



UNLOCKING THE POTENTIAL OF IMAGE ANALYTICS IN THE INSURANCE INDUSTRY

Abstract

2020 will always be known as the year of the pandemic. It will also be known as a rough year for the insurance industry, having posted \$55 Billion in losses. At the same time, it was also the year of digital transformation for the insurance industry, the pandemic having accelerated the need to bring about the much-needed technological innovations and digitisation of the insurance industry. In the process of reimagining the mostly manual, data-driven and time-consuming processes, one technology has stood out as particularly beneficial to insurers is Artificial Intelligence, of which Image Analytics has proven itself as particularly transformational in how the insurance industry manages its various processes including claims and risk assessment.



The strategic shift towards artificial intelligence

As with everywhere else, the effects of COVID-19 have been hugely life-changing for the insurance industry – both strategically and financially. While insurers had been tentatively moving ahead towards an era of digitisation and agility*, the pandemic year necessitated this push since digital was the only available channel especially during the numerous lockdowns. Mounting losses, increasing competition from insure-tech start-ups and ever-

demanding consumers meant that insurers had to pull up their socks and plunge headfirst into innovative technologies like Artificial Intelligence and Image Analytics if they wanted to stay relevant.

Various studies with top industry executives seemed to reinforce this opinion as well.

- Over 76 per cent of insurance executives believed that innovation is key in today's world

- Over 40 per cent of CIOs were planning to increase their tech spending on Artificial Intelligence in 2021.
- AI investments across all business functions and use cases could go up to \$1.1 trillion in annual value.
- On customer-centricity, 83 per cent of top executives believed that they need to work in partnership with their customers in order to succeed in today's world.

Image analytics and how it has been driving innovation in the post-COVID insurance world

Physical-distancing protocols during the pandemic forced the industry to rethink the physical surveys, assessments and audits that come with every insurance process paving the way for the entry of imagery-based algorithms aka Image Analytics.

Image analytics has long been used by several other industries like the banking industry – which uses facial recognition to allow users to login to their accounts through their smartphones, signature verification on cheques, etc., and the law enforcement sector – which uses image

recognition from surveillance cameras to identify and apprehend suspects and vehicles. Several high-rises today do not allow entry to people who aren't residents, distinguishing them through biometrics which they would have submitted when they were buying or renting an apartment. It is expected that the global imagery analytics market tremendously in the near future.

In the insurance industry as well, imaging technology and analytics is transforming how insurance carriers manage their various processes be it claims processing,

underwriting, risk assessment or fraud detection. From the simplest imaginable questions like, "are these photos that have been submitted the right ones taken at the right time?", during a claims assessment process to using images from drones and satellites to determine the risk associated with a property, image analytics attempts to answer them all.

How can image analytics help?

Mitigate underwriting risks: Image analytics can give a more thorough picture of the risk involved in seconds instead of days and weeks thus streamlining and automating underwriting to a great extent. This leaves the resources to pursue other high end domain specialised tasks rather than the mundane, routine tasks of investigating and verifying facts regarding the property, person, or vehicle. High-resolution aerial imagery, images provided by websites and social media can reveal a whole lot about the business or person in action using strong analytical algorithms thus providing necessary data for analysing multiple risks and aid the underwriting process.

Simplify the claims assessment process: Sifting through huge quantities of visual material provided by policyholders to support their claims can be a monotonous and tedious task. From the process of understanding whether the right photos have been submitted and that they have been taken at the right time to calculating the liability involved by assessing the extent of the damage, image analytics can help identify potential red flags. For

property and motor insurance this can be done through aerial imagery provided by satellites and drones which can assess damage to roofs, identify debris in walls, change in sea levels, extent of damage to vehicles, etc., in a matter of minutes and use predictive models to reduce claim assessment time from weeks to a few days.

Assess and respond to risk: Through the use of image recognition and analytics, it is possible to achieve more accuracy in the risk assessment process which still largely relies on legacy methods. Ongoing audits can be supported by data that is taken from high resolution cameras to understand if there is a change in the risk assessed originally. Comparing data points from different times can also help understand changes in the risk profile.

Fraud detection: Fraud accounts for over \$40 billion in losses to US insurance carriers. Image Analytics acts as the first filter to detect fraud through its upgraded high-resolution cameras and advanced artificial intelligence algorithms which can save a lot of cost while increasing efficiency

and reducing time taken to detect and assess fraud.

Improve customer services and aid sales conversations: Image recognition and data acquired from social media also helps in personalising and thus having better conversations either to improve the buying or the service experience.



Benefits galore, but what are the potential challenges?

Despite the visible benefits, image analytics in the insurance industry still faces several challenges.

Accuracy: Currently operating at a 90% accuracy level, errors still occur. For e.g., similar looking family members may be mistaken for the policy holder leading to mistakes in analysis and subsequent legal issues and customer dissatisfaction. Financial losses could occur if the algorithms fail to detect false claims.

Regulatory issues: State laws prohibit any form of discrimination while applying

insurance rates. Usage of certain kinds of data and algorithms may seem to create discrimination leading to regulatory and legal hassles.

Data security: The biggest issue faced by the ever increasing “datafication” in the insurance industry is that of data breaches. Data security is of paramount importance and if this isn’t implemented and threats identified and mitigated through adequate security protocols, then safety of data can be a huge problem. Despite these challenges, there is no doubt

that image analytics is hugely beneficial to the insurance industry. As with any new technology, a thorough cost-benefit analysis needs to be performed by the businesses before investing in image analytics. Moreover, customers today are ever demanding, choices are in abundance and change is a given. In order to meet and exceed their expectations, insurance carriers need to go beyond their core offerings if they want to thrive.

Conclusion

The leaps achieved in machine learning and AI have made it possible for computers to capture, analyse and distinguish images like humans do. This has opened up new opportunities in the insurance sector for image analytics to take over human-intensive, routine processes and produce accurate results in a matter of minutes rather than days. However, it is important

to remember that while computers and artificial intelligence can analyse and provide insights using reams of data, the critical assessment of the various insurance processes can only be acquired through deep expertise in the insurance sector.

The combination of the business view with the technological view i.e., data, analytics and insurance expertise will be able to

transform processes to make them simpler, efficient, and ultimately making it more beneficial for the customer. Customer satisfaction, being the most important metric, and one which creates immense value for the insurance carrier.



*For organisations on the digital transformation journey, agility is key in responding to a rapidly changing technology and business landscape. Now more than ever, it is crucial to deliver and exceed organisational expectations with a robust digital mindset backed by innovation. Enabling businesses to sense, learn, respond, and evolve like living organisms will be imperative for business excellence. A comprehensive yet modular suite of services is doing precisely that. Equipping organisations with intuitive decision-making automatically at scale, actionable insights based on real-time solutions, anytime/anywhere experience, and in-depth data visibility across functions leading to hyper-productivity, [Live Enterprise](#) is building connected organisations that are innovating collaboratively for the future.

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