Payer technology innovations

Beyond digital transformation
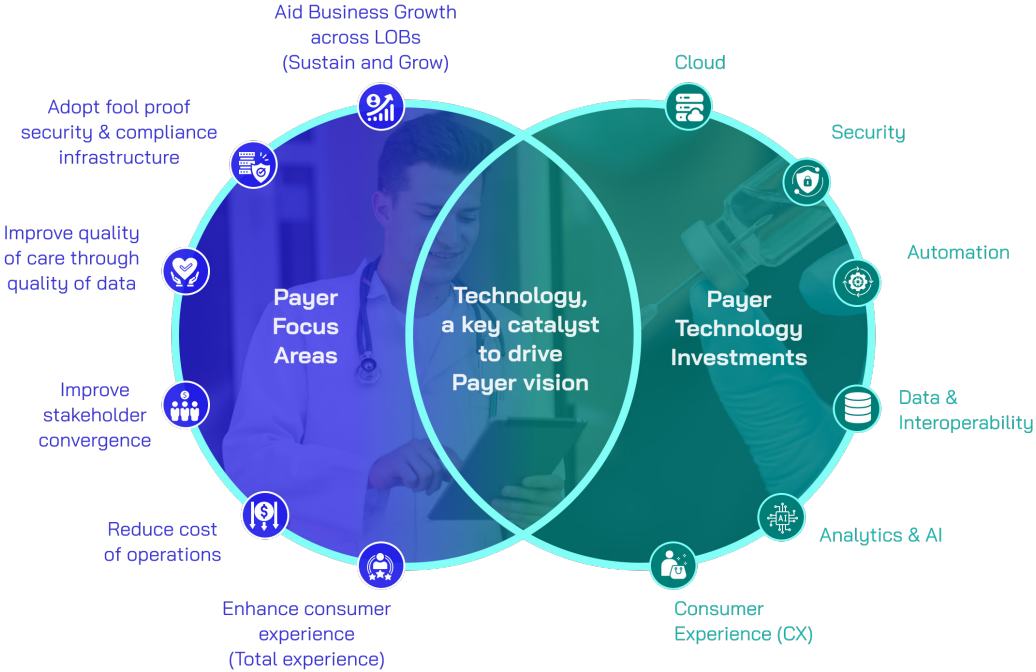
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Introduction

Currently, entities in the U6 healthcare industry find themselves navigating through   a complex macroeconomic landscape characterized by intricate financial challenges, scarcities in healthcare personnel, and rising inflation. Despite these challenges, payers are strategically investing in cutting-edge technologies such as cloud computing, automation, customer experience (CX) solutions, and data ecosystems, among others. This endeavor is geared towards the improvement of healthcare outcomes, operational efficiency, and other areas,
all with the ultimate goal of driving business growth.
The present emphasis centers around the integration of technology and innovation to realize short-term objectives while propelling the industry toward a state of readiness for the future. However, there remains untapped potential within the payer landscape to massively amplify its ongoing endeavors further.

Aid Business Growth across LOBs (Sustain and Grow)

Cloud

Adopt fool proof security & compliance infrastructure

Security

Improve quality of care through quality of data

Automation

Payer Focus Areas

Technology, a key catalyst to drive Payer vision

Payer Technology Investments

Data & Interoperability

Improve stakeholder convergence

Reduce cost of operations

Analytics & AI

Enhance consumer experience (Total experience)

Consumer Experience (CX)

Technology: A Key Catalyst to Drive Payer Vision

A slow voyage for healthcare payers amidst a technological storm

In contrast to other major industries, healthcare payers are adopting advanced technologies and innovations at a relatively slower rate. For instance, when it comes to the adoption of IoT, industries like retail and manufacturing have surged significantly ahead. Similarly, in sectors like travel and logistics, BF6I, and telecommunications, new-generation technologies such as generative AI and immersive technologies are witnessing proliferation at a much faster pace.

Innovation Areas: Technology	BFSI	Manufacturing	Travel & Logistics	HiTech & Telecom	Retail	Healthcare Payers
Generative AI (Advanced AI)	Medium	Medium	Medium	High	Low	Low
Immersive Technologies	Low	High	High	High	Medium	Low
Gamification	Low	Low	Low	Medium	Medium	Low
IoT	Low	High	High	High	High	Low
No Code Platforms	Medium	Low	Low	High	High	Medium
Blockchain	High	Medium	Low	Low	Low	Low
Datafication	Medium	Medium	Medium	High	High	Medium
Quantum Computing	Medium	Low	Low	High	Low	Low

*Similar across payers and providers except for slight maturity variations in few areas

Legend: Low | Medium | High | V.High

Level of Maturity for Innovation Areas - Technology across different Industries

A multitude of factors contribute to this, with one of the most significant reasons being the necessity of seamless collaboration with other healthcare entities such as providers. If payers were to adopt new technologies quickly, potential interoperability challenges could emerge while engaging with other organizations within the healthcare continuum.

Additionally, the healthcare ecosystem comprises intricate and stringent regulatory hurdles that must be navigated in adopting new technologies.
This is further compounded by the need to ensure compliance with rigorous industry standards, safeguarding patient privacy and data security.
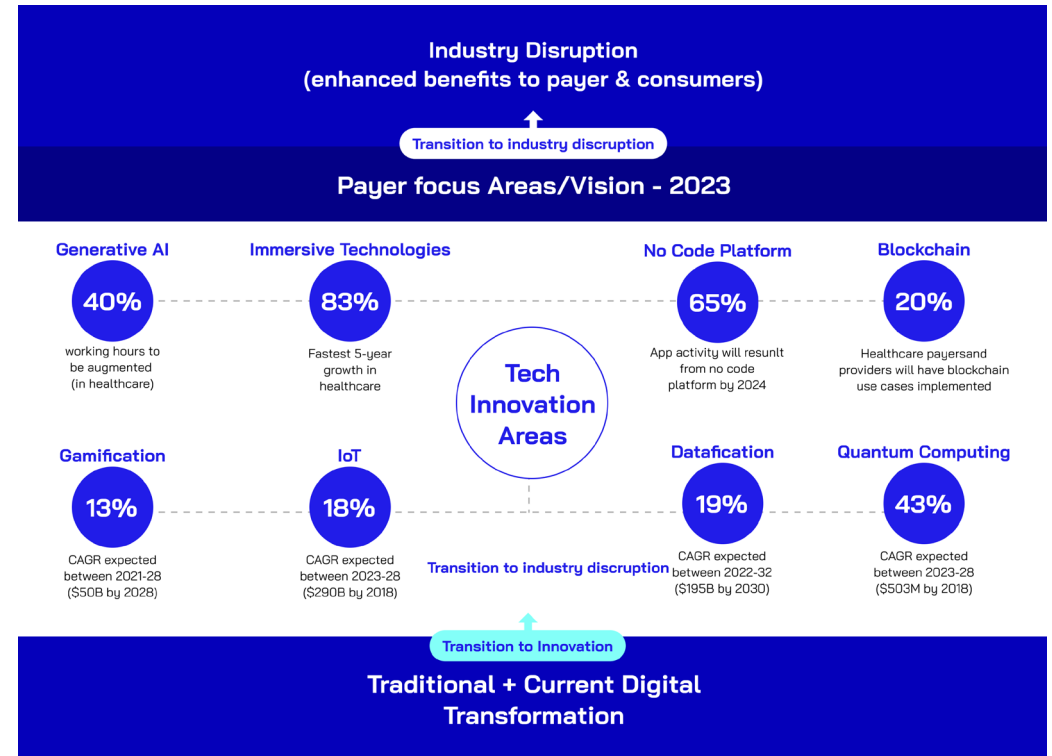
Furthermore, integrating new-generation technologies across existing healthcare frameworks can prove financially demanding. The financial outlay encompasses not only the acquisition of the technology itself but also their adaptation and alignment with the complex woven fabric of established healthcare systems.

Forging ahead with next-generation innovation investments

Payers must embrace innovative technology beyond their traditional investments to maximize consumer benefits. These investments hold the potential to enhance the efficiency of adwministrative processes, enable better data-driven decision-making at scale, and drive improved healthcare experiences. By incorporating both traditional and emerging new-generation technologies, payers can capitalize on a unique opportunity to revolutionize the healthcare industry. This reimagined approach not only ensures that the   primary focus areas for payers remain the same but also paves the way for numerous benefits for both payers and their consumers.

Industry Disruption
(enhanced benefits to payer & consumers)

Transition to industry discruption

Payer focus Areas/Vision - 2023

Generative AI
40%
working hours to be augmented (in healthcare)

Immersive Technologies
83%
Fastest 5-year growth in healthcare

Tech Innovation Areas

No Code Platform
65%
App activity will resunlt from no code platform by 2024

Blockchain
20%
Healthcare payersand providers will have blockchain use cases implemented

Gamification
13%
CAGR expected between 2021-28 ($50B by 2028)

IoT
18%
CAGR expected between 2023-28 ($290B by 2018)

Transition to industry discruption

Datafication
19%
CAGR expected between 2022-32 ($195B by 2030)

Quantum Computing
43%
CAGR expected between 2023-28 ($503M by 2018)

Transition to Innovation

Traditional + Current Digital Transformation

Traditional Investment with Nexr-gen technologies enabling Industry Disruption

Let us discuss several instances of how modern innovative technologies can transform healthcare from a payer's perspective:

(Note: Some of these instances/use cases are in their initial/ conceptual stage. These are just a representative list of use cases with several other possibilities)

- Generative AI

  - Automation of underwriting and claims processes (claims form and information extraction, fraud detection)
  - Identification of high-risk segments based on medical history, 6DoH and other factors with
  - predictive models
  - Driving personalized responses/outreaches in combination with conversational AI
  - Acceleration of developer productivity by enabling the auto-coding of complex applications and algorithms

Industry Example: Epic in collaboration with Microsoft have developed electronic health records (EHRs) powered by generative AI for adoption by organizations such as Stanford Health Care and UC San Diego.

- **Immersive Technologies**

  - Member rehabilitation - Guidance and support to patients in recovery from surgeries, disorders or anxiety
  - Virtual wellness programs - Therapist interactions using VR headsets and gears (MSOs)
  - Virtual training and awareness - Virtual simulations for healthcare practitioners to practice complex procedures, enhancing their skills without risking patient safety

Industry Example: Optum labs and Cornell Tech have ¡ointly launched a Digital Research Hub to invent new methods of remote intervention and care delivery through augmented reality and virtuality.

- **Gamification**

  - Monitoring member wellness via activity tracking and parameter tracking through activity-based gaming applications with reward programs
  - Tailoring care programs enabled by behavioral tracking of member populations
  - Incentivizing enrollment programs for new and existing members with virtual coins or reward points

Industry Example: Elevance Health, has started the delivery of digital concierge care programs (that includes gamification elements) to patients recovering from Covid-19

- **Internet of things**

  - Leveraging member health data from remote health monitoring devices for smart underwriting and review price models (based on risk assessment from the data collected)
  - Planning and optimizing patient care by implementing AI & analytics on the data collected from wearables and other monitoring devices
  - Interacting with members through IoT based applications

Industry Example: Aetna partnered with Cloudera to leverage its data platform to extract insights from healthcare IoT data, driving personalized recommendations and treatment decisions.

- **No code platforms**

  - Assisting developers with no code COT6 products to navigate complex application issues and meet the rising demand for new applications. This will help to address IT skill shortages, reduce the total cost of ownership for payers and accelerate application time-to-market

Industry Example: Leveraging Pega's low-code workflow development and flexible integration, Molina Healthcare modernized its appeals and grievance platform, saving 3 million annually and 60,000 man-hours with the automation of outbound correspondence.

- **Blockchain**

  - Enabling touchless prior authorization for information exchange at point of care and payer end

  - Creating self-executing smart contracts between payers and providers, automating payment processes and reducing administrative disputes

  - Enabling provider credentialing process by securely storing and verifying qualifications on the blockchain, accelerating the onboarding of new providers

  - Leveraging blockchain's synergy with IoT to ensure data integrity and patient privacy by encrypting and decentralizing patient data from IoT devices

Industry Example: Avaneer Health, a digital network company, secured 50 million from a consortium of firms to boost healthcare interoperability via a secure blockchain-powered network.

- **Datafication**

  - Leveraging data collected from various sources powered by technologies such as AI/ML, IoT, big data and analytics to make more informed decisions — creation of personalized care plans, early disease detection and prevention, recommendation of alternate care plans.

Industry Example: CAQH serves 2+ million providers and 1,000+ payers with solutions for information exchange and automating business processes. They remain committed to streamlining healthcare financial and administrative processes through a data-driven approach.

- Quantum computing

  - Calculating premium prices and designing plans accurately and efficiently based on a comprehensive risk assessment process (involving large datasets, multiple factors such as age, medical history, lifestyle, etc.)
  - Detecting frauds in claims proactively using complex algorithms on large datasets.

Industry Example: Elevance Health, a member of the IBM Quantum Hub, is dedicated to promoting quantum computing in healthcare through research, development, and education.

Enroute industry disruption powered by a robust partnership

In an increasingly consumer-driven and competitive market, driving greater value for all members within the healthcare space has become paramount. Toward this endeavor, payers that embrace a technology-first mindset stand to conquer complex challenges and secure a strategic edge over their peers. This pursuit requires the right kind of partner, one capable of aiding them in exploring and unlocking the myriad opportunities presented by cutting-edge modern technologies.

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Shaping Healthcare Possibilities

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