The Future of Insurance

One size does not fit all

JackHabbit

Personalization: The Future of Health Insurance

People expect individualization in many aspects of life and insurance does not appear to be immune. The trends, and need for new IT development, are being documented in many papers across the globe.[1–6] How insurance companies create this personalization will be important to see continued growth.[7] Insurtech innovators are disrupting markets by starting to provide consumers with customized affordable products.[3,4,7] These innovative disruptor's use digital tools and advanced analytics to determine profitable parts of the industry value chain. To remain competitive and sustain continued growth and market share, insurers must build their own digital and advanced analytics capabilities.

CUSTOMER PERSONALIZATION

Customers expect a personalized insurance product that reflects health, social and usage behaviors.

The traditional vertical model approach is being replaced with a horizontal model similar to large banking institutions.[8] Using disruptive technology can determine which products are best fit through the use of behavioural science. Digital leaders increase revenue at five times the rate of other companies and total shareholder returns at twice the rate.[9]

There is a sense of urgency amongst the industry. Insurers with more sophisticated IT capabilities have an obvious advantage in terms of superior product offerings agility, growth, and cost ratios.[10] Also, insurers with market-leading analytics capabilities have a five-year revenue CAGR that's four times higher than that of competitors.[7]

Big data and personalized health and wellness information will have the greatest impact on insurance and be the biggest focus of innovation in the future.[3] To be successful it is necessary to develop partnerships with organizations and companies that have a great understanding of behaviour change science and data.

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Not only will personalized health, wellness, and behavioural data reduce cost variation and improve pricing accuracy, behaviour change programming can prevent the onset and worsening of health conditions and/or promote the maintenance of existing conditions[3], reducing the number of Individuals paying for high risk. (Figure 1)

Spread of Insurance Premiums
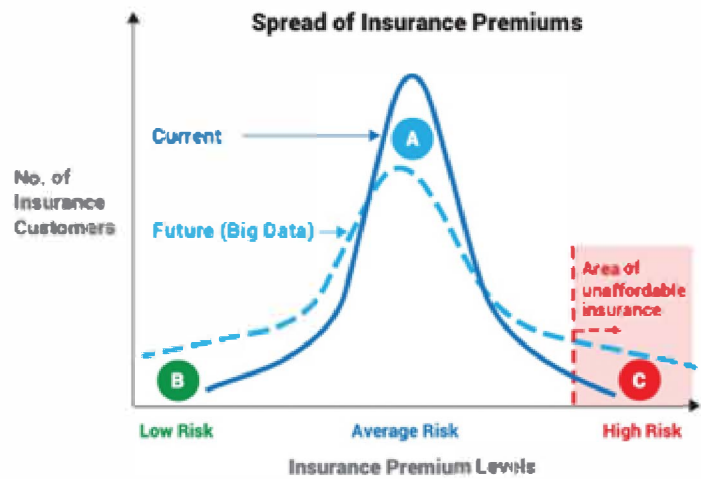
(Figure 1)

Non-traditional data is, and can, be used to improve the accuracy and simplification of the underwriting and pricing process. Non-traditional data could include, financial/purchasing records, lifestyle tracking devices, and online programs.

New research and machine learning have the ability to detect an individual's mood and mental state analyzing typing patterns, behaviors and much more. This technology can be used to determine the possibility of the onset of mental health conditions or worsening symptoms of existing conditions, ultimately reducing the cost associated with care.

Ahead is a summary, sections and quotes of numerous excellent white papers in the industry, research in the field of behavior and insurance science referenced at the end. This work has been categorized into why the end to change, how the change can occur, where will the change come from and who is the part of this change.

"The power of big data is that it is information about people's behavior instead of information about their beliefs." - Andy Pentland, Social Scientist, MIT Media Lab.

Why the need for change?

Forces Driving The Data Dilemma in Insurance [4]

Expected personalization: Today's consumers receive personalized offers and customized solutions across many product categories, and insurance shouldn't be an exception. Insurance customers currently lack a variety of products that account for their lifestyle choices, general health, and social and financial behaviors. This is where technology can play a leading role.[4]

Insurers go digital: In China, online insurance sales of life and non-life products are expected to hit 648 billion.[20] Online insurers and conglomerates, such as Alibaba and Tencent, are investing in technology, joint ventures, and acquisitions to strategically expand their insurance industry footprint.[9] Insurers recognize the need to take advantage of this wealth of data to support personalized services based on real-time customer profile, behaviours and habits to launch new and innovative product segments, such as on-demand insurance that targets next-gen customers, and to satisfy customer desires for faster, more proactive communication and service.

The challenge created by this demand presents a timely opportunity for new data teams that can help insurers by collecting and analyzing data spread across the insurance ecosystem and determining intelligent insights to offer as a service. By leveraging technology across the value chain and partnering with organizations such as gadget/wearable manufacturers, insurers can create a more data-driven industry ecosystem that enables real-time underwriting, customized policies, smarter distribution, better service and faster claims resolution while also optimizing costs.

Access to data, however, isn't enough. Distributors will need to apply analytics and artificial intelligence to provide insurers and customers with more timely and relevant information and insights.[8]

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Explosion of digital data: : Data monetization will become a major source of revenue for insurers, as the world creates 175 trillion gigabytes (175 zettabytes) by 2025, up from 33 zettabytes in 2018, according to International Data Corporation. [12]

"Actuaries and insurers who take the leap and invest significantly in innovative ways that produce win-win solutions for both consumers and insurers will be likely to come out on top.[1]

Connected products will encourage individuals to act on improving health, wellness and investigating needed insurance coverage. For example, better sleep habits, reducing screen time, and maintaining mental and physical health. This information can produce data-driven feedback loops. "Insurers will be perfectly positioned to offer real-time monetary incentives that reward policyholders for following the advice of their robotic coaches".[1]

"In this evolution, insurance will shift from its current state of 'detect and repair' to 'predict and prevent,' transforming every aspect of the industry in the process."
- McKinsey Article, April 2018

The Gap Between Interest and Action: An Example

At present, one in four 20-year-olds in the workforce can expect to be out of work for at least a year before they reach retirement, due to a disabling condition according to probability tables developed by the Social Security Administration.[13]

Yet despite this risk, workers are woefully ill-prepared should they experience even the slightest income disruption. According to the American Payroll Association, 71 percent of workers would find it "somewhat difficult" or "very difficult" to meet their financial obligations if their paycheck were delayed by just one week.[21]

There is more to flourishing in life than just addressing health and wellness needs users like students and employees need financial literacy and much more. They need an all in one solution. Most people can not have good health without financial stability and confidence in being looked after in a time of need. For example, 88% of workers think that employers should offer some form of disability insurance where only 42% of employers actually offer short-term disability while even less, 34%, offer long-term disability coverage.[21] More concerning is the fact that only 26% of workers actually sign-up for disability coverage, pointing to a significant gap between the desire for this benefit and the action taken when offered it .[21] This can improve with an all in solution that pushes and pulls users and organizations towards their needs.

CIO Mega Trends Report

A large survey conducted this year the Insurance CIO Mega Trends report surveyed 100 leaders from insurance companies across North America with a majority (67%) of respondents coming from organizations with over $1 billion in revenue.[18] The report is based on a survey conducted by WBR Insights of 100 technology leaders from insurance companies across the U.S. and Canada. Over one-quarter of the respondents (29%) are C-level executives, and most of the respondents (64%) occupy a role in information technology.[18]

Here are the highlights:

- More than 80% of Insurance Leaders see Fragmented Customer Data as a Threat Almost two-thirds (62%) say big data analytics will have a significant impact on the insurance industry as a whole.

- Most respondents rate their ability to leverage customer data to fuel new digital customer experiences as good (58%) or exceptional (25%). Even so, fewer than half.

- (47%) plan to launch new digital customer experiences in the next 12 months When asked to identify two of their top goals for improving customer experiences in the next 12 months, nearly half (44%) claim they will offer a personalized, contextual experience on every channel. Over one-third (37%) will gain visibility into the end-to-end customer journey.

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How to change?

Clearly defining the positive results of a certain behavior to a user helps to assign value to a behavioral change. This could be done through nudging which is sending messages that either consciously or subconsciously open the door for users to behave in a certain way. The top IT strategies are outlined in JackHabbit's philosophy paper (available on request) through a unique behaviour review scale. The Behaviour Review Scale comprises 28 behaviour change strategies integrated into the platform using human computer interaction for health, persuasive technology and personalized and adaptive technology .

Understanding users through an integrated data driven approach could be the solution to individualization and growth. Employees in different departments, different organizations respond differently, so treating them as such may result in missed opportunities to engage them in well-being initiatives or their insurance needs. Utilizing this rich data to segment employee population could pay dividends when it comes to learning what makes an user tick.

"Our strategy is to set the right tone for data through digitization, to provide more insights that lead to personalization." C-Level IT exec

Pay-as-you-live and Usage-based Insurance

The actuary of the future will likely need to partner with data scientists, behavioral scientists, and design thinkers to create real-time, "pay-as-you-live" pricing solutions for connected insurance products, products that will simultaneously coach consumers on how to make better decisions for their health, safety, and wallet.[1]

Where will the change come from?

Digital Behavioral Data: Wearables, Apps, and Online Platforms

The most valuable type of data that insurers can collect about insurance applicants and clients is behavioral data, and there are a growing number of ways that consumers are leaving behind data breadcrumbs as they move through the world, from health habits to who we spend time with, interests, concerns and where they spend our money. [1,4]

Wearable devices, in particular, are one of the most promising sources of behavioral data. This fast-growing trend in consumer technology includes wearable devices such as the Apple iWatch, Nike+, Fitbit, and others. Over the past decade, a proliferation of smartphone apps and wearable devices now monitors numerous aspects of our health, from our diet, mood, heart rate, and exercise to our medication compliance, screen time, sleep, and meditation. In fact, as of a 2019 article on the National Association of Insurance Commissioners website, more than one in five Internet users wear some type of wearable device on their wrist daily (NAIC, 2019) and 40% of the UK population.[2]

Access to data, however, isn't enough. Distributors will need to apply analytics and artificial intelligence to provide insurers and customers with more timely and relevant information and insights. [8]

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Who is part of this change?

Setting up for success by 2030 [8]

By getting technology adjustments and innovation right, insurers can lay the foundation for changes across the other dimensions within the organization.

Buy and access tools to tap into major social networks: Buy tools that align with the organization's strategy and identified areas of risk such as LinkedIn, Twitter, Facebook, Glassdoor, or any other social network available with people data. In addition, explore tools that monitor human behavior/habits such as Fitbit and products that know how to handle this behaviour data that could benefit the organization.[8] (Human capital trends)

Technology: "Increasingly, technology is a core means for insurers to differentiate themselves. The technological backbone should include technical assets in both infrastructure and application landscapes, a reasonable level of technical debt, and an architecture that fulfills future needs-for example, supporting external integration through application-programming interfaces." [8]

Case Study—Allstate Insurance: Innovative solutions for sourcing talent

In 2013, Allstate held a competition on Kaggle, which is an external network of data scientists who bid on analysis problems and the group regularly holds competitions for the data science community. Allstate challenged participants to help predict a purchase for an insurance policy using a limited subset of the transaction history. The prize offered was only $10,000, but remarkably, somewhere around 600 data scientists, composing 300 teams, took part in the competition. The reason the data scientists chose to compete was all about demonstrating their creativity and wanting to reach the top of the leaderboard against other brilliant people in the field. The results of this competition were nothing less than stunning. In the end, the outside experts (i.e., tapping into the global cognitive surplus) blew away Allstate's internal experts. The winners of the Kaggle competition demonstrated a 340 percent improvement in predictive accuracy over Allstate's best internal algorithm! This is a prime example of how innovation is being driven externally through open source talent, and how a large number of highly skilled professionals have the opportunity to be exposed to an organization's challenges without being employed full time with that organization.

Life insurance integration example

People have all sorts of reasons for not purchasing life insurance. Eighty-one percent of people without it say it's too expensive (maybe because they don't know how much it actually costs or that there are low-cost options such as term life insurance), 65% say they don't know how much they need or what type to buy and 62% simply haven't gotten around to it. An additional 43% say they wouldn't qualify for coverage.[11]

But optimism bias plays a role: More than half of people without life insurance say they don't have it because they don't like thinking about death.[14] And people who are particularly optimistic are likelier to be under-insured than people who are less optimistic.[6] Even people who know they need life insurance aren't necessarily scrambling to sign up: There's an 18 percentage-point needs gap for life insurance, meaning there are 46 million Americans who say they need life insurance but don't have it.[15]

Life insurance and its immediate implication, death, don't have to be treated with fear. They can be treated as something to tend to and care about. Moving an individual to realistic optimism would address this. When content is provided highlighting the benefits about what life insurance actually does, protect the people users care about, instead of glossing over it or treating death planning as a taboo. Having an integrated IT approach would allow education of the client with realistic optimism and the value of planning leading to action either such as investigating and purchasing life insurance and other products.

Summary

With integrated big data insurance companies can provide the best service to its customers. Digital solutions are growing fast thus working with, merging, and acquiring agile start-ups support the large industry players. Insurers often roll out new products or services using legacy systems and solutions, leading to slow time to market and an unstable operating model based on outdated technology. Digital tools and advanced analytics and a buy-versus-build approach can both support improved back-end operations and help insurers scale and innovate beyond traditional insurance offerings.

One international life insurer aimed to improve its underwriting approach, making it more consistent, by using machine-learning technology. The carrier had high variability in its decision processes and long wait times, resulting in high dropout rates in applications. Using existing IT infrastructure and systems, the insurer built an artificial intelligence–powered learning model and initiated testing using historical underwriting decisions and claims experience.[7]

As a result of these efforts, the carrier saw increased sales through better pricing and faster turnaround times in addition to a significantly reduced underwriting cost per application.

The insurance industry is facing a major shift in market dynamics due to advancing customer expectations, the rise of connected devices and the emergence of insurtech. These developments are forcing insurers to revamp their product propositions to stay relevant and compete with greater intelligence. The data eruption from digital platforms presents an ideal opportunity for the industry to explore new ways to capture, act on and monetize this information, all for the sake of providing a better customer experience.

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