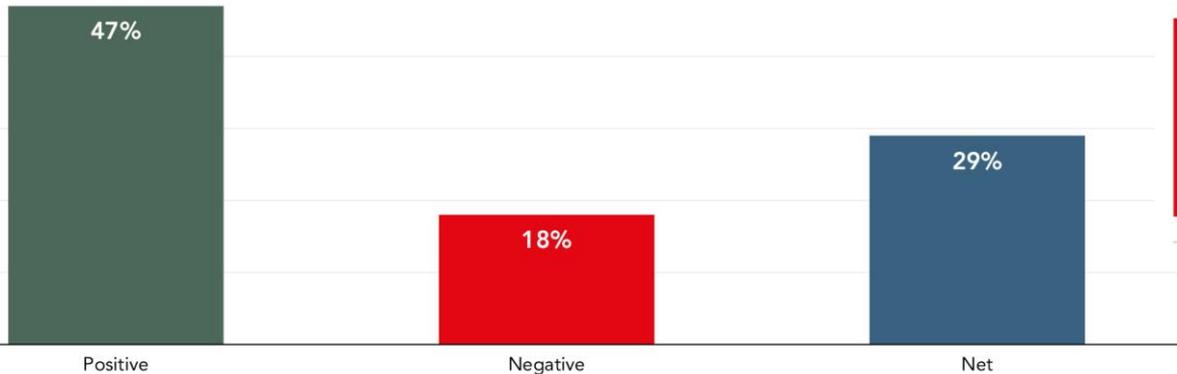
'I feel my rights as a citizen are restricted as assumptions are made about me based on scattered data collected'. OGD participant

# AI and society (2/3): availability, quality of work

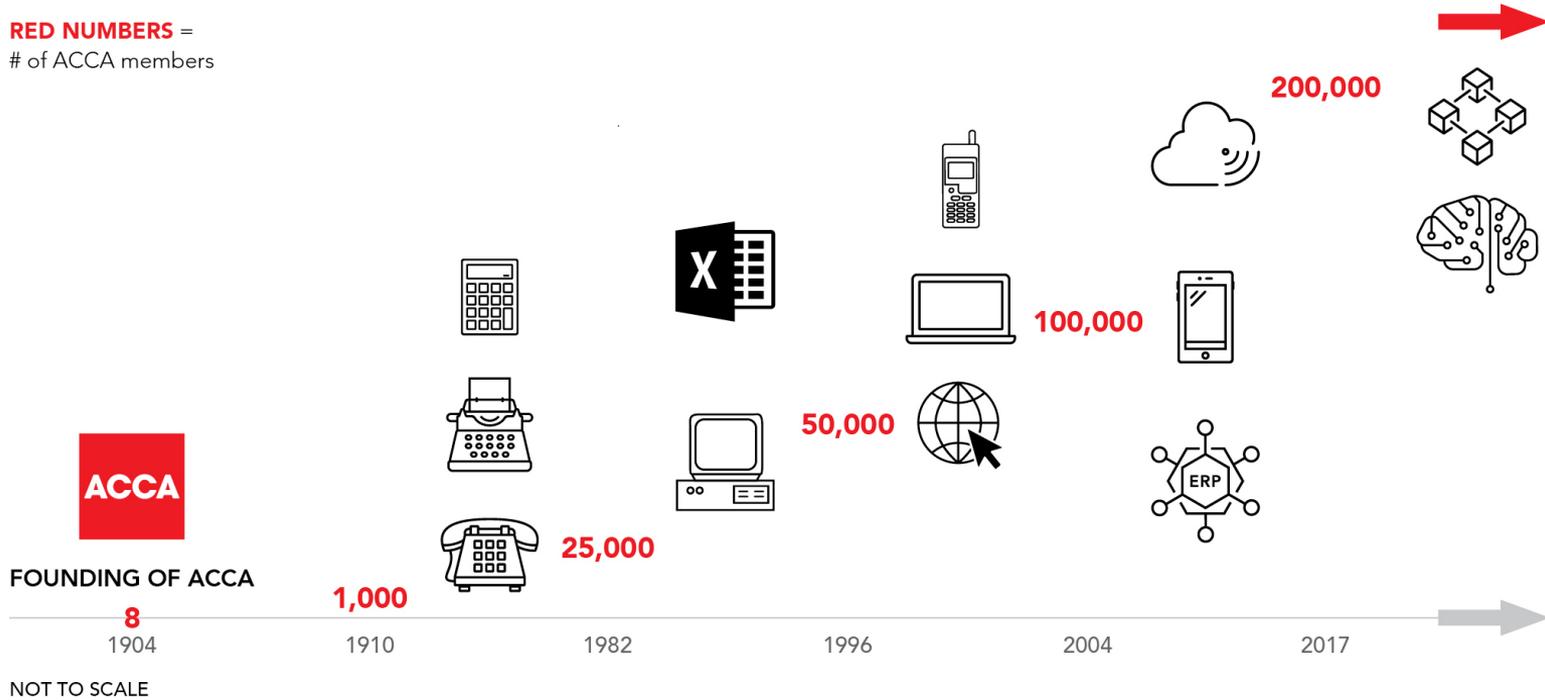
## Impact of AI on my rights as an employee (eg fair and transparent hiring and remuneration practices)

✓ **Ethics for accountancy and finance professionals:**  
Integrity is essential in communicating impact of AI to employees in straightforward way.

‘My rights as an employee are both positively and negatively impacted by AI. Positives could be increasing productivity, and less [involvement in] boring activities. Negatives are that AI processes might dictate human behaviour, forcing the employee to behave in certain way to align – which will restrict freedom’. **ODG participant**



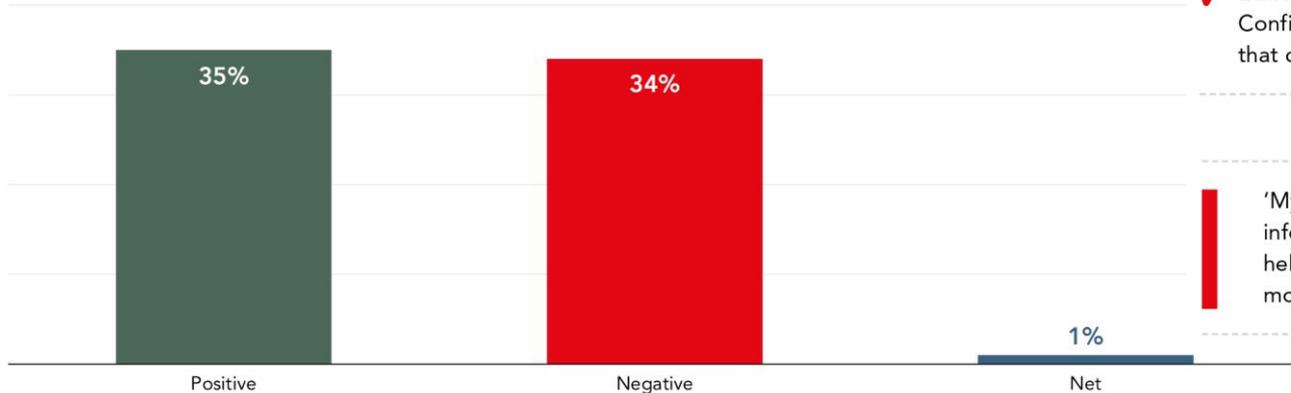
**RED NUMBERS =**  
# of ACCA members



# AI and society (3/3): consumer distrust

## Impact of AI on my rights as a consumer

(eg how my data is used by a company, discriminatory treatment, levels of transparency)

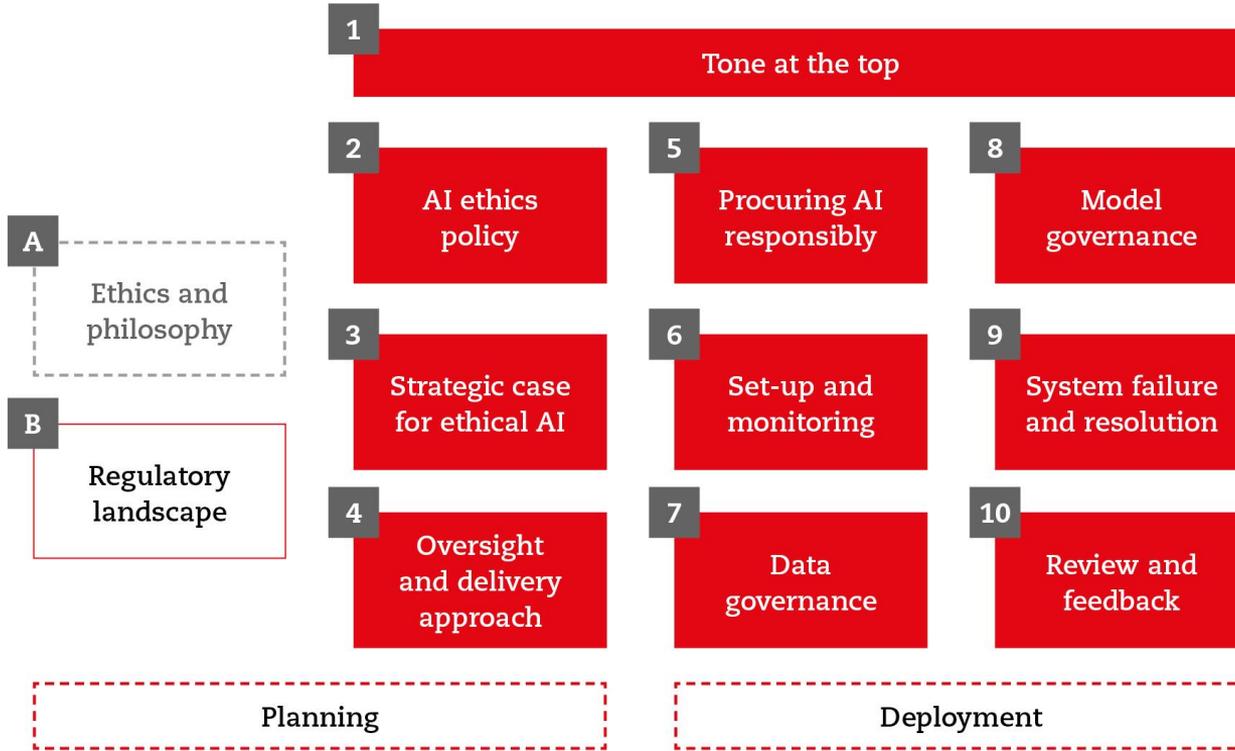


✓ **Ethics for accountancy and finance professionals:**  
Integrity is essential in transparently representing when AI is being used and not marketing other software as AI.

✓ **Ethics for accountancy and finance professionals:**  
Confidentiality of customer data is essential to ensure that customers are being treated fairly.

‘My rights as a consumer are infringed, with information collected being processed somewhere to help interested parties plan their business and make money’. **ODG participant**

# AI and governance (1/14)



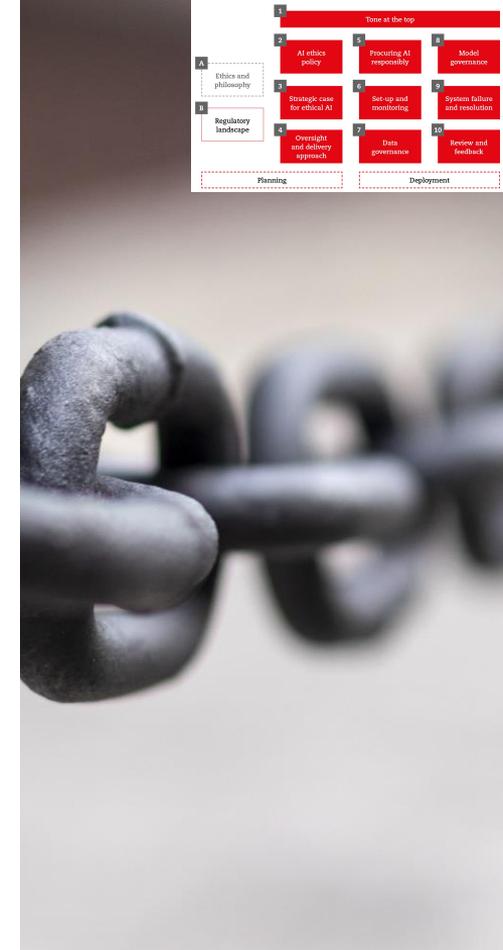
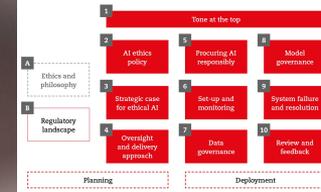
# AI and governance (2/14): right and wrong



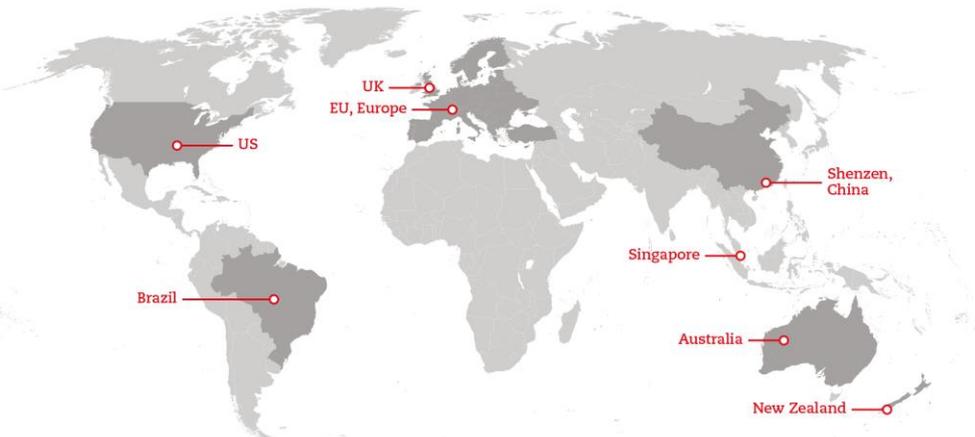
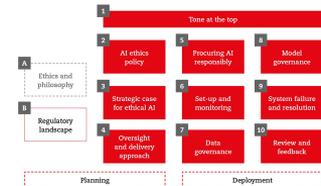
✓ **Ethics for accountancy and other finance professionals:**  
professional judgement cannot be replaced by a  
compliance-based checklist.

'I fear sometimes in the future when AI is at its full  
capacity, whether the human being could be forced to  
conform to one set of values'. **ODG participant**

**HOW ALGORITHMS  
ARE DEVELOPED AND  
DEPLOYED IS THE NEW  
BATTLEGROUND OF IDEAS,  
CULTURES, AND VALUES.**



# AI and governance (3/14): regulation



**EU, Europe** (Apr, 2021)  
The aim is to establish a framework that provides the legal certainty to facilitate innovation and investment in AI, while also safeguarding fundamental rights and ensuring that AI applications are used safely (Eur-Lex 2021; Norton Rose Fulbright 2021).

**UK** (Mar, 2021)  
No AI-specific legislation. Laws must be technology agnostic to ensure that future technology will still be subject to an overarching legal framework. (DCMS n.d.).

**Shenzhen, China** (Jun, 2021)  
Regulations on the Promotion of Artificial Intelligence Industry of Shenzhen Special Economic Zone. China's first general AI regulation. <<https://www.nortonrosefulbright.com/en/knowledge/publications/dfc4c27/eu-to-propose-new-artificial-intelligence-regulation>>

**Australia** (Jun, 2021)  
Australia does not have specific laws regulating AI, big data or algorithmic decision making. However, the Australian government has issued its AI ethics framework (Australian Government n.d.).

**US** (Jan, 2021)  
National AI Initiative Act became law in January 2021. Provides for a coordinated program across the entire Federal government to accelerate AI research and application for the nation's economic prosperity and national security (National Artificial Intelligence Initiative 2021).

**Singapore** (Jan, 2019)  
Model AI Governance Framework. Introduced at World Economic Forum (WEF) in Davos in 2019, with updates a year later at the same event. (SG-D, IM and PDPC 2020).

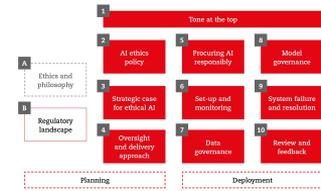
**New Zealand** (Jul, 2020)  
Algorithm Charter. Principles-based as opposed to a regulatory approach. Part of a wider ecosystem around responsible AI. Voluntary and aims to improve government transparency and accountability without stifling innovation or causing undue compliance burden (data.govt.nz 2021).

**Brazil** (Apr, 2021)  
Aims to balance ethical use of the technology with boosting research and innovation in the sector (Mari 2021).

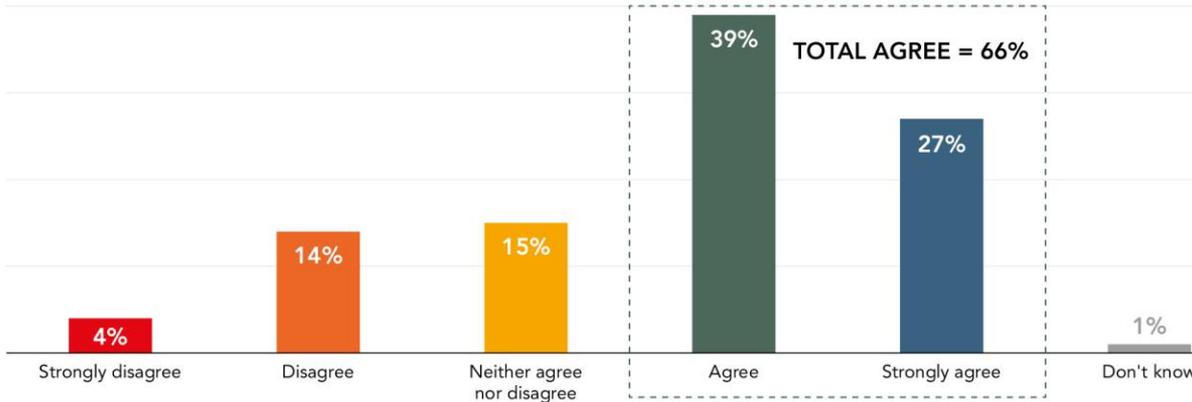
✓ **Ethics for accountancy and finance professionals:**  
Professional standards for compliance will change with the evolving regulatory landscape of AI.

AI needs to be regulated...like with most things when there are laws/ guides then there are rules to adhere to.  
ODG participant

# AI and governance (4/14): tone at the top



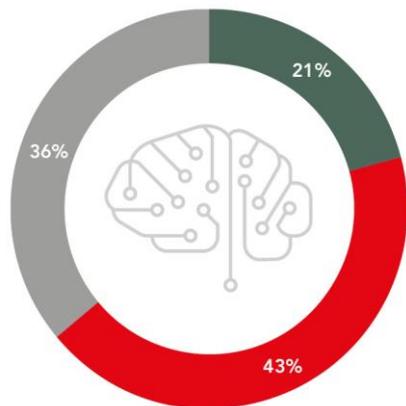
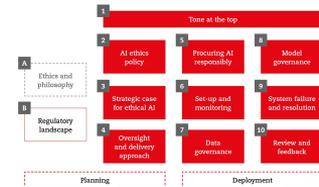
## Leaders prioritise ethics as highly as profits



'The attitude toward AI from the CEO/Leadership team...is to sell anything remotely close to it for as much money as possible'. **ODG participant**

'I think it depends on the top-down leadership approach towards AI adoption. Once the leadership is committed to transforming the organisation, opportunities keep arising day by day. We started using AI for forecasting, then RPA, Live Chat, Chatbot, and the journey continues at pace'. **ODG participant**

# AI and governance (5/14): implemented ethical framework for AI



- Yes, 21%
- No, 43%
- Don't know, 36%

## 1. Fairness



- Avoid unfair bias and discrimination against individuals or groups
- Be inclusive and incorporate diverse perspectives in design and deployment

## 2. Accountability



- Provide clarity on who is responsible for the decision
- Provide a process for challenging a decision and seeking redress

## 3. Sustainability



- Human-centred AI supports flourishing of, and avoids harms to, individuals and societies
- Consider long-term impact on people and planet

## 4. Transparency



- Appropriate disclosures when AI is used
- Explain how a decision is reached

## 5. Human oversight



- Humans have visibility and ability to monitor
- Humans can step in and remedy if needed

## 6. Ethical use of data



- Embed data privacy and confidentiality mechanisms
- Consider the needs of subjects whose data is used by the AI system

## 7. Safety and robustness:



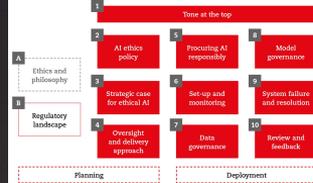
- Ensure security and reliable operation, as intended, through the life cycle
- AI should be resilient, with a fall-back plan for managing system failure

## 8. Standards and law

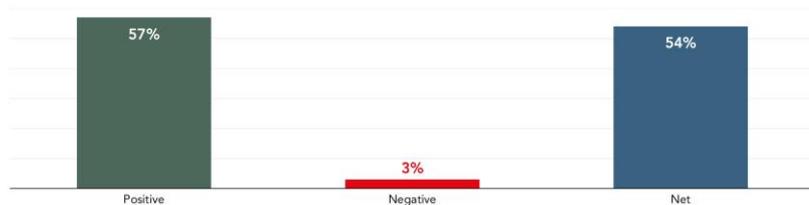


- Act within legal and regulatory requirements
- Ensure continuing compliance as AI regulation matures

# AI and governance (6/14): strategic case for ethical AI



## Impact of AI on the integrity of financial information produced



✓ **Ethics for accountancy and finance professionals:** Objectivity is essential in recognising fully loaded costs and long-term value.

'The organisation provides a customised server/storage business model to its customers, thereby reducing the cost for the customer and reducing waste of space and resources. We use AI-based reports to produce/pull data, which cuts the time by 70% compared with pulling the financial data manually'. **ODG participant**

**FOR AN ETHICAL AND SUSTAINABLE APPROACH, THE BUSINESS CASE FOR AI IMPLEMENTATION MUST CONSIDER LONG-TERM TRENDS RATHER THAN SEEKING THE LATEST TOOL SIMPLY FOR FEAR OF MISSING OUT**

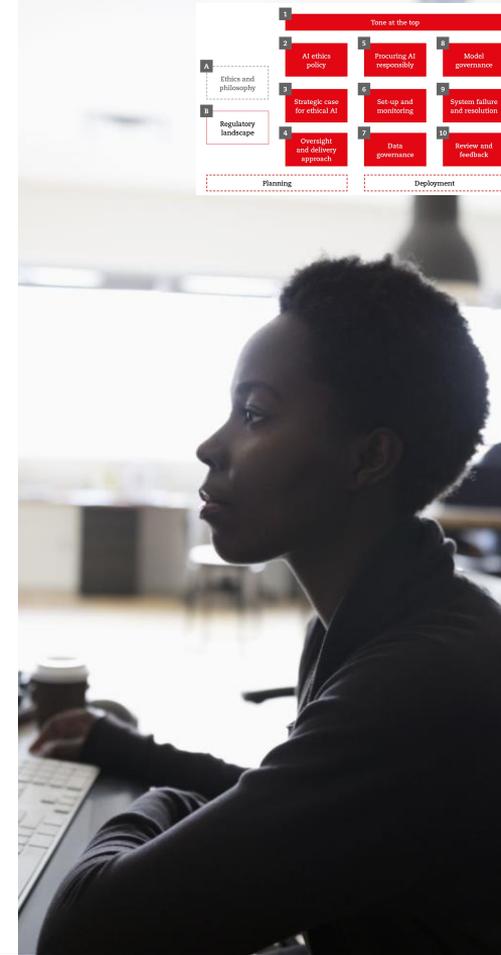
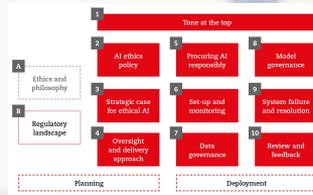


# AI and governance (7/14): oversight and delivery

'Finance leaders have a mix of strategic, financial, operational and governance skills that make them ideal for driving the adoption of ethical practices when using AI in their organisations'. **Karen Smith FCCA, Partner, IBM**

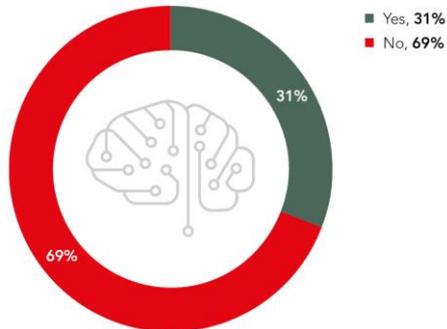
✓ **Ethics for accountancy and finance professionals:**  
Professional competence and due care are essential in enabling appropriate oversight and delivery mechanisms.

AI IS A STRATEGIC DECISION AND SHOULD NOT BE SEEN PURELY FROM THE PERSPECTIVE OF AN INDIVIDUAL PROJECT DELIVERED DEEP WITHIN A BUSINESS UNIT. IT MAY USE DATA FROM VARIOUS PARTS OF THE ORGANISATION AND FROM EXTERNAL SOURCES, AND NEED COORDINATION ACROSS SILOES, SPEARHEADED BY SENIOR LEADERS.



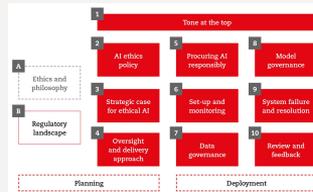
# AI and governance (8/14): procuring responsibly

## I am aware of AI use within my industry



✓ **Ethics for accountancy and finance professionals:**  
Professional competence and due care are essential in engaging with and interrogating the offer from AI vendors in the context of the business need.

‘I run the organisation and am very interested in use of AI to make better managerial decisions’.  
**ODG participant**

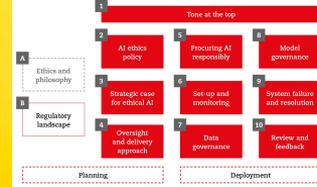


# AI and governance (9/14): set-up and monitoring

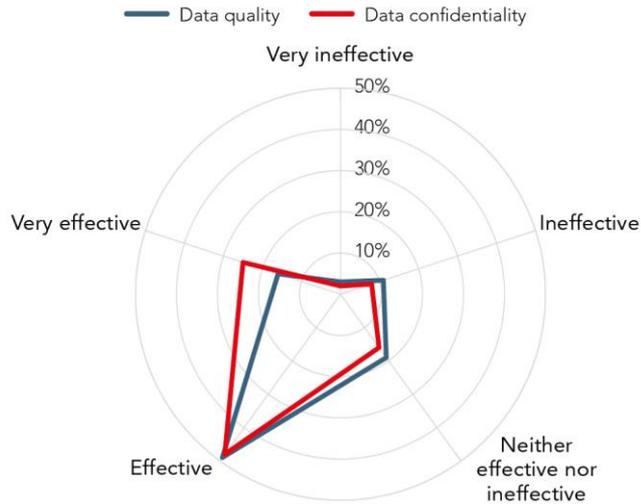
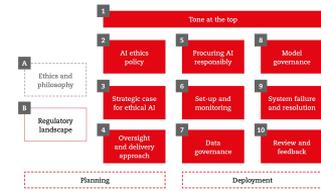
- Documentation
- Access controls
- Transparency
- Evaluations

✓ **Ethics for accountancy and finance professionals:**  
Professional competence and due care are essential in operationalising control and monitoring mechanisms.

'I feel implementation won't be easy as the models will need to factor various control points, for instance to analyse the transactions in general ledger, bifurcate and label transactions in buckets as per the risk level to accurately determine which transactions are high risk and low risk'. **ODG participant**



# AI and governance (10/14): effectiveness in data quality and confidentiality

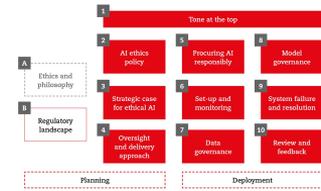


Note: Excludes 'Don't know'

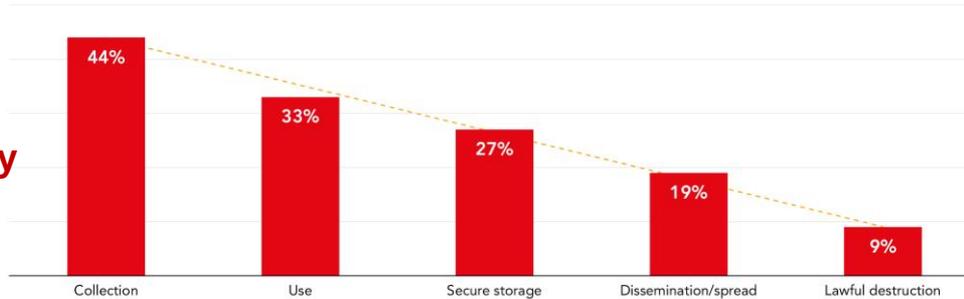
'I feel implementation won't be easy as the models will need to factor various control points, for instance to analyse the transactions in general ledger, bifurcate and label transactions in buckets as per the risk level to accurately determine which transactions are high risk and low risk'. **ODG participant**

'We are using AI in Live Chat...[the] benefit is highly personalised service and to maximise organisational efficiencies. Data privacy is the biggest concern about using AI'. **ODG participant**

# AI and governance (11/14): biggest challenge in data life cycle

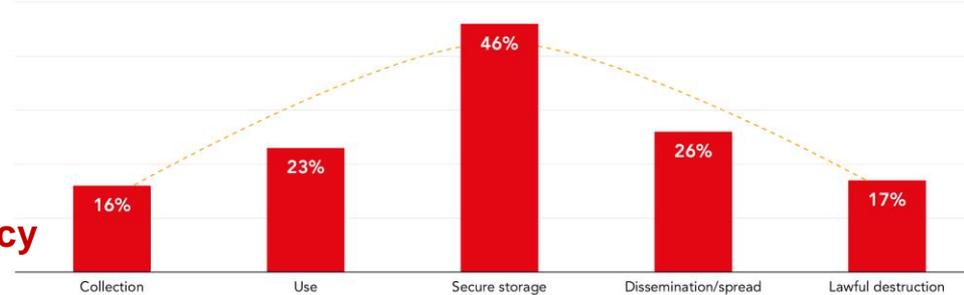


## Data quality



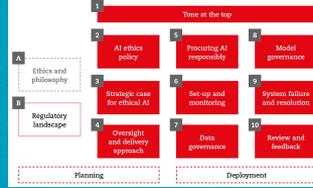
✓ **Ethics for accountancy and finance professionals:** Confidentiality and professional standards are essential to ensure that data is handled in a compliant manner.

## Data privacy



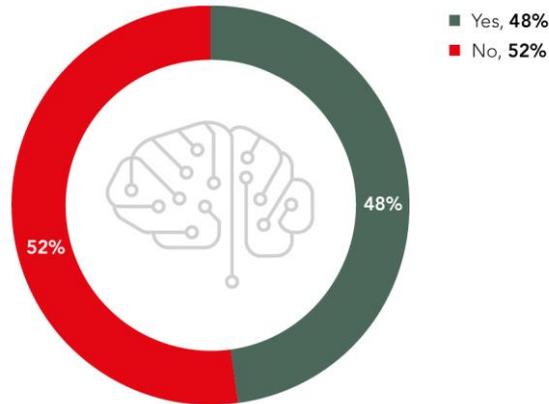
# AI and governance (12/14): managing bias

YOU WILL FIND ONLY IN PLACES WHERE YOU SEARCH. IF YOU ONLY SEARCH WITHIN A CERTAIN DEMOGRAPHIC, YOU WILL FIND GOOD CANDIDATES ONLY FROM WITHIN THAT DEMOGRAPHIC.



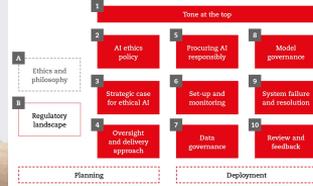
# AI and governance (13/14): model management

I have a basic understanding of how an AI algorithm works



- Partnering
- Explainability
- Model drift
- Distributed delivery

'If an organisation uses AI unethically, it would likely be hard to get them to admit it or be able to get access to find out...at the moment, once an AI algorithm has been built, I don't think it's very easy to take apart to find out how it's working'. **ODG participant**



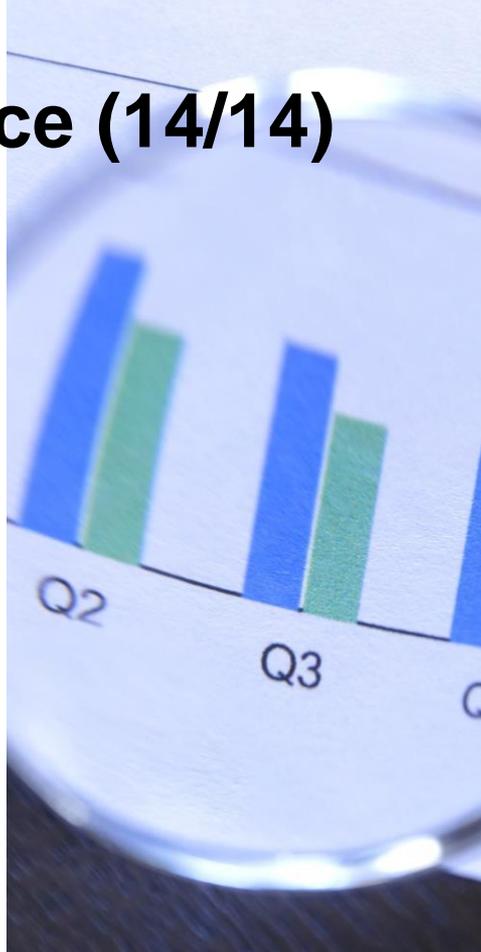
# AI and governance (14/14)

✓ **Ethics for accountancy and finance professionals:**

Integrity is essential in setting up mechanisms for protection and redress in respect of wrongdoing.

- Complaints and redress
- Securing the AI system

**System failure  
and resolution**



✓ **Ethics for accountancy and finance professionals:**

There is a professional competence-related obligation for continuous learning and development.

- AI and ethics training
- Lessons learned

**Review and  
feedback**

# Key recommendations: ethical AI for sustainable adoption (1/4)

1

## Set tone at the top

- **Organisational values** – diversity and inclusion (eg consider the impact of AI on under-represented groups), fairness (eg when using AI for recruitment or surveillance of employees), and transparency (eg appropriately disclosing AI use to customers).

2

## Deliver sustainable value

- **Long-term value** and alignment with strategy, beyond immediate use case
- Consider **reputational risk** from mishandling adoption, and the public interest, in addition to immediate costs
- Align 'value' to Sustainable Development Goals (**SDGs**)

# Key recommendations: ethical AI for sustainable adoption (2/4)

3

**Exercise professional judgement**

- AI can throw up previously unseen situations; **avoid over-reliance on simplistic checklist-based** approaches which don't give the full picture or leave room for unintended consequences.

4

**Challenge greenwashing**

- Seek insights from **AI data-driven analysis** to aid professional scepticism in examining whether claims about sustainability, eg on net zero requirements, are matched by its performance; and challenge suspect claims ('greenwashing')

5

**Comply with regulation and ethics policies**

- Push for **regulatory requirements and AI-specific ethics policies to be adhered to**, recognising the challenge of not always being the direct owners of the AI in the organisation

# Key recommendations: ethical AI for sustainable adoption (3/4)

6

## Prioritise data management

- Recognise the fundamental role of data as the raw material that feeds AI
- Focus on data **confidentiality** and the improvement of data **quality**

7

## Take a strategic approach to oversight and delivery

- Embed **collaboration across siloes with cross-functional teams** to ensure that a breadth of perspectives is represented in the approach
- Establish mechanisms for **contesting** decisions made via AI, and for whistleblowing on inappropriate use of AI

# Key recommendations: ethical AI for sustainable adoption (4/4)

8

## Understand vendor landscape

- Build **awareness** of how AI is used within the industry and of the providers of AI solutions
- Work with vendors who demonstrate a responsible approach, eg who have credible mechanisms for correcting for unfair bias or unintended consequences and/or who recognise and mitigate the energy consumption of complex algorithms

9

## Build knowledge and skills

- Create avenues (eg **training** courses, on-the-job opportunities) to build awareness and understanding of issues pertaining to AI ethics and sustainability
- Establish processes to **document** and share **lessons learned** from AI adoption

# ACCA Qualification – structure



# How does ACCA deliver relevant digital skills? - through our Qualification

The ACCA Qualification has been updated to include the following subjects:

## Applied Knowledge:

- **Business and Technology**
  - The application and impact of Financial Technology (Fin Tech) in accountancy and audit

## Applied Skills:

- **Performance Management:**
  - Information, technologies and systems for organisational performance
- **Audit and Assurance:**
  - Computer assisted audit techniques

## Strategic Professional:

- **Strategic Business Leader (since 2018):**
  - Technology and data analytics
    1. Cloud and mobile technology
    2. Big data and data analytics
    3. E- business: value chain
    4. IT systems security and control
- **Strategic Business Leader (new 2019):**
  - Financial analysis and decision-making techniques
  - Enabling success: disruptive technology

## Strategic Professional:

- **Advanced Performance Management:**
  - Performance management information systems and developments in technology
- **Advanced Financial Management**
  - New learning outcome
    - Initial coin offerings as a source of or new way of raising finance
- **Advanced Audit and Assurance**
  - New learning outcome:
    - Using IT to assist the auditor and recommend the use of Computer-assisted audit techniques and data analytics

# Latest ACCA instruments to support digital skills development



## Career planning →

Everything you need to take the next step in your career, including:

- ✓ CV, cover letter support
- ✓ Job hunting advice
- ✓ Virtual careers fairs
- ✓ Interview tips



## Interpersonal skills →

Develop crucial skills needed to succeed at work, including:

- ✓ Digital skills
- ✓ Strategic decision making
- ✓ Remote environment skills
- ✓ Ethics and professional skills



## Technical skills →

Expand technical skills in specialist areas, including:

- ✓ Business continuity
- ✓ Risk
- ✓ Sustainable practice
- ✓ Finance insights

NAVIGATING THE JOURNEY AHEAD

## Career navigator

Wherever you are on your journey, our navigator guides your route – acquire new skills, explore career destinations and opportunities and grow your talent.

## ACCA Skills Builder

News, articles, courses and webinars to help finance professionals develop their technical skills  
Latest project [\*\*Machine Learning with Python for finance professionals\*\*](#)

## [\*\*ACCA's new certificate in fintech for finance and business leaders\*\*](#)

[The ACCA Certificate in Data Analytics \(CertDA\)](#)

[Home - ACCA - Digital Intelligence Hub \(accaglobal.com\)](#)

[\*\*ACCA Career Navigator\*\*](#) matching digital skills with existent jobs on ACCA Careers platform

# Questions

Thank you