<table>
<thead>
<tr>
<th>YEAR</th>
<th>THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Motor insurance in emerging markets – is the price war over?</td>
</tr>
<tr>
<td>2013</td>
<td>Motor insurance – the road towards profitability</td>
</tr>
<tr>
<td>2014</td>
<td>Motor insurance – the road towards profitability</td>
</tr>
<tr>
<td>2015</td>
<td>Motor insurance – the road towards profitability</td>
</tr>
</tbody>
</table>
INFORMATION

LIES

STATISTICS

DAMN LIES

BiGdaTa
BIG DATA

• BIG DATA is internal and external data, structured and unstructured, collected in enormous volumes at a rapid velocity
• BIG DATA is sometimes defined as data that is too large to be processed by traditional technology
• Others define big data as “Anything that doesn’t fit in Excel”
BIG DATA

- **Geospatial data** – Information that identifies the geographic location and characteristics of manmade features of that location on earth.
- **Social Media** – Data, images, recordings and other electronic content published on blogs, micro-blogs, social networking sites or user generated content Websites.
- **Internet clickstreams** – Records of the usage of the internet or the specific websites, collected and stored in a webserver, router, proxy server or ad server.

**TYPE**

- **Audio Data** – Electronic recordings of sounds such as voice, music.
- **Video Data** – Electronic recordings of video images and sounds.
- **Sensor Data** – Data collected by sensor devices put in place to monitor and potentially correct performance.
- **Telematics Data** – is data collected by devices enabled with computers and wireless technologies, to convey detailed information in order to improve, refine or control a function, process or service.
TELEMATICS

What?
- ‘Telematics’ is a combination of Telecommunication and Informatics
- It uses wireless devices to transfer real-time vehicle data and information back to a database.
- It is the technology of sending, receiving and storing vehicle information relating to remote objects, such as vehicles, using telecommunication devices.

Why?
- Telematics data provides the basis for understanding how far, how fast and under what conditions a person drives, as well as a foundation for more sophisticated data modeling and scorecard development.
- This ability is fostering new and innovative products that more accurately price risk and attracts profitable new customers, making the traditional segmentation of pricing auto insurance — based on average characteristics or certain populations’ gender or age — completely obsolete.
- In addition to pricing, telematics and usage-based insurance (UBI) approaches are introducing opportunities for carriers to build and maintain richer relationships with customers than ever before, while also laying the foundation for better decisions and core business process optimization.

How?
- The telematics system starts with the vehicle which communicates with a third party off site somewhere via a satellite signal.
- Then at this third party location the data which vehicle sends is collected, stored, and analyzed by whatever software your manufacturer is using.
- Telematics is based upon two key components, tracking and tracing.
- Tracking is all about collecting data on your car. From the braking to the temperature outside, its getting data about your car to a third party database where it can be analyzed.
- Tracing is putting together the links in this data and gaining new insights from it. For example there may be “black spots” on the road where an unusual amount of people have accidents.
TELEMATICS – HOW DOES IT WORK?

1. Transmission of Vehicle Data with Sensor Devices

2. Collection and Storing of Data

Big Data Processing Platform

3. Analysis of Collected Data for Business Needs

- UBI (Usage-Based Insurance)
  Calculate car insurance fee by analyzing vehicle data - Running data (geolocation, distance, time, frequency), Driving data (acceleration, braking, fuel consumption)

- Fleet Management
  Realize efficient and rapid dispatch, acquisition of maintenance data, and anti-theft by analyzing vehicle data

Utilization

Big Data Platform enables storing, analysis, visualization of the result of analysis

Utilization in Various Business

Properly processed Telematics data is usable in various business

Sensor Device on Vehicle

Running Distance, Velocity, Geolocation, Fuel Consumption, Acceleration/Braking, etc. related data can be collected with communication function

Vehicle Data
<table>
<thead>
<tr>
<th>DATA USAGE</th>
<th>Pricing</th>
<th>Product Dev</th>
<th>Safety Advice</th>
<th>Vehicle Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mileage</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Time of Day</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Braking</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Speed</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Acceleration</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Sharp Turns</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route Taken</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>●</td>
<td></td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Disengage</td>
<td></td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Diagnostic</td>
<td></td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>
UBI - BENEFITS

INSURERS

• Accurate Pricing
• Reduction in loss costs (improved driving)
• Increased Retention (does not penalise good drivers)
• Claims Control (early reporting, improved recovery)
• New Customers

INSURED

• Premium Discounts
• Individual Portals
• Vehicle Performance Advice
• Safety Advice
• Value Added Services
Company Profile

Progressive is one of the largest auto insurance groups in the USA

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Progressive Casualty Insurance Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established</td>
<td>Year of 1937</td>
</tr>
<tr>
<td>Head quarter</td>
<td>Cleveland suburb of Mayfield Village, Ohio, US</td>
</tr>
<tr>
<td>Business Site</td>
<td>US, Australia</td>
</tr>
<tr>
<td>Employee</td>
<td>25,000 employees in more than 450 offices throughout the US</td>
</tr>
<tr>
<td>Total Revenues</td>
<td>$17.1 billion (as of 2012)</td>
</tr>
<tr>
<td>Net premiums written</td>
<td>$16.4 billion (as of 2012) * Growth over prior year: 8%</td>
</tr>
<tr>
<td>Business</td>
<td>Insurance which can be bought with following two options:</td>
</tr>
<tr>
<td></td>
<td>➢ Shop Online or by Phone</td>
</tr>
<tr>
<td></td>
<td>✓ Consumers can buy an insurance policy online at progressive.com, or by phone at 1-800-PROGRESSIVE (1-800-776-4737).</td>
</tr>
<tr>
<td></td>
<td>➢ Shop with a Local Independent Insurance Agent</td>
</tr>
<tr>
<td></td>
<td>✓ Customers can buy more than 30,000 independent agents, brokers throughout the United States.</td>
</tr>
<tr>
<td></td>
<td>* Auto insurance prices and products are different when purchased directly from Progressive or through agents/brokers.</td>
</tr>
</tbody>
</table>

http://www.progressive.com/progressive-insurance/progressive-overview/
http://media.corporate-ir.net/media_files/irol/81/81824/arInter/12_annual/index.html
Progressive Firsts (related to UBI & web site)

2010  Progressive is first major U.S. car insurer to release Android app just for car insurance.

2009  Progressive begins writing car insurance in Australia.

2008  Progressive introduces MyRate, an innovative way to price car insurance that lets drivers get a customized rate based on how they actually drive. This optional program benefits safe drivers who deserve to pay less for car insurance because they're less likely to get into an accident.

2004  Progressive pilots TripSense®, a usage-based insurance program to research driving habits, to Minnesota consumers.

1997  Progressive is the first insurer to give consumers the ability to buy an auto insurance policy in real time online.

1996  Progressive introduces online auto insurance comparison rates.

1995  Progressive becomes the first auto insurance group to launch a Web site, auto-insurance.com. Two years later, the site becomes progressive.com.

1994  Progressive begins offering 24/7 customer service by phone.

http://www.progressive.com/progressive-insurance/first/
<table>
<thead>
<tr>
<th>Product</th>
<th>Insurance Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Web site</strong></td>
<td></td>
</tr>
<tr>
<td>progressive.com</td>
<td>Auto Insurance</td>
</tr>
<tr>
<td></td>
<td>Motorcycle Insurance</td>
</tr>
<tr>
<td></td>
<td>Boat Insurance</td>
</tr>
<tr>
<td></td>
<td>RV Insurance</td>
</tr>
<tr>
<td></td>
<td>Snowmobile Insurance</td>
</tr>
<tr>
<td></td>
<td>Segway Insurance</td>
</tr>
<tr>
<td></td>
<td><em>Snapshot is one of the services</em></td>
</tr>
<tr>
<td></td>
<td>ATV Insurance</td>
</tr>
<tr>
<td></td>
<td>Golf Cart Insurance</td>
</tr>
<tr>
<td></td>
<td>Business Auto Insurance</td>
</tr>
<tr>
<td></td>
<td>Pickup Truck Insurance</td>
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<tr>
<td></td>
<td>Van Insurance</td>
</tr>
<tr>
<td></td>
<td>Truck Insurance</td>
</tr>
<tr>
<td></td>
<td>Box Truck Insurance</td>
</tr>
<tr>
<td></td>
<td>Dump Truck Insurance</td>
</tr>
<tr>
<td></td>
<td>Tow Truck Insurance</td>
</tr>
<tr>
<td>progressivecommercial.com</td>
<td>Commercial Vehicle Insurance</td>
</tr>
<tr>
<td></td>
<td>Business Insurance</td>
</tr>
<tr>
<td></td>
<td>Business Owners Insurance</td>
</tr>
<tr>
<td></td>
<td>General Liability Insurance</td>
</tr>
<tr>
<td></td>
<td>Contractors Insurance</td>
</tr>
<tr>
<td></td>
<td>Manufacturers Insurance</td>
</tr>
<tr>
<td></td>
<td>Store Insurance</td>
</tr>
<tr>
<td></td>
<td>Restaurant Insurance</td>
</tr>
<tr>
<td></td>
<td>Garage Insurance</td>
</tr>
<tr>
<td></td>
<td>Workers Compensation Insurance</td>
</tr>
<tr>
<td>homeowners.progressive.com</td>
<td>Homeowners Insurance</td>
</tr>
<tr>
<td></td>
<td>Condo Insurance</td>
</tr>
<tr>
<td></td>
<td>Renters Insurance</td>
</tr>
<tr>
<td></td>
<td>Mobile Home Insurance</td>
</tr>
<tr>
<td>Additional Insurance Offerings</td>
<td>Umbrella Insurance</td>
</tr>
<tr>
<td></td>
<td>Health Insurance</td>
</tr>
<tr>
<td></td>
<td>Life Insurance</td>
</tr>
<tr>
<td></td>
<td>Pet Insurance</td>
</tr>
<tr>
<td></td>
<td>Collector Car Insurance</td>
</tr>
<tr>
<td></td>
<td>Classic Car Insurance</td>
</tr>
<tr>
<td></td>
<td>Flood Insurance</td>
</tr>
</tbody>
</table>

http://www.progressive.com/progressive-insurance/progressive-websites/
How Snapshot Works

- Plug in Snapshot device to OBD port
- The driving data discount is calculated two times:
  - 30 days after plug-in
  - at the policy renewal based on the six month policy period driving data

http://insurance.appstate.edu/sites/insurance.appstate.edu/files/Ziance_presentation.pdf
UBI – MARKET TRENDS

AMERICAS

• 17% of the respondents have programs in the market
• 53% are piloting or planning programs

EUROPE

• 20+ insurers with program
• UK a leader
  • Price driven, younger drivers
  • Numerous start-ups
  • Advertising
• Italy a strong take-up
  • 2M+ UBI Customers
  • Vehicle theft proposition
• Nordics - smart phone approach
• BIG insurers are serious

LATAM/AP&J

• Brazil Success
  • Vehicle theft proposition
• Japan – AIOI Pioneer
• Australia – 2 Companies
• China/India – Waking up
What is SPaSE (Stream Processing and Storing Environment)?

1. SPaSE is the advantageous Big Data Processing Platform developed by NTT DATA and applicable in various industries
2. Enables both real-time processing and batch processing
3. Realized by optimized combination of cutting-edge Open Source Software and enables proper life cycle management of data
4. Advantages above enables shortening of development period and it is desirable for Big Data Platform
NTT DATA Insurance Telematics Solution

Usage Based Insurance
- **Overview**: Tracks the distance & driving patterns. Automatically transmits the consolidated real-time scores to the insurer.
- **Insurer**: Driver scores, Vehicle behavior report
- **Insurance Processes**: Underwriting, Product Pricing

Insurance Telematics Claims
- **Overview**: Behavioural and geospatial data at the time of an accident.
- **Insurer**: Real-time alert for crash report with date, time, speed & Location
- **Insurance Processes**: Efficient Claims processing, Roadside assistance

Policy holder Experience
- **Overview**: Enhanced Policy Holder experience – driving behaviour, premium control, road side assistance, claim reporting and status.
- **Insurer**: Real-time connect with Policy Holder, Better Customer Service
- **Insurance Processes**: Policy Servicing

Motor Insurance Analytics
- **Overview**: Data for developing accurate pricing and granular risk management.
- **Insurer**: Analysis to assess future risks
- **Insurance Processes**: Renewals
UBI - Solution Architecture

- GPS
- On Board Device/ Mobile App
- GSM
- Insured

NTT DATA INTEGRATION PLATFORM (NIP)

TELEMATICS PLATFORM

PAS

3rd Party System

NTT DATA UBI PORTAL

Rating Engine
CHALLENGES

Ready for Change!

Leader or Follower

Game Changer!

Consumer Aptitude

Consumer Behaviour

Regulatory Approvals?

Regulatory Readiness

Infrastructure!

Network & Communication

IT Systems?

Cost of Change!
NTT DATA Core Product Suite

FirstGen
- Fire/Property
- Motor/Auto
- Marine Cargo
- Marine Hull
- Liability
- Engineering
- Household/Homeowners
- Travel
- PA
- Workmen’s Compensation
- Health / Medical
- Specialty Commercial…

FirstRe
- Treaty
- Facultative
- Proportional
- Non-Proportional

FirstLife
- Term Life
- Endowment
- Whole Life
- Annuities
- Group Life
- Investment Linked
- Universal Life
- Living Assurance

Multi-currency | Multi-lingual | JAVA-SOA | Multi-LOB | Multi-risk
Are You Ready?