



How AI is Transforming the Insurance Industry

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Today data is the new oil – the world's most valuable resource. Companies use data to gain customer insights, understand trends, and make decisions accordingly.

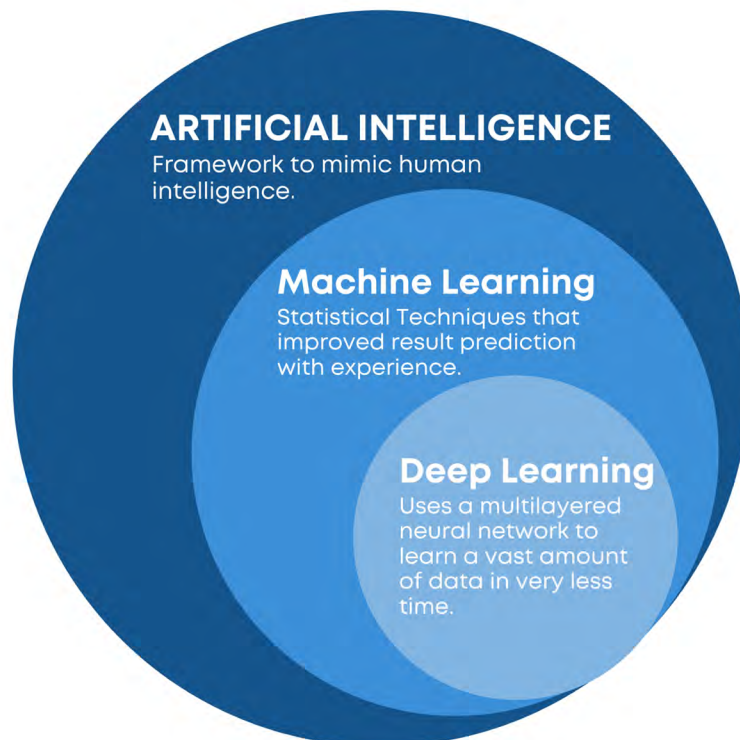
Insurance companies have long relied on traditional business practices. Many have been reluctant to adopt technologies such as artificial intelligence (AI), data mining, and the Internet of Things. This previously put goals such as enhanced customization of products and growth through innovation far out of reach.

However, the last decade has seen a data explosion and with it an increased realization of the many benefits of AI across a range of industries – insurance included. Rapid technological developments have paved the way for better products and fairer pricing. Here we will discuss how artificial intelligence has transformed the insurance industry.

Are Artificial Intelligence, Machine Learning, and Deep Learning All the Same Thing?

Before venturing further into the various AI applications and how they have been implemented in insurance, let's take at the relationship between AI, machine learning (ML) and deep learning (DL).

Here we can see that DL is a subset of ML, which in turn is a subset of AI:



Practical Uses for AI in Insurance

Virtual Assistant/Chatbots

Nowadays, most insurance companies utilize chatbots that pop up as soon as a customer visits their website. These chatbots or 'virtual assistants' are programmed to understand customer needs with minimal input and provide advice or links to relevant pages.

Risk Profiles

Utilizing such technology, insurance companies are now able to quickly sort through a plethora of customer data. This enables them to develop more thorough and accurate risk profiles, which lead to better underwriting decisions.

Custom Products

Gone are the days when insurance premiums varied simply on the basis of age or marital status. With data now available on everything from driving behaviors to geographical location and state rules, risk profiles differ drastically even between similar seeming individuals. Such highly customized products with many premium variations result in higher customer satisfaction.

Fraud Detection

ML algorithms can draw data from multiple insurers as well as other sources and detect patterns that allow insurers to predict possible fraudulent claims saving them both time and money.

Recommendation Engines

Recommendation engines can sort through data on factors such as current coverage and user history and use this information to provide suggestions for addons and customizations to better suit individuals in search of suitable insurance coverage.

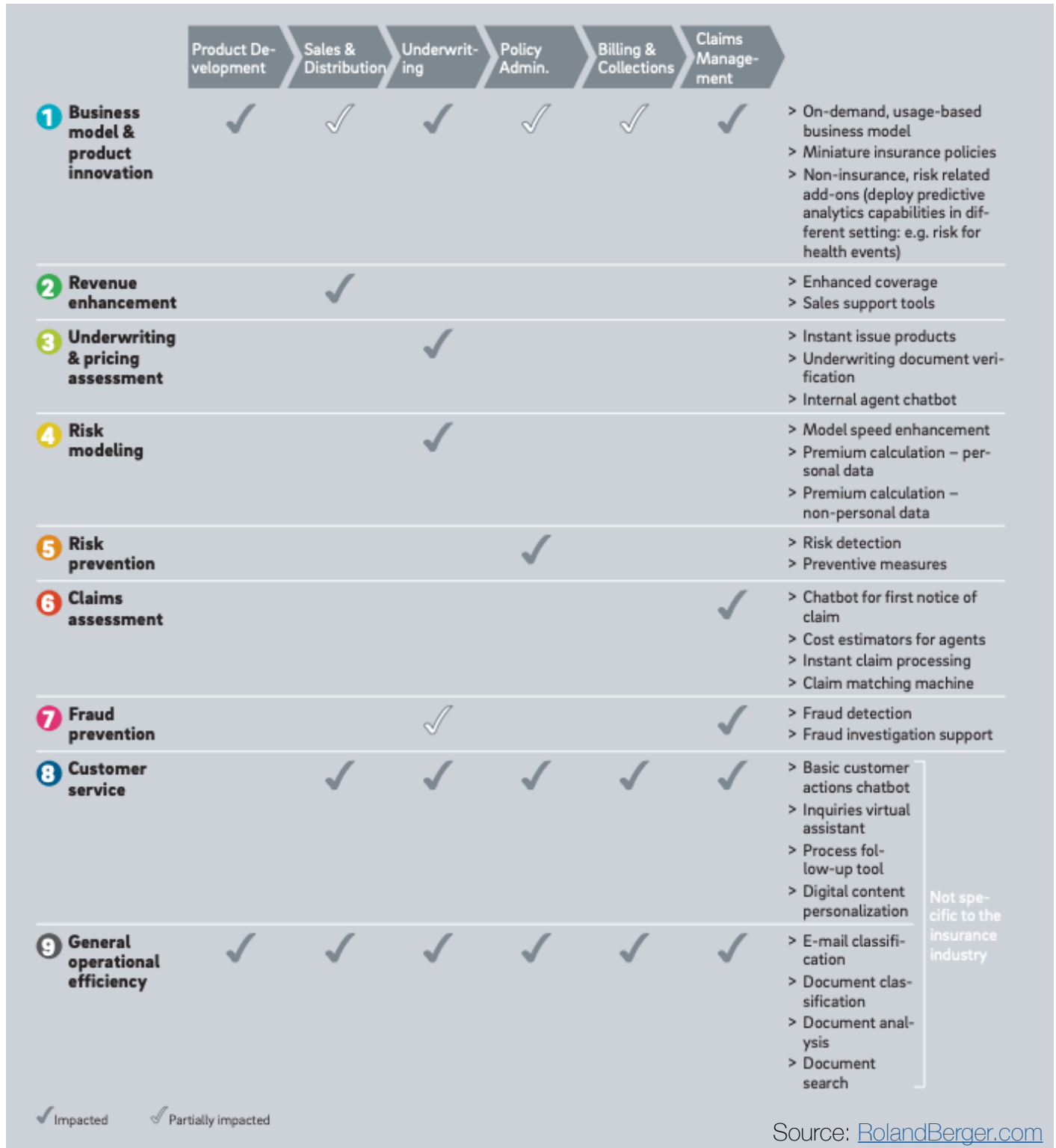
Damage Analysis

DL models such as computer vision are able to analyze building structures to identify issues and schedule repairs. Similarly, in automobile damage cases, DL can provide quick assessments and suggest tentative claim costs to the customer and claim assessor.

Experience Studies

AI models can convert previous insurance information into data that can help with predicting better premium factors. This supports insurers with pricing models, risk analysis, and other actuarial assessments.

Mapping of AI fields of application across the Insurance value chain



Challenges & Opportunities in Adopting AI in the Insurance Industry

Challenges

Data: The insurance industry is finding it challenging to arrange minimum datasets (including new kinds of data involving behavioral patterns) to ensure unbiased conclusions.

Clarity: Not every insurance company's executive leadership has a clear or single vision of harnessing various AI functionalities.

Security: With tremendous amounts of insurance information being fed into AI systems, user data security is a new and critical challenge for insurers.

Fraud: Avoiding fraud is another common issue for insurers while striving for automation in key areas like underwriting and claims assessment.

Opportunities

Automation: Many tasks such as underwriting and damage assessment are now being carried out by ML and DL algorithms, leading to increased automation and more accurate predictive models.

Efficiency: With AI, efficiency has increased rapidly across all levels of the insurance process.

Accuracy: AI algorithms and automated processes make it possible to avoid human errors in areas such as underwriting and claims.

Insights: Thanks to the latest DL algorithms, a vast amount of data is being analyzed to produce valuable insights which help insurance companies make better decisions.

Conclusion

Artificial Intelligence is transforming insurance in an unprecedented way. 'Insurtech' is the new buzzword, and the adoption of various technologies across the board is gaining traction. Increasingly insurers are adding these to their company roadmap, and the insurance industry's journey into AI is set to be an exciting one.

About the Author:



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