Transforming Healthcare through AI integration

Rajashree Varma

Founder | CEO

AffableBPM

Arth Systems   Xoriant

Microsoft

Neil Jordan

Strategic Advisor | Investor

Microsoft

Patients dissatisfaction with existing healthcare

81%	Dissatisfied with current healthcare system[1]
76%	Interested in telehealth to replace cancelled visits[2]
70%	Prefer digital solutions for their care journey[3]

Health Workforce Burnout & Talent Shortage

35-54%	Clinicians are burnt out due to shortage[1]
15M	Shortage of workforce by 2030[2]
70%	Time wasted on Data Ingestion[3]

Changing requirements make adoption difficult

Top 40	Payors acknowledged need for modern tech[1]
41%	Challenges with Data & Analytics are preventing value-based care[2]
$30B	Wasted due to lack of data interoperability[3]

AI & Healthcare Trends

Exponential opportunities
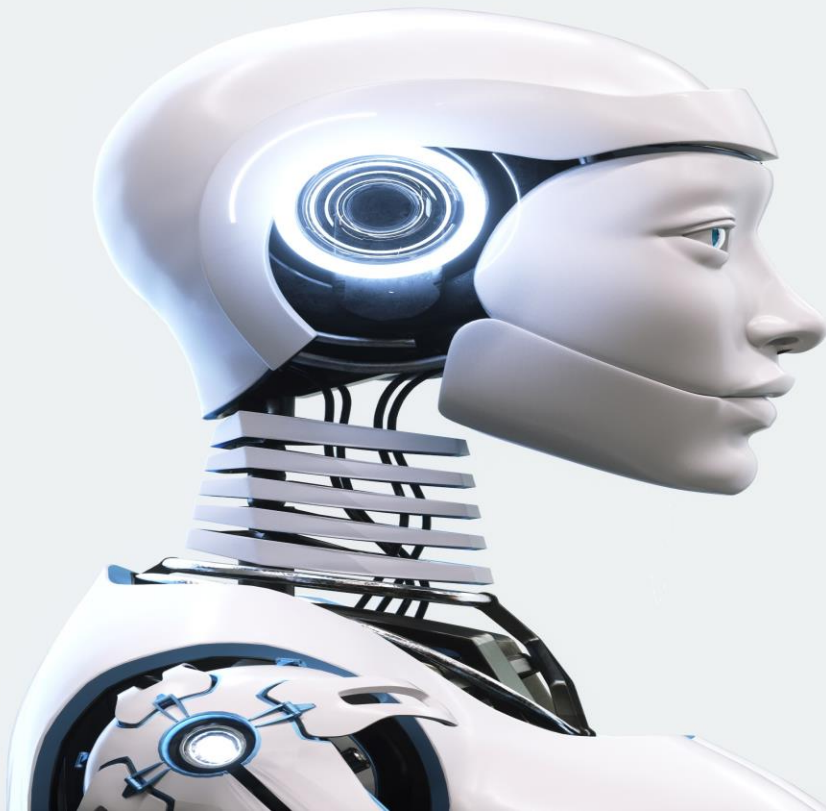
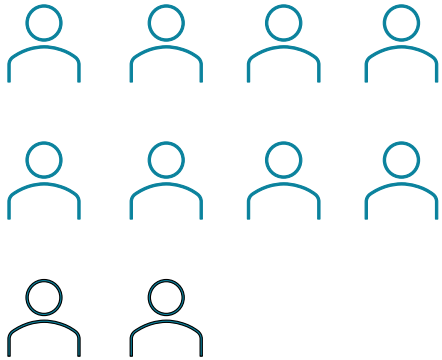| $1T	Generative AI opportunities[1]
36%	Market size growth expected at a CAGR (2023-2030)[2]
$1.8T	Global Pharmaceutical Market by 2024[3]
98%	HLS Orgs have/or planning AI Strategy[4]

Violating Patient Privacy is costly

Hefty Financial and Reputational Repercussions

80% Customers prefer privacy over cost[1]

33% Ransomware Attack[2]

$10.1M Average cost of Data Breach[3]

AI is unlocking powerful healthcare use cases

Across spectrum of players in healthcare industry

Provider	Payor	Pharma	MedTech	... And more
Patient engagement and support	Member insights and personalization	Drug development and discovery	Product design and service innovation	Simplified data analytics
Clinical documentation and content triage	Provider network management	Medical and scientific literature review	Manufacturing process optimization	Automated quality assurance
Ambient clinical intelligence	Operational workflow automation	Clinical trial recruitment and management	Quality control and preventative maintenance	Medical chatbots
				Genomic data analysis
				Radiology workflows
				...

*Generative AI does not always provide accurate or complete information. Customers/partners will need to thoroughly test and evaluate whether an AI tool is fit for the intended use and identify and mitigate any risks to end users associated with its use. Customers/partners should thoroughly review the product documentation for each tool.

Using AI for Predictive Care Guidance

Accelerate & ensure quality diagnostics for improved health, safety & lower costs

AI Transformation

AI allows febrile individuals to be **reliably identified** & triaged for individualized care guidance

Solution

Contact-free diagnosis & proactive intervention based upon predictive risk modeling
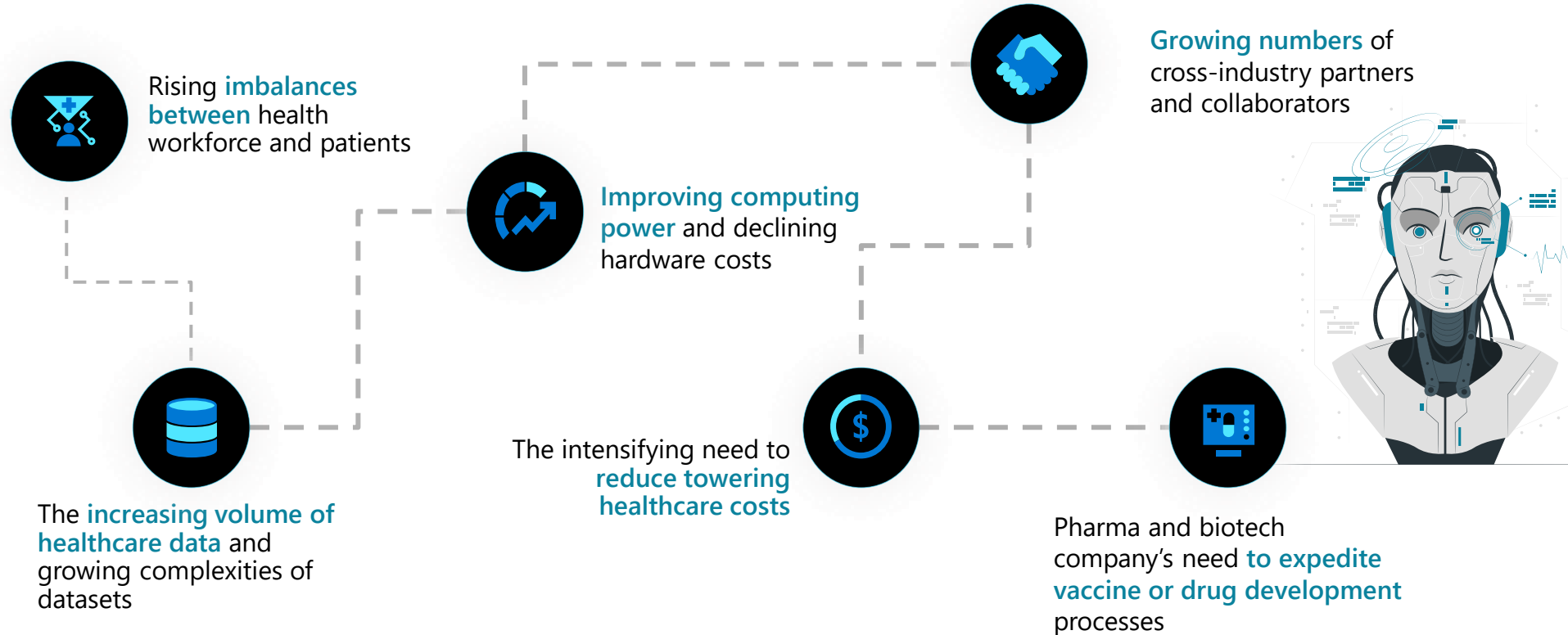
Outcome

Easily identify those in need of guided care based upon presenting symptoms & personal history

Transforming Healthcare

Technology & Healthcare partners will play a huge role in reducing costs

Rising **imbalances between** health workforce and patients

Growing numbers of cross-industry partners and collaborators

Improving computing power and declining hardware costs

The intensifying need to **reduce towering healthcare costs**

The **increasing volume of healthcare data** and growing complexities of datasets

Pharma and biotech company's need **to expedite vaccine or drug development** processes

Adopting AI can be challenging

Categorizing the challenges will help to address them strategically

Data Complexity

- **Sensitive data** needs increased protection
- **Poor data quality** and inconsistent semantics
- **Large volumes of siloed proprietary data** across organization
- **Rise in third-party** handling of sensitive data.

Technology & Skill Gap

- **Mix of** hybrid, on-premises, and **cloud environments**
- Use of **legacy systems**
- **Lack of interoperability** and integration across systems
- Constant **workforce turnover**
- **Gap in competency** and skill in AI
- **Regional language** and version support

Compliance and Security

- **Need for** Continuous compliance with regulations like HIPAA and GDPR
- Must enable **secure data** sharing **internally & externally**
- Need to **protect sensitive data** across devices, including BYO
- **High cost of failure**

What additional obstacles come to mind for adopting AI in healthcare?

Strategic Approach to Adopting AI

Prioritize based on your need and strengths / weaknesses methodically

Data Complexity

- **Data Integration:** Integrate diverse data sources for complete patient insights.
- **Data Quality Assurance:** Implement/ maintain data accuracy and integrity.
- **Data Governance:** Establish protocols for data access, sharing, and privacy compliant with regulations.
- **Data Scalability:** Design reliable & capable systems
- **Data Interoperability:** Promote interoperability among healthcare systems for seamless data exchange.
- **Process Mining:** bridge and capitalize on intradepartmental gaps.

Technology & Skill Gap

- **AI Skill Development:** Invest in training
- **Collaborative Partnerships:** Partner with AI experts and tech firms to fill internal skill gap.
- **Continuous Learning Culture:** Embrace continuous learning for evolving AI technologies and practices.
- **Agile Development Practices**: Iteratively develop and deploy AI solutions, promoting adaptability and innovation.
- **Talent :** Attract top AI talent and Change Management agents to promote Responsible AI adoption, DEI

Compliance and Security

- **Regulatory Compliance:** Stay ahead in HIPAA and GDPR compliance.
- **Data Encryption:** Use encryption to protect patient data at rest and in transit.
- **Access Controls:** Implement authentication to prevent unauthorized access to healthcare data.
- **Auditing & Monitoring:** Track data access and usage for accountability and compliance.
- **Incident Response Plan:** Develop and test incident response plans to manage data breaches effectively.

AI Cost Impact

Initial investments yield long-term advantages.

Data Complexity

- ❑ Initial higher cost
- ✓ Effectiveness offset expenses

Technology & Skill Gap

- ❑ Investment in training & partnerships
- ✓ Long term sustainability & innovation

Compliance and Security

- ❑ Significant resources
- ✓ Robust measures mitigate costly data breaches

Short Term

High due to investments in infrastructure, evolving technology, gap in talent and skill

Long Term

Cost savings through enhanced efficiency, patient outcomes, and decreased administrative overhead

Microsoft Responsible AI Principles

Discovering solutions worthy of trust

Fairness

AI systems should treat all **stakeholders equiably** and should be **unbiased.**

Transparency

AI systems and their output should be **understandable to relevant stakeholders.**

Accountability

The people who design and deploy AI systems must be **accountable for how their systems operate.**

Reliability

AI systems should be designed to **perform safely** even in the **worst-case scenario.**

Privacy & Security

AI systems should **protect** data from **misuse** and **ensure privacy** rights.

Inclusion

AI systems should **empower everyone**, regardless of ability, and engage people by asking feedback.

Partnering to strengthen your security posture

Operational partnership between Cloud Hyperscaler and you

Microsoft responsibilities

- Foundation of trust and security

- Best-in-breed security controls, monitoring, and protections

Your responsibilities

- Ownership over your data and all user identities

- Securing on-premises resources

- Maintaining security of the cloud components you control

Healthcare Opportunities and AI Benefits

Everyone wins !

- **Patients** and their families benefit from an **enhanced care experience**
- **Clinicians** have the **right information at the right time** for diagnosing and treating patients
- **Health Providers** harness the power of data, via **preventive and precision medicine initiatives**, to manage population health and save lives
- **Real wins into pre-clinical back office** to help optimize processes, interoperability of basic data
- **Researchers** discover **new patterns and associations** by combining complex data sources together
- **Health Authorities** **safeguard health workers** by preventing the risk of burnout

① **Data Curation and Unification**

② **Claims and Back Office Automation**

③ **Predictive analytics & forecasting**

Claims Management using AI

Opportunity for Huge Improvements and Savings

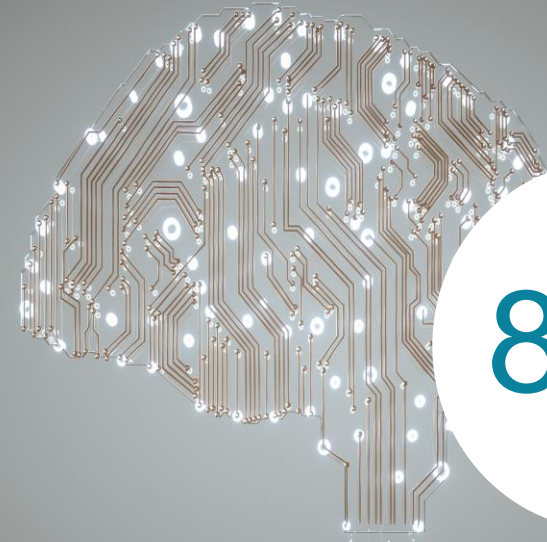**$260B** — Cost to hospitals on claim denials annually[1]

$6B — Loss per year from data breach[2]

$68B — Fraud cost impact on healthcare payers[3]

$17B — Estimated saying by eliminating errors in claims[4]

85%

Improvements in claims processing using AI[5]

Using AI for Data Curation & Claims Automation

Make hand-written prescriptions actionable with a high degree of confidence & accuracy

AI Transformation

Classify and digitize unstructured documents with AI to permit data-driven **actions & insight** that scales

Solution

Transform millions of unstructured prescriptions claims into **actionable data in minutes** – even handwritten ones

Outcome

Expedited **approvals** processes for claims & reimbursements

AffableBPM
Automation With AI

Minimum Annual Savings for All Hospital Sizes

$40,000+
Printing Costs

$500,000+
Compliance Penalties

$1.5M+
Employees Productivity

Save More as You Expand!

"*Vendor approval process contracts now takes 30 - 40 days compared to manual process which took 140-160 days . Timely notifications helped not miss the deadlines for contracts / compliance which could have created penalties for more than $500K+ in fines* "

— Laura A.

BEFORE		AFTER
Manual error-prone, time taking, non collaborative process scattered data	VS	Automated error-free, productive, collaborative process centralized & secure data

BEFORE	Metric	AFTER
60	Contract Accuracy (%)	98
65	Visibility (%)	95
12	Compliance Rate (%)	95
17	Insights (%)	97
60	Renewal Rate (%)	80
130	Lifecycle Duration (Days)	30

Alignment to UN SDG goals

Start early before it becomes a mandatory requirement !

AffableBPM
Automation With AI

Partner Spotlight
Harnessing the Power of AI to Unlock Growth

Microsoft

Recognition

#Buildfor2030

AffableBPM – AI Innovation
Alignment with Microsoft Azure OpenAI, Copilot

ESG

ENVIRONMENT

Saved:
70M Pages ~ 45 tons of paper

Preserved:
765 Trees,
63 K liters of oil, 1.2 M liters of water

SOCIAL

6,000+ Users save time due to automation

GOVERNANCE

Multi–Billion dollars worth of contracts processed

It is just beginning ....

Internet has drastically lowered the cost of information transmission; AI will lower the cost of cognition

Paul Hudson, CEO of Sanofi

"How AI eliminates "unglamorous work" and speeds up operations while collaborations across competitors can dramatically boost sustainability."

Jeetu Patel, EVP Cisco

"There will be only two kinds of companies in the world. There will be companies that are AI forward and then there will be companies that are irrelevant"

Karim R. Lakhani, Harvard Business School Professor

"AI Won't Replace Humans —
But Humans With AI Will Replace Humans Without AI" Harvard Article

Thank You !

Rajashree Varma
Rajashree.Varma@AffableBPM.com

Neil Jordan
neiljordan@outlook.com

Using AI for Smart Personalized Care

Help screen patients for potential COVID-19 infection and care

AI Transformation

Service patients in real-time, **any time**, on any device & through any digital channel with AI – take immediate action if necessary

Solution

Effectively **screen patients** for COVID-19 infection & care using a spoken or written conversational interface

Outcome

Deliver increased **access to care**, better care, and lower costs to ensure healthier population