HEALTHCARE INNOVATION WITH GENERATIVE AI

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THE FUTURE IS NOW

GETTING TO KNOW GENERATIVE AI

Consider the potential impact of generative AI in healthcare by exploring what generative AI is and how it operates. Generative AI:

- Creates original content, such as text, images, audio, code, and video. Until now, these types of content solely required human skills and expertise to create.
- Can add contextual awareness and human-like decision-making to enterprise and finance workflows, potentially changing how work is conducted.
- Is powered by foundation models, which run on deep-learning algorithms modeled on the organization of neurons in the human brain.

DECISION SUPPORT
For Analyst
Improve time-to-value to search, navigate, and extract insights from large amounts of complex data

COMMUNICATION
For Customer Service
Improve customer experience, reaching larger client bases by making online interactions more natural.

CONTENT CREATION
For Creative
Generate text, code, image, video or music content, speeding up every business process and maximizing productivity.

GENERATIVE AI IS PREDICTED TO GROW FAST IN HEALTHCARE

The healthcare sector has undergone significant transformation and adaptation during this period, addressing the unprecedented challenges brought on by recent business environment and care changes. Healthcare organizations are now using the lessons previously learned to build more resilient and agile systems. The integration of digital health technologies has enabled greater patient engagement.

Key areas to apply Generative AI:
- Research and Development
- Operations
- Marketing and Sales
- Customer Support
- Corporate Functions
- Patient Engagement
- Care Management

$22B
Estimated healthcare total addressable market for Generative AI in 2027

Rapid growth
The Generative AI growth trajectory in healthcare outpaces its adoption in other industries. The projected compound annual growth is expected to reach $22B.

Process efficiency
Personalizing customer interactions, unlocking innovation, and leveraging enterprise data to create value in new ways has garnered significant attention from various industries, including healthcare and life science companies.

Time to act
Some organizations will adopt a wait-and-see approach due to the highly regulated nature of the healthcare and life science industry. However, such inaction can put those organizations at a long-term disadvantage.
INDUSTRY HIGHLIGHTS

TRANSFORMATION OPPORTUNITIES

Patients expect healthcare providers to care for and about them, engage with clarity, and offer coordinated treatment.

Here are five opportunities for digital transformation in the healthcare and life sciences industry in 2023:

<table>
<thead>
<tr>
<th>Number</th>
<th>Opportunity</th>
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<tbody>
<tr>
<td>1</td>
<td>AI-Enabled Personalized Care</td>
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<td></td>
<td>- Guided diagnosis with recommendations</td>
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<td>- AI-assisted call center, sales agents, and voice analytics</td>
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<td></td>
<td>- Automation of claims processing</td>
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<td>2</td>
<td>Cost-effective Healthcare Decisions</td>
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<td></td>
<td>- Demand for enhanced cost estimation capabilities</td>
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<td></td>
<td>- Demand for increased simplicity in digital products</td>
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<td>3</td>
<td>Smart Workforce</td>
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<td>- AI-driven tools that optimize resources and talent allocations</td>
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<td></td>
<td>- Automated document processing</td>
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<td></td>
<td>- Medical image recognition</td>
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<td>4</td>
<td>Autonomous Monitoring</td>
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<td></td>
<td>- Anomaly identification across the entire healthcare ecosystem</td>
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<td></td>
<td>- Monitoring routing and delivery of virtual or in-person appointments</td>
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<td>- Resilient and agile systems</td>
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<td>5</td>
<td>Digital Interactions</td>
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<td></td>
<td>- Non-friction automation and next-generation contracting</td>
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<td></td>
<td>- Conversion of legal documents into common language</td>
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<td>- Complaint evaluations and summarizations</td>
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INSIGHT

Consumers want to be heard, understood, and given clear directions through a personalized healthcare experience.

Cost information can drive behavioral change for value-based care among physicians.

4 IN 10 medical groups reported that a physician retired early or left the practice in 2022 due to burnout.

36% of medical group leaders report their organizations' productivity is below expectations for 2022.

KEY PRIORITIES

Access to Healthcare
It is a fundamental priority to ensure that all individuals, regardless of their socioeconomic status, can access essential healthcare services. This includes addressing barriers, such as geographical location, cost, and cultural factors.

Quality of Care
It is crucial to provide high-quality medical care that meets established standards and improves patient outcomes. This involves promoting evidence-based practices, reducing medical errors, and enhancing patient safety.

Preventive Care
It is essential to shift the focus from treating illnesses to preventing them to improve the overall health of the population and reduce healthcare costs. The encouragement of regular check-ups, vaccinations, and healthy lifestyle choices can have a significant impact.

KEY CHALLENGES

Healthcare Workforce Shortages
Shortages of healthcare professionals, including doctors, nurses, and allied health workers can strain healthcare systems, affecting the quality and availability of care.

Rising Healthcare Costs
The increasing cost of healthcare services and treatments poses a challenge for both individuals and healthcare systems. Balancing quality care with affordability is a significant concern.

Aging Population
As the global population ages, there is a growing demand for healthcare services, particularly for the elderly, who may require specialized care and management of multiple chronic conditions.
OPPORTUNITIES OF GENERATIVE AI

KEY ADVANTAGES

The level of positive impact that Generative AI can have on the healthcare industry is difficult to overestimate. You must consider some of the most promising directions for the future, as shown below.

<table>
<thead>
<tr>
<th>Use Case Complexity</th>
<th>Business Value</th>
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<tr>
<td>High</td>
<td>Low</td>
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<tr>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

Automate tasks and scale processes
Reduce costs and increase efficiency
Enhance user experience and personalization
Accelerate innovation and AI adoption
Optimize internal processes
Smart decision-making
Improve customer satisfaction
Increase competitive advantage

BUSINESS OPPORTUNITIES

Some of the more specific use cases where we envision Generative AI as a game-changer in healthcare are shown below.
Medical literature and data analysis to generate informative disease-specific educational content personalized for HCPs and patients.

**PERSONALIZED CONTENT GENERATION**
Medical literature and data analysis to generate informative disease-specific educational content personalized for HCPs and patients.

**MEDICAL CHATBOT**
Virtual assistant to automate tasks, provide accurate responses, and enhance user experiences for HCPs and patients.

**DOCUMENT COMPARISON ENGINE**
Review and compare healthcare policies and regulations to help optimize time-consuming, manual compliance operations.

**ENHANCING MEDICAL IMAGING**
Simplify the imaging process through automation of analysis, anomalies detection, and radiology assistance.

**CO-CREATING MEDICAL DOCUMENTATION**
Unlock insights and co-create reports with specialists based on data culled from large databases, summarize medical documents, and look for data duplications.
GET STARTED ON YOUR GENERATIVE AI JOURNEY

LET SOFTSERVE ACCELERATE YOUR GENERATIVE AI JOURNEY WITH 3 OFFERINGS

Don't be left behind in the race to harness the disruptive innovation of Generative AI. SoftServe defined Generative AI adoption patterns that are designed to help you navigate the complexities of this emerging technology. We will help you select an appropriate adoption pattern or its combinations for building tailored solutions to meet your enterprise's unique needs. Expedite your journey towards a new way of productivity and creativity with SoftServe Generative AI offerings, positioning your business as a leader in the industry:

<table>
<thead>
<tr>
<th>AI DISCOVERY</th>
<th>AI LAUNCHPAD</th>
<th>AI ADOPTION</th>
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<tbody>
<tr>
<td><strong>From Interest to Discovery:</strong> Generative AI Ecosystem and Implications for My Business</td>
<td><strong>Launchpad to Innovation:</strong> Evidence-Based Exploration and Deployment</td>
<td><strong>From Insight to Impact:</strong> Rapid Scaling and Adoption in My Organization</td>
</tr>
<tr>
<td>✓ Use Cases &amp; Business Impact Priorities</td>
<td>✓ Generative AI Lab</td>
<td>✓ Generative AI Adoption Roadmap</td>
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<tr>
<td>✓ Data Quality and Availability</td>
<td>✓ AI Launchpad Program for rapid experimentation</td>
<td>✓ Technology Strategy</td>
</tr>
<tr>
<td>✓ Technology Trade-offs and Architecture</td>
<td>✓ Value Stream Mapping &amp; Use Cases</td>
<td>✓ Data Strategy</td>
</tr>
<tr>
<td>✓ Technical Feasibility with POC</td>
<td>✓ POC/POV Pipeline</td>
<td>✓ Change Management and AI Governance</td>
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</tbody>
</table>

It's urgent and the time to start is now. But you know that Generative AI is not a deployment sprint. With SoftServe’s experts to address your unique enterprise needs and guide you through possible adoption options, you will move past the hype and harness its benefits for your enterprise.

Learn more about SoftServe’s Generative AI Lab, POVs, offerings, and partners. Visit us at our Generative AI website page.
YOUR PARTNER FOR THE FUTURE

DIGITAL ADVISORS, SOFTWARE INNOVATORS, AND EXPERIENCE BUILDERS

30 Years of Experience  98% Client Retention  14 Countries of Operations

GOOGLE CLOUD
As a Google Cloud Partner and the winner of the 2020 Google Cloud Partner of the Year Award for Machine Learning, SoftServe is committed to helping customers solve their most pressing business challenges. SoftServe utilizes Google Cloud’s AI ecosystem, including tools such as Google Cloud Vertex AI and Generative AI App Builder. Learn more

430+ Google Cloud Certified Resources
150+ Google Cloud Expert Projects
10+ Anthos expert Resources

AMAZON WEB SERVICES
As an APN Premier Services Partner, SoftServe acts as an exceptional cloud guide, vastly decreasing the time to achieve cloud value. By doing so, SoftServe ensures that your AI initiatives unleash the full potential of AWS Machine Learning services, such as Amazon Bedrock and SageMaker, and that they are deployed in accordance with AWS Well-Architected best practices. Learn more

500+ AWS Certified Resources
50+ AWS Certified Solution Architects
40+ AWS Professional Certifications

MICROSOFT
Innovate with purpose, rationalize costs, and drive efficiencies with Microsoft Azure’s open and flexible cloud computing platform. Leverage Azure OpenAI and Machine Learning services to deliver next-generation AI solutions. As a Gold Microsoft Partner, SoftServe enables your business to build and deploy on your terms — both today and in the future. Learn more

1,200+ Engineers with MS experience
150+ Azure Certified Experts and Professionals
18 Years as a Microsoft Partner

NVIDIA
As an NVIDIA Service Delivery Partner, SoftServe harnesses NVIDIA’s cutting-edge technologies, like GPU-accelerated compute infrastructure, to deliver robust AI solutions. Leveraging NVIDIA’s NeMo Service, SoftServe streamlines the development of Generative AI products, driving rapid digital transformation. Learn more
DEEP TECHNOLOGY EXPERTISE IN AI/ML
HUMAN-FIRST APPROACH TO DESIGNING EFFECTIVE EXPERIENCES
INDUSTRY EXPERTISE AND PARTNERSHIPS WITH CLOUD SOLUTIONS PROVIDERS

— We have deep technology expertise in AI/ML, XR, blockchain, and automation.
— We take a human-first approach to designing effective experiences.
— We have industry expertise and partnerships with solutions providers.

LET'S TALK