The Challenging Business Model for Connected Services in Cars

Ralf Hug
Trajectory Group, LLC
November 7, 2012
INTRODUCTION

Trajectory [trəˈjektrə]: Plotting a realistic path towards achieving a target over a period of time

TRAJECTORY GROUP LLC

- Founded 2009, Chicago, Illinois
- Strategic advisory, business development and marketing consulting services firm
- Helps clients stay on the trajectory of success by shaping compelling business models, attractive value propositions and winning business and marketing strategies.

Ralf Hug
President

- 15+ Years of Global Management Experience
- In-depth Industry Experience in Automotive, Telematics, M2M, GPS/LBS, Wireless, Consumer Electronics
- MBA University of Bayreuth, Germany
- Fluent in English and German
- Past Management Positions at:

  - Airbiquity
  - NAVIGON
  - GARMIN
  - Mercedes-Benz
  - PHILIPS
The Challenging Business Model for Connected Services

KEY QUESTIONS

Is there a business model for the connected car?

Jerry Maguire (1996)

Show me the Money!
The current Telematics business models don’t work. Let’s find a new one.
How to **develop**, **deliver** and **capture** value
With the Connected Car?

Source: Seizing the White Space: Business Model Innovation for Growth and Renewal, Mark W. Johnson, 2010
The Challenging Business Model for Connected Services

KEY QUESTIONS

- What monetization opportunities exist?
- How does the profit formula look like?
- What stakeholders benefit from Telematics?
CONNECTED CAR EVOLUTION

Service Profit Model

CRM & VRM

Semi-Open Platform

Services Built-in

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A complex world with many stakeholders and competing interests!

Finding a winning business model can be challenging!
CONNECTED SERVICES PROFIT FORMULA

Profit Formula

Stakeholder View:
- OEM
- App Developer
- Tier1

Revenue
- Brand
- Experience
- Value
- Needs
- Platform
- App Developer
- Suppliers
- Partners
- Dealers
- OEM
- Cross Sell
- Up Sell
- More Sell
- LTV

Costs

Customer Relationship Management - CRM -
Many well-known app monetization models exist but will they work for automotive?
The Challenging Business Model for Connected Services

KEY QUESTIONS

- We built it.
  - Will they come?
  - Why don’t they come (Developers)?
Can any of these **success factors** be **adequately** met by **auto OEMs** today or anytime soon?

- Big addressable market
- Quick time to market and revenue
- Openness of platform and development environment (access to native APIs, richness of platform, ease of development)
- Leverage of existing development skills and resources
- Low Developer Entry Cost
- Customer Billing and Timely Payment processing
- Clearly Defined Revenue models and favorable terms (NRE, License Fees, Revenue split, advertising)
- Transparent validation and approval process
- Easy and timely release process of initial app and update versions
SELECT EXAMPLES AND CASE STUDIES
Smartphone vs Embedded: Where do apps and services belong?

Impact of: MirrorLink™
NAVIGATION AND LBS SERVICES ECOSYSTEM

From a **B2B licensing** model for LBS content to a B2C **app monetization model.** - Will this **work?** For **Whom?**

Freemium?  
Paid?  
In-App?  
Built-in?  
Subscription?  
Other?

LBS/Content
What’s the price sensitivity/elasticity and willingness to pay?

<table>
<thead>
<tr>
<th>Price</th>
<th>Take Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.99</td>
<td>Win</td>
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<tr>
<td>$1.99</td>
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<tr>
<td>$5.99</td>
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<td>$9.99</td>
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<td>$19.99</td>
<td></td>
</tr>
<tr>
<td>$29.99</td>
<td></td>
</tr>
<tr>
<td>$49.99</td>
<td>Loss</td>
</tr>
</tbody>
</table>
### TSP Model

#### Telematics Scenario
<table>
<thead>
<tr>
<th>Year</th>
<th>New Vehicles</th>
<th>Activation Rate</th>
<th>Retention Y1</th>
<th>Retention Y2</th>
<th>Retention Y3</th>
<th>Retention Y4</th>
<th>Cumulative Cars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>200,000</td>
<td>90%</td>
<td>180,000</td>
<td>54,000</td>
<td>32,400</td>
<td>19,440</td>
<td>180,000</td>
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<tr>
<td>2014</td>
<td>300,000</td>
<td>50%</td>
<td>270,000</td>
<td>90,000</td>
<td>48,600</td>
<td>180,000</td>
<td>360,000</td>
</tr>
<tr>
<td>2015</td>
<td>400,000</td>
<td>60%</td>
<td>360,000</td>
<td>54,000</td>
<td>48,600</td>
<td>180,000</td>
<td>549,000</td>
</tr>
<tr>
<td>2016</td>
<td>400,000</td>
<td>60%</td>
<td>360,000</td>
<td>54,000</td>
<td>48,600</td>
<td>180,000</td>
<td>653,400</td>
</tr>
<tr>
<td>2017</td>
<td>400,000</td>
<td>60%</td>
<td>360,000</td>
<td>54,000</td>
<td>48,600</td>
<td>180,000</td>
<td>716,040</td>
</tr>
</tbody>
</table>

#### High Churn Rate of Telematics Subscriptions

- Year 1: Activation Rate: 90%  Retention: 60%
- Year 2: Activation Rate: 50%  Retention: 60%
- Year 3: Activation Rate: 60%  Retention: 60%
- Year 4: Activation Rate: 60%  Retention: 60%

### App Model

#### App Scenario II
<table>
<thead>
<tr>
<th>Year</th>
<th>New Vehicles</th>
<th>App Take Rate</th>
<th>App Retention Y1</th>
<th>App Retention Y2</th>
<th>App Retention Y3</th>
<th>App Retention Y4</th>
<th>Cumulative Apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>200,000</td>
<td>10%</td>
<td>20,000</td>
<td>14,000</td>
<td>6,860</td>
<td>4,802</td>
<td>20,000</td>
</tr>
<tr>
<td>2014</td>
<td>300,000</td>
<td>70%</td>
<td>30,000</td>
<td>21,000</td>
<td>14,700</td>
<td>10,290</td>
<td>44,000</td>
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<tr>
<td>2015</td>
<td>400,000</td>
<td>70%</td>
<td>40,000</td>
<td>28,000</td>
<td>19,600</td>
<td>12,900</td>
<td>70,800</td>
</tr>
<tr>
<td>2016</td>
<td>400,000</td>
<td>70%</td>
<td>40,000</td>
<td>28,000</td>
<td>19,600</td>
<td>12,900</td>
<td>89,560</td>
</tr>
<tr>
<td>2017</td>
<td>400,000</td>
<td>70%</td>
<td>40,000</td>
<td>28,000</td>
<td>19,600</td>
<td>12,900</td>
<td>102,692</td>
</tr>
</tbody>
</table>

#### Low Adoption of App Subscriptions

- Year 1: App Take Rate: 10%  Retention: 70%
- Year 2: App Take Rate: 70%  Retention: 70%
- Year 3: App Take Rate: 70%  Retention: 70%
- Year 4: App Take Rate: 70%  Retention: 70%

### App Challenges:
- Smartphone Penetration < 50%
- Compatibility (Car/Phone)
- App Competition
- Price
- Awareness/Marketing
- Distribution

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Source: SEC Filings, Q2 2012, Onstar, GM PR
BUSINESS MODEL FORMULA EXAMPLE: FREEMIUM

Potential Paying Customers = Addressable Market \times \text{Reach} \times \text{Sign-up} \times \text{Conversion to Paid}

- Population
- User/Target Group Market Share
- Distribution Marketing Awareness
- Price Point
- Price Sensitivity/Elasticity
- Registered Vehicles
- New Vehicles
- Vehicle Brand
- Vehicle Model
- Smartphone Penetration
- Phone Compatibility

Example:

<table>
<thead>
<tr>
<th></th>
<th>Scenario I</th>
<th>Scenario II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressable Market (Vehicles)</td>
<td>15,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Smartphone Penetration</td>
<td>50%</td>
<td>7,500,000</td>
</tr>
<tr>
<td>Reach</td>
<td>10%</td>
<td>750,000</td>
</tr>
<tr>
<td>Sign-up for Free Service</td>
<td>50%</td>
<td>375,000</td>
</tr>
<tr>
<td>Conversion to Paid Version</td>
<td>5%</td>
<td>18,750</td>
</tr>
</tbody>
</table>
Entune apps include Bing, iHeartRadio, MovieTickets.com, OpenTable, and Pandora.

Additionally, Entune offers a variety of data services such as fuel prices, sports, stocks, traffic, and weather.

Monetization: Three years of complimentary access to apps.

“Toyota is ‘heavily involved in the process’ of co-developing apps that are tailored for Entune”, says Jon Bucci, VP Advanced Technology Toyota.

Source: Automotive News, Aug 6, 2012
SYNC AppLink connects to smartphone applications through voice commands.

Current Apps
- iHeartRadio, NPR News, Pandora Internet Radio, Slacker Personal Radio, Stitcher Smart Radio, TuneIn Radio, MOG Radio and SYNC Destinations, Telenav Scout (pending)
- Monetization:
  - Most are Free
  - Telenav Scout for Ford Sync AppLink offers a 30-day free trial, unlock via an in-app subscription of $24.99 per year or $4.99 per month.

Quiz:
- How many Internet Radio Stations? Why?
Mercedes-Benz Apps gives the driver access to Internet Browsing, Google Local Search, Yelp, News and Facebook.

Based on embedded connectivity

Monetization:

- US: Subscription of $14/month with 3 month free trial.
- Europe: €9.95 per app (parking, news)
MIRRORLINK ECOSYSTEM EXAMPLES

- In-car infotainment solution based on MirrorLink standard
- MirrorLink offers a seamless way to connect your smartphone to a car
- Both the smartphone device and the infotainment system need to include MirrorLink software
- Control of smartphone applications through car HMI (touch screen, steering wheel controls, etc.) for navigation, music, telephone and apps, etc.

Monetization:
- Nokia Car Mode App with MirrorLink retails for $29.99
- Samsung Galaxy S III gets Drive Link app with MirrorLink free
- Panasonic ELUGA V AppCarConnect JPN is free
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KEY QUESTIONS

What about the Advertising Model?
Ads need to respect privacy

Ads cannot be distracting while driving (safety)

Ads need to be rewarding and enhance the experience for Consumers

Ads need to be unique and engage in a meaningful way

Performance for the Marketer/Advertiser/Content Publisher
- Reach & Scale
- Operational Cost
- Metrics (CPM, CPC, CPA, registrations, downloads, …)
- Ad Inventory

Ads need to meet personal contextual requirements such as place, time and preferences
ADVERTISING MODEL - EVALUATION

Ad Economics:

**CPM:**
- $10

**CTR:** 2%

**Conversion to Buy:** 5%

**Impressions:**
- 1,000,000
- 100,000,000

**Ad Dollars:**
- $10,000
- $1,000,000

Auto vs. Mobile Evaluation:

Can Auto Ads be superior to Mobile Ads?

**CPM:**

\[ CPM = \frac{Ad \ Costs \times 1000}{Impression} \]
The Challenging Business Model for Connected Services

KEY QUESTIONS

What about Marketing?
1. If customers aren’t **aware of your app**, they can’t consider your app.
2. If they don’t **consider your app**, they can’t prefer your app.
3. If they don’t **prefer your app**, they won’t purchase/consume your app.
4. If they don’t **purchase/consume your app**, they can’t experience your app as competitively superior and be **retained**.
Thank You!

Questions? Please contact me at:

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LinkedIn: www.linkedin.com/in/ralfhug
Web: www.trajectorygroup.com
Twitter: @ralfhug
TELEMATICS PRESENTATIONS

Presentation: “The Connected Car Comes in Many Flavors”

Presentation: “Envision Automotive App Stores – Key Questions”

Presentation: “How to break out of the Commoditization trap?”

Presentation: “Insurance Telematics Challenges and Opportunities”

Presentation: “Innovations in Aftermarket Telematics”

Presentation: “The Challenging Telematics Business Model”

Visit: www.TrajectoryGroup.com
ARTICLES AND INTERVIEWS

Interview: “To Find the Business Case for Telematics, Look Higher Up.”

Chinese Version

English Version

Interview: “Telematics is here to stay.”

Chinese Version

English Version


Chinese Version

English Version

Article: “Insurance Telematics. Challenges and Opportunities”

Chinese Version

English Version

Interview: “Insurance Telematics. Challenges and Opportunities”

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