

# 10 emerging technologies card deck.

## CLOUD COMPUTING.



The backbone of modern IT, cloud computing provides scalable, on-demand computing services over the internet, from servers and storage to databases and analytics, revolutionizing how businesses operate.

<b>INNOVATION &amp; NOVELTY</b> Fast new, but constantly evolving with emerging technologies.	7/10	<b>COST-EFFICIENCY</b> Reduces or eliminates the need for on-premises infrastructure.	8/10
<b>SCALABILITY</b> Extremely scalable; services can be increased or decreased as needed.	10/10	<b>SUSTAINABILITY</b> Data centers aim for efficiency, but the environmental impact of energy remains a concern.	8/10
<b>ACCESSIBILITY</b> Easily accessible to business of all sizes.	9/10	<b>SOCIETAL IMPACT</b> Facilitates remote work and global collaboration, with significant effects on work culture and resource distribution.	8/10

## BLOCKCHAIN.



A decentralized, distributed, and public digital ledger that securely records transactions across multiple computers, ensuring that the record cannot be altered.

<b>INNOVATION &amp; NOVELTY</b> Transformative in establishing trust and security in digital systems.	4/10	<b>COST-EFFICIENCY</b> Potential for high efficiency, but current costs and energy usage are concerns.	6/10
<b>SCALABILITY</b> Struggles with network speed, decreasing as the number of participants increases.	6/10	<b>SUSTAINABILITY</b>	8/10

## ARTIFICIAL GENERAL INTELLIGENCE.



AGI represents the future milestone of AI, where machines can perform any intellectual task that a human being can, with the ability to reason, plan, learn, and understand natural language across domains.

<b>COST-EFFICIENCY</b> Potential for immense long-term benefits, though requiring substantial investment in development and ethical oversight.	5/10	<b>SCALABILITY</b> Current models demand vast amounts of data and computational power, though AI systems are becoming more efficient.	4/10
<b>ACCESSIBILITY</b> Benefits but also risks associated with widespread adoption.	9/10		



## **Introduction.**

Welcome to the future of innovation with our exclusive 10 Emerging Technologies Card Deck. Each card in this deck profiles a cutting-edge technology that could revolutionize your business and make it future-proof. From descriptions and visuals to detailed insights on applications, these cards help you understand the potential and practicalities of each technology.

Each card features a scoring system, evaluating the technology across key criteria such as feasibility, impact, and complexity. This scoring helps you quickly assess which technologies are most relevant and promising for your business needs.

Learn how to integrate these technologies into your strategic planning and start transforming your business landscape today. Discover the power of future technologies now.





Generative AI (GenAI) is a subset of Artificial Intelligence (AI) technologies that can generate new content, data, or solutions that mimic human-like creativity and ability.

## INNOVATION & NOVELTY

9/10

Represents a significant leap in AI capabilities, enabling creative and analytical tasks previously limited to humans.

## COST-EFFICIENCY

7/10

Can reduce cost of content production but may require initial significant investment.

## SCALABILITY

8/10

Capable of exponential growth adapting across various sectors.

## SUSTAINABILITY

6/10

Energy-intensive processing but can lead to improvement in environmental solutions.

## ACCESSIBILITY

7/10

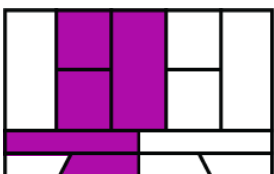
Increasingly user-friendly, though advanced use may require technical expertise.

## SOCIETAL IMPACT

8/10

Potential to make life easier for the many but also raises ethical concerns.

## Impact on your business model.



- Automation and personalization of content creation.
- Efficiency and productivity improvement.
- Supporting decision-making processes.
- Less manual work.

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The backbone of modern IT, cloud computing provides scalable, on-demand computing services over the internet, from servers and storage to databases and analytics, revolutionizing how businesses operate.

## INNOVATION & NOVELTY

7/10

Not new, but constantly evolving with emerging technologies.

## COST-EFFICIENCY

8/10

Reduces or eliminates the need for on-premises infrastructure.

## SCALABILITY

10/10

Exceptionally scalable; services can be increased or decreased as needed.

## SUSTAINABILITY

5/10

Data centers aim for efficiency, but the environmental impact of energy remains a concern.

## ACCESSIBILITY

9/10

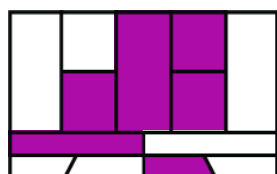
Easily accessible to business of all sizes.

## SOCIETAL IMPACT

8/10

Facilitates remote work and global collaboration, with significant effects on work culture and resource distribution.

## Impact on your business model.



- Reduced IT overhead and capital expenditure through the use of on-demand services.
- Enhanced business agility and ability to quickly scale operations.
- Global accessibility enables a mobile and flexible workforce.
- Streamlined collaboration and project management through shared environments.

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Merging digital with reality, immersive technologies like VR, AR, and MR create engaging, interactive experiences that enhance both entertainment and practical applications.

## INNOVATION & NOVELTY

9/10

Continuously pushing the boundaries of user interaction with digital content.

## COST-EFFICIENCY

5/10

High initial costs but may reduce as technology matures.

## SCALABILITY

7/10

Scalable in tech-savvy sectors but hardware limitations can be a hurdle.

## SUSTAINABILITY

5/10

Production and disposal of hardware can pose environmental challenges.

## ACCESSIBILITY

6/10

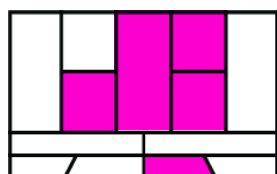
Growing in accessibility through mobile phones but can require a significant investments in devices and content.

## SOCIETAL IMPACT

7/10

Offers transformative experiences but raises questions about social effects and digital divides.

## Impact on your business model.



- Offers cutting-edge marketing tools through AR and VR experiences.
- Enhances training and simulation environments for various industries.
- Improves product visualization and customer engagement in retail.
- Drives innovation in design and development processes.

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A decentralized, distributed, and public digital ledger that securely records transactions across multiple computers, ensuring that the record cannot be altered.

## INNOVATION & NOVELTY

8/10

Transformative in establishing trust and security in digital platforms.

## COST-EFFICIENCY

6/10

Potential for high efficiency, but current costs and energy usage are concerns.

## SCALABILITY

6/10

Challenges with network speed, depending on type of blockchain.

## SUSTAINABILITY

5/10

Efforts towards green blockchain are underway, but energy consumption remains high.

## ACCESSIBILITY

7/10

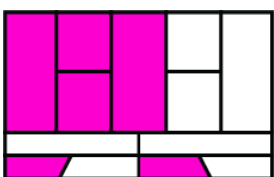
Increasingly accessible, yet understanding and adoption barriers remain.

## SOCIETAL IMPACT

8/10

Potential to revolutionize a variety of sectors by enhancing security and reducing fraud.

## Impact on your business model.



- Enhanced security for transactions and data storage.
- Reduced operational costs by eliminating intermediaries.
- Improved supply chain traceability and transparency.
- Facilitation of smart contracts for automated agreements.

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# INTERNET OF THINGS.



The Internet of Things interconnects everyday objects with internet-enabled functionalities, enhancing data collection, automation, and system efficiencies across numerous applications.

## INNOVATION & NOVELTY

8/10

Elevates objects to smart devices, offering innovative ways to interact with our environment.

## COST-EFFICIENCY

7/10

Can drive down costs over time through automation and predictive costs.

## SCALABILITY

9/10

Highly scalable; IoT devices can be incrementally added to networks.

## SUSTAINABILITY

7/10

Promotes efficient resource use, but raises concerns about electronic waste.

## ACCESSIBILITY

6/10

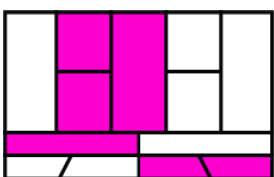
While increasingly more common, its full potential for all is yet to be unlocked.

## SOCIETAL IMPACT

8/10

Has a broad impact on lifestyle and work, offering convenience but also presenting privacy issues.

## Impact on your business model.



- Streamlines processes and enhances decision-making through data analytics.
- Improves asset utilization and efficiency with predictive maintenance.
- Enables new customer services like home automation and wearables.
- Facilitates energy management and sustainability efforts.

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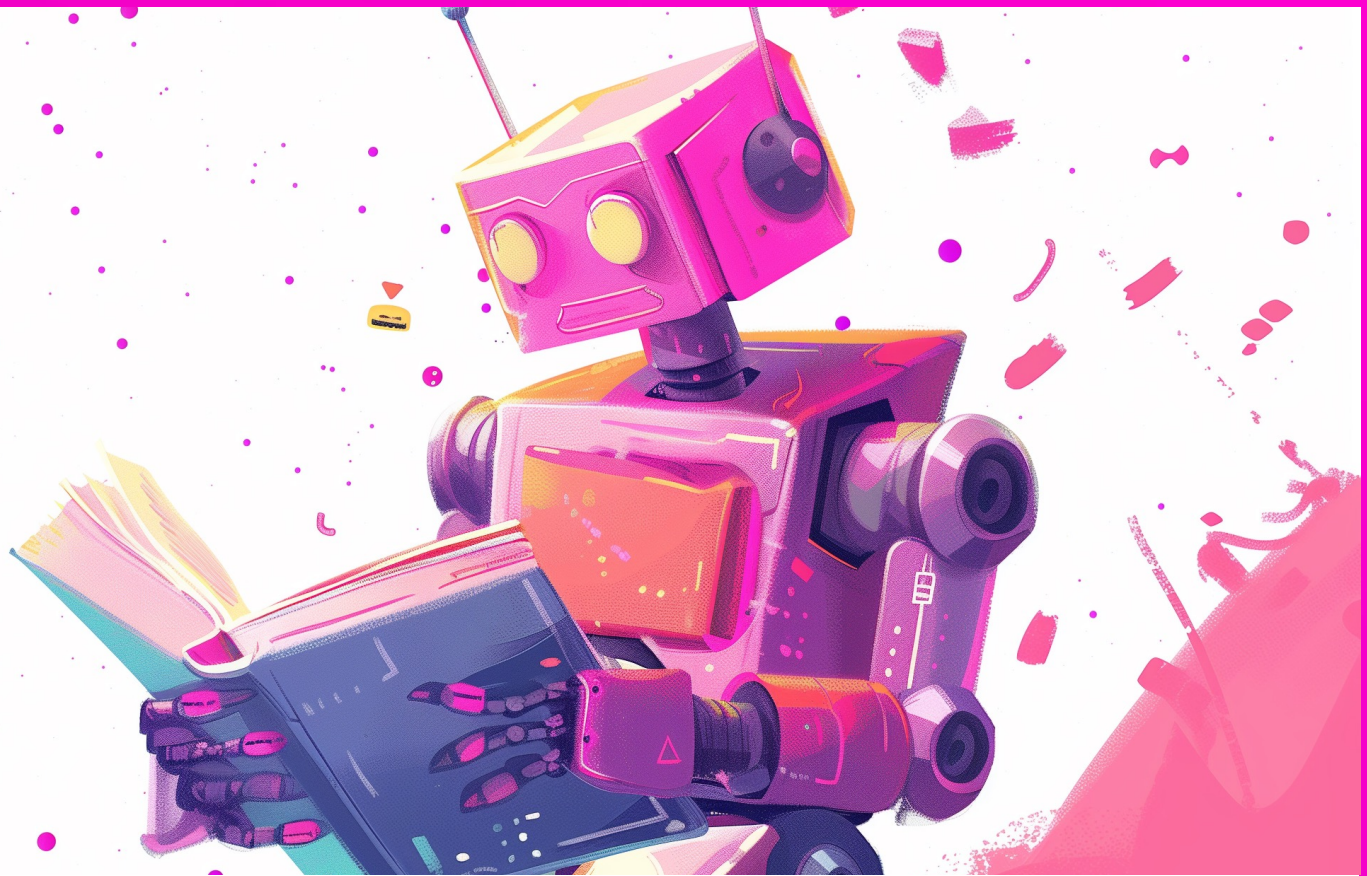
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Machine Learning is a fundamental AI technique where algorithms use data to learn and make predictions or decisions, significantly enhancing computational problem-solving.

## INNOVATION & NOVELTY

8/10

Continuously advancing, reshaping countless industries with data-driven insights.

## COST-EFFICIENCY

7/10

Reduces labor costs and improves efficiency, but needs investment in data infrastructure.

## SCALABILITY

8/10

Can be scaled to process vast datasets, though requires substantial computational resources.

## SUSTAINABILITY

6/10

Dependent on energy-intensive data centers, prompting a push for more efficient algorithms.

## ACCESSIBILITY

6/10

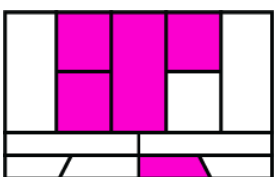
Widely used in various applications, but technical complexity may limit direct accessibility.

## SOCIETAL IMPACT

9/10

Possesses transformative potential across sectors, yet raises concerns about privacy and job displacement

## Impact on your business model.



- Enhances product recommendations and targeted marketing.
- Optimizes supply chains and inventory management.
- Enables predictive maintenance, reducing downtime.
- Improves customer service through chatbots and AI assistants.

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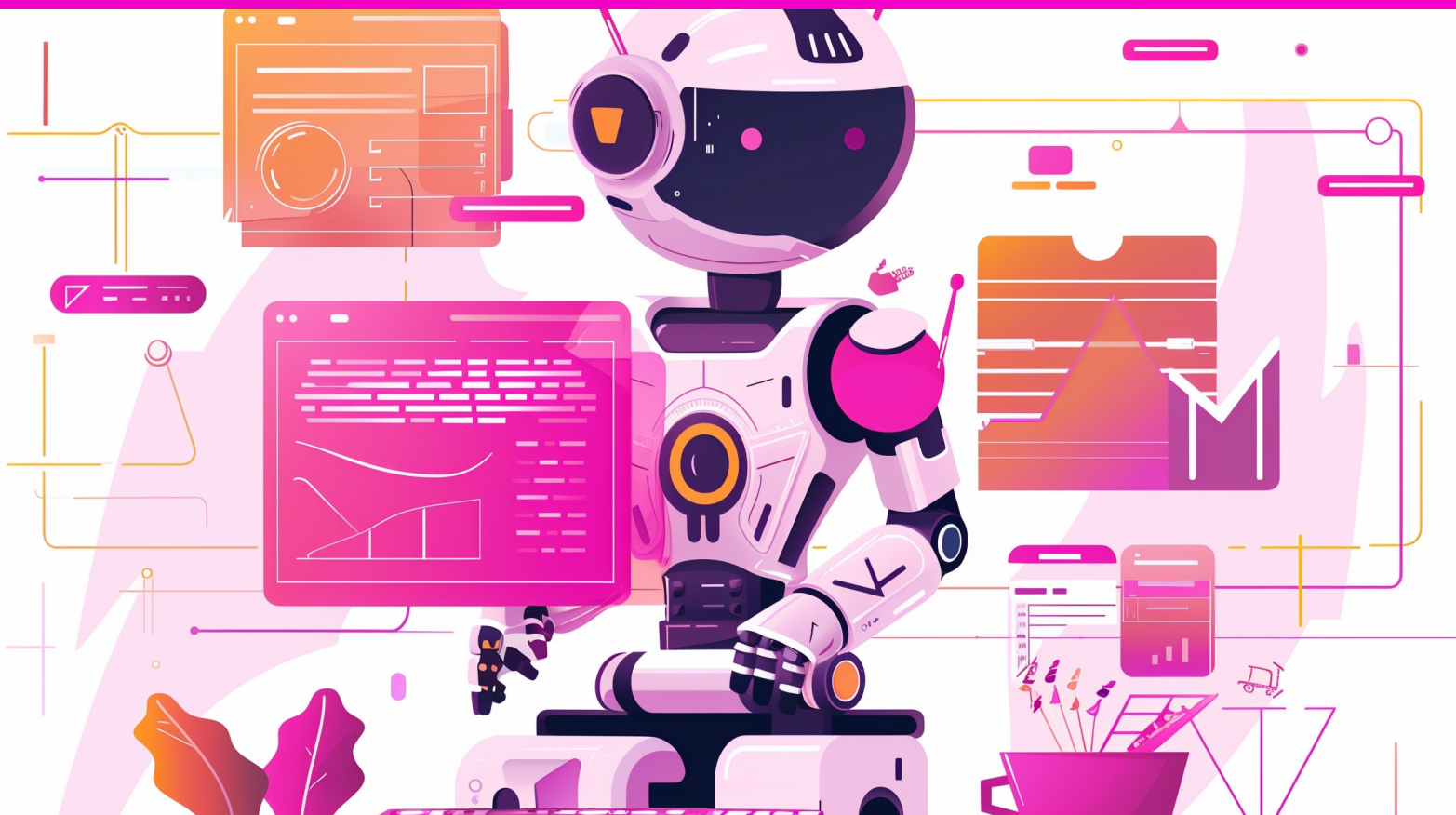
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RPA leverages software bots to automate repetitive and rule-based tasks, enhancing operational efficiencies and accuracy across various business processes.

## INNOVATION & NOVELTY

7/10

Revolutionizes traditional process management but within the scope of existing workflows.

## COST-EFFICIENCY

9/10

Significantly reduces operational costs and human error, with a quick return on investment.

## SCALABILITY

8/10

Highly scalable across departments and industries, adaptable to a wide range of tasks

## SUSTAINABILITY

6/10

Minimizes waste in process execution but has minimal direct environmental impact.

## ACCESSIBILITY

8/10

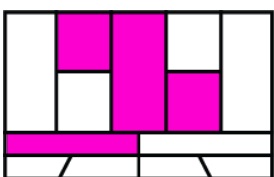
User-friendly interfaces allow non-technical staff to deploy and manage bots.

## SOCIETAL IMPACT

6/10

Boosts productivity but raises questions about workforce displacement and re-skilling.

## Impact on your business model.



- Significantly reduces the time and cost associated with data entry and processing tasks.
- Improves compliance and auditability by standardizing processes.
- Increases operational efficiency and employee productivity.
- Enables 24/7 operation without the need for breaks or downtime.

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Humanoid robots blend AI and mechanics to resemble and perform actions like a human, aiming to operate in human-centric environments, from assistance roles to complex problem-solving tasks.

## INNOVATION & NOVELTY

9/10

Embodies cutting-edge integrations of AI and robotics, pushing the frontier of what machines can do.

## COST-EFFICIENCY

4/10

High initial development and maintenance costs, with efficiency gains in specific applications.

## SCALABILITY

5/10

While advancements continue, the high complexity and cost limit widespread scalability.

## SUSTAINABILITY

5/10

Manufacturing and maintenance pose environmental challenges, though potential for green initiatives exists.

## ACCESSIBILITY

4/10

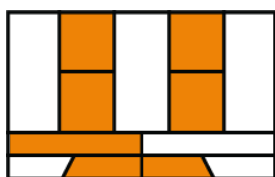
Primarily accessible to research institutions and high-tech industries due to cost and complexity.

## SOCIETAL IMPACT

7/10

Promises significant advancements in healthcare and customer service but raises ethical and employment concerns.

## Impact on your business model.



- Enables sophisticated customer service with a human touch.
- Performs tasks in hazardous conditions without risking human lives.
- Assists in healthcare, offering support to staff and companionship to patients.
- Automates complex tasks in environments designed for humans.

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AGI represents the future milestone of AI, where machines can perform any intellectual task that a human being can, with the ability to reason, plan, learn, and communicate in natural language across domains.

## INNOVATION & NOVELTY

10/10

The epitome of AI research, offering unprecedented potential in technological innovation.

## COST-EFFICIENCY

5/10

Potential for immense long-term benefits, though requiring substantial investment in development and ethical oversight

## SCALABILITY

8/10

While theoretically highly scalable, practical implementation will depend on overcoming significant technological and ethical challenges.

## SUSTAINABILITY

4/10

Energy and resource demands are speculative but could be substantial given the complexity of AGI systems.

## ACCESSIBILITY

3/10

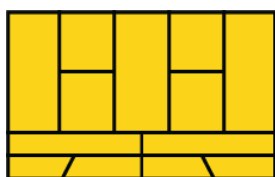
AGI's sophisticated requirements make it initially accessible to only a few elite research institutions and companies, while later becoming accessible like ChatGPT.

## SOCIETAL IMPACT

9/10

Promises transformative benefits but also poses ethical, security, and societal challenges that must be addressed.

## Impact on your business model.



- Unprecedented innovation in products, services, and processes.
- Deep, cross-sectoral problem solving from healthcare to environmental management.
- Automation of not just tasks but entire high-complexity jobs.
- Significant improvements in efficiency and decision-making across all levels of operation.

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Nanotechnology is the manipulation and control of matter on an atomic or molecular scale, typically within the range of 1 to 100 nanometers, to create materials, devices, and systems with new properties and functions.

## INNOVATION & NOVELTY

9/10

Represents a frontier in precision engineering, with potential to revolutionize multiple sectors.

## COST-EFFICIENCY

6/10

Promises cost reductions in long-term applications but currently associated with high R&D and production costs.

## SCALABILITY

7/10

Has scalable applications but faces challenges in manufacturing processes and integration at larger scales.

## SUSTAINABILITY

8/10

Offers pathways to sustainable solutions, such as cleaner energy and reduced material waste.

## ACCESSIBILITY

5/10

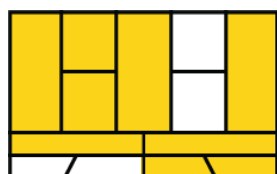
Growing in accessibility but still requires significant expertise and investment in specialized equipment.

## SOCIETAL IMPACT

8/10

Potential to significantly improve quality of life, though also poses ethical and safety considerations.

## Impact on your business model.



- Enables the development of more durable, lightweight materials for various applications.
- Facilitates breakthroughs in drug delivery systems and medical diagnostics.
- Enhances energy efficiency and storage solutions.
- Provides sustainable alternatives through smart materials and nanoscale manufacturing.

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