

A person is shown in silhouette at the bottom center, looking upwards. The background is a dense, intricate network of red lines forming a complex, web-like structure. The overall color palette is dominated by various shades of red, from deep maroon to bright, almost white highlights where the lines intersect.

Future-ready Finance: Unlocking new paths in finance and accountancy with AI

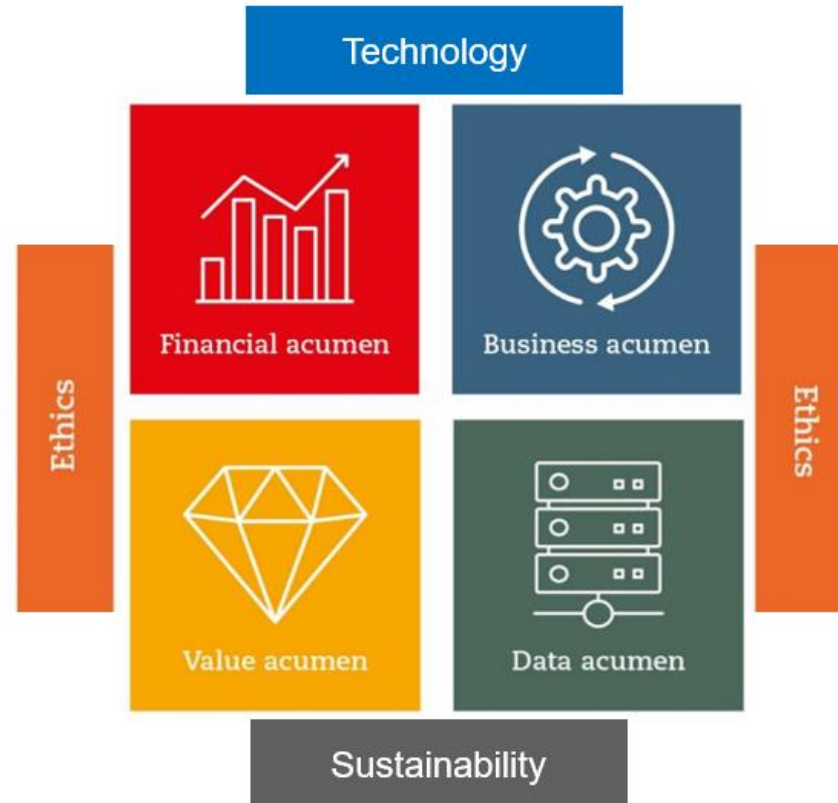
Alistair Brisbane

Head of Technology Research, ACCA

Introduction: Purpose of the finance function



Introduction: competencies need to keep pace



Artificial Intelligence – a brief reflection

slido



**What word/phrase comes to mind
when you think of AI?**

AI is dominating the conversation

Hype Cycle for Artificial Intelligence, 2023



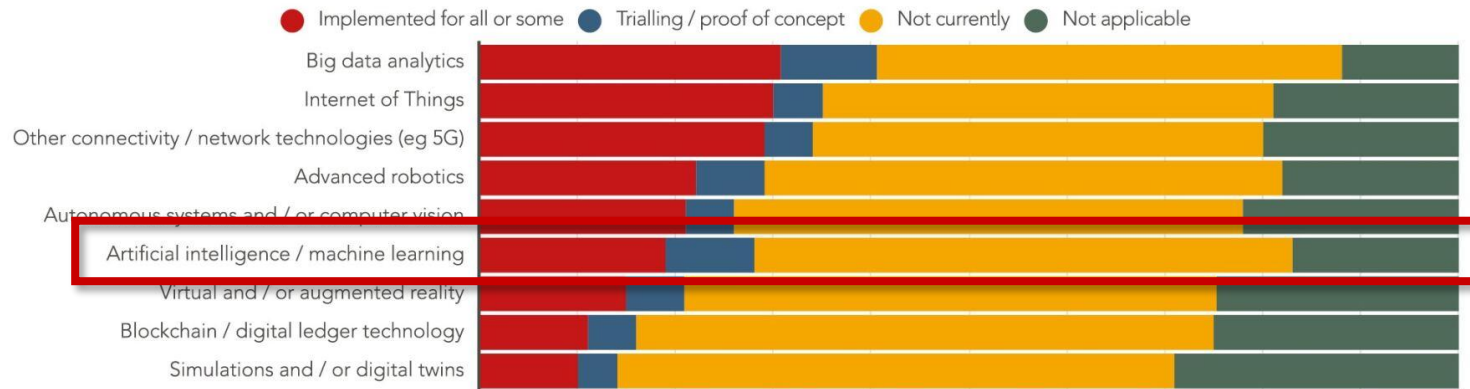
gartner.com

Source: Gartner
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Gartner

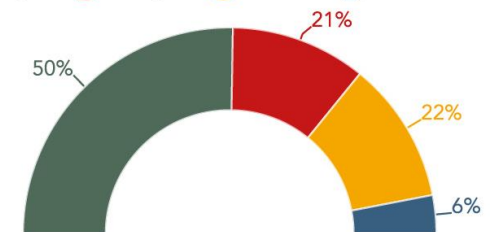
AI adoption in finance and accountancy

State of implementation of advanced technologies



Positivity towards potential benefits of AI

● Agree ● Disagree ● Neutral ● Don't Know



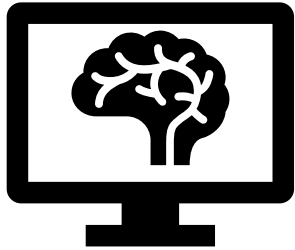
I would rely on AI to perform business-critical tasks (eg settlements, internal control)

● Agree ● Disagree ● Neutral ● Don't Know

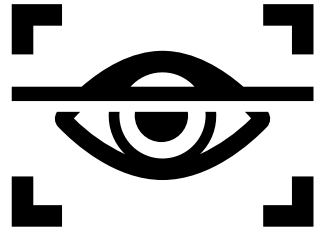


AI can increase the amount of time I have to focus on business-critical tasks

'Core' AI



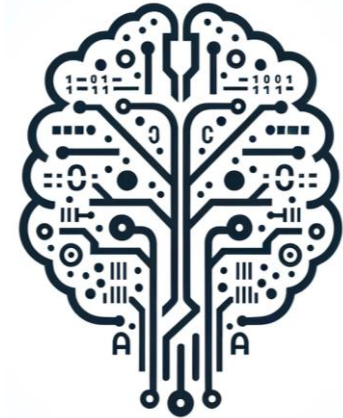
Machine Learning



Computer Vision



Natural Language Processing

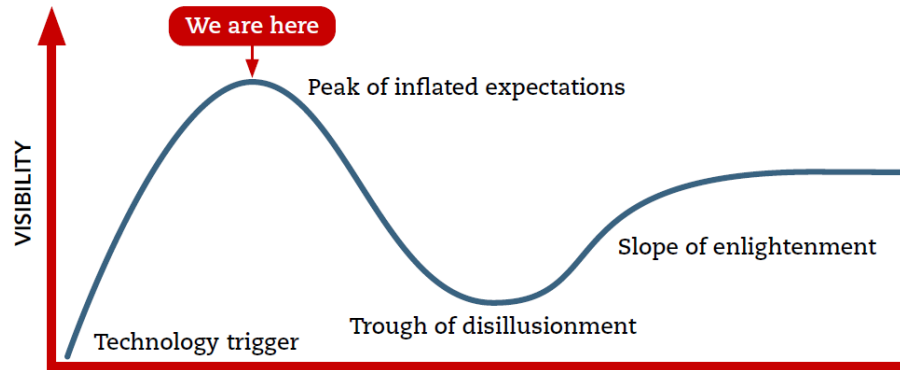


Generative AI(?)

Generative AI: the next evolution

The next evolution: generative AI

- Major investments
- Public hype
- Emerging applications



Finding a plateau

- Evolving capabilities
- Technical or fundamental limitations
- Experimentation

Plateau of productivity

TIME

Evolving Capabilities: variation(s) in performance

AE



It took my friend and I 2 hours to drive to the park last weekend. Once we arrived we realised that we had forgotten our lunch at my house. So I drove back home to collect the sandwiches while my friend stayed at the park. How long was my friend waiting for me?



Your friend was waiting for you for 2 hours.



You mentioned that it took both you and your friend 2 hours to drive to the park. Since you drove back home to collect the sandwiches after arriving at the park, the time it took for the return trip is also 2 hours. Therefore, your friend was waiting at the park for the same amount of time it took for you to make the round trip, which is 2 hours.

Evolving Capabilities: variation(s) in performance

AE

It took my friend and I 2 hours to drive to the park last weekend. Once we arrived we realised that we had forgotten our lunch at my house. So I drove back home to collect the sandwiches while my friend stayed at the park. How long was my friend waiting for me?



If it took 2 hours to drive to the park, then the drive back home would also take 2 hours. After collecting the sandwiches, you would then have to drive back to the park, which would again take 2 hours.



Thus, the total time your friend was waiting for you would be:

2 hours (to go home) + 2 hours (to return to the park) = 4 hours .

Your friend was waiting for 4 hours.

Fluctuations in the same model

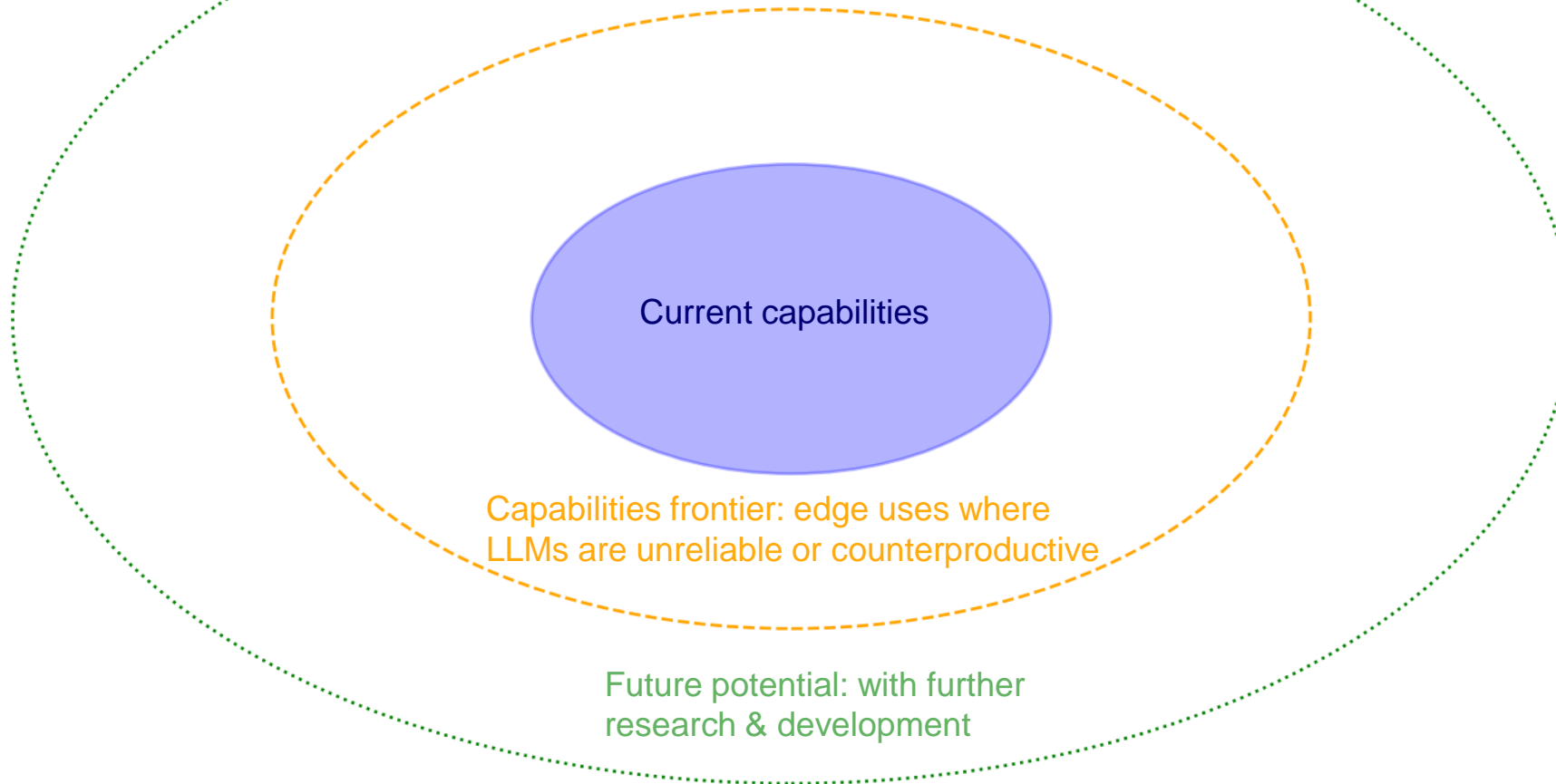
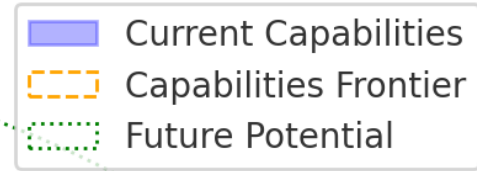
A model's capabilities can shift in often unanticipated and unplanned ways

- March 2023 – GPT4 could identify prime numbers with 97.6% accuracy.
- July 2023 – the same test plummeted to an accuracy rate of 2.4%!

Cause: OpenAI continuously trains its models for better safety and to correct problems

But: with hundreds of billions of parameters working to produce outputs changes can unexpectedly degrade other abilities

The capabilities frontier



Limitation:
LLMs don't understand...





What new discoveries from the James Space Webb Telescope can I tell my 9 year old about?



Your 9-year old might like these recent discoveries made by The James Webb Space Telescope (JWST):

- **In 2023, The JWST discovered a number of galaxies nicknamed "green peas."** They were given this name because they are small and round, like peas.
- **The telescope captured images of galaxies that are over 13 billion years old.** This means that the light from these galaxies has been traveling for over 13 billion years to reach us.
- **JWST took the very first pictures of a planet outside of our own solar system.** These distant worlds are called "exoplanets". Exo means "from outside".

These discoveries can spark a child's imagination about the infinite wonders of the universe



Hallucinations, or ‘failed approximations’

Inability to discern the truth

Flawed
data

Context
limitations

Misinterpretation
/ fiction v. fact

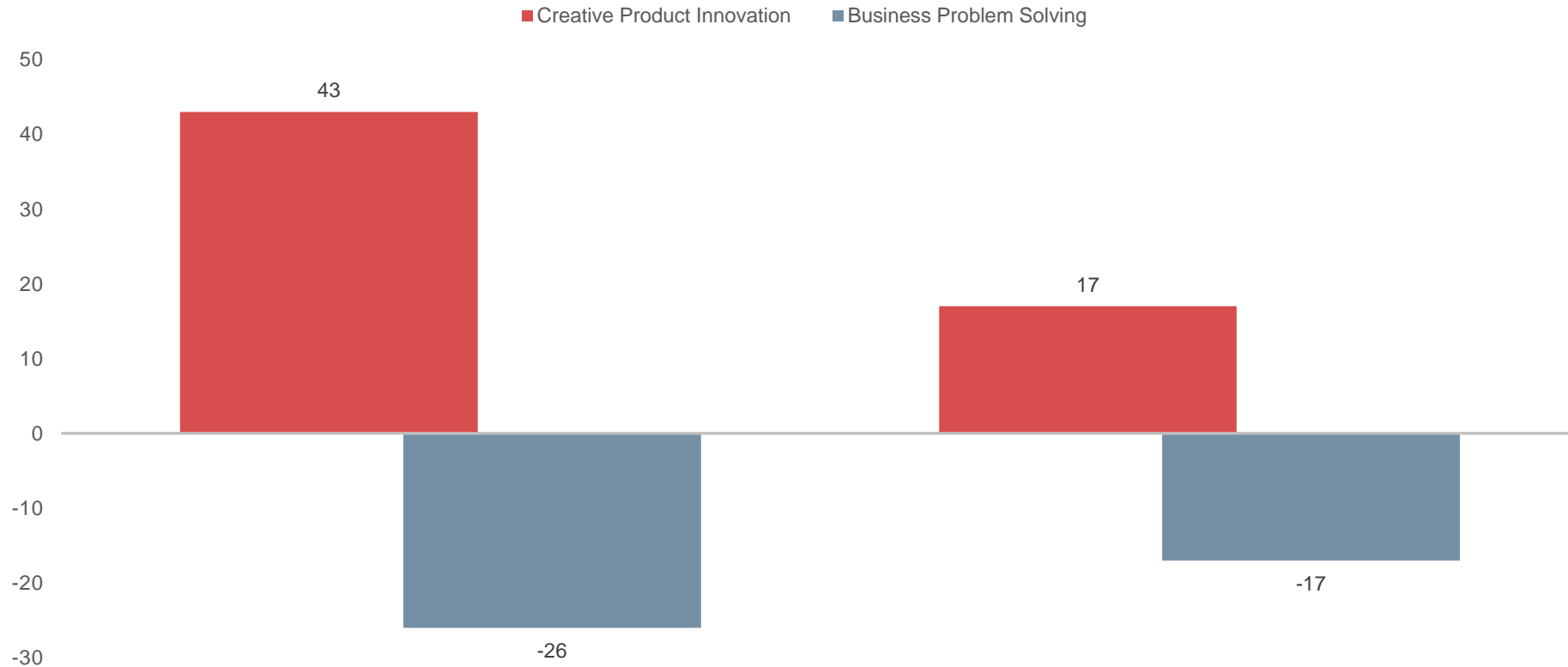
Poor
reasoning

Misalignment

Using Generative AI

Getting the application right

Average change in performance with GPT4 (%)



Sources: Human-Generative AI Collaboration Experiment (May-June 2023); BCG analysis.

Is it possible / relatively simple to check or correct outputs?

Is there a clear source of truth such as within the training data or in original documents?

Are the generative capabilities being used for creative or inspirational purposes?

Interacting with documents



How can I help you today?

Create a content calendar
for a TikTok account

Explain nostalgia
to a kindergartener

Suggest some codenames
for a project introducing flexible work arrang...

Give me ideas
about how to plan my New Years resolutions



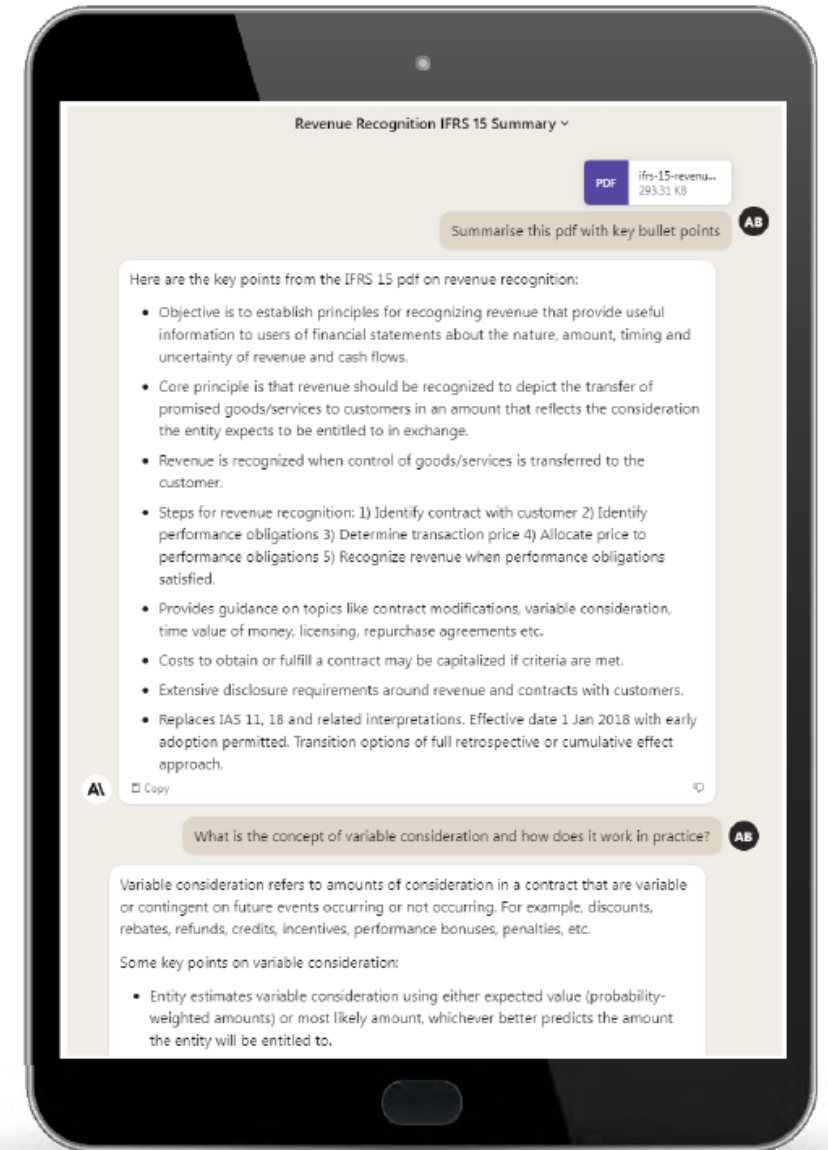
AIQuickGuide.pdf
PDF



Message ChatGPT...



ChatGPT can make mistakes. Consider checking important information.



Reporting and analysis

AE

You



fictional_income_statement.xlsx
Spreadsheet



fictional_balance_sheet.xlsx
Spreadsheet

Provide key stats and summarise the main trends from our income statement over the last three years

Key Stats

- **Revenue** increased steadily from \$1,200,000 in 2019 to \$1,400,000 in 2023.
- **Cost of Goods Sold (COGS)** also rose, from \$600,000 in 2019 to \$640,000 in 2023.
- **Gross Profit** showed a consistent growth, starting at \$600,000 in 2019 and reaching \$760,000 in 2023.
- **Operating Expenses** increased gradually from \$300,000 in 2019 to \$340,000 in 2023.
- **Operating Income** grew from \$300,000 in 2019 to \$420,000 in 2023.
- **Other Income** saw a slight yearly increase, from \$50,000 in 2019 to \$58,000 in 2023.
- **Net Income** increased from \$350,000 in 2019 to \$478,000 in 2023.

Main Trends

- **Revenue Growth:** The company experienced a steady revenue growth over the five-year period, with an average annual increase of \$50,000. This indicates a stable expansion in business operations or sales.
- **Gross Profit Margin:** The gross profit margin slightly improved, indicating more efficient management of production costs or an increase in selling prices.
- **Operating Expenses:** The steady rise in operating expenses suggests increased investment in the business operations, which could be in the form of marketing, R&D, or administrative expenses.
- **Net Income Growth:** Net income showed a robust growth, reflecting not just revenue growth but also effective cost management and possibly improved operational efficiency.

expansion in business operations or sales.

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- **Net Income Growth:** Net income showed a robust growth, reflecting not just revenue growth but also effective cost management and possibly improved operational efficiency.

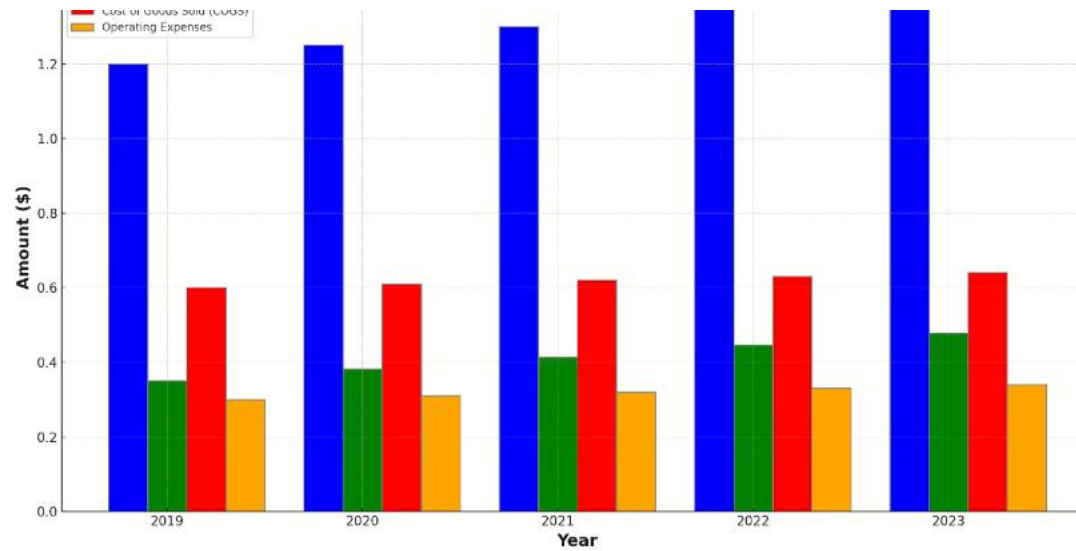
The trends indicate a positive trajectory for the company, with steady revenue growth, improved gross profit, and a consistent increase in net income. This suggests that the company is effectively managing its costs and possibly expanding its market presence or improving its product offerings. [->]



Help me v|



ChatGPT can make mistakes. Consider checking important information.



Here's the income statement data displayed as a column chart. This visualization contrasts the growth in revenue and net income against the increases in the Cost of Goods Sold (COGS) and Operating Expenses from 2019 to 2023. The distinct colors for each category make it easy to observe their respective trends over the five-year period, highlighting the company's financial performance and management efficiency. [-]



You

Save & Commit Cancel

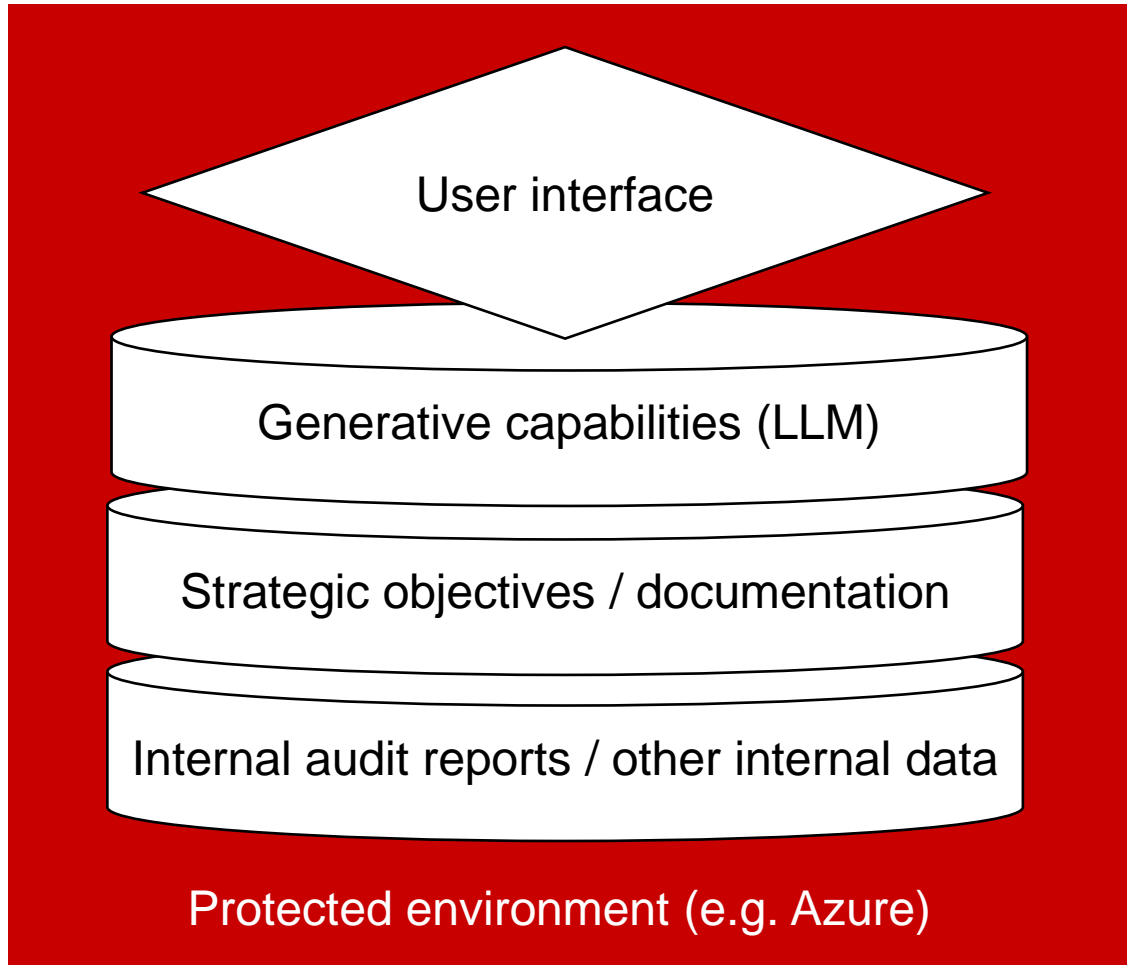


Message ChatGPT...



ChatGPT can make mistakes. Consider checking important information.

Risk articulation: e.g. UK GIAA

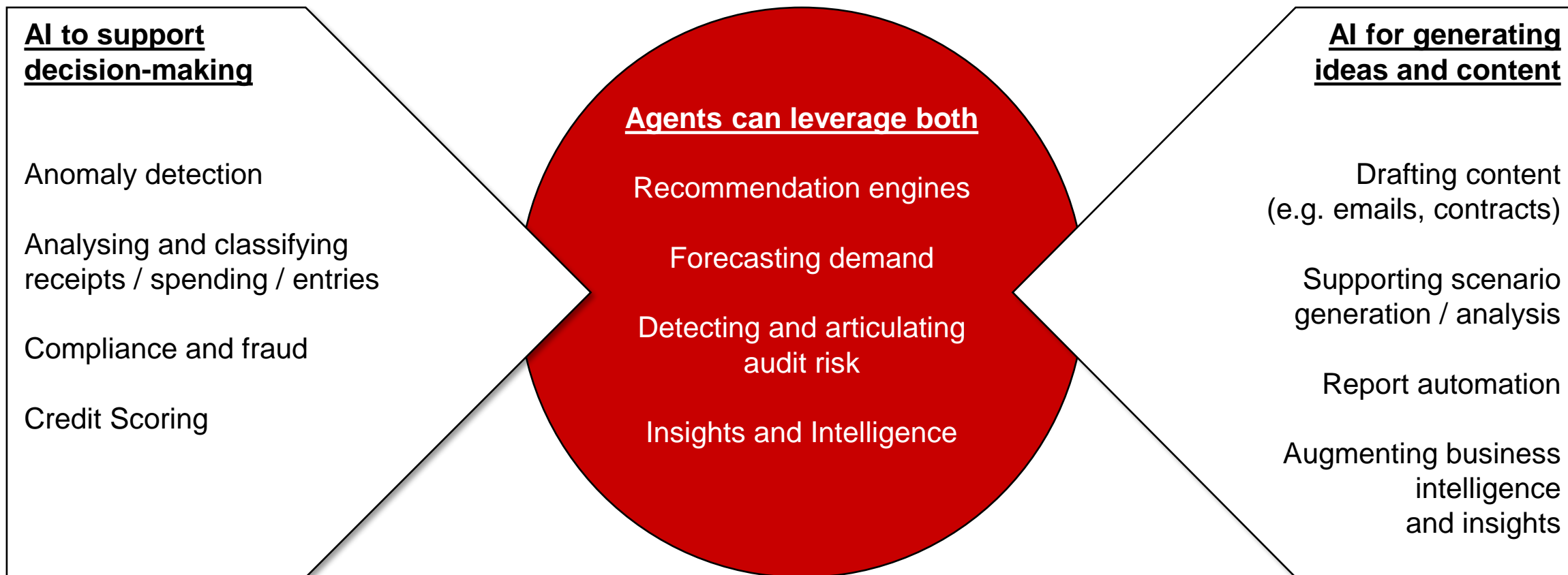


Prompt:
Identify the three most likely risks
associated with objective x

Prompt:
Suggest specific steps to control
for or mitigate these risks

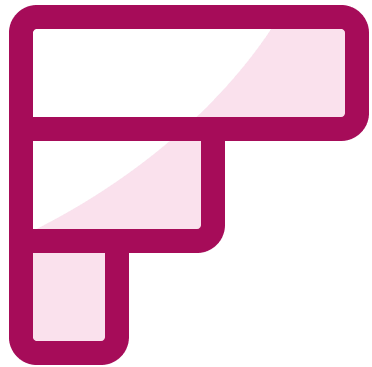
Etc.:
Extract key themes / priorities /
challenges / risks

The combination of tools / techniques yields powerful solutions



AI and the profession

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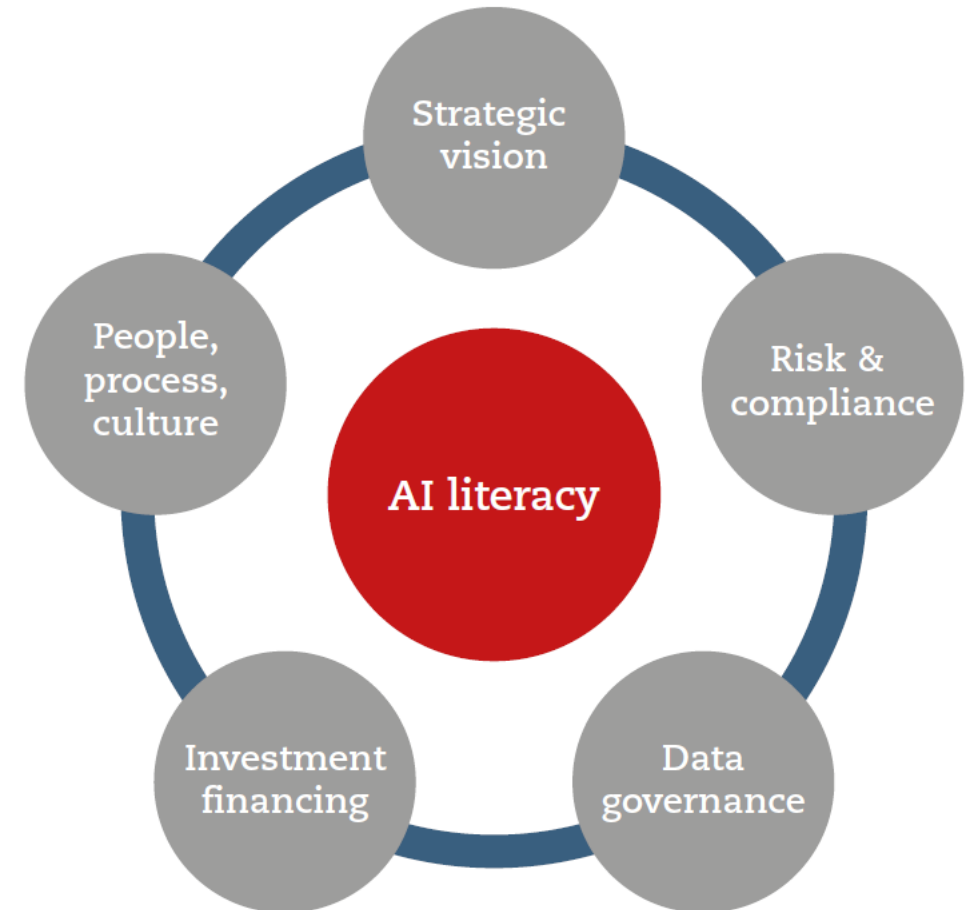


Rank the following AI-related risks/challenges in terms of their significance:

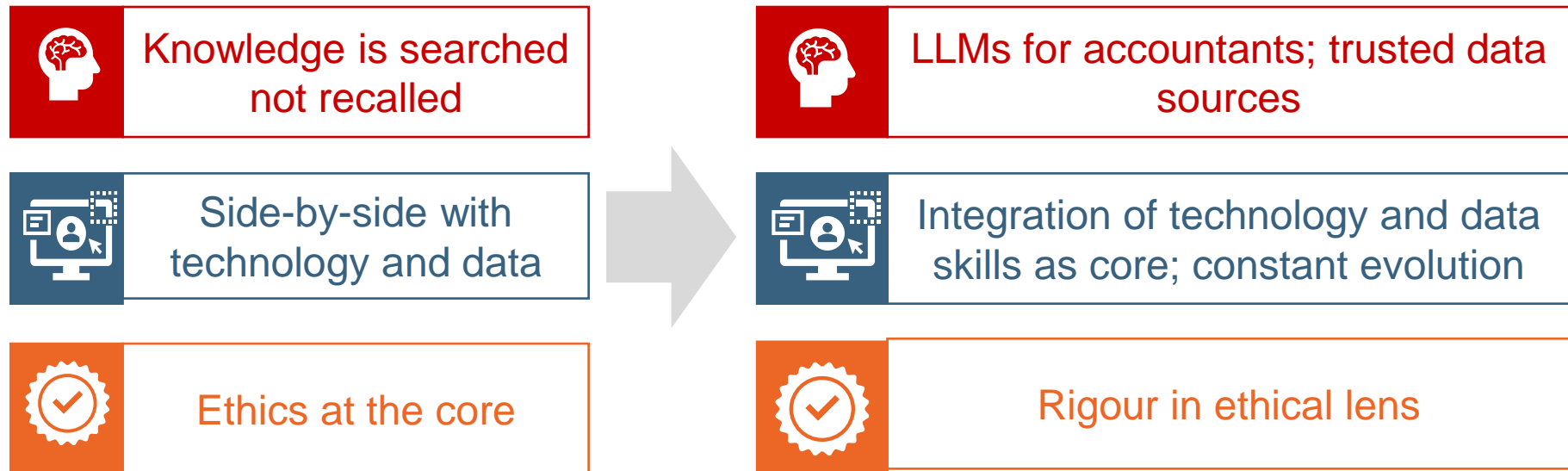
① Start presenting to display the poll results on this slide.

Trust stems (in part) from accountability

- **Strategic vision:** aligning capabilities of AI to strategy and values of the organisation
- **People, process, culture:** Sharing AI best practices across the organisation
- **Risk and compliance:** Ensuring risk professionals collaborate with tech teams to govern AI
- **Investment financing:** AI investment entails uncertainty; financial flexibility to support experimentation is key
- **Data governance:** Data governance is key to ensuring the ethical use of AI and compliance with legal requirements



The impact of AI on the role of the accountant



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Audience Q&A Session

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