WHITE PAPER

Changing Face of the Insurance Industry



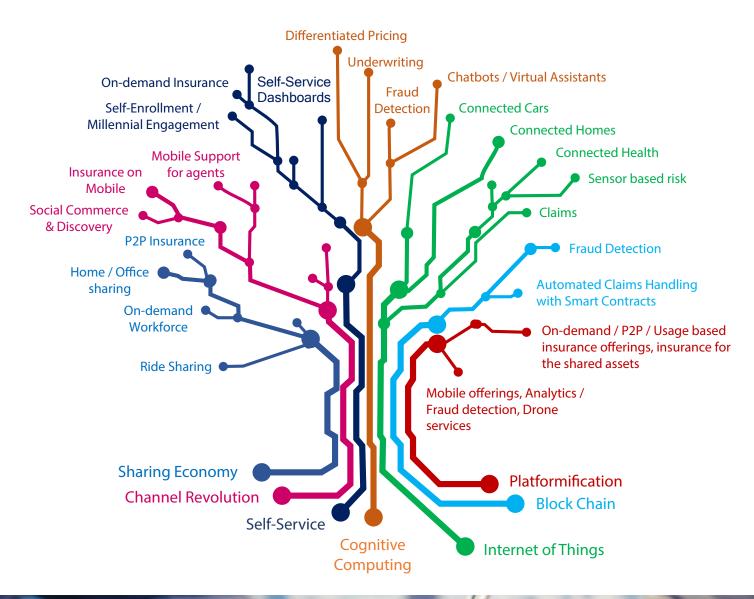
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Abstract

Emerging trends in the Insurance industry are a combination of business and technology themes, most of which are likely to become mainstream in the near to long term. The industry is evolving at a fast pace in the wake of challenges and opportunities put forward by changing customer demands (Millennial generation), compliance requirements, proliferation of digital devices, enhanced connectivity, sophisticated fraud et al. Additionally, Insurtechs are disrupting the industry by redefining the offerings and distribution with their digital mode of operations. Given their lower operational costs and faster speed to innovate, they bring new and relevant propositions to the customer faster. Rise of sharing economy, newer channels of distribution and self-service revolution will drive product innovations & enhance digital initiatives to maintain existing customer base and win new ones. Technologies like Internet of Things, Cognitive computing and Blockchain are poised to transform the entire insurance value chain and benefit both the customer and provider. Here is a snapshot of emerging trends in the Insurance space represented via a **Trend Tree**. The roots of the tree represent emerging business and technology trends while the nodes represent some of the key applications within each trend.





Sharing Economy

More and more customers are getting comfortable with the idea of sharing their underutilized assets and making some money in the process. Collaborative consumption services like ride sharing, home / office sharing, on-demand workforce and group dining services etc. are offering insurers considerable opportunities and challenges in light of assets' usage for both personal and commercial purpose. To meet these opportunities offered by sharing economy requires insurance carriers to come up with new products / offerings that integrates seamlessly with this diverse usage of assets.

For instance, startups like **Metromile** are launching new policies to bridge the gaps emerging from dual usage of assets. Metromile partnered with Uber to provide drivers with 24X7 insurance irrespective

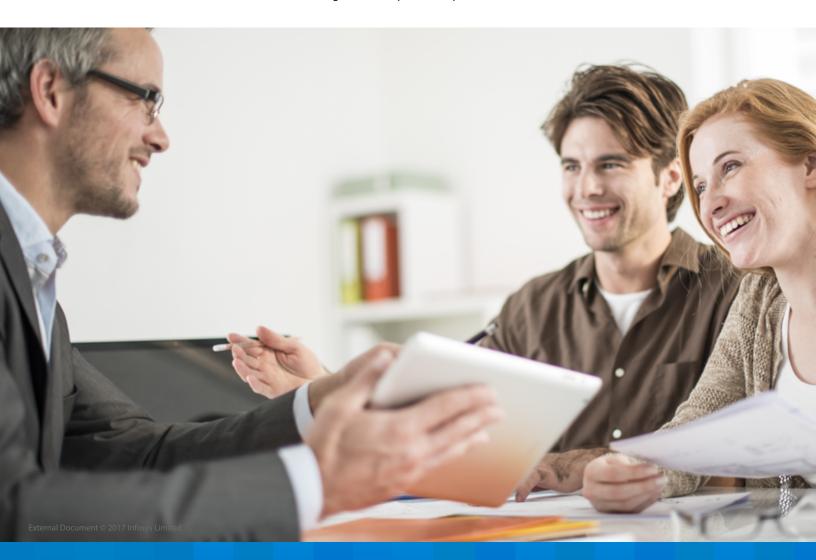
of their vehicle usage for personal / commercial use.

As per an E&Y report, global sharing economy is forecasted to reach US\$115 billion by 2016. Growth in social media and peer networking has allayed the fears of people for sharing their assets / exchanging goods and services with peer network based on trust. P2P insurance is a derivative of sharing economy which allows individuals to provide insurance to other individuals. Startups like Lemonade offer peer to peer insurance by creating a pool of premiums collected from the policyholders / members which is used to pay claims. If there's money left in the pool at the end of the policy period then members get a refund and larger reinsurers provide backup if damages exceed the funds available.

Uncertainties in usage of shared assets and the lack of innovative insurance offerings or limited protection puts a lot

of pressure on the hosts / owners. Startup Slice has designed insurance policies for the on-demand economy to meet needs of the same customer as an individual and a business. They have designed 18 unique home share specific coverages to address key exposures. Once registered with slice, a customer can simply text the rental dates and the Slice Al will instantly add coverage for the dates indicated. Similarly AXA and blablacar launched a tailored free-of -charge insurance cover for long distance ride sharing in Europe as an addition to drivers' existing insurance policies.

Might be hard to guess what would be the next offering in Sharing Economy but it is surely here to stay. There will be newer type of assets for Insurers to cover in future (drones, data, driverless cars etc.). Thus, a need to keep tracking the industry landscape to cater to such opportunities of growth with the right personalized product innovations.





Channel Revolution

Customers today have far greater access to information and Internet, mobility & wearable devices are changing the way companies / brands interact with their customers. As per a PwC survey, 68% of customers surveyed would be willing to download and use an app from their insurance provider. Insurers can use these channels to continuously "engage" with their customers and in turn convert these into selling and servicing opportunities.

An interesting startup redefining the insurance distribution is "Cover" that provides mobile first platform to Insure anything in a SNAP – quite literally! One can simply take a photo of the property

they want insured and instantly get the best price for insurance. Currently, Cover offers insurance across categories like Auto, home, travel, mobile devices, Pets, Jewelry, boats etc. and provides suitable / relevant insurance partners and brokers to offer an exceptional customer service experience for the required property and deliver best rates for their customers.

'Social Media' is another emerging trend that is driving this change and can disrupt all phases of a customer's insurance purchase journey right from discovery to post purchase. It can help identify key life events, preferences of customers enabling tailored offerings. In the near future, we can also expect to see social widgets that allow insurers to provide quotes and sell

policies from within their social media pages. Examples have been witnessed in the banking arena where social media payments via Facebook, Twitter & WhatsApp have gained traction.

With customers wanting everything on the go and in the comfort of their hands, making insurance available on multiple devices like **mobiles**, **wearables** will play an important role in shaping the future of insurance distribution. In addition, looking at examples like Alibaba partnering to sell AXA's insurance products and services on Alibaba's retail, wholesale marketplaces to customers trading / transacting on these platforms hints at a potential shift to such high engagement channels as well for a more personalized experience.

Self Service Revolution

The "DIY" economy is transforming industries very fast. It is empowering and transfers control in the hands of the customers who want self- service solutions in the entire purchase process right from planning a purchase, the purchase itself and post purchase queries. We can look at Walmart's Scan and go, Starbucks' m-payment & Citibank's snapshot app as cross industry examples of self-service. Online and mobile access is allowing insurance customers to self-enroll and access their policies anytime and from anywhere. Traditionally, customers had to visit / call an agent to get information or update their plans but now that can be done in a click!

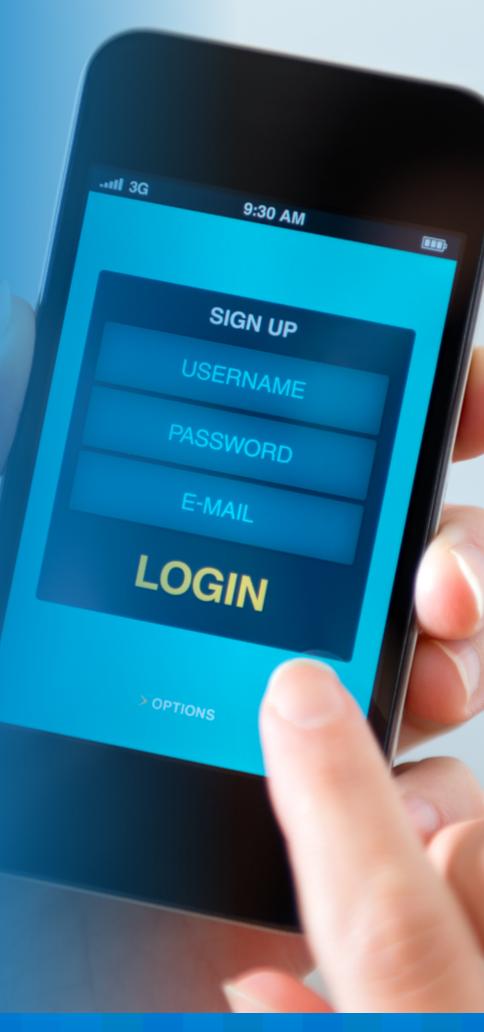
As per a Forrester survey of US online adults in 2016, about 25% US life insurance buyers use insurer's website / mobile site / mobile app, social communities, online ads / videos etc. Previously as well, in addition to web / mobile, a rise was witnessed across all self-service channels including online communities, virtual agents, speech self-service etc. (a rise observed in online forum / community use among US online adults from 31% in 2012 to 56% in 2015)

Customer friendly self-service can facilitate **claim processing** in regular insurance scenarios while the special cases can be managed by agents / claim handlers. This process could also direct the customers to service providers like hospitals, repair workshops etc. in real time to increase satisfaction.

Trov – an **on-demand insurance** startup is taking self-service to the next level. In addition to taking a picture of an item to get insurance via mobile device, one can turn insurance ON or OFF at any time with just a few taps and also process claims via a text-based conversation.

Another interesting example is of **New York Life** that promotes its self-service features using a demo. They allow users to take a demo of how their experience will be before actually making the purchase. The demo showcases how easy it is to change their address, assign a new beneficiary and pay premiums easily on their own.

Self Service and on-demand aspects of technology can simplify the transactions both for the Insurer and customer throughout the Insurance value chain. Self-service not only reduces cost of serving customers but also improves speed of fulfillment.



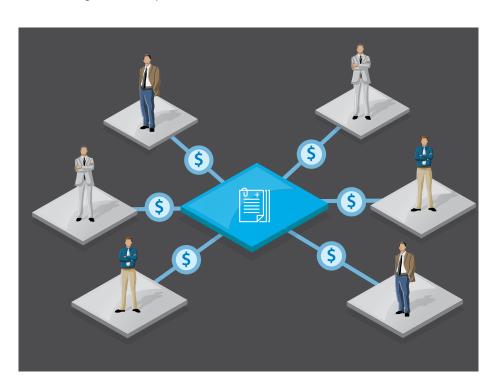
Blockchain

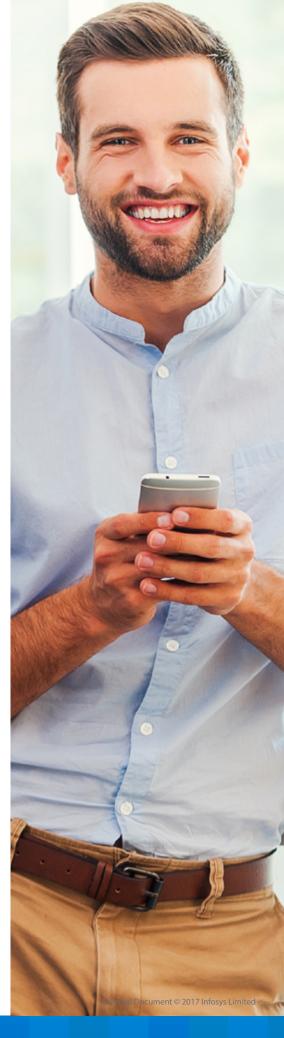
Investment in blockchain and bitcoin start-ups across industries has reached over \$1bn since the technology's creation in 2009 (CNN money). BlockChain is a distributed ledger that has been mainly discussed w.r.t. applications in financial services. However, it can also offer opportunities to Insurers across the value chain from verified digital customer identity to automated underwriting & claims management and fraud prevention. Blockchain is characteristic of disintermediation (as the participants can place trust in transactions in the absence of a central coordinating authority), continuous replication, immutable storage and encryption.

A customer controlled blockchain having verification of customer's personal information like identity, health data etc. can speed up the on-boarding process and relieve the customer from fear of losing their personal information and the hassle of entering this data time and again.

Blockchain also improves customer engagement by offering transparency in claims handling. **InsurETH** is a startup that built a flight insurance product using smart contract where the policy conditions were held on blockchain. In the event of a delayed / cancelled flight, the smart contract would automatically initiate payouts. Blockchain makes these transactions more trustworthy and transparent for consumers. Automatic claims processing provides benefit of no processing costs for the insurer and immediacy provides satisfaction to the customer. Some startups are also linking IoT and the blockchain allowing sensors to detect problems in connected devices and triggering automatic processing of payment from the insurer.

As per a FBI report, \$40billion is the estimated cost of insurance fraud (non-health insurance) per year in the U.S. To prevent this, blockchain can be used to validate authenticity of goods, customer identity and the transactions. The Blockchain would be able to reject multiple claims for the same incident given the transparency on the network. However, achieving this benefit would need far greater co-ordination between Insurers, Customers, Manufacturers and other parties involved. Blockchain might still be in its early stages of experimentation but is surely too big to ignore.







Cognitive Computing

Cognitive is the new advantage for Insurance. Businesses today face challenges ranging from monotonous / redundant tasks on one hand and complex tasks requiring special assistance on the other. Artificial Intelligence, advanced machine learning, natural language processing and pattern recognition can extend the problem solving ability and productivity of humans to deliver superior results. Its ability to reveal insights from large amounts of structured and unstructured data helps identify and prevent fraudulent claims, take informed decisions like underwriting and is imperative for a better understanding of customer needs.

Another application of Cognitive computing is **ChatBots and virtual assistants** which can directly interact with customers in natural language instead of a customer service representative. These cognitive systems can also be used as an aid for the customer service team / field agents. By parsing huge data sets specific

to a customer, these systems facilitate decision making and reduce human bias by offering evidence based recommendations. 95% of insurance executives intend to invest in such cognitive capabilities as per an IBM report.

Swiss Re, for instance is using Cognitive computing capabilities for developing underwriting solutions. This solution will learn from its interactions with the stream of information coming from underwriters' valuable experience and insights from vast amount of unstructured data.

Shift Technology is a French startup that uses machine learning to detect patterns of fraudulent claims and also suggests actions to investigate the same. Some Insurers have also taken Artificial Intelligence to customer facing roles. Meiji Yasuda Life Insurance Co. (a Japanese life insurance company), plans to deploy 'Pepper' robots across their branches in Japan for accompanying sales employees and explaining insurance products and services to customers.

In another instance, a leading P&C insurer in America is using Infosys Mana for Robotic Automation of processes. Infosys Mana is a knowledge-based AI platform which brings machine learning together with the deep knowledge of an organization to drive automation and innovation. Infosys Automation platform continuously learns routing logic, resolution processes and diagnosis logic to build a knowledge-base that grows and adapts to changes in the underlying systems.

Cognitive computing in all its forms will push insurance core processes to new frontiers. It will improve efficiencies in customer interactions and conversions, reduce FNOL to claim resolution times, improve risk assessment by automating underwriting, providing evidence based recommendations etc. thereby speeding up decisions and increasing operational efficiencies.

Internet of Anything

With the ability of Internet of Things to share near real time feedback, it can open new doors for Insurers to sell and service insurance products and transform the ways in which risk is assessed and priced. This trend spans across the Connected Objects Ecosystem right from connected homes, connected cars (via telematics), connected health via wearables and connected infrastructure etc.

As per a Morgan Stanley Research, 80-100% of all shipped cars will have embedded connectivity and nearly everything in a home could be monitored online by 2020. Data has always been critical in insurance industry with advanced analytics being used for assessing risk, underwriting, claims processing etc. Surge in data from connected devices / sensors (health data, location data, vehicle data, home appliances data etc.), offers opportunities of personalization (n=1) for the end consumer. Usage based Insurance (UBI) is becoming the new normal in the automotive insurance sector. Obvious use cases being - pay as you drive / pay how

you drive insurance based on analysis of telematics data captured from the vehicle. For instance, Drivewise Mobile from Allstate is a telematics based insurance program which uses information about their customer's driving behavior to coach them & inculcate better driving habits and also offers awards / discounts in their insurance premiums basis their driving behavior. Using the geo-location data, one may also get an offer for travel insurance while waiting for a flight at the airport.

Sensors can capture various risk behaviors such as lifestyle, driving habits and help insurers assess risk more accurately. Sensors can also help prevent risks by automatically contacting rescue team / services centers and insurance providers upon sensing threat / damage to human health, assets etc. Near real time automated detection of customer health risks, auto accidents / collisions, infrastructure damage etc. helps reduce the claim processing time and enhances customer convenience and satisfaction. Connected devices also improve customer engagement by providing continuous behavioral feedback so that a customer can improve usage / habits and get discount benefits on premium.

Example - **British gas** (a Centrica Subsidiary) has a connected boiler ecosystem that can detect fault and automatically contact the user as well as service center. This helps insurer to assess the risk more accurately and reduce claims cost (due to proactive and timely detection) and boosts engagement. British gas has a HomeCare Boiler insurance (offered from a limited number of insurers) that covers repair costs for leaking pipes, broken boilers and accidental damages etc.

In the long run, IoT and big data will change the way Insurers collect and analyze information to assess risk and service claims. However, given the huge IoT infrastructure setup cost, its implementation might be limited for mass market application. Regulations like "e-call" in Europe which mandates all cars from 2017 to be equipped with responsive systems to contact service team and transfer location & other data in case of emergency, could bolster consumer adoption of new technology.



Platformification

Over \$955mn invested in the 10 largest insurance tech deals in the first nine months of 2016 (Source: CBInsights). With number of insurtechs doubling globally during the last three years, they are likely to have a considerable impact on the future of Insurance. Doing a SWOT analysis of existing insurance players and insurance startups reveals that the incumbents possess the customer base and their long tenure also gives them the advantage of capital, trust, handling regulations & compliance requirements etc. but they struggle with the ability to innovate and be agile given their legacy system constraints. On the other hand, Insurtechs lack the scale of customers but their technology focus & supremacy and agility helps them innovate faster and come up with new and relevant propositions to meet needs of today's customer.

Thus in future, Insurtechs may be better partners (offering integrated services

and complementing incumbents' digital solutions) than competitors - a 'platformification' of Insurance. For instance. Munich Re views insurtechs as valuable collaborators and has recently partnered with technology companies like Simplesurance and Trov to utilize their digital solutions and extend their presence with these new offerings to newer markets thereby growing share. Another example could be of Arity, a unit that sprouted out of Allstate Insurance this year for collecting driver data and assessing driver risk. It plans to sell its tools via a SDK to other companies as well including insurance, automakers and transportation companies. Arity has built this predictive capability based on analysis of data of over 1 million drivers allowing its customers to get the risk score and helping price the policies better.

As per Gartner, 64% of the world's 25 leading insurers have already invested in insurtechs and also predicts that by 2018, 80% of life and P&C insurers across the

world will partner with Insurtechs to retain their competitive advantage.

Platformification and APIs (Application programming Interface) are two sides of the same coin. APIs will enable businesses to innovate and harness digital opportunities irrespective of the age of business / systems. Insurance companies are using APIs to improve their online & mobile services and creating new business possibilities (partnering with automotive companies can connect insurers to customers looking to buy a new vehicle who can be proposed an insurance offering)

For a sector that is limited by legacy systems and is a slow adopter of technology, it makes sense to assess the possibilities of partnering with technology start-ups which can boost the current position of insurance incumbents via effective & efficient digital strategies / offerings.





