Optima

Optima Generative AI Roundtable Events:
Key Insights

At our recently held client roundtable events in London and in Edinburgh, we explored the value creation opportunity presented by the dual-edged sword of Generative AI.

Key take-aways

1. It's not all about the tech; it's about the people and the change.

Recognising the need to place human capability development and skill uplift initiatives at the core of Generative AI projects is key. By valuing what humans do, with a clear understanding of what Generative AI can and cannot do, organisations can ensure successful outcomes.

Organisations need to be clear on the skills they need to leverage automation and hybrid working opportunities, the core roles needed to get started and a plan on how to develop capability incorporating up-skilling and recruitment. This touches all levels within the organisation from leadership to the front line.

Getting started and developing a sustainable AI strategy will require a blend of domain expertise and access to deep understanding of Generative AI (technology, algorithms, models, data, etc.).

Key questions when developing a sustainable Artificial Intelligence (AI) strategy:

- Generative AI is a powerful tool in our toolkit, but when is it suitable to use?

- If my organisation lacks Generative AI skills or understanding, where should I focus efforts to start?

- Should I train my team? Should I focus on individuals or a group? Should I recruit or bring in external consultants?

The answer will depend on an organisation's maturity, team structure, and line of business, reflecting the sensitivity of the sector to technology shifts. A suitable data strategy should allow the organisation to iteratively improve operations, upskill the team, and properly quantify and manage risks associated with AI projects. It should also help identify 'low-hanging fruit' opportunities, enabling the team to build confidence in Generative AI by mitigating risks in new areas. Confidence is developed iteratively by limiting risks to acceptable levels and gradually increasing the impact of AI/Generative AI integration within the organisation's products, services, and operations.

2. Don't get lost in the big numbers.

It's easy to get caught up in the hype surrounding Generative AI and the 'big number' opportunities promoted by many. However, in early-stage interventions, there are significant opportunities to automate, incrementally improve core processes, and drive solid returns on smaller initiatives.

- Look for the 'low-hanging fruit'—low-risk, high-impact opportunities where performance is measurable, and current human performance is imperfect. If humans make errors and we can quantify the error rate, there's a chance to enhance processes. Identifying such opportunities requires a deep understanding of the domain. Start where you are, deliver some value, learn from what works and what doesn't, and repeat. Reconsider what defines value; along with cost savings and revenue, learning and capability-building are equally valuable for organisations beginning their journey toward AI-powered operating models.

- While doing this, don't overlook the true potential of Generative AI to fundamentally reimagine how you deliver value to your customers and your organisation. Focus on the customer, think human-centric, and explore the core jobs users—customers, colleagues, partners—are trying to accomplish and the outcomes they seek. Ask whether there is an opportunity to completely rethink how this can be achieved by leveraging the automation and hybrid working capabilities of Generative AI. Again, deep domain expertise is necessary to conducting this effectively.

3. Know why you're doing it.

In the rush to embrace Generative AI lies the risk of launching initiatives without a clear understanding of the value they aim to deliver. This can result in weeks or months of activity, eventually raising the question: "Why are we doing this?"

More successful Generative AI efforts focus on delivering value outcomes that align with the organisation's strategic goals. The key enablers for this include:

- A vision and strategy for Generative AI that aligns with the broader AI strategy;

- Clear opportunities, prioritised based on their potential to create value, with a strong understanding of business problems and data science; and

- An experimentation framework that includes target value outcomes, metrics, proof of concept designs, experimentation studies, and a closed-loop improvement process. This ensures value delivery across multiple fronts, such as performance improvement, team up-skilling, and building confidence in navigating the unknown.

4. Generative AI – Why Now?

Generative AI has surged in popularity, driving unprecedented adoption rates. Though AI has been powering disruptive organisations like Amazon, Netflix, and Spotify for years, the current wave is unique. Why? Because Generative AI puts 'black box' data science tools into the hands of non-data scientists.

Key drivers of AI adoption include:

- **Technological Breakthroughs:** Advances like transformer architecture (2017), training techniques, and computational power enable more capable AI models.

- **Proven Capabilities:** Natural language understanding, human-like content generation, code writing, and problem-solving continue to improve.

- **Economic Potential:** AI's ability to automate and augment human tasks promises major productivity gains and new business opportunities.

- **Data Abundance:** Increasing data availability fuels the development of more sophisticated models.
- **Investment & Competition:** Tech giants are racing to develop AI, with significant funding and reduced costs of access, driven by open-source systems.

Generative AI gives businesses and consumers access to Large Language Models (LLMs) and Small Language Models (SLMs), enabling tasks like research, summarising, and content generation in seconds.

However, challenges remain. Data silos, scattered systems, and poor data quality are significant hurdles and there is also a need to address data privacy and security.

5. Data is both the enabler and the biggest constraint.

Data as an Enabler:

- **Domain-Specific Fine-Tuning:** While Generative AI systems come pre-trained on vast amounts of data, businesses can enhance their performance by fine-tuning them with industry-specific data. This allows the AI to better understand and respond to sector-specific queries and tasks.
- **Customisation Through Prompts:** Effective use of prompts and company-specific data can customise the AI's outputs to align with the organisation's voice, policies, and procedures.
- **Knowledge Base Integration:** Integrating the Generative AI system with the company's existing knowledge bases and databases can significantly enhance its ability to provide accurate, company-specific information.

Data as a Constraint:

- **Data Privacy and Security:** When using external Generative AI systems, companies must be cautious about the data they input. Sensitive customer information or proprietary business data should not be shared with these systems without proper safeguards.
- **Regulatory Compliance:** Industries like banking and retail are subject to strict regulations regarding data handling. Ensuring compliance while leveraging Generative AI systems can be challenging and may limit their application in certain areas.
- **Data Quality and Relevance:** The quality of prompts and fine-tuning directly impacts the AI's performance. Poor quality data can lead to inaccurate or irrelevant output.
- **Lack of Evaluation and Monitoring Data:** Without proper data for performance assessment, organisations may struggle to co-create benchmark datasets representing industry-specific tasks and edge cases, define and measure relevant performance metrics, conduct regular testing against real-world scenarios, collect and analyse data on the AI's real-world performance, and perform comparative analysis against human performance or previous systems.

To succeed with AI, organisations should focus on key data strategy elements:

- **Data Inventory:** Quickly identify data assets for high-impact AI use cases to show leadership quick wins.
- **Simple Data Integration:** Consolidating datasets enables rapid prototyping and early value demonstration.

- **Basic Data Quality & Design Assessment:** Ensures reliable initial results and maintains credibility with leadership.
- **Minimal Data Governance:** Establish clear data ownership and usage rules to build trust and ensure compliance.
- **Data Access for AI Solutions:** Ensure the chosen AI platform can ingest and interact with organisational data for fast experimentation.

These steps help organisations leverage existing data assets, produce reliable results, demonstrate responsible data handling, enable rapid prototyping, and quickly show tangible outcomes. By focusing on these areas, organisations can create a "minimum viable data environment" for AI experiments, demonstrating potential value while identifying gaps in their data strategy.

6. Need to overcome potential for 'wild west' scenarios.

The accessibility of Generative AI has spurred a wave of activity across many organisations, driven by a 'have a go' mentality. However, for others, the perceived risks are causing hesitation or even halting progress. Concerns include the inherent limitations of LLMs, such as hallucinations and bias, as well as the risk of proprietary data unintentionally entering the public domain.

There is broad recognition of the need for governance to enable a 'freedom within a framework' approach. This would allow organisations to experiment and learn while mitigating risks associated with Generative AI. Such frameworks need to incorporate principles and controls to ensure the adoption of Generative AI is ethical and safe 'by design':

- Acting for the benefit of the customer, the organisation, and society;
- Addressing the limitations of Large Language Models; and
- Ensuring alignment with emerging UK and EU regulatory policies and principles.

7. Generative AI Isn't Always the Right Answer !

The Allure of Generative AI : Proceed with Caution

While Generative AI offers exciting possibilities, its adoption should be approached critically:

- **Complexity Overkill:** Generative AI excels at handling complex, nuanced tasks such as content creation, data analysis, and creative problem-solving (under appropriate supervision). However, for simpler, rule-based processes, it can be unnecessarily complex and costly.
- **Resource Intensive:** Implementing Generative AI often requires significant investment in technology, expertise, and ongoing maintenance. For small-scale or low-volume tasks, these costs may outweigh the benefits, depending on the degree of integration within the organisation's system.
- **Ethical and Privacy Concerns:** Generative AI systems can perpetuate biases and raise privacy issues, particularly when handling sensitive data. In highly regulated industries, these concerns can overshadow potential benefits.

When Traditional Solutions Shine

Often, simpler and more established methods prove more effective:

- **Process Optimisation:** Before turning to Generative AI , consider streamlining existing workflows. This can often yield significant improvements without the need for advanced technology.

- **Rule-based Automation:** For straightforward, repetitive tasks, traditional automation tools can be more efficient and easier to implement than Generative AI .

- **Human Expertise:** In situations requiring emotional intelligence, ethical judgement, or specialised knowledge, human experts may provide better solutions than Generative AI , particularly in small-scale use cases.

Ultimately, organisations need a *business-question-first* mindset. Focus should be placed on understanding the problem or opportunity and formulating the most suitable Data Science solution rather than focusing on the tools. At the end of the day, Generative AI is just another tool in our toolbox.

8. Notwithstanding the above, doing nothing is not an option.

Inaction will leave you behind, becoming less relevant to customers and increasingly inefficient and ineffective compared to competitors. There's a sense of 'you've got to swim in it to get it'—learning by doing, testing, and adapting as you go. This raises the question: *What's your move—lead, manage, or watch?* And, *how do you get started?* At Optima, we believe the answer lies in the following approach:

Focus on value aligned with strategic goals:

- Define your vision and strategy for Generative AI .

- Identify and prioritise opportunities based on their value-creation potential.

- Establish an experimentation framework—target outcomes, measurement, and a closed-loop system.

Adopt a human-centric approach:

- Value the roles humans play, understanding what Generative AI can and cannot do.

- Apply a 'Jobs To Be Done' and/or use case-based understanding of what customers, colleagues, and partners seek to achieve.

- Recognise the need for human capability development and skill uplift as a core part of Generative AI initiatives.

Deliver ethically and safely:

- Act for the good of the customer, organisation, and society.

- Define design principles to address Large Language Models' limitations.

- Implement within a governance framework that allows 'freedom within a framework', aligning with UK and EU regulatory policies.

Remember: 'Generative AI won't replace humans, but humans with Generative AI will replace humans without Generative AI '

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