AI Rx: Advancing AI's role in revamping healthcare

Enterprises must act swiftly to adopt strategies that revolutionize medicine and dramatically improve patient outcomes.

AI is revolutionizing healthcare and life sciences, offering unprecedented opportunities for personalized treatments, predictive analytics, drug discovery, and operational efficiencies. Let's explore how AI is reshaping the future of medicine.

Unifying medical records for better **patient health outcomes**

AI transforms patient care and medical records by enabling healthcare providers to create a comprehensive patient 360 view. By collating data from various sources, both structured and unstructured, AI allows providers to offer personalized and effective treatments based on a patient's complete medical history, demographics, and recent test results. AI also plays a crucial role in Pharmacy Benefits Management (PBM), ensuring that medications are prescribed, authorized, and delivered efficiently. This real-time orchestration helps in timely medication delivery, enhancing patient outcomes. Furthermore, AI-powered personalized health concierges can remind patients about medication schedules, refills, and follow-up appointments, significantly improving patient care and adherence.

Accelerating drug **discovery and development**

AI is pivotal in drug discovery and development. Traditionally, bringing a new drug to market can take over a decade and cost billions of dollars. AI shortens this lifecycle by analyzing vast patient data to identify potential drug interactions and suitable candidates for clinical trials. AI-driven platforms can quickly sift through patient records to find individuals who are most likely to benefit from new drugs, thereby increasing the success rates of clinical trials. In manufacturing, AI automates the translation of chemical steps into machine code, expediting production. Additionally, AI streamlines the medical and legal review process, ensuring compliance and reducing time to market.

	Drug Discovery	**Clinical Trials**	**Regulatory Approval**	**Manufacturing and Commercialization**	**Post-market Surveillance**
The Role of AI	• AI-driven molecule design based on analysis of large datasets • Target identification based on known genomic data	• Test protocol generation and validation • Target identification and screening • Efficient trial result analysis	• Data aggregation and analysis • Document generation • Monitoring of regulatory changes	• Efficient recipe creation for MES systems • Predictive supply chain analytics • Market access and pricing analysis	• Monitoring of social media and internet trends for patient reaction and sentiment
Potential Business Impact	• > 50% acceleration in drug discovery candidates	• Increased success rates in each phase	• Decreased approval timelines	• Efficient production and market readiness	• Maximized lifecycle value

← **Increased Cost Efficiency**
Decreased Time to Market →

Enhancing member
experience in healthcare

Improving member experience when interacting with their healthcare payers is another area where AI excels. AI can transform the digital front door by replacing traditional template-based interactions with intent-based, human-like conversations. For instance, AI can provide personalized responses to queries about coverage and copays in minutes, significantly reducing the time and effort required for such interactions. AI-powered conversational bots can assist call center agents or directly serve patients, offering contextualized and accurate information. This enhances the member experience and reduces operational costs for healthcare providers and payers.

Improving diagnostics in
radiology and pathology

AI is also improving diagnostics in fields like radiology and pathology. AI can quickly analyze thousands of images and pathology slides, identifying high-risk patients and subtle anomalies that human eyes might miss. This prioritization allows healthcare professionals to focus on the most critical cases, improving diagnostic accuracy and efficiency. In genomics, AI helps understand the vast amount of genetic data, identify potential hereditary issues, and make faster and more accurate diagnoses. This predictive capability is crucial in providing proactive and personalized healthcare.

Addressing ethical and regulatory challenges

The importance of trust and ethical considerations in integrating AI into healthcare workflows cannot be overstated. The US healthcare industry has historically struggled with low net promoter scores, indicating higher levels of detraction. Ensuring that AI is implemented ethically and with the patient at the center is crucial for gaining confidence and improving patient outcomes. Organizations must work with trusted partners who deeply understand the technology and healthcare domain. This dual expertise ensures that AI solutions are effective but also ethical and patient centric.

From revolutionizing patient care and accelerating drug discovery to enhancing diagnostics and improving member experiences, AI is a powerful tool that reshapes how enterprises deliver and experience healthcare. As businesses continue to harness the potential of AI, it is essential to address the ethical and regulatory challenges to ensure that these advancements benefit all stakeholders in the healthcare ecosystem. AI's immense potential in redefining healthcare is clear.

We encourage you to explore these advancements and consider how AI can transform your healthcare experiences. Stay curious and stay informed.

About Brillio

Brillio is one of the fastest growing digital technology service providers and the partner of choice for many Fortune 1000 companies seeking to turn disruptions into competitive advantages through innovative digital adoption. We help clients harness the transformative potential of the four superpowers of technology: cloud computing, Internet of Things (IoT), artificial intelligence (AI) and mobility. Born digital in 2014, we apply our expertise in customer experience solutions, data analytics and AI, digital infrastructure and security, and platform and product engineering to help clients quickly innovate for growth, create digital products, build service platforms, and drive smarter, data-driven performance. With 14 locations across the US, the UK, Romania, Canada, Mexico, and India, our growing global workforce of 6,000 Brillians blends the latest technology and design thinking with digital fluency to solve complex business problems and drive competitive differentiation for our clients. Brillio was certified by Great Place to Work® in 2021, 2022, 2023, and 2024.

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