The Future of Auto Insurance and Mobility

CAS Annual Meeting Somil Jain, FCAS November 2016



Bio and Company Info

Somil Jain is currently the Director of Strategic Planning and Analytics for the Direct Channel at Plymouth Rock Assurance Company, based out of Red Bank, NJ. His primary responsibilities are to provide analytical guidance towards marketing, strategic partnerships and profitability for the company's direct-to-consumer business. In the past, he has held several actuarial and product management positions, at ISO, Travelers and AIG. His prior work includes pricing, reserving, predictive modeling, catastrophe modeling and product management.

Somil holds a B.S. in mathematics and computer science from Rutgers University and is currently pursuing an MBA from The Wharton School at the University of Pennsylvania. He is a Fellow of the CAS.

Plymouth Rock Assurance Company is a regional carrier, primarily serving personal auto and home insurance needs in NJ, MA, CT and NH.



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- Please note that the views expressed in this presentation are that of the speaker and no not necessarily represent the views of Plymouth Rock Assurance Company

| 25 Years ago, what did we | |
|---|---|
| think the "future of mobility" | |
| | |
| would be in 2015? | - |
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| What actually happened in 2015? | |
| What dotadily happened in 2010. | |
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| More than share treasure: | |
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| Management | |
| My goal today | |
| M. I. I. NOT. (III | |
| My goal today is NOT to tell you what the | |
| future of auto insurance will look like | |
| I know better than to try that | |
| Instead, I want to offer some guidance that | |
| will allow you to better navigate changes in | - |
| the industry as they come along | |
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When will the future get here?

- · Future means different things for everyone
- May be dictated by size of R&D budget
- Typical insurers have resource constraints
- At any time, different emerging technologies will compete for all resources
 - Analytical
 - -IT
 - Operational

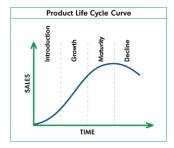
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When will your future get here?

- Polling Question
- How far ahead does your company look and plan for?
 - a. 2-3 years
 - b. 3-10 years
 - c. 10-20 years
 - d. More than 20 years

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Life Cycle for New Product







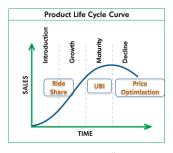
Polling Question

What is the current state of ride share coverage in the product life cycle curve?

- a. Introduction
- b. Growth
- c. Maturity
- d. Decline

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Life Cycle for New Product



Autonomous Vehicles ?

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Two Critical Timelines

For any new product there are two key points in time you should estimate -

- When will you encounter the first case that will impact you (in terms of pricing, u/w, claims, coverage, etc.)?
- When will there be enough acceptance that you have to address it broadly, even if you were not an early adopter?

| Insurance Company Operations | |
|--|---|
| Acquisition | |
| Acquisition | |
| Claims Insurance Company | |
| Operations | |
| Coverage Underwriting | |
| What will be the impact to Actuaries? | |
| what will be the impact to Actuaries? Plymouth Back | |
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| Customer Acquisition | |
| Search Engine Optimization | |
| Lead providers and aggregators | |
| Monetization | |
| Social MediaMobile Quotes | |
| Are there shift in mix of business for | |
| carrier as well as agents? | |
| What is your new cost of acquisition and how well is the business retaining? | |
| now well is the business retaining: | |
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| Underwriting & Coverage | |
| Knee-jerk reaction is often to exclude coverage | |
| What underwriting tools do you have or need to better handle | |
| Ride Sharing | |
| Autonomous VehiclesNew technology, e.g., License Plate Readers | |
| Influx of 3 rd party data, such as fraud scores | |
| Actuaries – be aware of new processes being | - |
| used by your underwriters and the impact it may have on your book | |

Claim Investigation and Assessment

- Photo inspections
- App allows livestreaming damages
- Assess Damages, agree to repair cost, find shop, transfer payment all via app
- Machine learning technology allows system to learn with every new estimate
- No need to ask about speed, weather conditions, etc.
- · Recreate accident in 3D

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Technology Concerns

Anywhere from 50 – 150 computers inside each car

- Hacking / sabotage / large scale malfunction
- Manufacturers requiring pre and post scans
- Systems flagging minor bugs are they responsible for fixing them?
- · Cost of repair as well as regular servicing
- Would you trust a computer that has been repaired after an accident by a body shop?

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Settlement Process Evolving





Legal department will need new expert witnesses that understand technology

| What else is coming? | |
|---|--|
| Drones and Holograms What else do you insure that can be monetized? Marijuana legalization Increasing Social Impact awareness Are you ready to answer the ethical issues that will come up when computers are making life-or-death decisions? | |
| | |
| Additional Questions and Discussion | |
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