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# An Insurance Company for the 21st Century: A Thought Experiment

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Over the past decade, many industries have been disrupted by companies that have leveraged technology and data in unique and powerful ways. Imagine an insurance company named Brightly Co. has been founded with predictive analytics and big data embedded as its core functions. In this hypothetical scenario, a news reporter has been dispatched to interview Brightly's CEO and to learn more about how the company operates. The article follows.

## BRIGHTLY SHINES IN E-INSURANCE FIELD

Eschewing traditional distribution models and distributing exclusively online has shown to be a successful approach for Brightly Co., based in New York. Consumers, used to buying everyday goods from the online behemoth, found the process of buying a simple term life, auto or health insurance policy online easy and familiar.

"We decided early on that the traditional process of buying insurance, such as through a broker, is totally obsolete for certain segments of the business," said Sam Coleman, Brightly's CEO and founder. "It seemed radical at the time, but we decided that based on changes in consumer behavior, it made total sense to sell our products through an e-commerce provider."

Not only has Brightly made the distribution process more consumer friendly by leveraging an e-commerce platform, the company has developed cutting-edge techniques to significantly lessen its underwriting time. For instance, Brightly has developed a process called Expedited Issue to make its underwriting for life and health products best-in-class. Expedited Issue is powered by predictive algorithms and an abundance of data. However, Coleman noted, the emergence of electronic health records have been critical in developing the program.

In 2009, Congress passed the American Recovery and Reinvestment Act which, among other things, established a timeline for future incentives for health care providers to offer patient health records in electronic format. Since then, the robustness of electronic health care data has improved dramatically.

"Previously, to complete the underwriting process, insurers required patients to visit their doctor, have blood drawn and provide a list of previous medications," Coleman said. "Back in 2009, we could envision a world where a large amount of the information gained from such an intrusive and lengthy process would be obtained by simply downloading a patient's health records. Today, that world is a reality, and we have incorporated electronic health records into our underwriting process to gain a competitive advantage."

Indeed, while most of Brightly's competitors still adhere to the traditional methods of underwriting (which are both costly and time-consuming), Expedited Issue allows Brightly to determine which applicants are so clearly qualified for life and health insurance that they can be underwritten within mere seconds.

For an applicant who does not qualify for Expedited Issue, Brightly's predictive algorithms identify which medical underwriting requirements are needed to underwrite an applicant and orders only those pieces. Oftentimes the company only needs one or two data points to determine how an applicant should be underwritten. For a hypothetical example, it is possible that Applicant A was ordered to have blood tests because Brightly's model anticipated a likelihood of Ailment A in his activity, whereas Applicant B was ordered to have an attending physician statement (APS) because the model thought she was likely to develop Ailment B. Being able to order piecemeal requirements based on each applicant's data enables Brightly to avoid costly medical expenses traditionally associated with underwriting and minimizes the invasiveness and lengthiness of the underwriting process for the policyholder.

Coleman summed it up this way: "Typically it takes an insurer anywhere from 30 to 90 days to underwrite an applicant for life

insurance. With Brightly, if you qualify for Expedited Issue, you are approved within minutes. Even if you're not granted Expedited Issue, the process is still more pleasant and much faster than the traditional underwriting experience for life or health insurance."

Because customers who are granted Expedited Issue cost Brightly very little to acquire and are expected to have lower claims, they are highly coveted. As such, the company has developed predictive algorithms to identify consumers in the United States who are not only most likely to buy Brightly's insurance, but are most likely to qualify for Expedited Issue. The customers who score the highest (the most likely to buy and qualify for Expedited Issue) are targeted aggressively through customized marketing based on Brightly's algorithms. For instance, an older applicant might receive a flier in the mail whereas a millennial might see content sponsored by Brightly appear in one of their social media news feeds.

## POLICY LIFETIME

Brightly has further differentiated itself through its innovative Flexible Premium Program where policyholders can elect to share personalized data from a variety of sources (such as a policyholder's smart watch, cell phone or Internet-enabled home devices). If the data indicates that a policyholder is exhibiting low-risk behavior, they may qualify for lower premiums that month. This benefits both Brightly and the policyholder: Brightly can more effectively manage risk and policyholders pay lower premiums.

Brightly can utilize data from almost any Internet-enabled device. Such devices offer a trove of lifestyle data that is extremely valuable to a life/health insurer trying to better understand its policyholders' behavior. For instance, many smart devices not only remind users to take walks when they have been sitting for an extended period of time, but will also track the number of steps taken. Devices can also estimate the number of calories consumed by analyzing wireless purchases. Some devices can even track users' vital signs and call emergency services in the event the device detects a high probability of an imminent heart attack or stroke. Obviously, an insurance company would like for its policyholders to utilize many of these features since they help prevent claims. Brightly makes this easy—policyholders simply elect to share data with Brightly through their device's settings center.

Of course, with the rise of the "Internet of Things," the Flexible Premium Program is not just limited to life and health insurance products—a policyholder can elect to share data from their Internet-enabled vehicle or Internet-enabled devices at home. Does a policyholder listen to music at a safe volume when driving, avoid dangerous intersections and obey speed limits? If so, Brightly may discount the policyholder's auto insurance by a few percentage points. Does the policyholder check the Internet-en-

abled smoke detector in his or her home monthly to make sure it is working? Does the policyholder confirm, via his or her phone, that the doors to their home are locked and the oven is off on a daily basis? They might see a reduction in their homeowner's insurance.

## THE LONGITUDINAL EFFECT

In addition to driving down policyholder premiums, Brightly's innovative use of data allows the company to build a broad picture of its policyholders. Indeed, most insurance companies receive information on a policyholder when insurance is purchased and when a claim is made. However, Brightly learns about its policyholders' behaviors and habits throughout the policy's lifetime. In other words, on a policyholder level, the company's data set is not limited to a few discrete data points but a continuous story constructed and refined throughout the policyholder's lifetime.

This wealth of data is a major boon to Brightly.

"We have a better understanding of how our policyholders behave over time," Coleman said. "For instance, there are poli-

> ... Brightly learns about its policyholders' behaviors and habits throughout the policy's lifetime.

cyholders who did not smoke when they bought their policies. However, over time, they picked up the habit. Well, we can use that information to refine our predictive algorithms to better underwrite applicants who have similar traits."

Coleman listed other examples. "Let's say a policyholder lives in New York and has exhibited great health choices and that policyholder gets a new job in Los Angeles. Well, that person is probably going to need a car and, based on their healthy lifestyle choices, we think there is a high probability they will be a good driver. Let's try to cross-sell them auto insurance.

"Other companies try to do these things but really struggle. We excel because data and predictive analytics are natural parts of our operations."

## NONTRADITIONAL BENEFITS

"Other insurance companies exist purely to enter a financial agreement with their policyholder. We certainly do that as well, but we think that Brightly, more fundamentally, is an extension

of our policyholders' well-being," Coleman said. "Sure, our insurance products protect our policyholders in an unforeseen event, but Brightly is so much more—we work in harmony with our policyholders to help them live healthier lifestyles."

Indeed, Brightly has partnered with other companies to encourage its policyholders to make healthy decisions. For example, while at a food court, a policyholder might receive a notification that salads at Only Organic Options (a restaurant specializing in locally sourced organic food) are being discounted by 30 percent and that buying one would count toward reducing their monthly life and health premiums. The idea is that even if the policyholder is craving pizza and soda, they will be incentivized to choose a locally sourced Greek salad.

"It's a win-win-win!" Coleman said. "The policyholder has lower premiums, Brightly expects to pay less benefits in the future, and Only Organic Options has more business. Moreover, Brightly brings in additional revenue from Only Organic Options for bringing them business. Oftentimes, it is enough to offset the reduction in premium offered to the policyholder. At the end of the day, however, what we are really doing is helping our policyholders lead healthier lifestyles."

## CONCLUSION

Because data and analytics are programmed into Brightly's DNA, the company is well positioned to fuel growth through innovative analytic solutions. Coleman imagines that within the next two years Brightly will introduce One-Day Insurance where policyholders can purchase insurance for a single day if they know they will be participating in risky activities (for example, dangerous skiing or skydiving).

Like any insurance company, we won't know if Brightly has underwritten and priced its products appropriately until more claims experience emerges. However, the company's use of predictive analytics has revolutionized the insurance industry and slashed costs across the insurance business lifecycle. As the amount of data in the world increases, Brightly is well positioned to challenge existing insurance practices and bring new analytically driven innovations to the market. ■

Both Jeff and Ben specialize in helping clients understand how the application of predictive models can improve operations throughout their organization.



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