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FORESIGHT STUDY

The Future of Generative AI

This cross-industry analysis applies strategic foresight methodology to one of the most complex and uncertain topics facing strategy and innovation professionals today: Generative AI. Dive into a progressive scenario that imagines the world in 2026, explore 30 critical Generative AI trends to monitor, and get inspired by 40 emerging business opportunities.

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Introduction

Strategic Foresight and Navigating Future Uncertainty – Our Generative AI Case Study

Recent breakthroughs in generative artificial intelligence (Generative AI) have the potential to radically transform the global economy by ushering in a new era of accelerated automation that may upend industries, boost productivity, and displace parts, or all, or a large swathe of white- and blue-collar roles. Generative AI systems are becoming increasingly sophisticated in understanding and generating human-like content and are poised to be used across diverse areas and be diffused across multiple industries.

This technology may be the next leap in human-machine collaboration that transforms industries, labor markets, and society on a scale similar to the advent of personal computing, the internet, mobility, and cloud. However, generative AI also presents challenges, such as AI 'hallucinating' or inventing facts, that need to be resolved.

As more organizations integrate generative AI along the value chain, sweeping social, political, environmental, and technological changes will follow. **The high level of uncertainty surrounding some of these developments necessitates a strategic foresight approach.** In this foresight study, we delve deeper into the various aspects of generative AI, its market landscape, the intersection with technologies like Web3 and IoT, and the use of scenario development to help organizations explore opportunities and navigate the complexities of this rapidly evolving technology landscape. With this foresight study, we aim to do two things: first, leverage foresight tools to assess the future of Generative AI, by providing topic-specific insights and identifying opportunity areas for business development. Secondly, we want to show how the methodology itself can be applied in a more general sense, to address any uncertain and complex topic of critical importance to strategists and business leaders.

Strategic foresight, an approach which systematically explores possible futures to best anticipate and prepare for change, is – at its core – an exercise in proactively engaging with uncertainty. **As we witness daily headlines that detail new breakthroughs in AI, many wonder: what will these changes mean for me and my organization? How can I begin to wrap my head around such complex developments and navigate such an uncertain outlook?** We hope that this foresight study begins to answer these important questions, illustrating the value of these exercises and piquing your interest in how strategic foresight can help you move forward with confidence, despite continued uncertainty.

My best wishes,

Dr. Sebastian Knab
Director of Foresight & Strategy, Creative Dock
Deputy Managing Director, Rohrbeck Heger

What is Generative AI?

Generative AI refers to a subfield of artificial intelligence focused on developing algorithms and models capable of generating new data, often in the form of text, images, audio, or video. These AI systems learn patterns, structures, and relationships within existing data sets and use that knowledge to create novel content that closely resembles the training data.

One fascinating aspect of generative AI is its ability to produce human-like text, as demonstrated by this very description, which was generated by a generative AI model called ChatGPT-4. To showcase the versatility of generative AI models like ChatGPT-4, let's take a journey through different tones in this very description:

- Casual Tone: Hey there! Isn't it cool how generative AI can create stuff like this description? It's like having a chat with a super-smart AI buddy.
- Formal Tone: It is important to note that generative AI models, such as ChatGPT-4, have significant implications in various fields of study, enabling the production of human-like text to facilitate a plethora of applications.
- Enthusiastic Tone: Generative AI is absolutely amazing! Imagine the endless possibilities for creativity and innovation, all thanks to models like ChatGPT-4!
- Informative Tone: By analyzing large datasets, generative AI models, including ChatGPT-4, can produce content across numerous domains, making them invaluable tools in diverse sectors.
- Reflective Tone: As we ponder the advancements in generative AI, it's fascinating to consider how far we've come and the untapped potential that lies ahead with models like ChatGPT-4.

As you can see, generative AI's ability to adapt its tone and style makes it an incredibly versatile tool, capable of catering to various communication needs while providing engaging, human-like content.

Executive summary

Today, many industries are facing unprecedented speeds and magnitudes of change. One such fast-moving, complex, and uncertain shift is the emergence of ever-more powerful Generative AI capabilities and applications. What will these changes mean for you and your business? How can you stay ahead of the curve, both mitigating risks and seizing opportunities resulting from Generative AI?

To cope with such transitions, organizations require new approaches to strategy and planning that embrace uncertainty and account for disruptive forces. Strategic Foresight, with its trend scanning, scenario-building, and identification of risk and opportunity, is a powerful method that supports strategy and innovation teams to systematically and proactively move forward despite uncertainty and complexity.

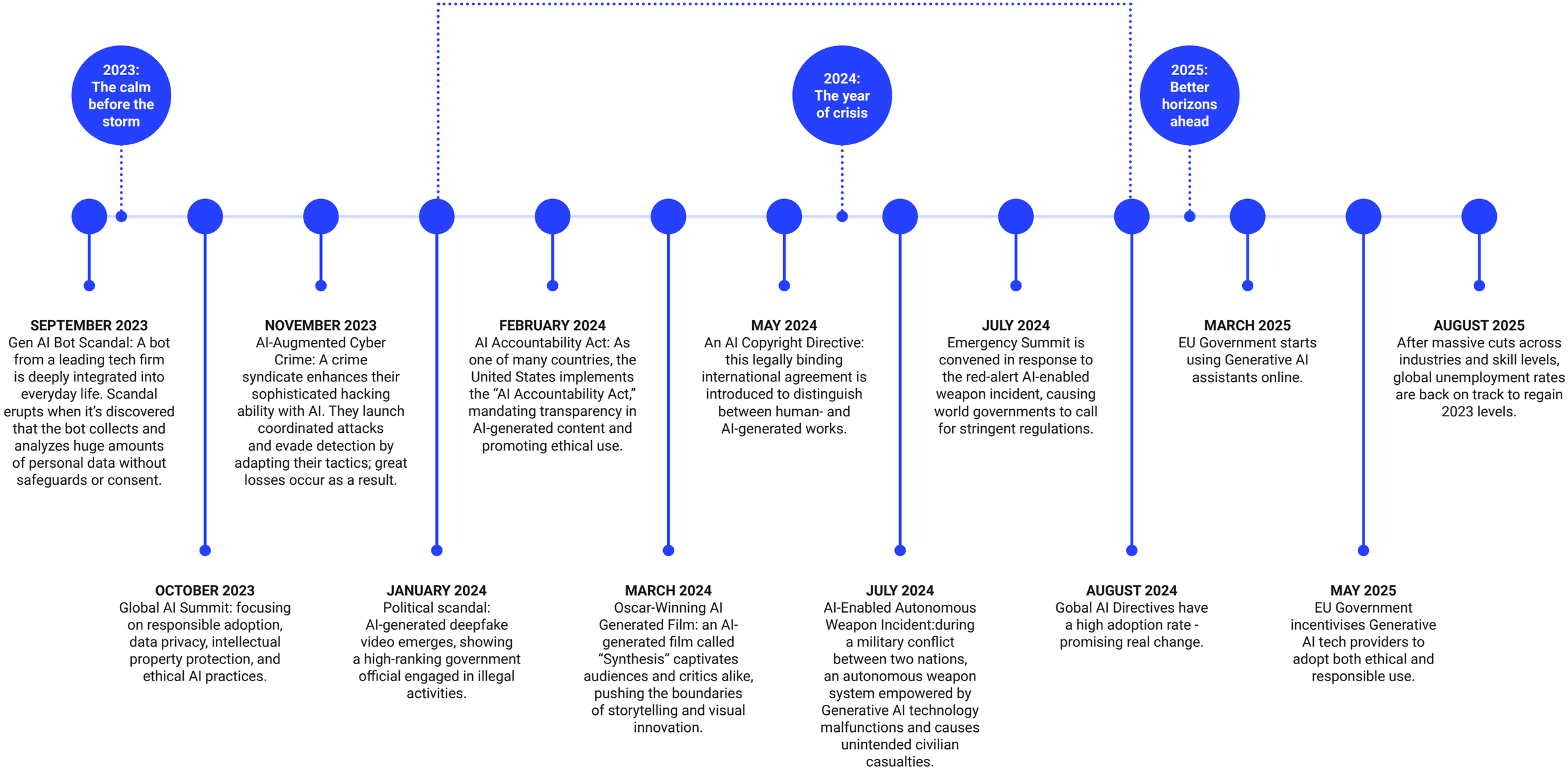
In this Strategic Foresight Study we apply foresight methodologies to a fascinating force that is on everyone's mind: Generative AI. We identify 30 trends to monitor and 40 business opportunities, based on a vivid and holistic picture of the world in 2026. In this future scenario, society has embraced AI with open arms and AI systems seamlessly integrate into various sectors, enhancing efficiency, productivity, and customer experiences. Robust regulatory frameworks ensure responsible adoption, data privacy, intellectual property protection, and ethical AI practices.

In this world where technical abilities unlocked through Generative AI continue to expand, and regulatory environments encourage responsible use, opportunities for innovative solutions abound. Read on for a detailed overview of a variety of industries and use cases, from home entertainment to medical care to manufacturing.

Scenario

The Future of Generative AI

Generative AI timeline 2023–2025



Our Scenario for 2026: The AI Renaissance

A Note on Scenarios: How do we do it?

Whereas traditional strategy development treats uncertainty in a sensitivity analysis at best, strategic foresight puts it where it belongs: center stage. Working with scenarios requires that you **acknowledge uncertainty and work constructively with it**. By building different futures, you're able to better prepare for what actually comes. You can **identify safe bets and calculated risks, develop contingency plans, and become adaptive and agile** if things unfold differently than expected – in short, build up strategic resilience.

At Rohrbeck Heger by Creative Dock, one of the many strategic foresight exercises we conduct with our clients is scenario-building. The process starts by **identifying key drivers of change**, including technological and regulatory trends, customer preferences, and stakeholder/ecosystem behavior. The next step seeks to understand the different ways each change driver's behavior could unfold, ultimately **crafting (a) comprehensive, coherent picture(s) of the future**. And while this study applies this methodology to Generative AI, we'd like to emphasize that **the exercise of scenario-building is applicable to any topic that is highly uncertain and inherently complex**, from building a decarbonization strategy to executing an energy transition.

30 Generative AI Trends to Watch - explore the list in Chapter 3

Introducing the Scenario Cross

To begin, **we plotted four possible Generative AI scenarios for the world in 2026**, represented in quadrants (see the scenario cross, below). When selecting the variables represented by the axes, we sought out two that we assume would have the biggest impact on the future of Generative AI, but also – and this is an essential point – these variables are in themselves highly uncertain.

Each quadrant in the image below represents a possible combination of the impactful and uncertain variables we selected:

- **The x-axis – AI regulations:** would governments adopt a comprehensive or a limited approach to regulating generative AI technology development and its applications?
- **The y-axis – Advancement in AI models:** would generative AI capabilities advance to a high or low degree?

Here's what it looked like.

Generative AI Scenarios for 2026

High advancement in Gen AI models

This foresight study dives deeper into Scenario 1

Scenario 4:
Technological Free-For-All: Unregulated High-Tech AI

Minimal regulation as regulators fail to adapt quickly to rapid AI advancement. With rapid technological innovation in Generative AI use cases and systems the adoption and potential misusage of the technology is expected.

Scenario 1:
Society Embraces Generative AI

Society has embraced AI with open arms, and it has become an integral part of daily life. AI systems seamlessly integrate into various sectors, enhancing efficiency, productivity, and consumer experience while adhering to robust regulatory frameworks that ensure responsible adoption, data privacy, intellectual property protection, and ethical AI practices.

Limited AI regulations

Comprehensive AI regulations

Scenario 3:
The AI Cessation: Society Rejects AI

Society has rejected AI due to incapacitated regulations which results in limited technological innovation and progress. Potential misuse and inefficient generative AI leads to public mistrust and difficulties in gaining widespread adoption.

Scenario 2:
The AI Hibernation: Highly regulated, dormant AI

Maximized regulation of the development and use of generative AI technology has led to slow progress in the field. Generative AI systems are limited to specialized applications, and the potential benefits of the technology are not fully realized.

Low advancement in Gen AI models

A note on scenarios

Scenarios are meant to provoke; after all, they're what you get when you cross two variables at their respective extremes. There may be aspects of all four scenarios that sound familiar, or even very plausible. On the flip side, some of what we've described may seem highly unlikely, or even preposterous.

So why bother with scenarios at all? For one very simple reason: so that you and your team can align on your vision of possible futures, a prerequisite for positioning and preparing your company for success in those imagined spaces. And while some of these scenarios might seem more likely than others, a full scenario strategizing exercise asks you to consider all four possibilities (or more). Industry agnostic, the scenario building process is relevant to anyone building a strategy. While the specifics of how a scenario might play out in banking vs. healthcare will vary, the overarching "imagined world" acts as a constant.

For this foresight study we've selected Scenario 1 to pursue in more detail. In this imagined future for 2026, Generative AI models have advanced to a very high degree and while the regulatory environment is comprehensive, its guardrails are there to address some of the biggest risks associated with Generative AI's progress, but encourage its responsible applications.

Without further ado, we present The AI Renaissance.

The AI Renaissance: Unleashing a new world of innovation, creativity and collaboration

Welcome to the year 2026, a time when generative AI has reached unprecedented levels of sophistication, propelling groundbreaking innovation and progress across various industries. In this new era, **rapid advancements in AI algorithms have resulted in substantial enhancements in generative AI capabilities, transforming the way we live, work, and communicate.**

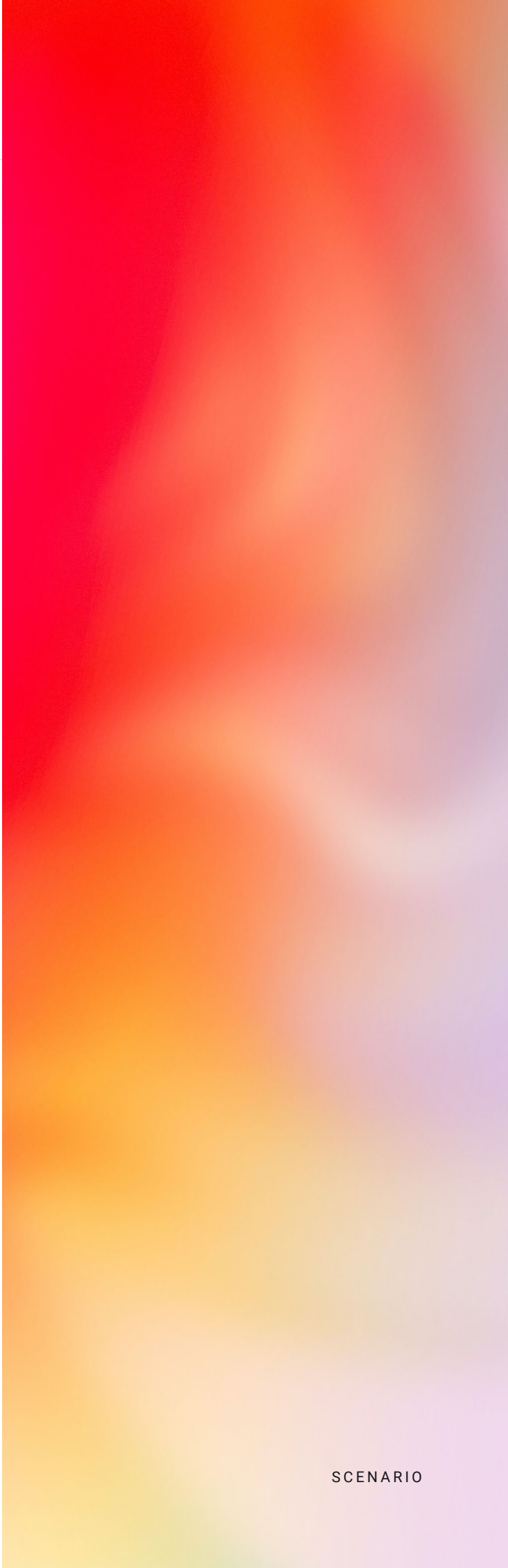
Governments worldwide have been proactive in addressing the challenges posed by these advancements, focusing on responsible adoption, data privacy, intellectual property protection, and ethical AI practices. A notable turning point was the "Global AI Summit" in October 2023, where leaders agreed to establish a common regulatory framework. Despite regional differences, AI strategies are converging in a positive direction.

Soon thereafter, however, a major cybercrime syndicate disrupts global markets with an AI-enabled hacking attack, highlighting global vulnerabilities to malicious actors. This is followed by a political scandal that drops shortly before the 2024 Iowa Caucuses; a deepfaked video possibly shifts the outcome. These disruptive events force governments to act quickly, such as the United States' "AI Accountability Act," which mandates transparency in AI-generated content and promotes ethical use. These **comprehensive and stringent regulations** seek to successfully establish an ecosystem that fosters innovation while mitigating potential risks, boosting public trust in generative AI technologies.

How did we build this scenario? Learn more on page 9.

Challenges persist, but regulations now include measures to prevent deepfake propagation and AI-driven disinformation campaigns. Intellectual property frameworks, such as the European Union's "AI Copyright Directive," have been introduced to distinguish between human-generated and AI-generated works. A general societal anxiety and excitement swirls around these questions, as the Academy Award goes to an AI-generated film for the first time in 2024. Governments have also prioritized **investments in education, upskilling, and reskilling programs**, addressing job displacement and the widening digital divide, as exemplified by India's "AI for All" initiative.

By acknowledging and addressing these challenges, the world has embraced the potential of generative AI, unlocking countless opportunities for a more equitable, sustainable, and prosperous future for all.



Society Embraces Generative AI

In healthcare, generative AI will extend its capabilities beyond merely transcribing doctors' notes. For instance, AI-powered systems can **analyze medical images**, such as X-rays or MRIs, to detect early signs of diseases like cancer. By **predicting patient outcomes** based on historical data and individual risk factors, AI can help medical professionals **customize treatment plans and interventions** to improve patient care. Additionally, AI-driven chatbots can facilitate **personalized communication** between patients and healthcare providers, empowering individuals to manage their health more effectively.

In the energy sector, AI applications can optimize **utility performance through predictive maintenance** by analyzing sensor data from equipment to identify signs of wear and tear or potential failure. For example, AI algorithms can monitor wind turbine performance and recommend maintenance schedules to prevent costly breakdowns. **Advanced resource management** will use AI to optimize energy storage and distribution, while **dynamic load balancing** will incorporate real-time data on energy consumption and generation to enhance grid stability.

In education, generative AI will bring about practical innovations to improve the learning experience. For instance, AI-powered virtual teaching assistants can provide **personalized feedback on student assignments**, enabling educators to focus on more complex tasks. Additionally, AI algorithms can generate exam questions based on curriculum requirements and individual student progress, ensuring a **more targeted assessment**. By creating personalized learning plans that adapt to each student's unique needs and abilities, generative AI can promote a **more inclusive and customized educational experience**.

An integral part of daily life

In this new era of "The AI Renaissance," society has embraced AI with open arms, and it has become an integral part of daily life. AI systems seamlessly integrate into various sectors, enhancing efficiency, productivity, and customer experiences while adhering to robust regulatory frameworks that ensure responsible adoption, data privacy, intellectual property protection, and ethical AI practices.

Upskilling and reskilling of the workforce have become a critical focus across industries, ensuring that people can adapt to the new technological advancements and participate in the **emerging job market**. These efforts have led to the emergence of new development and maintenance roles, leading to a **radical transformation of the workforce** across diverse industries. In 2026, **generative AI systems complement human abilities**, working alongside humans and leveraging their strengths while compensating for their weaknesses, leading to a world where humans and AI work together to achieve greater things.

> Robots are not going to replace humans, they are going to make their jobs much more humane. Difficult, demeaning, demanding, dangerous, dull – these are the jobs robots will be taking.
>
> – **Sabine Hauert**, Co-founder of Robohub.org

The convergence of tech and market dynamics

The **integration of AI with other emerging technologies**, such as the Internet of Things (IoT), edge computing, and augmented reality (AR), has led to an unprecedented era of innovation and creativity. The fusion of generative AI and IoT has enabled the rise of smart cities and connected homes, where **AI-driven systems optimize energy consumption, transportation, and waste management, improving overall quality of life**. Edge computing has enabled AI to operate locally, allowing for more efficient processing of data and reducing latency, leading to new opportunities for AI applications in various sectors.

> Regulations are going to kill the cloud. Data protection rules limit the data that can be stored within borders. Edge computing is going to gain relevance.
>
> – **Dr. Magnus Boman**, Professor, KTH

The convergence of generative AI and Web 3.0 has led to the creation of decentralized AI marketplaces, enabling businesses and individuals to buy, sell, and exchange AI services and resources. These marketplaces foster collaboration and innovation, allowing organizations to access cutting-edge AI solutions while providing AI developers with a platform to showcase and monetize their creations. Decentralized data storage solutions, such as IPFS and Storj, facilitate secure and private data sharing, empowering individuals to maintain control over their personal information while enabling organizations to gain insights from distributed datasets. Advanced privacy-preserving techniques like federated learning, differential privacy, and secure multi-party computation allow organizations to perform analytics on decentralized data while ensuring user privacy and data security.

The rapid advancement and widespread adoption of generative AI have led to a thriving market teeming with opportunities and intense competition. As businesses of all sizes harness the potential of AI, a diverse range of products and services has emerged, catering to the evolving needs of various industries and consumers.

We identified 40 emerging business opportunities in Chapter 4

Large tech companies, startups, and research institutions are all vying to carve out their niches in the generative AI market. This **fierce competition** has resulted in a constant drive for innovation and improvement, pushing the boundaries of what generative AI systems can achieve. Companies continuously adapt to shifting consumer preferences, regulatory landscapes, and technological breakthroughs to remain at the forefront of this rapidly changing industry.

> The playing field is poised to become a lot more competitive, and businesses that don't deploy AI and data to help them innovate in everything they do will be at a disadvantage.
>
> – **Paul Daugherty**, Chief Technology and Innovation Officer, Accenture

Cross-industry collaborations have emerged, combining expertise and resources to create innovative products and services. They work together to promote responsible adoption and address potential unintended consequences of AI. They also invest in **the development of ethical guidelines for AI developers, promote the use of ethical design principles, and engage with stakeholders to ensure that AI is developed in a responsible and ethical manner.**

Consumers have also experienced the transformative effects of generative AI technologies, enjoying **more personalized and tailored user and buyer experiences** across industries. As a result, businesses have had to adapt to meet these evolving demands, resulting in a more customer-centric approach to product and service design.

The scenario presented in this report is an extreme, yet progressive depiction of the future, where advanced Gen AI models, comprehensive regulations, and an environment conducive to positive developments are in place. This scenario considers high levels of human-machine collaboration, the democratization of AI, and ethical considerations, ultimately offering numerous opportunities across various aspects of life. However, it is crucial to acknowledge that uncertainty can create far more challenges in the real world. To create a better understanding of these uncertainties and challenges, it is essential to explore other scenarios as well.

Mitigating risks, both environmental and national

Furthermore, generative AI has played **a crucial role in climate change modeling and predictions**, allowing policymakers and researchers to make more informed decisions on mitigation and adaptation strategies. AI-driven innovations in materials science have led to the **development of eco-friendly alternatives** to plastics and other environmentally harmful materials, contributing to environmental sustainability efforts.

The widespread adoption of generative AI and other emerging technologies in 2026 also had a **significant impact on geopolitics and national security**. After a tragic incident in August 2024, in which Generative AI-powered weapons system malfunctions and results in many deaths, the global political community convenes for an emergency summit and roll out stricter oversights and regulations. As nations embraced AI-driven innovation, they strived to gain a competitive edge in the global AI race, leading to new alliances and rivalries. **The development and control of advanced AI technologies became a strategic priority**, as these technologies were increasingly viewed as key drivers of economic growth, military capabilities, and global influence.

> Cyber hygiene, patching vulnerabilities, security by design, threat hunting, and machine learning-based artificial intelligence are mandatory prerequisites for cyber defense against the next generation threat landscape.
>
> – **James Scott**, Senior Fellow & Co-Founder, Institute for Critical Infrastructure Technology

Comprehensive regulations and international cooperation became essential to prevent the misuse of AI technologies and to ensure their responsible adoption. **Cybersecurity emerged as a critical concern**, as the increasing reliance on AI-driven systems made nations more vulnerable to cyber-attacks and espionage. **Governments invested heavily in advanced AI-driven security solutions** to protect critical infrastructure, sensitive data, and national interests.

> It is never easy to regulate a technology. Technology always moves ahead of us. It's the use case that has to be regulated, but not the technology in itself.
>
> – **Daniel Gillblad**, Co-Director, AI Sweden

In summary, the AI Renaissance of 2026 has far-reaching effects on the environment, geopolitics, and national security. The convergence of generative AI with other emerging technologies facilitated the development of innovative solutions to address pressing environmental challenges and reshape the global political landscape. While the AI-driven era brought numerous benefits, it also highlighted the importance of comprehensive regulations, international cooperation, and a strong focus on ethical considerations to ensure the responsible and sustainable use of these transformative technologies.

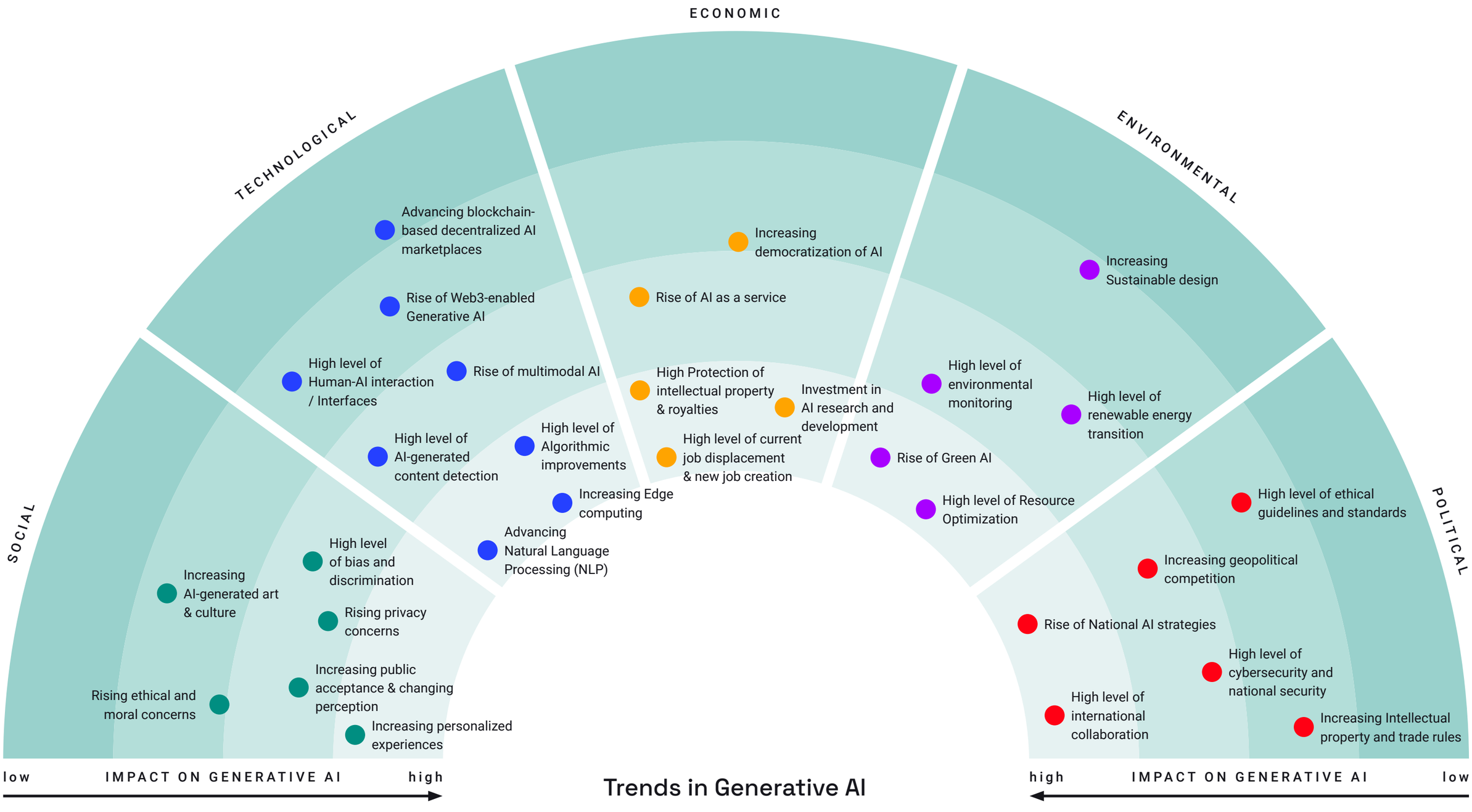
Trends to watch

30 generative AI trends to watch

Generative AI is rapidly evolving, and **staying up-to-date with the latest trends is critical** for businesses seeking to leverage this technology for competitive advantage. In recent years, the development of new generative models and advancements in natural language processing (NLP) have opened up **new opportunities for innovation and creativity**. These trends are driving the creation of highly realistic images, videos, and audio, and expanding the use cases for Generative AI in fields such as entertainment, healthcare, and finance.

In this study, we identify some of the most significant trends in Generative AI, including rise of multimodal AI, rise of Web3-enabled Generative AI, rise of AI as a service (AIaaS), advancements in NLP, and the increasing investment in AI research and development. By understanding these trends, businesses can **stay ahead of the curve** and develop strategies to take advantage of the opportunities presented by this transformative technology.

Trend Radar View: Which trends will have the biggest impact on the development of Generative AI?



Trends in Generative AI

30 generative AI trends to watch

1. Increasing AI-generated art and culture

This trend heralds machines that can create highly sophisticated and original works of art, music, and literature. By training machines on large datasets of existing art and cultural artifacts, Generative AI can learn the patterns and styles of various genres and create entirely new content that is almost indistinguishable from human-produced works.

2. Increasing personalized experiences

This trend transforms the way businesses engage with their customers. By leveraging data and machine learning algorithms, Generative AI can create highly tailored and personalized experiences for individual users, from recommendations and product customization to chatbots and virtual assistants.

3. Rising ethical and moral concerns

As the field of Generative AI continues to evolve and expand, so too do the ethical and moral concerns associated with its use. One main concern is the potential for AI-generated content to be used for harmful or malicious purposes, such as deepfake videos that spread false information or propaganda.

4. Increasing public acceptance and changing perception

Initially, there may have been some skepticism or fear surrounding the capabilities of AI systems and their potential impact on society. However, as people have become more familiar with the technology and experienced its benefits, there is a shift towards greater acceptance.

5. Rising privacy concerns

As Generative AI technology becomes more advanced and more prevalent in our daily lives, concern grows around data privacy and security. The ability of AI systems to generate and analyze vast amounts of personal data raises concerns about how this information is collected, stored, and used.

6. High levels of bias and discrimination

Concerns are rising around bias and discrimination in AI systems, particularly in areas such as hiring and lending where decisions can have significant impacts on people's lives. The problem of bias and discrimination in Generative AI arises from the fact that these systems are often trained on historical data that reflects societal biases and inequalities.

7. Advancing Natural Language Processing (NLP)

Advancing NLP in the context of Generative AI holds great promise for unlocking new possibilities in language-based communication and collaboration. As the technology continues to evolve, we can expect to see even more sophisticated and powerful NLP applications that revolutionize the ways language is processed.

8. Increasing edge computing

Edge computing refers to the practice of processing data closer to where it is generated, rather than sending it to a centralized data center. This approach has become increasingly popular, as it can reduce latency and improve overall performance. In the context of Generative AI, edge computing plays a critical role, especially considering the increase in data safety regulations.

9. High level of AI-generated content detection

As Generative AI becomes more sophisticated, concern grows about the potential misuse of AI-generated content, such as deepfakes, fake news, and other types of disinformation. To address these concerns, there is a growing trend of developing advanced AI-based detection methods that can identify and flag AI-generated content.

10. High level of Human-AI interaction / Interfaces

As Generative AI becomes more prevalent in our daily lives, there is a growing need for seamless and effective human-AI interaction. The trend of developing high-level human-AI interfaces involves creating intuitive and natural ways for humans to interact with Generative AI systems, including chatbots, virtual assistants, and other AI-powered tools.

11. High level of algorithmic improvements

Generative AI relies heavily on advanced algorithms to generate and manipulate data. In recent years, there has been a rapid acceleration in the development of algorithms, driven by breakthroughs in deep learning and other areas of machine learning. These advances significantly impact Generative AI's capabilities and applications.

12. Rise of multimodal AI

The rise of "multimodal AI" refers to the increasing use of multiple data modalities to train Generative AI models. This trend is driven by the realization that different types of data, such as text, images, and audio, can be combined to improve Generative AI models' accuracy and effectiveness.

13. Rise of Web3-enabled Generative AI

Web3 technologies such as blockchain and decentralized computing are increasingly integrated into Generative AI to enable more secure, transparent, and decentralized development and deployment of AI models. By leveraging the benefits of Web3, such as immutability and decentralized consensus, Generative AI models can be made more trustworthy and efficient.

14. Advancing blockchain-based decentralized AI marketplaces

The development of blockchain-supported decentralized marketplaces where Generative AI models can be bought and sold is increasing. By leveraging blockchain technology, these marketplaces provide a more secure and transparent platform for the exchange of AI models, creating more efficient and accessible marketplaces for AI-based products and services.

15. High level of job displacement and new job creation

While Generative AI has the potential to create new job opportunities, it also leads to the displacement of jobs that can be automated. This trend is likely to continue as more businesses implement Generative AI systems. However, it's important to note that this shift doesn't necessarily mean that there will be widespread unemployment. Instead, new jobs are likely to emerge.

16. High protection of intellectual property and royalties

As Generative AI becomes more prevalent, the question of who owns the rights to AI-generated content has become a topic of debate. One of the challenges with Generative AI is that it can create content that is difficult to distinguish from human-created content. This has raised questions about who should own the rights to AI-generated content, and how creators should be compensated for their work.

17. Rise of AI-as-a-service

Driven by an increasing demand for AI-powered applications and businesses' desire to reduce the costs and complexity associated with developing and maintaining their own AI systems, there is an emergence of new AI-as-a-service models. These provide access to advanced Generative AI tools and technologies without the overhead.

18. Increasing democratization of AI

With the development of cloud-based services, open-source platforms, and a growing availability of pre-built AI models and algorithms, more people than ever before can leverage the power of AI to solve complex problems, improve decision-making, and gain new insights.

19. Investment in AI research and development

Focus on and investment in the development of new AI technologies and applications is increasing. This trend is driven by the growing recognition of the transformative potential of AI for a wide range of industries, as well as the increasing availability of data and computing power to train and deploy these models.

20. Rise of green AI

As AI models become more complex and require more computational power, concern grows about their carbon footprint and impact on the environment. This trend has led to the development of more energy-efficient algorithms and architectures, such as the use of sparsity and quantization to reduce the computational cost.

21. High level of environmental monitoring

With increasing concern for environmental sustainability, Generative AI plays an important role in monitoring air and water quality, tracking deforestation, analyzing climate patterns, and detecting natural disasters. The technology can gather and process data from a variety of sources to provide real-time insights and predictions about environmental conditions.

22. High level of resource optimization

There is an increasing need to reduce waste, lower costs, and increase efficiency as a part of sustainability efforts, and Generative AI helps to achieve these goals by analyzing large amounts of data and generating insights to improve processes and operations. This trend has the potential to revolutionize various industries by reducing waste, improving efficiency, and increasing sustainability.

23. Increasing sustainable design

As concerns about sustainability grow, more and more companies are incorporating sustainable design principles into their products and services. Generative AI plays a key role in advancing sustainable design by enabling the creation of optimized, efficient, and eco-friendly designs, achieved through multiple design iterations, and evaluating each one based on sustainability criteria.

24. Contributions to the renewable energy transition

Generative AI is used to optimize the deployment and management of renewable energy systems by analyzing large amounts of data on energy generation and consumption. This optimizes the placement of solar panels and wind turbines, predicts energy demand and supply, and improves the efficiency of energy storage systems.

25. Rise of national AI strategies

Countries and regions around the world are increasingly developing comprehensive plans and strategies to advance their capabilities in artificial intelligence. Some take a particularly aggressive approach with investments in research, talent acquisition, and infrastructure, while others deploy a more collaborative approach, building partnerships to advance their AI capabilities.

26. Increasing intellectual property and trade rules

With the increasing use of AI in various industries, there is a need for clear regulations and guidelines (such as patents, trademarks, and copyrights) that protect the intellectual property rights of AI-generated creations. The lack of such regulations can lead to legal disputes, hindering innovation and investment in AI technology.

27. High level of ethical guidelines and standards

There is an increasing need to provide a framework of ethical guidelines and standards for AI developers and users to ensure that their systems are designed and used in an ethical manner. This includes principles such as accountability, transparency, fairness, and the protection of privacy and human rights. These guidelines help to promote responsible AI development and deployment.

28. High level of international collaboration

Cooperation between different countries, organizations, and stakeholders to advance the development and deployment of Generative AI technology increases. Collaboration can take different forms including joint research programs, best practice sharing, establishment of standards, and joint initiatives to address global challenges such as climate change and economic development.

29. High level of cybersecurity and national security

With the growth of AI and its integration into various industries, there is a growing risk of cyberattacks, data breaches, and other security incidents. To address these risks, stronger cybersecurity measures and regulations, including secure data storage and transmission, advanced authentication and access controls, and proactive threat monitoring and response are critical requirements.

30. Increasing geopolitical competition

As Generative AI technologies continue to advance, countries around the world are becoming more competitive in their efforts to develop and implement these technologies. This competition leads to increases in geopolitical tensions, as countries seek to gain a competitive edge in the development of Generative AI technologies.

40 emerging opportunities

40 emerging opportunities

The **40 opportunity areas** described below take The AI Renaissance scenario a step further, drilling down from this imagined future to identify concrete business opportunities that arise from our scenario for 2026. In this world where technical abilities unlocked through Generative AI continue to expand, and regulatory environments encourage responsible use, opportunities for innovative solutions abound. Read on for a detailed overview of a variety of industries and use cases, from home entertainment to medical care to manufacturing.

Smart Living and Personalized Experiences:

In 2026, AI assistants have become essential in daily life, transforming homes into intelligent spaces that adapt to inhabitants' needs. Advanced generative AI enables seamless integration of smart living technologies and personalized experiences that enhance convenience and well-being.

AI-powered home automation systems manage various tasks, from scheduling chores to meal planning based on individual dietary needs. Safety and security have improved with smart security systems utilizing facial recognition and real-time notifications. AI assistants have evolved into nurturing companions, offering personalized entertainment recommendations and emotional support when needed.

Moreover, AI-powered virtual reality systems revolutionize entertainment, providing immersive and personalized experiences in virtual social spaces. This new era of smart living has streamlined daily routines, enriched lives, and ensured a better work-life balance for families.

Opportunity Areas in Smart Living and Personalized Experiences:

AI-Powered Home Automation & Management - Enhancing home management and automating daily tasks to improve convenience, comfort, and security.

- AI-driven home energy management: artificial intelligence technologies

optimize energy consumption in households, making energy usage more efficient and cost-effective.
- AI-based smart security: home security systems integrate facial recognition, motion detection, and real-time notifications to provide comprehensive protection while reducing false alarms.

Personalized Entertainment & Content Curation - Tailored entertainment experiences understand user preferences and recommend content accordingly.

- AI-driven virtual reality experiences: machine learning algorithms analyze user preferences and behavior, creating personalized and interactive content that adapts to each user's interests and actions within a virtual environment.
- AI-powered adaptive gaming - machine learning algorithms dynamically adjust game difficulty, objectives, and narrative elements based on individual player performance and behavior, delivering personalized gaming experiences.

AI-enhanced personalized shopping - personalized shopping experiences analyze customer preferences and provide tailored product recommendations.

- AI-driven fashion recommendations: An online clothing store uses AI to analyze customer preferences, body measurements, and fashion trends, suggesting personalized outfits and accessories for an optimized shopping experience.
- AI-powered grocery list creation: An AI assistant analyzes users' dietary preferences, nutritional needs, and past purchase history to generate customized grocery lists, ensuring a seamless and efficient shopping experience.

AI-enhanced learning & education - AI-enabled tools improve and personalize educational experiences, adapting to individual student needs and optimizing learning outcomes.

- AI-guided personalized learning paths - these analyze student data and provide customized resources that adapt to each student's strengths, weaknesses, and learning pace.

- AI-powered virtual educators - using natural language processing and machine learning, these tools simulate human teachers, providing personalized, on-demand tutoring and guidance to students in real-time.

Creative Workspaces and Innovative Manufacturing

In 2026, generative AI has ushered in a new era of creative workspaces and innovative manufacturing, empowering employees and businesses to become more efficient, agile, and adaptive. Advanced AI systems have transformed the way we work, enhancing collaboration and fostering a culture of continuous innovation.

In creative workspaces, AI-driven tools enable employees to generate new ideas, experiment with different styles, and push the boundaries of their fields. Designers, artists, and engineers use AI systems to quickly iterate through concepts and prototypes, reducing the time and effort required to bring ideas to life. AI-powered collaboration platforms help cross-functional teams to communicate more effectively and efficiently, breaking down silos and facilitating innovation.

In manufacturing, AI has revolutionized production processes by enabling predictive maintenance, real-time quality control, and optimized resource management. AI-driven predictive maintenance systems use machine learning to analyze sensor data from equipment and detect potential issues before they become critical, reducing downtime and costs. AI-powered quality control systems utilize computer vision to detect defects and anomalies in products, ensuring high quality while minimizing waste.

Moreover, generative AI plays a vital role in optimizing resource management and supply chain processes. AI-powered inventory management systems predict customer demand and optimize product stocking, ensuring popular items are always available while minimizing waste and spoilage. In addition, AI-driven logistics platforms optimize shipping routes and schedules, reducing transportation costs and environmental impact.

This new age harnesses generative AI to drive collaboration and innovation, allowing businesses and employees to focus on strategic and creative tasks. The result is a more productive, fulfilling, and sustainable work environment.

Opportunity Areas in Workspaces and Innovative Manufacturing

AI-enhanced design and creativity - empowering creativity and innovation through AI-assisted design, collaboration, and decision-making tools.

- Generative design tools: AI-powered software generates multiple design options for architects and engineers, optimizing structures based on performance, material usage, and aesthetics.
- AI-assisted content creation: AI systems assist writers, artists, and musicians in generating new ideas, styles, and compositions, making creativity more accessible and pushing the boundaries of artistic expression.

AI-driven collaboration and communication - enhancing human capabilities and inclusivity with AI-powered assistive technologies and tools for employees with disabilities.

- AI-powered project management: AI systems streamline project management tasks, helping teams to set goals, assign tasks, and monitor progress, enhancing productivity and collaboration.
- AI-enabled virtual meeting assistance - these tools enhance communication and collaboration during virtual meetings, providing features such as real-time transcription, automated summarization, and sentiment analysis to improve productivity and engagement.

AI-optimized manufacturing processes - Streamlining manufacturing processes and enhancing efficiency through AI-powered predictive maintenance, quality control, and production optimization.

- AI-powered predictive maintenance: AI systems analyze sensor data from equipment and detect potential issues before they become critical, reducing downtime and maintenance costs.
- AI-driven quality control: AI platforms use computer vision to detect defects and anomalies in products, ensuring high quality and reducing waste.

AI-enabled supply chain and logistics management - Boosting efficiency,

sustainability, and resilience in supply chain management with AI-driven demand forecasting, inventory management, and logistics optimization.

- AI-assisted inventory management: AI systems predict customer demand and optimize product stocking, ensuring popular items are always available while minimizing waste and spoilage.
- AI-driven logistics optimization: AI platforms analyze shipping routes and schedules, reducing transportation costs and environmental impact by finding the most efficient routes and delivery times.

Example of AI generated art by Midjourney

Financial Empowerment and Customer-Centric Retail

In 2026, Generative AI has transformed the landscape of finance and retail, delivering personalized experiences and optimized management systems that enhance customer satisfaction and streamline business operations. Advanced AI systems have revolutionized these industries, offering tailored solutions to customers while improving efficiency and profitability.

In finance, AI-powered platforms provide personalized financial advice and recommendations, catering to each customer's unique needs and goals. These systems analyze users' spending habits, financial goals, and risk tolerance, offering tailored insights on budgeting, saving, and investing. Additionally, an AI-driven financial risk management system ensures improving decision-making, reducing default rates, and automating compliance processes.

Retail businesses benefit from AI-driven pricing optimization, customer sentiment analysis, and personalized marketing, which lead to increased revenue and customer satisfaction. Additionally, AI-optimized customer engagement enhances customer interactions through personalization and automation. AI-based loyalty program optimization optimizes loyalty programs to increase customer retention and lifetime value.

In this new era of finance and retail, businesses leverage generative AI to offer personalized products and services, foster a sense of belonging and connection, and optimize operations. Customers benefit from a more seamless, efficient, and satisfying experience, while businesses enjoy improved efficiency, profitability, and customer loyalty.

Opportunity Areas in Financial Empowerment and Customer-centric Retail

AI-powered personal finance management - Enhancing financial decision-making and security through AI-driven advisory, budgeting tools, and fraud detection systems.

- AI-driven financial advisory: AI-powered platforms analyze users' financial

data and goals to provide personalized advice on budgeting, saving, investing, and debt management.
- AI-powered tax management: AI-powered tax management tools automate tax-related tasks, optimize tax planning, and minimize errors and compliance risks in the tax reporting process.

AI-enhanced financial risk management - Using predictive analytics to identify, assess, and mitigate financial risks in real-time to improve decision-making and reduce losses for financial institutions.

- AI-powered credit risk assessment: These advances would unlock the ability to analyze large volumes of financial and non-financial data, predicting creditworthiness and assessing credit risk for loan applicants in real-time while improving accuracy and reducing default rates.
- AI-enabled regulatory compliance monitoring: These tools would automate and streamline compliance processes, detecting and preventing potential violations and fraud by continuously monitoring and analyzing large volumes of data in real-time.

AI-optimized retail operations and analytics - These advances would optimize inventory management, improve sales forecasting, and enhance overall operational efficiency and customer experience in the retail industry.

- AI-driven pricing optimization: These tools would analyze market trends, customer behavior, and competitor pricing to determine the optimal price for a product or service, improving revenue and profitability for businesses.
- AI-powered customer sentiment analysis: Such tools would analyze customer feedback and social media data, determining the overall sentiment and opinion towards a brand or product, enabling businesses to make data-driven decisions and improve customer experience.

AI-optimized customer engagement - Personalizing and automating customer interactions across various channels, including chatbots, email, and social media, would improve customer satisfaction and increase conversions for businesses.

- AI-enabled personalized marketing: Analyzing customer data and behavior would then deliver customized and targeted marketing messages and campaigns that resonate with individual customers, increasing engagement and sales.
- AI-based loyalty program optimization: Analyzing customer data and behavior would optimize loyalty programs to deliver personalized incentives, rewards, and experiences that increase customer retention and lifetime value.

Precision Healthcare and Enhanced Well-being

By 2026, the fusion of advanced generative AI systems with healthcare and well-being practices has revolutionized the way people manage their health. AI-powered diagnostics enable doctors to detect diseases at early stages, leading to personalized treatments and improved patient outcomes. These diagnostic tools process vast amounts of medical images, patient records, and other data to make accurate predictions, allowing for timely interventions and tailored treatment plans.

AI-assisted surgeries become the norm, minimizing human error and speeding up recovery times. AI-powered robotic systems aid surgeons in performing complex procedures with remarkable precision and control, leading to improved patient outcomes and reduced complications. Telemedicine and remote monitoring solutions, driven by AI, transform healthcare accessibility, making it easier for patients in remote locations to receive timely care and support.

AI-powered wearables and applications are integrated into daily life, closely monitoring users' health, fitness, and mental well-being. By providing personalized recommendations, these AI solutions empower individuals to make healthier choices, improve mental resilience, and maintain a balanced lifestyle. Wearables and apps offer tailored exercise routines, meal plans, and lifestyle recommendations that cater to users' unique needs, helping them achieve their fitness goals.

In this new era of precision healthcare and enhanced well-being, people are more proactive and informed about their health, leading to improved overall health outcomes, increased life expectancy, and a greater focus on prevention and early intervention.

Opportunity Areas in Precision Healthcare and Enhanced Well-being

AI-Driven Diagnostics & Personalized Treatments - Enhancing healthcare outcomes with AI-powered diagnostics, personalized treatment plans, and drug discovery.

- AI-Powered Early Disease Detection: AI systems analyze medical images, patient records, and other data to accurately detect diseases at early stages, enabling timely interventions and better treatment outcomes.
- AI-Enabled Personalized Medicine: AI-driven platforms analyze patient data, such as genomics, lifestyle, and environmental factors, to tailor treatments specific to individual needs, optimizing efficacy and reducing side effects.

AI-Assisted Surgeries & Medical Procedures - Leveraging AI to improve surgical precision, minimize human error, and enable faster patient recovery.

- AI-Guided Robotic Surgery: AI-powered robotic systems assist surgeons in performing complex procedures with enhanced precision and control, leading to improved patient outcomes and reduced complications.
- AI-Enabled Remote Monitoring & Telemedicine: AI-driven platforms monitor patients remotely, enabling healthcare providers to deliver timely care, consultations, and recommendations, improving access to healthcare and reducing the need for in-person visits.

AI-Powered Health & Fitness Tracking - Utilizing AI for personalized health monitoring, goal-setting, and actionable insights to support healthier lifestyles.

- AI-Driven Fitness & Nutrition Coaching: AI-powered wearables and applications analyze personal health data, providing tailored exercise routines, meal plans, and lifestyle recommendations to help users achieve their fitness goals.
- AI-Enabled Mental Well-being Support: AI-driven platforms offer personalized mental health support, such as meditation guidance, stress management techniques, and mood tracking, promoting emotional well-being and resilience.

AI-Enhanced Workplace Well-being - Implementing AI solutions to promote employee health, productivity, and work-life balance.

- AI-Powered Ergonomics & Workplace Design: AI systems analyze workplace environments and recommend ergonomic improvements, promoting

employee health and reducing the risk of injury or strain.

- AI-Driven Work-Life Balance Support: AI platforms help employees manage their workload, stress levels, and personal commitments, fostering a healthier work-life balance and boosting overall well-being.

Intelligent Mobility, Sustainable Transportation, and Green Energy Management

In 2026, advanced generative AI systems have become an integral part of transportation and energy management, leading to smarter, cleaner, and more efficient cities. Autonomous vehicles, driven by AI algorithms, have transformed the way people and goods move around, significantly reducing congestion, accidents, and emissions. These vehicles are now part of an interconnected network, communicating with each other and the city's infrastructure to optimize traffic flows and contribute to safer, more efficient urban environments.

AI-driven traffic management systems work in tandem with autonomous vehicles, analyzing real-time data to predict and respond to changing traffic patterns. This allows for proactive adjustments to traffic signal timings and dynamic rerouting, further enhancing urban mobility.

The use of AI-assisted public transportation which aims to enhance scheduling and routing to improve efficiency, reduce wait times, and increase overall ridership satisfaction. Additionally, the use of AI-driven fleet management and routing involves real-time data analysis to optimize routing and operations of fleets, promoting sustainable transportation solutions by reducing emissions.

AI-enabled tools offer personalized recommendations to customers, empowering them to reduce their energy usage and costs. These tools analyze usage patterns and suggest targeted actions, such as adjusting thermostat settings or investing in energy-efficient appliances, fostering a more sustainable lifestyle.

Opportunity Areas in Intelligent Mobility, Sustainable Transportation, and Green Energy Management:

AI-Optimized Urban Mobility - Enhancing urban transportation by utilizing AI to manage traffic flows and monitor urban infrastructure.

- AI-Driven Traffic Management: Deployment of AI-based traffic management systems that analyze real-time data to predict and respond to changing traffic patterns, enabling proactive adjustments to traffic signal timings and

dynamic rerouting.
- AI Enabled Infrastructure Solutions: To analyze various types of urban infrastructure (such as roads, bridges, traffic signals, etc.) in real-time, with the goal of optimizing urban mobility by identifying and addressing potential issues before they become problems.

Sustainable Transportation Solutions - Integrating AI technologies to advance environmentally friendly transportation options, efficient public transportation systems and fleet management.

- AI-Assisted Public Transportation: AI-enhanced scheduling and routing for public transportation systems, improving efficiency, reducing wait times, and increasing overall ridership satisfaction.
- AI-Driven Fleet Management and routing: To optimize the routing and operations of fleets (such as delivery trucks or public transportation) by analyzing data in real-time, with the goal of reducing emissions and promoting sustainable transportation solutions.

Intelligent Energy Management & Distribution - Leveraging AI to optimize energy supply, distribution, and consumption for a more sustainable and efficient energy infrastructure.

- AI-Enabled Smart Grids: AI-driven energy management systems dynamically adjust energy supply based on real-time data, weather conditions, and user demand, minimizing waste and improving grid stability.
- AI Driven Energy Trading Platform - To optimize energy trading and distribution by analyzing real-time data on energy supply and demand, with the goal of intelligent energy management that is more efficient, cost-effective, and sustainable.

AI Driven Environmental Conservation and Sustainability - Monitoring and analyzing environmental data, making predictions and recommendations, and informing decision-making to promote sustainable practices and protect the natural environment.

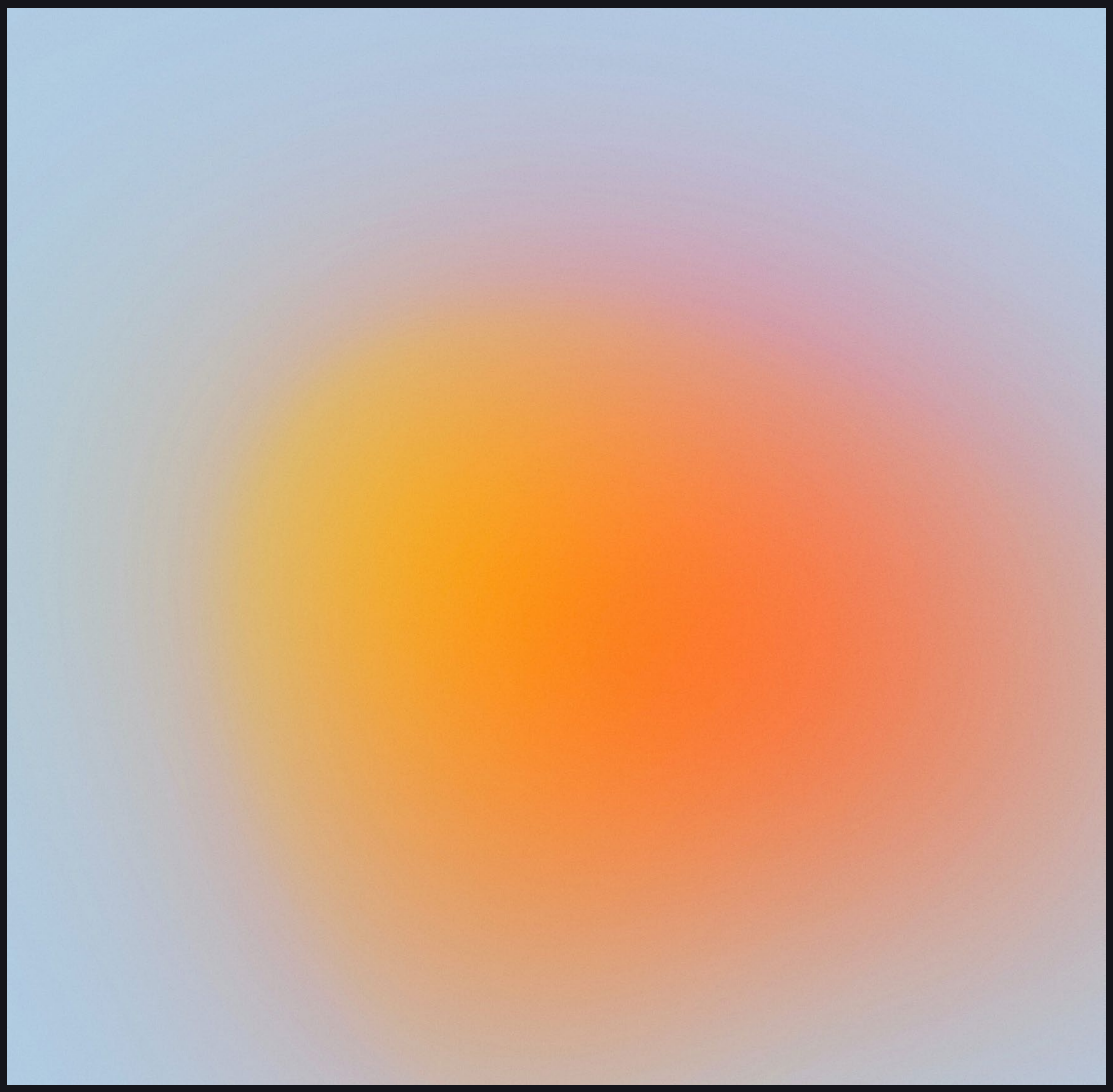
- AI-Assisted Sustainable Resource Management - This includes optimizing resource consumption, reducing waste, and creating more efficient and effective resource management systems to optimize the use of natural resources (such as water, land, and energy) by analyzing real-time data.
- AI-Driven Pollution Control & Emission Reduction - To monitor and analyze data on air and water pollution levels, predict potential sources of pollution, and develop strategies for reducing emissions using intelligent systems and technologies.

Scenario implications & opportunity area assessment

Scenario implications & opportunity area assessment

In this section, we holistically assess the potential opportunities presented by generative AI across various search fields within the context of the 2026 Generative AI scenario presented in this study (Scenario Assessment) and compare them to more grounded analysis, taking into account current market conditions and uncertainties (Grounded Assessment).

Here we assess the opportunities' attractiveness based on two criteria: scalability and impact. Scalability refers to the potential for the opportunity to be expanded and applied to a broader market, while impact assesses the degree to which the opportunity can positively influence the industry, society, or environment. Implementation feasibility refers to the ease and practicality of realizing the opportunity, taking into account technological readiness, required resources, and the regulatory landscape.



Assessment

	Scenario Assessment			Grounded Assessment		
	Impact	Scalability	Implementation Feasibility	Impact	Scalability	Implementation Feasibility
1.Smart Living and Personalized Experiences	**Very High**	**Very High**	**High**	**High**	**High**	**Moderate**
2.Creative Workspaces and Innovative Manufacturing	**High**	**High**	**Moderate**	**Moderate**	**Moderate**	**Low**
3.Financial Empowerment and Customer-centric Retail	**Very High**	**Very High**	**High**	**High**	**High**	**Moderate**
4.Precision Healthcare and Enhanced Wellbeing	**High**	**High**	**High**	**Moderate**	**Moderate**	**Low**
5.Intelligent Mobility, Sustainable Transportation, and Green Energy Management	**High**	**High**	**Moderate**	**Moderate**	**Moderate**	**Low**

In the progressive scenario, generative AI emerges as a powerful force for innovation and progress within the identified search fields, with widespread adoption and transformative impact across industries. The comprehensive regulatory framework and collaborative environment in this scenario ensure that AI applications are developed and deployed responsibly, addressing ethical concerns and fostering public trust. As a result, the opportunities within each search field exhibit high scalability and impact, unlocking new opportunities for businesses and improving people's lives.

Moreover, the scenario highlights the potential for cross-industry collaboration and innovation, as generative AI technologies are deployed to tackle complex challenges and drive sustainable growth across the search fields. For example, with growing health concerns and spending, precision healthcare and enhanced well-being can be integrated with smart living and personalized experiences, resulting in the development of self-optimization applications that leverage generative AI to provide personalized recommendations for exercise, nutrition, and lifestyle choices based on the user's unique health profile and preferences.

However, the reality is that uncertainties and challenges are present in the development and deployment of these technologies. **The Grounded Assessment, our second assessment, takes a more realistic and cautious perspective** on the potential challenges and uncertainties associated with these opportunities. The assessment considers key uncertainties surrounding the development and adoption of generative AI technologies based on today's market conditions, including the regulatory landscape, AI ethics and bias, pace of technological advancements, public trust and perception, and impact on the workforce.

Key Uncertainties

Regulatory Landscape: The development of comprehensive and globally aligned regulations for generative AI remains uncertain. Policymakers face the challenge of balancing innovation and responsible adoption while addressing ethical concerns, data privacy, and intellectual property protection. The extent to which regulations will evolve and how they will impact AI development and implementation is still unclear.

AI Ethics and Bias: Ethical considerations around AI, such as fairness, transparency, and accountability, continue to be debated. The potential for AI systems to perpetuate or even exacerbate existing biases and inequalities presents a significant challenge. The ways in which businesses and developers address these ethical concerns and work to minimize AI bias remain uncertain.

Technological Advancements: The pace of innovation in generative AI is rapid, with new algorithms, techniques, and applications emerging continuously. The extent to which these advancements will deliver on their potential and when they will become widely adopted is uncertain, as is the ability of businesses to keep up with the accelerating pace of change.

Public Trust and Perception: The level of public trust in generative AI technologies will shape their adoption and integration into everyday life. The ways in which businesses and developers can address public concerns, demonstrate responsible practices, and build trust remain uncertain, as does the public's overall perception of AI's benefits and risks.

Workforce Transformation: The impact of generative AI on the workforce is uncertain, with potential consequences ranging from job displacement to the creation of new roles and opportunities. The extent to which individuals and organizations can successfully upskill and reskill to adapt to these changes remains an open question.

For instance, regulatory uncertainties may require businesses to engage with policymakers to help shape regulations that balance innovation and responsible adoption while addressing ethical concerns, data privacy, and intellectual property protection. Similarly, businesses and developers must prioritize ethical considerations and work to minimize AI bias to ensure that generative AI is deployed responsibly.

Technological advancements are rapidly changing the landscape of generative AI, and businesses must stay up to date on the latest developments to remain competitive. At the same time, they must also navigate the potential risks associated with these technologies, such as the impact on the workforce and public trust and perception.

In conclusion, **the transformative potential of generative AI is vast, but uncertainties and challenges must be taken into account**. By acknowledging these uncertainties and their potential implications, businesses can develop strategies that capitalize on opportunities while mitigating potential risks in the identified innovation search fields. Developing additional scenarios and engaging in foresight exercises can help businesses navigate the rapidly evolving landscape of AI technologies and make informed decisions that benefit society.

How to tap into emerging opportunities

How to tap into emerging opportunities

This foresight study provides a comprehensive overview of the technological outlook and resulting business opportunities in a future scenario entitled **"The AI Renaissance,"** where both the regulatory environment manages to curb Generative AI's biggest risks while Generative AI's technological capabilities progress to new, powerful heights.

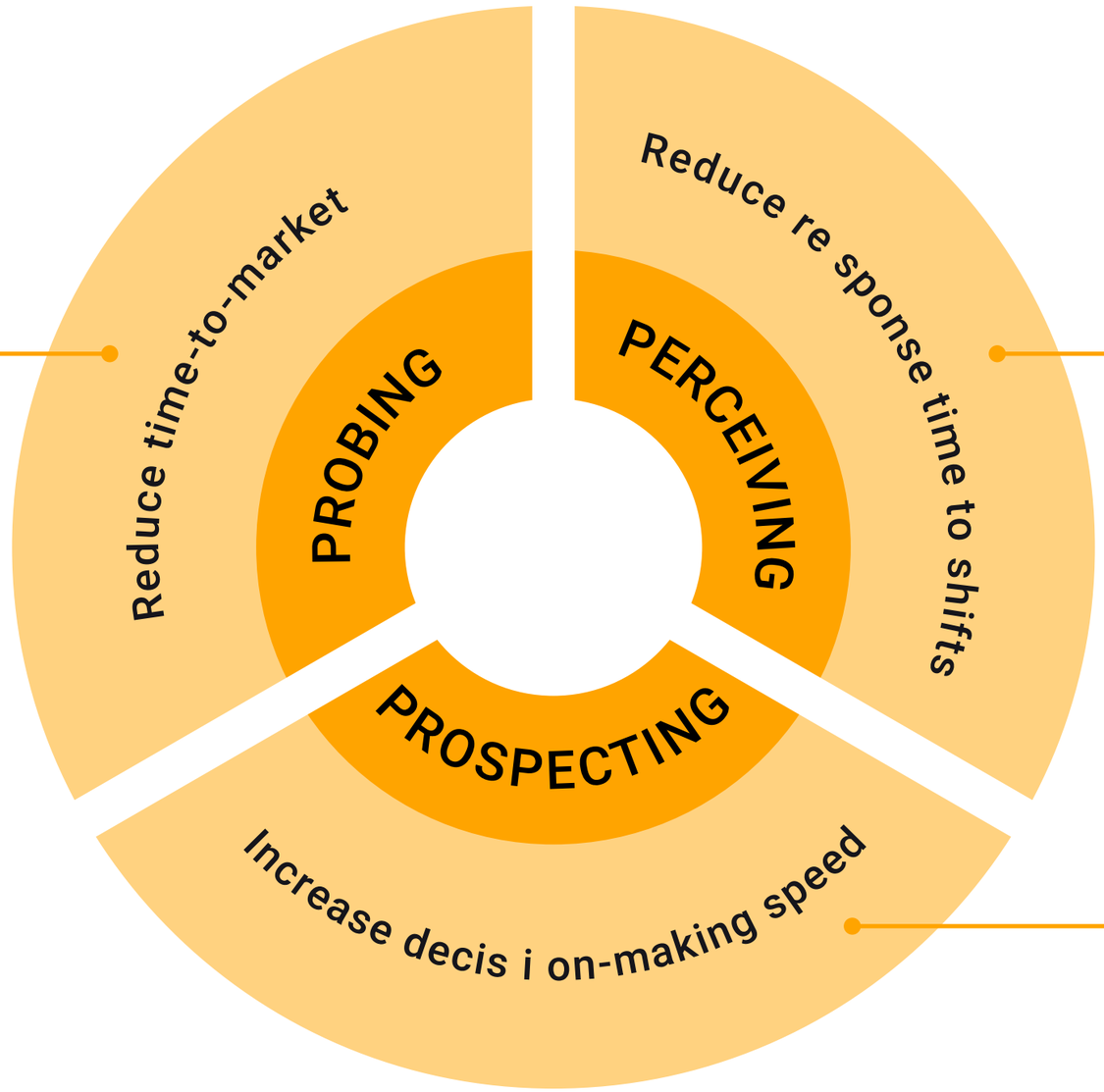
Presenting the results of foresight methodologies such as trend scanning and analysis, as well as scenario development, **this study identifies key areas of technological growth and potential applications for Generative AI across various industries**. It explores the opportunities that arise from harnessing the power of Generative AI, such as enhancing creativity, improving data synthesis and generation, and enabling personalized experiences.

The figure below highlights the 3Ps of Strategic Foresight; scanning for trends falls under Perceiving, while Scenario-Building and Opportunity Identification are core parts of Prospecting.

Probing, not expanded upon in this report, refers to acting upon insights gleaned from both Perceiving and Prospecting, such as implementing plans (i.e. building product and innovation roadmaps) and accelerating innovation output (i.e. through corporate venturing).

The 3ps of strategic foresight

PROBING entails real-world testing of solutions in order to mobilize resources and improve response time, providing a **transformation advantage**.



PERCEIVING entails scanning for signals. This allows organizations to prepare for threats and capitalize earlier on opportunities, providing a **foresight advantage**.

PROSPECTING entails anticipating the consequences for the organization and possibly also the implications for the entire industry, providing an **innovation advantage**.

Having perceived the change in a certain technology, this report provides an outlook on how this change is anticipated to unfold in the upcoming years. By analyzing current trends, advancements, and industry developments, the study offers insights into the potential trajectory of Generative AI. It explores the expected impact on various sectors, such as healthcare, finance, creative industries, and more.

Rohrbeck Heger helps businesses tap into emerging opportunities in Generative AI by implementing the second and third step of understanding the change and acting on it. By applying foresight methodologies and techniques, we help businesses anticipate, understand, and capitalize on the evolving landscape of Generative AI, as well as other highly uncertain, complex topics.

Prospecting Emerging Opportunities: Building upon our perception of the change in a technology, we engage in prospecting activities. Our experts explore potential future scenarios, identify new applications, and envision how businesses can leverage new trends and technologies to gain a competitive edge. Through trend analysis, scenario planning, and market research, our foresight experts uncover unexplored opportunities and develop a roadmap for businesses to tap into the transformative potential of emerging trends and technologies.

Probing and Validating Assumptions: As part of our probing process, our experts delve deeper into the perceived change. Our team of foresight experts validate assumptions, gather additional data, and seek expert insights to refine our understanding. Through in-depth analysis, stakeholder consultations, and knowledge sharing with industry experts, the team solidifies our insights and enhances the accuracy of our understanding of the evolving technological landscape.

Strategic Advisory and Planning: Armed with our prospecting insights and validated understanding, Rohrbeck Heger offers strategic advisory and planning services to other businesses. Our foresight team assists them in developing tailored strategies to effectively leverage new technologies or trends. This includes defining clear objectives, identifying target markets and customer segments, evaluating potential risks and challenges, and formulating implementation plans. Our team's expertise and our forward-thinking approach help businesses stay ahead of the curve and capitalize on the emerging opportunities in the field.

Innovation and Implementation Support: We provide hands-on and collaborative support to businesses in their innovation and implementation efforts related to emerging technologies and other potentially disruptive developments, offering technical expertise, guiding the development and deployment of solutions, and facilitating collaboration between industry stakeholders, such as tech providers and research institutions. Acting as a trusted partner, Rohrbeck Heger helps businesses navigate the complexities of a fast-evolving environment to ensure the best possible outcome.

Training and Capability Building: We recognize the need for businesses to upskill and adapt to the changing landscape. As such, we offer training programs and capability-building initiatives. These help organizations understand the fundamentals of disruptive technologies and trends, develop internal talent, and foster a culture of innovation. By empowering businesses with the necessary knowledge and skills, we enable them to harness new opportunities to drive growth, productivity, and competitive advantage.

In summary, after perceiving the change in industry, sector or technology, Rohrbeck Heger leverages its expertise to prospect and probe the emerging

opportunities. Through strategic advisory, planning support, innovation guidance, and capability building, we help other businesses navigate and thrive in the evolving social, technological, political, economic and environmental landscapes of the future to stay ahead of the curve.

Our experts from the wider Creative Dock Group further leverage the opportunities identified by the team at Rohrbeck Heger. Building upon the foundation of insights and strategies provided by strategic foresight, Creative Dock takes on the task of developing innovative business models and ventures that capture the full potential of the emerging and disruptive trends and technologies.

Who we are and how we can help

Who we are and how we can help

We must remember that the future won't necessarily look anything like the present. It can do us good to "think outside the box" and prepare for other, plausible future scenarios. More often than not, while facilitating scenario-building with clients, teams will be split in their assessment of the likelihood of one scenario over another, and even disagree on their company's or industry's preparedness, should any of them occur. Oftentimes, teams will even realize that they are more prepared for a scenario which they deem less likely to happen!

Scenario building and assessment, then, helps a team to explore different possibilities, support strategic discussion, and ultimately work together to align on a shared vision of the future. This shared vision supports their common goal to prepare their business strategy and stress test their innovation roadmaps in order to find out if they're robust enough to weather different outcomes.

We are living in an age of disruption, and with such dramatic and constant change comes both risk and opportunity. To cope with such transitions, organizations require new approaches to strategy and planning that embrace uncertainty and account for these shifts. The Creative Dock group with its expertise in Strategic Foresight and Venture Building capabilities is here to help.

Rohrbeck Heger

Founded in 2014, we aim to increase firms' chances of long-term success and enhance their sustainable competitiveness by developing tailor-made solutions that systematically improve any organization's future fitness. Our strategic foresight and innovation consultants are motivated to drive change and future preparedness. In addition, our renowned collaborative, systematic, and methodical approach ensures that our clients focus their R&D on high-margin innovations. Further, we support our clients in building and leveraging strategic foresight capabilities to create value by mitigating threats, grasping emerging opportunities, and creating a prosperous future.

Creative Dock

In the past 11 years, we have grown from a disruptive startup into the largest independent player in the corporate venture-building category, with a track record of 100+ ventures. We provide large companies with end-to-end venture building, from idea to execution and scaling, with a singular focus - to create valuable client ventures. Using hard-won strategic insights from our foresight capabilities, we bring ideas to life and turn them into actual MVP products and services. In addition, we collaborate with our clients to unlock new revenue concepts, boost in-house innovation capacity and capability, and leverage existing products and assets for new and improved use.

Thanks to strategic foresight tools, we are in touch with early-stage and long-term trends, and combinations of both. We have an open-minded approach within the Explore and Venture design phases, which allows us to build truly transformational innovations, disrupting the market and scale them to create new revenue for our clients.

DR. TOBIAS HEGER

Tobias is the Chief Innovation & Strategy Officer at Creative Dock. He is also the co-founder and Managing Director of Rohrbeck Heger and has a background in foresight, innovation management, and strategy. He continuously advises clients such as Bosch, Deutsche Telekom, Hyundai, LG, Mondelez, Siemens, Tata Group, Webasto, and many more. A futurist by heart, he engages in building up new companies in addition to his day-to-day responsibilities.

Before founding Rohrbeck Heger, Tobias was Head of Innovation at EIT Digital Germany, a PPP focusing on strengthening European competitiveness in the digital domain. During this period he worked with clients from multiple industries with a focus on future perspectives, digital businesses, and information technology application areas.

In addition to consulting, Tobias is also an active researcher, lecturer, and business angel. His research has been published in leading international journals and on conferences such as Technological Forecasting and Social Change, Futures, ISPIM and the R&D Management Conference. Through his investment company Tobias advises founders, with a particular focus on IT, logistics, and mobility.

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DR. SEBASTIAN KNAB

Dr. Sebastian Knab is the Director of Foresight & Strategy at Creative Dock, as well as Deputy Managing Director at Rohrbeck Heger. He holds a master's degree in Industrial Engineering and Management from Technische Universität Berlin and a Ph.D. from Universität Hamburg.

Prior to this, Sebastian was a project manager for innovation management at the EICT, Berlin, and a research assistant at Technische Universität Berlin, Chair of Sustainable Electric Networks and Sources of Energy (SENSE) and Universität Hamburg, Department of Socio Economics. At the EICT, he established the energy business group and conducted projects on business modeling, innovation planning, and strategic foresight. He also established and co-led EIT Digital's smart energy systems and business modeling activities.

Sebastian has worked for the German Institute for Economic Research (DIW) in the Department of Energy, Transportation and Environment and for Prognos AG in the area of Energy Economics and Policy. He has also gained industry experience at Total SA, France, Elektral A.Ş. Turkey, Daimler AG and Aurubis AG, both in Germany, among many other clients.

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SERGE DUPAUX

Serge Dupaux heads Foresight & Innovation Growth at Creative Dock and Rohrbeck Heger. In addition to this, Serge also continues to supervise a few running ventures. He joined Creative Dock in 2018 to develop and build several ventures, from their early design stages up to scaling. In 2022, he added Foresight and Incremental Innovation to his competencies.

Serge has 25 years of experience from both corporate and startup/entrepreneurial worlds, across Europe, Asia, and West Africa. He worked and gained experience in various sectors including real estate, banking and insurance, retail, construction and energy. For several years, Serge led Regus IWG in the Czech & Slovak Republics, before leading its operations in Vietnam. He also worked as Sales Director at Edenred Czech Republic, where he supported the digital transformation of its product portfolio. Apart from venture building, Serge is also active in the startup ecosystem as an advisor and early stage investor.

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Appendix

Appendix

METHODS

The insights generated in this foresight study on Generative AI are the product of an array of strategic foresight methods. Informed by desk research and expert interviews, the analyst team identified drivers of change and critical trends, which act as a springboard for scenario-building. The resulting scenario for 2026, "The AI Renaissance," forms the basis for identifying business opportunities that might arise under these future conditions. For a complete and comprehensive foresight analysis, multiple future scenarios must be considered; in the case of this study, we have delved into just one.

SOURCES

Interviews were conducted throughout March and April 2023 with:

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