Telematics: The Game Changer

Reinventing auto insurance
Telematics—the integration of mobile communications, vehicle monitoring systems and location technology—could dramatically alter the auto insurance industry. From personalized premiums based on individual driving data, to automated emergency services and entertainment-based add-ons, to more immediate and active management of claims, telematics has the potential to upend the stable model that has dominated the industry for more than 50 years. The winners will be those early movers that capture the safest drivers, take advantage of pricing power, and strengthen customer relationships while easing consumers’ concerns about privacy.

The fundamental business model for the auto industry has changed little in decades. Usually, insurers determine auto premiums based on information collected at the point of sale—age, sex, annual mileage, credit score and driving record—with little concrete data about driving habits and potential risks. After buying a policy, customers interact mainly through regular premium payments and, hopefully, infrequent claims experiences.

Telematics has shown the potential to turn this model on its head. By installing or embedding telecommunications devices into cars to transmit real-time driving data, driving habits, and road and weather conditions, insurers can measure and price premiums more accurately, provide customized services, improve safety and reduce claim costs (see figure 1 on page 2). On top of that, the nature and frequency of how insurers interact with their customers will dramatically change. Telematics could provide information to the customer on safe driving, enable active claims management, including immediate accident response, theft security and accident reconstruction, and provide a platform for offering new services.

Of course, success in this arena is still waiting in the wings, and may not come so easily. Customer concerns about data privacy remain an issue, as do the high up-front technology costs. Tackling these issues will be vital for future success in telematics. With perhaps millions of customers available for telematics-based offerings, and implementation costs dropping, auto insurers have no time to waste to make their move into this valuable market.
Catching up with the Future

In the United States, major insurers, representing over half the personal auto insurance market, have begun exploring or implementing telematics, and are learning from the experience. Progressive is the telematics forerunner—it reintroduced Snapshot™ offering (replacing the well-established MyRate®) is now available in more than 20 states, and the company is in the midst of plans to go national. Based on lessons from the 150,000-plus customers who signed up for telematics under MyRate, Progressive has fine-tuned Snapshot to make it more attractive. It has expanded beyond pay-as-you-drive features by including more feedback and emphasis on safety and improving driving behaviors. It has also improved customer benefits by offering improved rates sooner and working to allay privacy concerns.

Other insurers, including State Farm, Allstate, AAA, American Family, 21st Century, GMAC, Travelers and The Hartford, have entered the market for telematics with targeted offerings, or they have small-scale customer pilots underway. In particular, the benefits have been proven in some targeted segments. For example, commercial fleets use telematics to monitor employees’ driving behavior to improve asset utilization, reduce fuel consumption and improve safety. Telematics is helping the parents of teen drivers assert their right to monitor their children’s driving more closely to improve safety (see sidebar: Implementation Options for Telematics on page 4).

For all auto insurers, however, we believe there is a huge well of opportunity waiting to be tapped, with significant momentum awaiting those companies that can break through. As telematics becomes mainstream, it could help insurers price risk better, reduce claim costs, increase customer acquisition, deepen the customer relationship, improve their brand images, and create new revenue streams beyond insurance. Drivers will be able to save money, improve their safety and enhance their claims experience (see figure 2).

Telematics is coming, and for insurers the change will be rapid. Once the leaders convince customers of the compelling value of telematics—and it gains broad appeal—customers’ privacy concerns will begin to wane.
What factors will push telematics to the forefront in the future?

**Safety.** The implementation of telematics devices has been shown to improve driver safety. For one, the use of driving data to set pricing will encourage consumers to drive more safely. Additionally, in-car feedback and driving tips have been shown in studies to help drivers make smarter maneuvers on the road. Research in Europe and pilot programs in the United States have found that telematics users who receive in-car safety tips see their driving improve.

**Improved pricing.** Perhaps the biggest benefit for customers will be improvements on their premium rates. Progressive has indicated that good drivers can receive premium reductions of 40 percent through telematics; other insurers believe potential reductions could end up as high as 50 percent. On top of good drivers being rewarded, consumers who improve their driving behavior will see their rates decrease.

**Better and cheaper technology.** As telematics advances, the cost of technology and communications will decline while becoming easier to obtain. The improved technology will be better able to provide greater levels of information, both for insurers and customers.

In addition, auto manufacturers are increasingly embedding telematics in their vehicles, which will help address technology cost and installation challenges. We estimate that by 2014, over 20 percent of all cars in the United States will have embedded technology, such as GM’s OnStar® and Ford’s Sync.

**Rising consumer confidence.** As customers’ privacy concerns begin to drop, the technology becomes less intrusive, the value of telematics increases and early adopters experience the offering, consumers will become more comfortable with usage-based insurance. At the same time, national advertisements—such as Progressive’s Flo—will bring telematics into the mainstream and help make consumers more comfortable with the concept.

**Government reinforcement.** With fuel consumption, emissions and highway safety among top goals for governments, many are evaluating telematics as part of the answer. For example, California recently approved regulations to support insurance based on mileage information to encourage people to drive less. A recently passed European Union directive to improve driving safety encourages the development of the telematics industry.

"Following the leader." The idea that telematics is a niche or specialty area within insurance is being proven wrong. The success of Progressive is proving that telematics can be scaled, and that it has mass-market appeal. Indeed, as the market for usage-based insurance grows, insurers on the outside will face adverse customer selection and declining profitability, meaning they will have to enter the market to retain their best customers.
A Private Matter

The barriers in this market can seem daunting, particularly customer privacy. The continued struggles in conquering this problem have kept the market from growing as rapidly as expected. Many insurance customers remain reluctant to install a “black box” in their vehicles, lest they be watched by “Big Brother.” However, we don’t believe this is an unsolvable problem for insurers.

Implementation Options for Telematics

The advance of telematics technology opens a wide spectrum of opportunities across many dimensions: data, customer interaction and vehicle integration. On the data front, it can provide anything from basic usage (mileage, time) to comprehensive vehicle performance information leading to total cost management. Customer interaction could include combination with vehicle protection and communication systems. Telematics could even be offered as an integrated product, for example with driver assistance systems to enhance driving safety.

We envision several telematics-based models will emerge, with varying levels of customer interaction and integration:

**Pay as you drive (PAYD).** This mileage-based system is a starting point. While this model has been around for some time in different forms, most have already moved on to more advanced systems. A device is installed in a vehicle to validate mileage, when a car is driven and potentially where.

**Pay how you drive (PHYD).** In addition to collecting mileage and GPS-based data, driving style and behavior is also considered. The average driver has one accident every 10 to 12 years, but much more common are unsafe driving maneuvers that increase the likelihood of an accident. To understand driving behavior and predict accident claims better, an accelerometer can provide event data, such as abrupt acceleration and deceleration, hard braking and sharp turning. Progressive has led the way in the PHYD space, but most other companies are exploring this space today, particularly for commercial fleets.

**Control your driving (CYD).** PAYD and PHYD are passive in nature, more about collecting data rather than interacting with the consumer. CYD goes to the next level by using the data to provide constructive feedback to drivers through the in-vehicle interface and potentially improving driving habits. Academic studies, research by telematics vendors and insurers’ market tests clearly indicate that drivers can improve with positive and effective feedback. The teen and elderly markets are niche markets that are early adopters of this model.

**“Cocoon of safety.”** This refers to systems installed in vehicles to provide all-around safety and driving assistance. The systems usually include services such as adaptive cruise control, collision warning, lane assistance and blind-spot detection. This model is growing fast in the auto market, driven by the safety benefits of reduced driving risk. New technology could enable additional services and features, such as safety controls activated when poor road conditions are sensed by the GPS. Telematics could also bring management functions together to provide enhanced driver coaching and other services.

**Embedded vehicles.** Along the lines of the cocoon of safety, vehicles embedded with telematics devices are the long-term aspirations of both insurers and automakers. Several major automakers have already begun down this path. General Motors has installed OnStar® systems into its cars, while Ford and Microsoft have partnered to introduce the Sync® system into Ford cars. Another Asian manufacturer is planning to launch an embedded telematics system into its product lineup within the next two years, offering various applications that will improve the driving experience by allowing for the sending, receiving and processing of information. Some analysts project that all major manufacturers will have embedded telematics solutions in their cars within the next five years.
First of all, the success of other industries indicates that people are willingly divulging their personal information in many different areas, despite their qualms. Social networking websites such as Facebook have gained hundreds of millions of users, Internet banking and online credit card use have become prominent if not standard, and most cell phone users don’t worry about their phone holding location information. When it comes to telematics, though, we believe it may be the “stigma” of insurance companies, and the fear that data about their driving behavior could be misused or used against them, that causes the concern.

To overcome this hurdle, insurers must be as transparent as possible up front, offer the right amount of value-added services to customers, and carefully position the offerings with the right messages to win over consumers. As we noted earlier, consumers want to know that they are getting enough in return for adopting telematics. Market research clearly indicates that consumers will trade in some of their privacy if in return they get the right services at the right price. The number of subscribers for OnStar and other roadside service companies is growing; banks have drawn online users by offering incentives for going paperless on bills. Furthermore, technological advancements are improving location-based services, such as concierge and emergency roadside assistance, and consumers are gradually warming to the benefits of releasing certain parts of their private information.

But what about solving the primary concern, that insurers will capture and use data about their customers’ whereabouts? We believe there are ways to ease customers’ concerns. A feasible program that gets proper access to driving patterns could be developed without seeking access to too much data. Aggregated driver’s scores, limitations on GPS use and driving history, specialized onboard data analysis functions, and limits on driving history could mitigate these concerns. Even moving away from continuous tracking, which Progressive has done with Snapshot, would be an effective step. It seems clear that insurers can take advantage of telematics without diving too deeply into personal data—they don’t have to know where customers drive exactly, as long as they can know about driver safety and potential risks.

Yes, the privacy concerns do present an obstacle, but insurance companies can find ways to work around them.

**Making Telematics Profitable**

For those still on the outside looking in, the future is tempting and the possibilities are boundless, but how can you make telematics profitable? The market is rapidly evolving, the technology is still young, and customers still need to be won over. Insurance companies must be nimble enough to adapt and react to this environment as they move forward. Executives need to know which markets they want to conquer, what barriers they need to overcome, whether they will be leaders or fast followers, and what core capabilities will be required.

We see five steps for success:

1. **Set the organizational focus and strategy.** Telematics leaders will develop a point of view on the evolution of telematics as it becomes entrenched in the industry. Will this be merely another product in your portfolio, or an industry disruptor that will change the way you look at all of your existing segments and price your products? It will be imperative for insurers to understand and monitor the triggers that will influence market evolution and create a flexible medium-term strategy that considers a portfolio of different options.
In addition, telematics must receive the right organizational dedication and focus, with sufficient executive visibility, ownership and funding. An “incubator” approach will accelerate innovation and contain complexity until the offering is mature enough to integrate with core operations.

2. Define holistic offerings by target segment. The right offering centers on what the customer values: in particular, savings, safety and convenience. Customers will part with a certain amount of privacy if they believe they are receiving enough in return. “Valuable” offerings would provide a wide-ranging set of services well beyond traditional insurance, and improve the overall customer experience.

Insurers can start by defining the telematics segments and segment-specific offerings, considering the areas of greatest need, the size of the market and the likelihood of adoption. Insurers should define the core product platform that is common across all segments, and the customization and positioning by segment. For example, while the core offering may be the same, the positioning and messaging may be different. For example, attracting safe drivers may mean assuring them that telematics will reward for their driving behavior; riskier drivers may be attracted to the same product because of increased safety and improved driving.

The clearest advantage for the first adopters of telematics is the ability to capture the safest drivers, while channeling riskier ones to competitors. However, savvy insurers may find that even the risky drivers could be profitable, as telematics-based feedback improves driver safety and reduces costs. 21st Century and American Family have already incorporated telematics in the teen markets, where they use online feedback and offline video to improve driving behavior. In Europe, Mapfre, a Spanish insurance leader, has introduced “YCar,” a new insurance model for drivers of the higher-risk 18-to-30-year-old group that rewards responsible driving behavior and contributes to greater safety on the roads. YCar offers policy discounts at the time of contract signing, and then after one year additional deductions vary according to mileage and driving behavior.

3. Create a compelling message and consistent customer experience. Telematics leaders will explicitly convey to customers the pricing advantages and increased safety that telematics can offer while managing privacy concerns. They will create simple, sufficient messages that will allow customers to “opt in” to the offering. Importantly, telematics will create new, more frequent interactions that offer opportunities to build stronger relationships, provide additional sources and increase the insurer’s share of the customer’s wallet.

On the other hand, many of these touchpoints fall outside of the traditional insurance value chain. For the first time, insurers will be involved in the distribution of physical goods— packaging and shipping devices, for example—
and they will have to go outside the industry for expertise. When there are so many intermediaries involved—device makers, installers and automakers, to name a few—operations become more complicated.

Developing unique products and finding new ways to offer value to customers are critical issues for insurance companies. A bad experience with a new technology could upset customers and drive them away. Insurers need controls across the new value chain to deliver a consistent customer experience and ensure that telematics offerings don’t damage the brand.

4. Form strategic partnerships. A compelling, high-value offering requires coordination among many different parties, not just insurers but also hardware vendors, software developers, telematics service providers, wireless carriers, content providers and potentially automotive manufacturers. Speed and responsiveness also require broad access to market insights. By moving fast and thinking creatively, companies can lock in strong partners and develop strategic relationships that enhance value and diversify risks.

This will become more of a pressing issue as more automakers begin to embrace telematics. Vehicles embedded with telematics devices are the long-term aspirations of both insurers and automakers. Manufacturer-installed technology would provide the information and customer feedback necessary, without requiring insurers to incur technology and installation costs. In the long term, insurers need to anticipate other gatekeepers in this new space—not just automakers, but also device and application providers—and forge strong partnerships with them.

5. Manage the unique economics. Telematics changes the economics of the business. While technology costs are falling—costs for telematics devices and monthly transmission are down 50 percent in past year—acquisition and operating costs will increase. Reduced risk derived from targeting safe drivers and measurable improvements in driving behavior should offset premium reductions, but new underwriting models require years to finetune. More active claims management can shorten the claims lifecycle and further reduce losses. Further, telematics will offer revenue growth not only by improving customer acquisition and retention, but also through new markets and service offerings. The leading telematics insurers will understand these unique economics and their impact on loss ratio and profitability.

The Telematics Future

Collaboration between insurers and car manufacturers is only a beginning. Other markets—particularly mobile—could open up as areas where collaborative efforts could reap significant gains. Of course, these collaborations highlight some of the risks for insurers, which could lose control of the auto insurance market to car and device makers as these players expand their role and relationship with the consumer.

New business models will yield new customer value propositions, a new customer experience and new revenue streams. The traditional auto insurance model—buy a policy, and interact only on periodic payments and accident claims—will be replaced by a new, interactive model in which insurers offer insurance along with a lot more that customers value.

Ultimately, insurance is a service and, if done properly and fairly, it’s all about the value delivered. Therefore the success of telematics will depend on how much value it can create for both insurers and drivers. Insurers may begin collecting more information, but what if it also helps people drive better, think more about risk, advance their understanding of how insurance
works and even save money? What could be fairer than precision pricing based on how you actually drive?

Indeed, however the market develops, the future model for telematics will undoubtedly be one that is mutually beneficial for the customer, the insurer and all other parties. While the technology is still young and there are many speed bumps ahead, the winners will quickly develop an understanding of telematics and usage-based insurance, and come up with the right strategy quickly to capture the best customers.

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