Generative AI: Preparing for the Long-Term Impact

Ritu Jyoti
GVP, AI and Automation Market Research and Advisory Services, Global AI Research Lead, IDC
Generative AI is Gaining a Lot of Attention

- 39% Significant investment
- 24% Early Exploration
- 37% Doing nothing

March
Generative AI is Gaining a Lot of Attention

IDC is projecting that GenAI will add nearly $10 trillion to Global GDP over the next Ten Years

March
- Significant investment: 39%
- Early Exploration: 24%
- Doing nothing: 37%

July
- Significant investment: 22%
- Early Exploration: 29%
- Doing nothing: 49%

$23M average planned investment in GenAI by large enterprises (>10,000 employees) over the next year

1 Business Transformation
Generative AI: Top Business Benefits

Expanding Labor Productivity
Generative AI: Top Business Benefits

Accelerating R&D
Generative AI: Top Business Benefits

Emerging New Business Models

Personalizing Customer Experience

Accelerating R&D
Generative AI: Top Business Benefits

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- Personalizing Customer Experience
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- Emerging New Business Models
Case Studies

CarMax drives business value with GPT-3.5 to help make buying a used car “effortless.”
General Motors uses generative AI technology for product development, dev tool chain optimization and driver experience.
Case Studies

Answering Financial Advisor Questions with the “push” approach of Next Best Action might pair well with the “pull” approach of GPT-based answers to prompts.

Morgan Stanley
Case Studies

Example of Generative and Predictive AI: Request for Proposals Answer Generator
Case Studies

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Example of Generative and Predictive AI: Request for Proposals Answer Generator
Process for Defining, Prioritization and Execution of AI Use Cases

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Specification</th>
<th>Prioritization of Use Case Ideas</th>
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</thead>
<tbody>
<tr>
<td>Value</td>
<td>Economic value, Strategic alignment</td>
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<tr>
<td>Complexity</td>
<td>Data, Algorithm, Process systems, Require know-how</td>
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Assessment of Use Case Ideas
- 1. Ideation: Identify use cases aligned with AI vision
- 2. Assessment: Assess use cases by value, complexity and risk
- 3. Prioritization: Cluster use cases and prioritize
- Execution: Take use cases into production stage - industrialize

Prioritization of Use Case Ideas
- High-risk use cases

Iterative approach
Assemble a Generative AI Steering Committee for well-rounded business decisions.
Organizational Transformation
Proactive Change Management

01 Centralized cross-functional (LOB and IT) generative AI platform team
- Develop and maintain a platform service where approved generative AI models are provisioned on demand
- Define protocols for generative AI models integration and implement standardized approaches to manage risk

02 Roles – staff with the right skills
- Senior technical leader as GM
- Technical Team: Software engineers, Data engineers, Data scientists/ML engineers, Prompt engineers, MLOps engineers
- Business Team: AI ethicists, AI risk experts, LoB personas, AI champions

03 Hiring/upskilling for culture of Innovation
- Adapt academy models to provide personalized upskilling
- Provide training and corresponding certifications to technical and non-technical talent
- Ensure every knowledge worker has AI basic skills
Poor AI governance increases the risk of unintended negative consequences but is complicated by endlessly changing regulations.
CIO/CTO Leadership Priorities

Overarching leadership to manage business reputation.

**Partners**

To mitigate risk to intellectual property, insist that providers of foundation models maintain transparency.

**Internal Policies and Risk Management**

- Proactive mitigation of risks for the end-to-end software development process.
- Establish proven risk-mitigation actions for hallucinations.
- Set up data access controls and policy management layer.
- Establish rigor for evaluation metrics.
Create a conducive environment for employees to thrive in an AI era.
Build or Buy – Train or Tune Foundation Models Decision for a Use Case

- Examine open-source model
  Assess cloud vs. on-premises

- Fine-tune an existing model
  Buy from a provider
  Focus on service agreement

- Examine designing a proprietary model
  Build/train the model in-house

- Train your own model
  Examine a partnership
  Partner with a model provider that supports training a new proprietary model
Generative AI: Placing Bets on Competing, Overlapping Providers

- Developer training and assistance
- Pre-built industry and use case models and APIs
- Robust data security
- Pre-built data connectors data management capabilities
- Customization/ development tools
- Availability of per user/credits consumption-based pricing
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Professional Services:
- ROI models/cost-benefit analysis to support business case
- Showcase/Co-develop relevant use cases for AI
- Industry insights and competency
- Knowledge transfer/training for our internal team
- Existing relationship / understanding of your business
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Generative AI: Reimagine Technology Function

Software Development
- 35-45% faster development of code
- Refactor code, Code documentation, Code translation, Testing

Technical Debt
- 20-40% of budget
- Determine how generative AI capabilities accelerate reduction of debt

IT Operations
- 25-35% more productive
- Improve observability and resolutions

Source: IDC Customer Interviews/Inquiries
Generative AI: Upgrade Technology Architecture
Reimagine technology functions and establish composable architecture.
Preparing for the Long-Term Impact of Generative AI

1. Business Transformation
   Assemble a Generative AI Steering Committee for well-rounded business decisions.

2. Organizational Transformation
   Create a conducive environment for employees to thrive in an AI era.

3. Technology Architecture Transformation
   Reimagine technology functions and establish composable architecture.

Start harnessing the power of Generative AI at scale — responsibly and effectively — now.
For additional information

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