The Role and Impact of Artificial Intelligence in the Insurance Industry

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Abstract: *Artificial Intelligence (AI) is significantly transforming the insurance industry by improving efficiency, accuracy, and customer experience. This study examines the impact of AI on key insurance functions such as underwriting, claims management, fraud detection, pricing, and customer service. AI-based technologies, including machine learning, predictive analytics, and chatboats, enable insurers to automate processes, enhance risk assessment, and offer personalized insurance products. The adoption of AI also supports faster decision-making and cost reduction while strengthening fraud prevention mechanisms. However, challenges related to data privacy, algorithmic bias, regulatory compliance, and ethical considerations remain critical. The study emphasizes the importance of responsible AI implementation to ensure transparency, fairness, and sustainability. Overall, AI is positioned as a strategic enabler that is reshaping the operational and competitive landscape of the insurance industry.*

Keywords*: Artificial Intelligence, Challenges, Privacy, Technology, Underwriting*