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Generative Al

Building Trust through Human Empowerment



Contents

Generative AI: Building Trust through Human Empowerment	3
Al Transparency, Explainability and Experience	4
Building Trust with Strategy, Skills and Accomplishment	5
Trust flourishes through Empowerment and Accomplishment	5
Cultivating Trust with AI through Connectivity, Learning, and Experience	7
AI Experimentation builds Trust and prepares for Engagement	8
Al Automation and Learning go Hand-in-Hand	10
Al Experience in a "Knowledge-Creating" Organization	11
Trusted AI Implementation Strategy Recommendations	12



Generative AI: Building Trust through Human Empowerment

Successful adoption of Generative AI systems requires a high level of trust - in the technology, but even more so in your organization's ability to adapt, implement and perform. We show how leaders can be successfully plan their organization's trustworthy AI systems with a sound strategy for transparency, human empowerment and AI-based accomplishments.

AI Transparency, Explainability and Experience

Over the past year, Generative AI has risen to prominence as a transformative technology that is reshaping the business landscape. This assertion is supported by the recent Salesforce Generative AI in IT Survey, which indicates that nearly 70% of IT leaders are prioritizing the integration of Generative AI into their business operations over the next 18 months.

Today organizations are increasingly focusing on the challenges of Generative AI adoption and deployment, making trust in Generative AI increasingly important. Trust plays a pivotal role in the successful deployment of Generative AI. Developers are already working hard to build trust by increasing the transparency, explainability, and robust user experience of their systems. Fujitsu's AI Trust Technology Whitepaper, for example, examines the broad impact of AI trust on society at large and in the enterprise, and explains Fujitsu's activities to advance AI trust technologies.

Transparency is the cornerstone of building this trust. In the context of Generative AI, transparency means providing clear information about how the AI works, the data it was trained on, and the logic behind its outputs. Transparency can be enhanced through explainable AI (XAI), a field of AI that focuses on creating transparent AI systems. By making AI's decision-making process understandable to humans, XAI can help users make informed decisions, thereby empowering them and fostering trust.

However, due to the complexity of their "neural" brains, the detailed reasoning within Generative AI models will largely remain a black box to its users. For now, we will have to rely on the transparency of open-source models, the explanations of a growing body of research, and the increasing experience with their implementation in a growing range of applications.

Furthermore, in the majority of cases Generative AI should be understood as a technology to augment human capabilities, not replace them. To ensure Generative AI can play its supportive role, and to build trust, empowering users is a crucial aspect. Users and systems must learn and train together while producing increasingly reliable results.

To guide the process, organizations and their users will need ethical guidelines for working and training with the new systems. These guidelines should address issues such as data privacy, fairness, and misuse of AI-generated content. By adhering to ethical guidelines, organizations can demonstrate their commitment to the responsible use of AI, which can increase user trust. To support the implementation, governments are working on guidelines and legislation, such as the <u>EU's AI Act</u>. But leaders cannot rely on this slow-moving, "risk-based" approach alone.

As experience and practice become more important in the implementation of Generative AI platforms, avoiding risk will increasingly become too narrow a focus to address the challenges most organizations face during implementation. While focusing on AI risks and enforcing an ethical approach is essential, it also risks distracting from the larger challenge of successfully implementing trustworthy AI, which depends on experience. Business leaders face the challenge of maximizing the opportunities and minimizing the risks of trustworthy AI, making it reliable and ethically compliant, while engaging users and making it attractive to adopt.

In the following, we will discuss how leaders can be successful in planning their organization's trustworthy AI systems with a sound strategy for human empowerment and AI-based accomplishments. We will also show how trusted AI systems can be implemented by building on proven industry experience and partnerships for a "phased" approach to engagement.

Building Trust with Strategy, Skills and Accomplishment

The greatest challenge for executives planning to deploy AI platforms in their organizations is to build the necessary trust in their potentially transformative impact. Like any business transformation, a meaningful AI implementation requires trust in leadership to steer the organization and all its members through choppy waters. Employees and other stakeholders will only be willing to take risks, collaborate, and innovate with an open mind if they can operate with a high level of trust in the organization's capabilities.

Building a trustworthy AI platform therefore requires much more than focusing on risks and avoiding mistakes in implementation. This is why the <u>OECD's AI Principles</u> or the 2023 AI Safety Summit's <u>Bletchley Declaration</u> put the potential of trustworthy AI to contribute to growth and prosperity at the forefront:

"Stakeholders should proactively engage in responsible stewardship of trustworthy AI in pursuit of beneficial outcomes for people and the planet, ...thus invigorating inclusive growth, sustainable development and well-being." (OECD AI Principle 1.1)

To do so, organizations need to provide a clear path for AI partnerships that empower stakeholders with new skills and capabilities. After all, trust is built at least as much on the ability to adapt and thrive in times of rapid change than it is on the ability to stay safe by avoiding excessive risk. This may require an investment in training as well as reskilling and upskilling the existing workforce to maximize the benefits of adoption whilst reducing personal fear of adoption.

Trust flourishes through Empowerment and Accomplishment

While dependable AI models, robust ethics, and a high level of security are the foundations of trustworthy AI strategies, organizations must also be clear about what they want to achieve. We argue that supporting the organization's purpose by building trust, engaging employees through empowerment, and demonstrating the benefits of human-machine collaboration should be at the top of the list. Figure 1 shows the building blocks of a successful AI implementation strategy that supports an organization's purpose and future success.

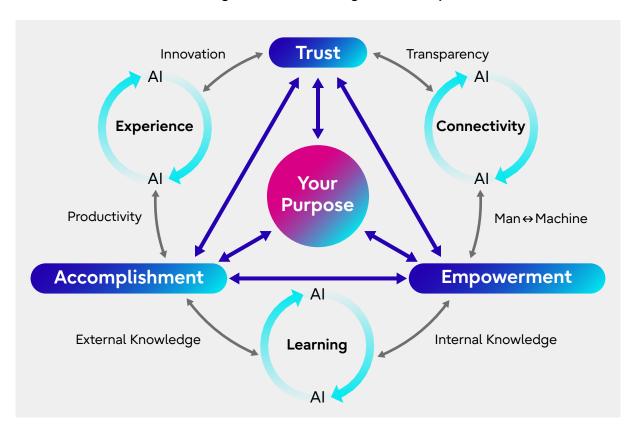


Chart 1 Building Trust with AI through Human Empowerment

At the core of every organization lies its purpose, the fundamental reason for its existence. This purpose delineates the objectives and serves as the driving force that propels the team towards a shared goal. For instance, Fujitsu's purpose is to foster a more sustainable world by building societal trust through innovation. Trust, empowerment, and accomplishment are all interconnected components that contribute to a company's purpose and success. To bolster these elements, the implementation of AI enhances the connectivity, learning, and experience within the enterprise.

Trust: Trust is pivotal in any relationship, including those in business. It forms the bedrock of a robust team. When employees have faith in their leaders and each other, they are more inclined to collaborate effectively, exchange ideas, and contribute to the company's purpose.

Empowerment: Empowerment involves granting employees the authority and autonomy to make decisions and take actions. It revolves around trusting them to perform their roles effectively. When employees feel empowered, they are more likely to take the initiative, exhibit creativity, and contribute to the realization of the company's purpose.

Accomplishment: Accomplishment is the result of successfully attaining each unit's goals and fulfilling its purpose. It is the product of trust, empowerment and hard work within the team, but it also critically hinges on the organization's technologies and their effective application.

In conclusion, a well-defined business purpose steers the organization's actions. Trust and empowerment cultivate a positive work environment where individuals feel appreciated and driven to excel. This culminates in the attainment of the organization's goals and the realization of its purpose. So, where does AI fit into this equation?

Cultivating Trust with AI through Connectivity, Learning, and Experience

Generative AI can serve as an exceptional tool for enhancing trust and empowerment if leaders champion the development of a platform that enables employees to share their ideas and insights, incorporates curated external knowledge, and supports implementation with customer-facing offerings and experience creation. This "democratization" of AI, as a recent MIT Technology Review terms it, through advancements in connectivity, learning, and experience should form the cornerstone of any AI implementation strategy.

Connectivity: Generative AI can act as a catalyst for connectivity and transparency within an organization. By accessing information from existing "smart" systems, it can oversee systems and processes in real-time, offering a transparent view of operations and swiftly identifying any issues or anomalies. By accessing communication across the organization, it can generate responses to inquiries based on all data sources and team discussions, far surpassing the reach of traditional teams. A solution to a problem might already exist or can be generated from expert discussions in a different group or department "silos". For instance, a question from a maintenance team in the US might find its solution in a manual at the Japanese headquarters and the practical application of a service team in Germany when they encountered a similar problem. Leveraging such information, the AI system can generate reports and visualizations across languages that simplify complex data, ensuring that all stakeholders have a clear understanding of the organization's operations and goals. The AI platform can empower each user by providing personalized answers 24/7 in all languages at all locations, delivering a far more comprehensive view of the organization than previously conceivable.

Learning: Generative AI can play a key role in learning, development, and knowledge creation within an organization. It can analyze vast amounts of data and generate fresh insights. It can identify patterns and trends that might elude human detection, leading to innovative ideas and strategies. Generative AI can facilitate knowledge sharing and collaboration by generating summaries or overviews of complex discussions and documents. It can also produce training materials or documentation, including realistic training scenarios or simulations, aiding in the dissemination of knowledge throughout the organization and assisting employees in acquiring new skills. This can help ensure that all employees have access to the knowledge they need to perform their roles effectively. In combination with other analytical and predictive AI technologies, such as Fujitsu's Causal Discovery and Actlyzer, it can help anticipate changes and make informed decisions, predicting future outcomes or trends. By amalgamating human and machine knowledge and skills in new learning processes, it not only empowers its users, but also directly contributes to results and accomplishments.

Experience: Generative AI can contribute to accomplishment and enhance the user experience in several ways. It can directly generate content such as reports, articles, or training materials. It can automate repetitive tasks, liberating human resources for more complex and strategic tasks, thereby significantly boosting productivity. It can also swiftly and accurately analyze large volumes of data, providing insights and predictions that can guide decision-making and strategy, further augmenting productivity. It can personalize the experience with recommendations based on individual user data, fostering a sense of connection and engagement. It can also generate realistic simulations and scenarios, contributing to more immersive demonstration and testing experiences. In customer service, Generative AI can generate responses to customer queries, improving the customer experience and reducing response time.

It can facilitate collaboration between organizations and their partners by creating shared resources, such as documents or project plans. It can also create platforms for idea sharing and discussion, fostering a more collaborative and innovative environment. New product designs or improvements can be based on user feedback and market trends, thereby improving the user experience and fostering a sense of connection and engagement.

In conclusion, the integration of an AI platform into data, communication, and delivery channels can make a significant contribution to building trust in an organization's business model by leveraging skills and capabilities at all levels. AI is on its way to becoming an indispensable technology for the achievement of the organization's goals and the fulfillment of its purpose. So, how can the implementation of such a powerful technology and the transformation of an organization's operations succeed?

AI Experimentation builds Trust and prepares for Engagement

In our Insight, <u>Generative AI: What does it take to succeed with implementation</u>, we detailed the necessary steps for a three-stage AI implementation. It shows that while executives still have some time for meaningful experimentation as they refine their strategies, they will soon need to take some fundamental, in many cases transformational, steps toward implementation.

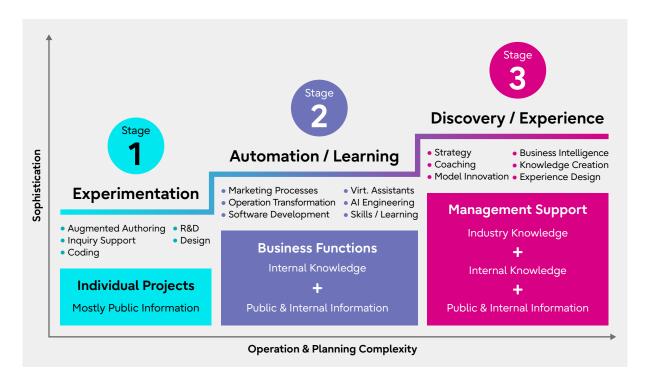


Chart 2 Three Stages of Generative AI Implementation

During the initial phase of implementation, departments interested in leveraging the capabilities of Generative AI, such as ChatGPT, can do so without the need for programming knowledge. This not only enhances overall productivity but also prepares the organization for the future. Generative AI models can function effectively with limited enterprise data, learning from user input without the need for additional configuration. However, it is crucial to utilize secure business versions that safeguard essential corporate data and maintain the confidentiality of query results.

Similarly, organizational ethics codes must be updated to accommodate the use of AI platforms before they are integrated into business operations. Fujitsu, for example, has cooperated with the AI4People Institute's work to develop an Ethical Framework. The Fujitsu Group AI Commitment now clearly puts people and sustainability at the center, while emphasizing transparency and accountability for AI.

Executives must also understand that, in the case of Generative AI solutions, transitioning to proof of concepts (PoCs) can be quite time-consuming and expensive. They require specific input data and significant training to ensure effective prompts and reliable results. To foster trust in this new technology and position it as a key ally, they must demonstrate substantial commitment, including the necessary funding, from the outset.

Limited commitment in the preliminary stages often leads to a narrow focus on "augmented authoring," which enables interactive search, design, and editing of output from external sources. Consequently, productive applications are confined to a few business functions. As per McKinsey's 2023 research, approximately 75% of all productive applications initially focus on R&D, software engineering, marketing/sales, and customer operations. To incorporate productive Generative AI into wider and more regulated business functions like finance, supply chain management, production, and planning, careful planning for enterprise data access and the implementation of both existing and new fact-checking processes is necessary.

For most organizations, transitioning beyond "out-of-the-box" applications to the second level presents a wealth of opportunities. At this level, to foster trust in the integration of these potent models, learning and automation must work in tandem. The models need to be trained with company-specific datasets and operations to broaden and automate existing business functions. For instance, conversational models can be trained using a company's customer service records, enabling them to directly handle customer complaints. By automating more business functions, Generative AI enhances the efficiency, speed, and scalability of teams, products, and services.

Al Automation and Learning go Hand-in-Hand

The integration of AI automation and learning is crucial for supporting multiple business functions and preparing for automation. Seamless access to internal data and applications is vital. For many organizations, this necessitates migrating data to the cloud and establishing information interfaces between ERP platforms and other applications. Moreover, business communication should transition from asynchronous, individual email messaging to interactive team communication platforms like Slack. Generative AI models need to be integrated into these channels, and their analytics can benefit from contextual information.

User training is crucial for the effective utilization of Generative AI at this stage. While it is easy to use for experimentation in the first stage, maximizing its potential in the second stage requires "prompt engineering." This teaches users how to make targeted requests and provide relevant data for optimal responses. Organizations must also ensure that they provide adequate training on policies and compliance risks for effective model oversight.

Because Generative AI models are capable of learning from corporate data and employee interactions, they can inadvertently expose sensitive information in unexpected ways. To prevent unauthorized access to confidential data, employee access to these models must be carefully managed according to their roles and functions within the organization. Transparency, trust, and accountability become much more intertwined with the adoption of powerful AI models. In addition, because models are vulnerable to revealing valuable information and proprietary data when presented with clever, confusing prompts (known as "prompt injections") by hackers, constant monitoring is essential. As user identification becomes critical, organizations should consider increasing their efforts to implement "zero trust" security that can monitor and secure not only users, but every device in the enterprise.

Al models can also be biased and inaccurate if they rely solely on their data sources without incorporating additional ethical and fact-checking layers. Generative AI models amplify these risks, as they often generate unchecked responses from a vast array of unstructured internet content. Continuous development is crucial to mitigate even the most severe errors and "hallucinations." As organizations move towards implementing AI across various business functions and process automation, they must ensure that false and misleading information is being identified and actions remain aligned with existing company information, knowledge, and policies. Fujitsu, for example, tries to help its partners with "AI Ethics Impact Assessment" and protection from AI hallucinations and adversarial attacks.

While the preparation for adopting Generative AI may seem overwhelming at any stage, it is poised to become a catalyst for business transformation, providing substantial opportunities for agile organizations to thrive. The value of cloud-based integration of internal and external data has already been established. The "hyper-automation" of business processes will become increasingly inevitable, and investing in training in conjunction with Generative AI integration presents new opportunities for coaching across various business functions.

Al Experience in a "Knowledge-Creating" Organization

In the third stage of implementation, Generative AI becomes deeply embedded within the enterprise. Companies need to strategize a transformation of their business models and creative capabilities as part of a new human-machine knowledge process. Its success hinges not only on internal transformation but also on evolving ecosystems of AI developers and coaching partners. Through the use of specialized datasets, custom models, and company-specific fine-tuning, organizations can automate and enhance nearly every aspect of their operations and products. They can also discover new knowledge and develop a dynamic knowledge base that directly supports strategic management and business model evolution.

In reality, only the IT departments of large companies with AI experience can develop such "smart" user interfaces for generic AI services. Most companies will require professional assistance from service providers with access to a constantly evolving ecosystem of AI model development, data preparation, interface design, and training support. While implementing these requirements may initially seem daunting, they are crucial steps towards an ongoing digital transformation.

Fortunately, organizations don't have to build most of their enterprise-specific AI models inhouse. Industry service providers are already developing domain-specific solutions. For instance, Bloomberg, a financial services company, has developed its own financial market model using an open-source LLM and trained it on their extensive financial database. Salesforce is fine-tuning their Einstein GPT for use in CRM services, while Harvey is training "legal" LLMs specifically for major law firms. Microsoft is developing copilots that not only support office functions but also aid in optimizing entire supply chain integrations. Industry AI service providers, such as Fujitsu, are assisting in integrating services across industry-specific AI solutions, like automation and quality control.

Consequently, AI has the potential to significantly enhance advanced management functions like strategy, planning, and business model development for the first time. At this stage, deep integration into business applications in specialized and regulated industries, such as manufacturing, finance, and healthcare, which require the integration of industry-specific knowledge and regulations, becomes much more effective.

Armed with emerging intelligence, organizations can innovate across a multitude of business functions, including analytics (forecasting), development (product discovery), production (hyperautomation), and customer experience (interactive products and services). Ultimately, executives capable of coordinating Al-enhanced business functions will be ideally positioned to spearhead the next generation of "knowledge-creating" organizations.

Trusted AI Implementation Strategy Recommendations

The rising interest in Generative AI, along with easy, free access to tools and services, and the growing inclusion of AI features in popular business applications, has led to widespread AI adoption in organizations, often without a comprehensive, high-level Generative AI strategy. To build trust, maximize benefits, and avoid potential issues, companies need to identify which of the three "stages" they aim to prepare their organizations for, and implement the necessary policies, safeguards, and training.

For most mid to large-sized organizations, the first stage of "out of the box" Generative AI solutions may not yield optimal benefits or return on investment beyond some experimentation gains. To progress to higher-level and automation functions, they need to take significant steps towards data, cloud, and communication integration, which will likely require support from AI partners for implementation.

Fujitsu and its consulting subsidiary, Ridgelinez, have developed an implementation strategy for trustworthy AI that clearly outlines the necessary steps for personal, internal, and external Generative AI uses. Depending on the final stage to be achieved, it illustrates use cases and the operational changes that would be required. Generally, all companies should consider the following recommendations:

- **Data:** Ensure that your internal data and communication processes are robust and secure enough for a meaningful AI implementation and business transformation.
- **Ethics:** Establish a code that prioritizes human responsibility and wellbeing, while emphasizing transparency and accountability for Generative AI.
- **Policies:** Formulate a set of "democratic" AI use policies. To build trust, non-technical teams need to be involved in platform development. Different departments, teams, and individuals may require different policies, depending on their work and the information they access.
- **Training:** Invest in training for Generative AI users to maximize the benefit the organization derives from Generative AI. This training will quickly pay for itself in terms of increased personal productivity and capability.
- **Controls:** Ensure you have the necessary IT controls in place to prevent the unchecked use of Generative AI. However, this should be done carefully to ensure the organization can still maximize the business benefits of Generative AI.
- **Keep Innovating:** Generative AI should be part of an innovation process that includes additional AI technologies and knowledge services to increase competitiveness and offer new AI-powered user experiences.

The potential of applying trustworthy Generative AI to a wide range of business functions appears to outweigh the risks and challenges. It paves the way for the next level of automation and trust in knowledge-driven innovation processes that are critical to driving inclusive growth, sustainable development, and well-being.

About the authors



Dr. Martin Schulz

Martin is Chief Policy Economist at Fujitsu in Tokyo. His work focuses on the impact of digitalization, government policies and corporate strategies. He advises governments and teaches at the Mercator School of Management. His analyses are widely quoted in international media - with regular interviews at CNBC, Bloomberg, NHK World etc. His latest articles include:

- Generative AI What does it take to succeed with implementation? 2023
- Corporate Metaverse Can it help to prepare for an Al-based digital future? 2023
- Green Deals Go Digital How Can Companies Gain from Sustainable Digitalization? 2023
- What is necessary for a "hybrid digital" work model to succeed in the next normal? 2022



Nick Cowell

Nick is a Principal Consultant in the Fujitsu's Technology Strategy Unit responsible for the Fujitsu Technology & Service Vision. Nick is a technologist and innovator with extensive experience in developing award winning hardware, software and service for leading technology providers across the USA, Europe and Oceania.

Michiyo Hano, Naomi Hadatsuki, Shinichi Komeda, Takashi Shinden, Virginia Ghiara, Hiroya Inakoshi, Marina Okazaki, Shoji Nishioka, Masatomo Gotou, Yuki Doi, Jianmin Jin, David Gentle, Hiroshi Nishikawa, Yasutoshi Kotaka, Yoshihiro Mizuno, Chenyi Wang, and Yukiko Sato greatly contributed to the completion of this insight.



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