Elsewhen Reports

Digital Transformation in the era of Generative Al

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Executive Summary

Enterprise organisations have been using traditional Machine Learning (ML), a subset of Artificial Intelligence, for many years. ML-driven applications have driven more intelligent automations, data-driven decision-making and business productivity, a big driving force of digital transformation. However, many enterprise use cases have been out of reach: traditional ML practices cannot replicate the complexity and expertise involved in many enterprise workflows and processes.

But now, as a result of technological innovations, including pre-training, transformer architecture, scale and orchestration techniques, we have seen the emergence of the era of Generative AI (GenAI) and Large Language Models (LLMs). These innovations have equipped GenAI and LLMs with unique capabilities, including understanding the LLM meaning in AI, natural language fluency, reasoning ability and adaptability. In turn, GenAI and LLMs signal a fundamental shift in the enterprise opportunities of AI; opening up new product paradigms, unlocking business impact and disrupting the foundations of digital transformation.

At Elsewhen, we believe the immediate value presented by GenAI and LLMs is in delivering unprecedented levels of productivity. Organisations, specifically in industries dominated by knowledge work, are plagued by monotonous tasks and manual processes. At their core, GenAI and LLMs, combined with in-house, proprietary data and innovative UIs, are powerful tools for artificial intelligence

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in business, streamlining, augmenting and replacing these business processes. We see this GenAI-led approach to digital transformation unlocking business productivity, solving domain-specific business challenges and, ultimately, having a big impact on the bottom line.

And, what's more, we see the benefits extending beyond the balance sheet. GenAl and LLM tools could remove much of the digital load of employees; freeing them up to take on more satisfying and value-add activities. In turn, these technologies will help reverse trends around employee experience, job satisfaction and drive greater levels of innovation and experimentation within organisations.

As with any new wave of technology, there are business and technology risks that will challenge and block potential benefits. From ethics and regulatory requirements to cybersecurity and data management, it is the role of business leaders to engage with these risks and manage the implementation of GenAI and LLMs in a responsible and ethical way, for both their business and society as a whole.

At Elsewhen, we believe that <u>those brave enough to be Al early adopters</u>, wanting to supercharge their products and services, will benefit the most. Now is the time to accelerate your organisation's GenAl and LLM planning, implementation and adoption; perfecting your digital capabilities, approaches and skills required to create bespoke Al-driven solutions and products that unlock business productivity.

In this paper, we will outline the emergence of GenAl and LLMs, highlighting the unique capabilities that open up new enterprise opportunities and product paradigms. We will explore the potential business impacts of GenAl and LLMs and a clear path to build your enterprise GenAl strategy. We hope you enjoy it!

The Era of Generative AI and LLMs

GenAl describes algorithms that can be used to create new content, marking a new artificial intelligence technology and including audio, code, images, text, simulations, and videos. GenAl is fueled by Large Language Models (LLMs) which are a type of neural network model designed to process sequential data. In short, these models are trained, using datasets containing trillions of parameters, to predict the next word in a sequence.

And, whilst their name "large language models" is a nod to natural language, the same approach can be applied to different types and formats of data such as code, protein sequences, mathematical equations, spreadsheets or images.

Significantly, the advent of Generative AI and LLMs marks a significant paradigm shift that will disrupt the foundations of artificial intelligence for businesses and society as a whole. The key driving force for this shift has been a number of technological innovations including pre-training, transformer architecture, scale and new orchestration techniques. Whilst we mention many of the underpinning technologies, a technical commentary of GenAI and LLMs falls outside the scope of this business paper. If you are interested in more details, we will be exploring this in an upcoming blog series.

Instead, through a more pragmatic, business lens of enterprise GenAl and LLMs, we begin to scratch the surface of how these technologies can affect the way organisations operate. We recommend breaking down the unique capabilities of GenAl and LLMs into three characteristics:

1. Humanising Artificial Conversations

As a result of the technological innovations, including pre-training, transformer architecture, scale and new orchestration techniques, GenAl and LLMs have gained a unique understanding of human language patterns, structures and nuances. In fact, unlike <u>traditional NLP machine learning models</u>, many argue these models have actually achieved natural language fluency and competency for the first time; generating complex sentences, paragraphs and conversations that are grammatically and semantically correct. Furthermore, GenAl and LLMs exhibit this human-like language processing in more tones, languages and styles than any previous model. Significantly, for enterprise organisations, this equips GenAI and LLMs with the capabilities and potential to humanise artificial conversations; opening the door to a number of opportunities. If fully adopted across an organisation, employees and users, with the help of GenAI and LLMs, would be able to utilise and interact with tools, information and even AI models themselves through natural language alone.

Here, GenAl and LLMs have the potential to democratise technical capabilities across an organisation; removing specific or technical skills as a barrier to entry for activities. For example, GenAl tools that generate and evaluate code from a simple natural language prompt open up opportunities for employees without a coding or engineering background to engage in a "low-and no-code" approach to product development. Furthermore, natural language fluency creates opportunities to develop and build more innovative user experiences with conversational interfaces; removing much of the friction associated with navigating digital tools and solutions.

2. Instruction Following and Reasoning

As users familiarise themselves with GenAl tools, such as ChatGPT, they soon figure out ways of getting more useful outputs from the model, like rewriting an email in a specific structure or giving summaries in more concise language. These



simple examples illustrate GenAI and LLMs' unique reasoning ability. Ultimately, the value of GenAI and LLMs is not in its 'memory' or 'knowledge' acquired from enormous training datasets but in its ability to act as a reasoning agent; interpreting a specific input and generating a useful and accurate output.

This unique ability stems from transformer architecture, a specific deep learning technique that is defined by two unique mechanisms: positional encodings and self-attention. Positional encodings is a mechanism that allows a transformer to track the order in which a word occurs in a given piece of text or data. The self-attention mechanism assigns weights to each word in the context of the entire piece of text or data. Together these processes capture the relationships between words in a sentence or paragraph, building a contextual, or tacit, understanding of a piece of text or data to, in turn, generate a suitable and accurate output.

Enterprises are full of tasks, processes and workflows, which due to varying context and complexity, have previously been untouched by AI. However, LLMs ability to build a nuanced and contextual understanding of a prompt or instruction and carry out simple reasoning is a gamechanger. To name just a few, it could have massive implications for how organisations find and distribute information, how users interact with software and platforms and how we can automate processes. There is more to unpack here, again we will come back to this in the next section.

3. Taming the long tail

In the enterprise environment, activities tend to be highly specialised and complex, driven, in part, by the expertise and knowledge involved in many enterprise processes. Historically, capturing complexity and expertise in traditional machine learning models has been an inefficient, expensive and inaccurate process; a phenomenon known as <u>the long tail paradox</u>.

However, for the first time, GenAl and LLMs are taming this long tail. For instance, general-use LLMs, such as ChatGPT, have been scaled and optimised, outperforming any previous machine learning model for a wide variety of tasks. In particular, these LLMs examples, like Falcon Al LLM are better able to understand complex prompts through advanced artificial intelligence technology and, given the amount of training, are more likely to be able to complete certain tasks in the enterprise context; for instance summarising complex documents or writing technical emails.



Having said this, most enterprise processes and tasks rely heavily on proprietary and unique data which is segregated from LLM training data for commercial and regulatory reasons. With limited overlap between LLMs training data and enterprise data, these models are unlikely to be able to accurately model complex enterprise events or activities. Essentially, the enterprise use cases of out-of-thebox general-use LLMs, such as ChatGPT, are limited.

Here, orchestration techniques, including fine-tuning and RAG, have emerged as important solutions to connect LLMs with proprietary enterprise data. Organisations are able to connect, host and support open-source LLMs with their in-house data, leveraging Cloud Providers LLM APIs, architecture and user interfaces and develop enterprise GenAI and LLM applications and systems. Significantly, what emerges is a unique combination of LLMs' capabilities connected to real-time proprietary enterprise data which, ultimately, introduces a new era of enterprise AI defined by unprecedented accuracy, adaptability and efficiency.

GenAl and LLM Product Paradigms

As mentioned above, by utilising their natural language fluency, reasoning ability and emerging orchestration techniques, GenAl and LLMs represent an opportunity for organisations to build and develop leading-edge enterprise applications and systems. As these organisations begin experimenting with and adopting these technologies, new and innovative use cases of GenAl and LLMs are emerging. At Elsewhen, we currently see the dominant and popular use cases falling under four GenAl and LLM product paradigms.

> Our previous underwriting workflow automation could be packaged up alongside a pipeline of LLM-based agents that request more information from the applicant, write and send an offer letter or even request and apply for a reinsurance policy.

1. Conversational Interfaces

Conversational interfaces, also known as Natural Language Interfaces (NLI), are arguably the most simple and common LLM product paradigm currently being used in enterprises. At its core, these products connect an LLM to a knowledge base, such as a database, CMS, HR documentation or financial data, to automate question answering. This is displayed and interacted with using a conversational interface such as chatbots, virtual assistants or customer service bots, itself powered by an LLM.

Importantly, previous attempts at conversational AI were limited in scope, inefficient and often left users frustrated. Just think about all those useless chatbots you have used over the years! However, by leaning into natural language fluency, these LLM-driven conversational interfaces support more human, natural and unique conversation and, in turn, display higher levels of user satisfaction. Furthermore, by connecting directly to in-house data, conversational interfaces can deliver more accurate, up-to-date and personalised interactions in health AI applications with users and customers. At Elsewhen, we see information or document retrieval as a particularly convincing use case for conversational interfaces. A <u>study</u> found that employees spend more than 20% of their work week searching for information internally. Here, interfaces can minimise this time, connecting employees seamlessly with the right information in real-time. For example, Walmart uses a number of internal conversational interfaces. <u>Ask Sam</u>, designed for in-store employees, enables users to locate items, access store maps, look up prices, view sales information, and check messages. And <u>My Assistant</u>, designed for the 50,000 non-store employees, augments new hires onboarding; offering self-serve information on the companies employee policies and benefits.

2. Workflow Automation

Enterprise organisations are full of a variety of business processes ranging in complexity, frequency and, importantly, the amount of manual labour required. GenAI and LLMs present the opportunity to automate many of these distinct, predefined workflows incorporating artificial intelligence technologies in business and using access to data and tools. By focusing on the unique reasoning capabilities and access to proprietary data, LLMs can turn a business process into a behind-the-scenes pipeline of transformations, interactions and decisions.

The value of these workflow automations is quite straightforward: employee hours saved and outcomes accelerated. However, to unlock the most business value, these types of automations should target and streamline specific processes that harm an employees productivity; designed with a human in the loop, rather than replacing them. Here, a lot of work must be done to identify those manual processes that are most suitable for automation using LLMs.

At Elsewhen, we have been exploring how GenAI and LLMs could be used to automate workflows across underwriting. In particular, medical underwriting involves manually assessing a number of different data sources to determine an appropriate premium for an insurance policy, such as doctors notes, application forms, claims history, underwriting manuals, and other documents. With LLM workflow automation, we can feed these inputs into a model, automatically synthesise the information and output a recommendation to the underwriter. By leveraging a number of different data sources, this type of workflow automation not only improves underwriting efficiency but also creates more accurate, dynamic models of risk; deepening the understanding of risk to create better priced and more customised policies.

3. Co-Pilots

Copilots are a new product paradigm to augment workflows, increase the efficiency of users and dramatically redesign how they do their jobs. Whilst the term is increasingly synonymous with Microsoft's Co-Pilot, co-piloting is simply the collaboration between a human and an AI model to achieve a goal or complete a task. Here, the AI model provides suggestions, information, or even completes parts of the task based on the user's input. This can include drafting emails, writing code, or assisting with problem-solving.

Another good example is <u>GitHub Copilot</u>, which helps developers by explaining a piece of code, or fixing an error, in the real-time context of any given project. In effect the underlying LLM is hidden behind a newly designed developer environment. Users can "spend less time searching and more time learning" with on-the-go troubleshooting. The end result being <u>developer</u> <u>productivity increases by 55.8%</u>.



However, there is potential to go a lot further – creating specialised AI-powered tooling that provides tailored collaboration integrated into enterprise tools, data and architecture. Enterprise-grade copilot tools could provide timely and contextually relevant access to data and domain knowledge that would otherwise take days to integrate into the job at hand. In turn, team members gain time and cognitive load to navigate higher abstractions of problems and iterate solutions in real-time. This helps to shape a <u>flow-like</u> employee experience, while ensuring they control the final outcome.

4. Autonomous Agents

The most advanced product paradigm we see with GenAl and LLMs are <u>autonomous Al agents</u>. Autonomous agents, by integrating knowledge, data, tools and a reasoning system, use LLMs to essentially replace the user. These Al agents are a move away from the "text in, text out" and "human in the loop" paradigms above towards a more "fire and forget" approach whereby LLMs sequence and string together end-to-end tasks with almost human-like ability.

Al agents, leveraging Retrieval Augmented Generation and Neural Information Retrieval, use traditional software interfaces, or reasoning agents, to plan and direct multiple LLMs toward set goals. Recursive agents generate and execute tasks systematically, leveraging external tools or databases such as web browsing, external memory or enterprise data to optimise performance. Significantly, within the chain of tasks, the Al agent reacts to and aligns its next action based on the output generated previously. This approach could allow autonomous agents to tackle intricate challenges independently.

Autonomous agents could pave the way for transformative LLM applications across diverse sectors and functions. In returning back to underwriting, AI agents might represent another opportunity to streamline processes. Here, our previous underwriting workflow automation could be packaged up alongside a pipeline of LLM-based agents that request more information from the applicant, write and send an offer letter or even request and apply for a reinsurance policy.

Business Impact of GenAl and LLMs

GenAl and LLMs opens the door to a number of exciting capabilities and product paradigms. In turn, it is no surprise that we have seen enormous hype and noise around these technologies, often detracting us from a pragmatic approach to GenAl and LLMs connected to unlocking business impact.

> At Elsewhen, we believe the immediate value presented by GenAl and LLMs is in delivering unprecedented levels of productivity. Organisations, specifically in industries dominated by knowledge work, are plagued by monotonous tasks and manual processes. At their core, GenAl and LLMs, combined with inhouse, proprietary data and innovative UIs, are powerful tools for streamlining, augmenting and redesigning these business processes.

In turn, we see GenAl and LLMs having a three-fold business impact: cost saving, redesigning work and, in the longer-term, new revenue.

Cost Saving

With the emergence of GenAI and LLMs, estimates now suggest that technology could automate between 60 and 70 percent of an employee's time. As mentioned above, unlike traditional forms of automation, the capabilities of GenAI and LLMs mean that knowledge work, which is historically more capital intensive, is more likely to be automated. Here, we see clearly the potential for GenAI and LLMs to streamline workflows, speed up operational processes and lower costs significantly. In fact, <u>a recent survey</u> found that C-level executives investing in GenAI and LLMs are expecting cost savings of more than 10%.

Alternatively, GenAl and LLMs capabilities can be leveraged in partnership with knowledge workers, augmenting their workflows and driving productivity. In this framework, GenAl and LLMs not only take on manual, time-consuming tasks but also offer insights and support workers in completing challenging tasks. A GenAl and LLMs tool, such as an enterprise search or copilot tool, would equip workers to more efficiently and effectively complete more value-add tasks including problem solving, planning and collaborating. For example, a recent study showed that customer support agents in a FTSE 500 company, with access to a copilot, experienced productivity gains of between 15%-35% as well as an uptick in

successful customer resolutions. In particular, the study attributed productivity gains to spending less time searching for documents and information, often siloed, fragmented and outdated across the organisation.

By combining these two paradigms, automation and augmentation, <u>the potential</u> <u>economic benefit</u> of GenAl-related productivity gains could be huge. Of course, for enterprise organisations, the value of these productivity gains is dependent on <u>the industry and make-up of their workforce</u>. However, the business case for GenAl-led cost savings is growing; <u>a recent study</u> found that some GenAl experiments in one organisation were achieving 12% ROI, driven predominantly by productivity gains.

Redesign Work

The covid pandemic drove an unprecedented increase in the digital workload of employees. And, whilst this trend has brought with it <u>productivity gains</u>, we are increasingly seeing negative consequences on the employee experience. In particular, new expectations around digital communication, increases in the number of meetings and time spent looking for information are driving unsustainable levels of digital load. As a result, in 2023, <u>68% of global workers</u> say they do not have enough focus time, uninterrupted by the types of disruptions above, to complete their tasks.





Additionally, <u>2 out of 3 business leaders</u> now see lack of innovation or creative ideas as a major concern within their team. The reality is that employees, bogged down by manual processes for serving customers and managing people, tasks, and assets, do not have the time or cognitive load to innovate and experiment. And often, those enterprise tools designed to unlock productivity, innovation and experimentation leave <u>employees frustrated</u>; driven by fragmented tool stacks, poor product design and a lack of integration into workflows that ultimately hinders productivity.

With GenAl and LLMs, we believe we will see a transformation and revolution in the way we work. In particular, the unique capabilities of GenAl and LLMs have the potential to revive and redesign our relationship with technology in an enterprise context. In fact, <u>a recent study</u> in the UK found that 67% of workers already using GenAl and LLMs are experiencing higher levels of job satisfaction, and overall better employee experience.

GenAl and LLMs also supercharge the toolkit of digital teams, such as equipping organisations with an unprecedented understanding of the user or generative Al tools designed to support engineering, design and product teams. In turn, digital teams are able to build innovative and intuitive enterprise tools tailored towards delivering personalised, seamless and user-centric employee experiences; bringing with it productivity gains and greater employee satisfaction.

Most fundamentally, GenAl and LLMs will streamline or automate many of the tedious and mundane tasks; helping relieve digital exhaustion and administrative burdens associated with enterprise workflows, processes and tools. In turn, these technologies also free up employees to focus their time on value-add and rewarding activities; reigniting levels of innovation and experimentation. And, beyond this, we can speed up the transformation process towards more digital solutions and services across the organisation.

New Revenue

Given our focus on GenAl, LLMs and productivity, we argue that cost reduction and redesigning work will be the key business impacts of GenAl and LLM adoption. However, GenAl and LLMs are also creating entirely new enterprise opportunities for both existing and future business challenges. These new GenAl and LLM opportunities are linked to longer-term business transformations, making organisations fundamentally rethink their business models and how they create value. We can already see this taking shape with <u>media companies and</u> <u>publishers licensing their decades of content to OpenAl</u> or <u>Elsevier building their</u> <u>own GenAl tools based on their proprietary academic content</u>.

Naturally, <u>research</u> suggests that these 'transformational' use cases of GenAl are likely to take longer to materialise; a function of current investment levels, risk appetite and regulatory uncertainty. In fact, many of these use cases might not exist yet, but <u>the potential rewards</u> are huge. And, for many industries, such as technology, and media, estimates suggest that the majority of GenAl value will come from new revenue opportunities. As with any new technology, those innovative organisations, exploring and experimenting with transformational use cases of GenAl, will achieve the long-term competitive advantage.

Building Your Enterprise GenAl and LLM Strategy

1. Identify Opportunities

When it comes to GenAl and LLMs, start with comprehensive research into your organisation and specific industries. You might want to consider mapping and diagnosing the current state of your organisation to accurately pinpoint strengths, weaknesses, and potential opportunities for leveraging GenAl and LLMs. For example, we should assess the existing culture and skill sets related to Al, determining how they align with or need to adapt for the successful integration of GenAl and LLMs. Here we also want to augment and deepen our research with external information; explore market trends, technological advancements, and your competitive landscape.

Beyond this, to identify opportunities we must engage with the goals and purpose of the wider organisation to strategically align and outline the direction of GenAI and LLM. This does not mean some generic statement such as "embracing the transformative potential of AI to drive operational efficiencies, improving innovation and fostering a forward-thinking culture to secure a competitive advantage". But, instead effectively engaging stakeholders from C-level to operational teams, to develop a GenAI and LLMs strategy tailored towards solving productivity and domain-specific business challenges.

2. Design Experiments and Generate Learnings

In the next phase, we recommend leaning into and designing GenAl and LLM experiments. Importantly, this stage empowers your organisation to delve into your unique, proprietary data sets, explore diverse use cases and test the boundaries of what GenAl and LLMs can achieve within your organisation. This phase should move beyond theory towards applying GenAl and LLMs practically and effectively testing your research in real-world scenarios. For example, at Elsewhen, we have developed a proof of concept (POC) conversational interface that distils insights from our company insurance policy.

Importantly, a key takeaway from this phase involves translating experiments into shared learnings, best practices and principles for the effective use of these GenAI and LLMs. Here, by adopting a 'test and learn' approach, we can capture many of the lessons, challenges and successes whilst minimising the effort and resources invested. In particular, one key outcome for this phase might be outlining and sharing information and learning on the LLMs available in the marketplace. We have included an example below:

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ENTERPRISE LM	DEVELOPER	ORIGIN	COST	PARAMETERS	CONTEXT WINDOW	OPEN Source	MULTI- LINGUAL	FINE- TUNABILITY
GPT-4	OpenAl	USA	£££££	17	8K			
Gemini	Google DeepMind	USA	£££££	540B	10K			₹
.lama-2	Meta Al	USA	££	70B	4K			
Claude-3	Anthropic	USA	£££	285B	100K			
itable	Stability Al	UK	££	7B	4K			
1istral	Mistral Al	France	£	7В	8K			
Command	Cohere	Canada	££	53B	4K		✓	✓

GPT-4

Capabilities: GPT-4 (Generative Pre-trained Transformer 4) is a state-of-the-art language model known for its deep understanding of context, nuanced language generation, and multi-modal abilities (text and image inputs). Applications: Content creation, chatbots, coding assistance, and more. Innovations: GPT-4 surpasses its predecessors in terms of scale, language understanding, and versatility, providing more accurate and contextually relevant responses.

Gemini

Capabilities: Gemini is a powerful generative model specialising in multi-modal content creation, including text, code, and images. It excels at understanding complex prompts and generating outputs that are not only factually accurate but also creative and engaging. Applications: Al writing assistance, story generation, code completion, concept art creation, and more. Innovations: Gemini introduces several unique capabilities to the generative Al landscape: multi-modal fusion, reasoning and knowledge integration and human-in-the-loop approach.

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Llama-2

Capabilities: Llama-2 is an advanced, open-source large language model, known for its efficiency and scalability. Despite their smaller size, LLaMA models deliver exceptional performance on a variety of benchmarks including reasoning, coding, proficiency and knowledge tests. Applications: Llama 2's capabilities extend beyond chatbot applications — although it can be fine-tuned for specific tasks including summarisation, translation and content generation, making it an invaluable asset across sectors. Innovations: Llama-2 is well set up for commercial use being more efficient and flexible than other alternatives.

Claude-3

Capabilities: Claude 3 is a sophisticated AI model developed by Anthropic, focusing on conversational intelligence. It excels in understanding and responding to a wide range of conversational cues, maintaining context, and providing coherent, relevant responses in dialogues. Applications: Its applications are primarily in areas requiring advanced conversational AI, such as chatbots for customer service, interactive educational platforms, virtual assistants, and tools for enhancing communication in various domains. Innovations: Claude 3 represents an advancement in conversational AI, with improvements in understanding context and user intent. It is designed to offer more natural, engaging, and reliable conversational experiences, showcasing Anthropic's commitment to developing user-friendly and efficient AI solutions.

Stable

Capabilities: Stable LM is a suite of open-source large language models with a focus on stability, compactness, and efficiency without compromising on performance. Applications: With a focus on more efficient and accurate natural language processing, Stable lends itself to our conversational interface and co-pilot product paradigms. Innovations: StableLM has been designed with commercial use in mind with licensing terms and more resource-efficient utilisation promoting its widespread enterprise adoption.

Mistral

Capabilities: Mistral is a fast-deployed and easily customisable AI model leveraging transformer architecture. It specialises in allocating different tasks to sub-models (experts), enhancing efficiency and effectiveness in handling diverse and complex problems. Applications: Its capabilities enable use cases from advanced natural language processing to complex problem-solving in various domains like finance, healthcare, and technology. Significantly, the model is suitable across all GenAI product paradigms (conversational interfaces, workflow automation, co-pilots and AI agents). Innovations: Within Mistral's ecosystem there are other models that utilise a Mixture of Experts (MoE) architecture. These models distinguish themselves by its dynamic allocation of tasks to the most suitable sub-models within its network; allowing for more specialised, accurate, and context-aware responses, and sets a new standard in handling multifaceted AI challenges.

Command

Capabilities: Cohere's Command model is an instruction-following text generation model trained to follow user commands. It is trained to be instantly useful and specialised in efficient and accurate semantic search, text summarisation, generation, and classification. Applications: Its ability to search, understand meaning, and converse in text lend itself to practical enterprise applications such as conversational interfaces and co-pilots. Innovations: Cohere provides industry-leading English and multilingual models (100+ languages). They also boast an embedding model, Embed, which translates text into numerical vectors, a key process for vector databases and RAG.

3. Iterate and Expand

Next, we recommend iterating your strategic and technological experiments to expand the scope and scale of your GenAI and LLM strategy.

For instance, organisations should define the Key Performance Indicators (KPIs) for the GenAI and LLM projects; aligning them with strategic objectives and providing measurable targets. These KPIs will serve as the benchmarks for evaluating the success and impact of the AI implementations. Concurrently, identifying the Jobs to Be Done (JTBD) is crucial. This involves a thorough analysis of the specific tasks, challenges, and objectives that GenAI and LLMs are intended to address within the organisation, ensuring a focused and relevant application of these technologies.

The next step involves the development of a detailed service blueprint. This blueprint should clearly outline the processes, interactions, and workflows that will be influenced or transformed by GenAl and LLMs, providing a comprehensive view of the operational landscape post-implementation. It acts as a visual guide, aiding in the understanding of the integration points and the operational flow.

Additionally, outlining a solution architecture is critical. This encompasses the technical infrastructure required for GenAI and LLMs, including data management systems, AI models, and integration mechanisms. The architecture should be designed to be scalable, robust, and secure, accommodating the evolving needs of the organisation.

In combination these elements – KPIs, JTBD, service blueprint, and solution architecture – should build a visual, stakeholder-friendly business case for GenAI and LLMs, communicating the strategic vision and operational benefits of the GenAI and LLMs strategy to stakeholders. This then acts as the foundation for the successful implementation and integration of GenAI and LLMs.

Navigating GenAl and LLM Risk

As with any emerging enterprise technology, our eyes are drawn to the lucrative opportunities presented by GenAI and LLMs. But as business leaders and technologists, it is vital that we consider the risks associated with deploying these technologies within the enterprise setting.

In particular, the business value stems from GenAI and LLMs being baked into the technological fabric of enterprise organisations. With this comes close integration with data infrastructure, databases and third party systems – endangering highly sensitive personal or commercial information – and with it technological and business risks.

There are of course unique nuances across the GenAl and LLM landscape. There is an evolving regulatory landscape, for example the EU Al Act, which appears to be taking aim at the developments of big tech companies developing LLMs and focusing on mitigating the number of ethical issues associated with GenAl and LLMs, such as bias and discrimination.

Furthermore, the advent of GenAI and LLMs will likely be a double-edged sword for the global economy. Implementation and adoption will spark disruption to the workforce; we've seen strong forecasts for the widespread <u>AI-driven cuts of process-driven jobs and</u> <u>knowledge workers</u>. On the other hand, as we have alluded to, GenAI and LLMs might be a strong force for good for both employers and employees, in a new supercharged workplace with a revived and redesigned relationship with technology. On both sides of this, however, there is no doubt that the era of GenAI and LLMs will require the retraining and redeployment of employees. At one end of the scale, developers and engineers able to implement and scale AI initiatives across functions and organisations will be in high demand. At the other, AI skills, including working with copilots, will be a staple of CVs and Resumes for the years to come. Either way, it is the responsibility of organisations and business leaders to equip employees for an AI-augmented future; with employees repurposing or focusing on existing skill sets and behaviours in this new context.

Rather than spread AI pessimism or unnecessary fear, we argue that the experience, practices and principles developed through years of software development equip us with the necessary tools to traverse the ethical, regulatory and security landscape of GenAI and LLMs. And for business leaders, it is their role to engage in and encourage a constructive discourse around GenAI and LLM risks that ultimately unlocks the potential of GenAI in a responsible and ethical way, for both their business and society as a whole.

Conclusion and Next Steps

This guide has highlighted the emergence of the era of GenAI and LLMs and a fundamental shift in the enterprise opportunities of AI; opening up new product paradigms, unlocking business impact and disrupting the foundations of digital transformation.

At their core, these technologies, combined with in-house, proprietary data and innovative UIs, are powerful tools for streamlining, augmenting and replacing manual business processes. In turn, GenAI-led digital transformation represents a unique opportunity for organisations to unlock unprecedented business productivity, solve domain-specific business challenges and, ultimately, having a big impact on the bottom line.

And, beyond the balance sheet, GenAl and LLMs have the potential to revive and redesign our relationship with technology in an enterprise context. In particular, we see these technologies helping reverse trends around employee experience, job satisfaction and drive greater levels of innovation and experimentation within organisations.

However, it will be those brave enough to be GenAI and LLM early adopters, wanting to unlock business productivity, that will benefit the most. So, now is the time to supercharge your digital capabilities, perfecting the methods, approaches and skills required to create bespoke AI-driven products and solutions. By working with Elsewhen your business can more confidently start to accelerate GenAI and LLM planning, implementation and adoption.

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