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Introduction

Self-driving cars have a futuristic appeal that is undeniable. And yet in a few short years the concept of autonomous cars has entered the mainstream, with announcements, demonstrations, and predictions galore. Today their commercial arrival seems simply a matter of time.

Auto enthusiasts, technology fans, and the business community are ready. Regulators have begun wrestling through the issues required by such a dramatic and important change.

To understand and discover the sources of influence in this emerging market, the data journalists at Appinions analyzed hundreds of millions of news, blog, forum, and social media posts from April through July 2014. This report reveals the overall influence trend, lists top 10 most influential companies and executives, and looks at the themes commonly driving relevant influential discussions.

About Our Research

Appinions applies our patented technology to calculate the Net Influence Score (NIS) for any person or company who has expressed a topically relevant opinion and elicited a reaction from others. We completed full-text analysis on approximately 1 Billion documents between 4/10/14 and 7/8/14 for this research. A more complete discussion of our methodology is included at the conclusion of this report.
Key Insights

WHAT WE LEARNED WHILE ANALYZING INFLUENCE:

People are listening and reacting to both the tech companies like Google and Intel providing technology for vehicle automation, and the automotive brands working to utilize it in their cars.

Google caught the market off guard by announcing a big breakthrough at the end of May. Since then traditional auto companies like GM, Mercedes, and Nissan have been working to emphasize their autonomous car plans as well. Despite this push, Google still remained over 20X more influential than leading auto manufacturer GM.

While automakers and software giants make up the top companies, the leading executives list is more diverse. Two Google executives hold the lead, but the list is also populated with execs from upstarts like Uber, Zipcar, and Cruise, an indicator that innovation in this marketplace is just as likely to come from the startup space as from the big automotive manufacturers.

Thus far, key executives are exhibiting higher influence ratings than their brands, perhaps reflecting the fact that at this point it’s their innovative ideas that are capturing the conversation.

Also surprising is that both luxury and non-luxury brands are working to enter the market, and have thus far garnered almost an even split in influence – higher-end players aren’t dominating.
Nissan pledged to bring commercially viable autonomous vehicles to market by 2020.  
*Source: Automotive World 05/12/2014*

Intel announced a range of connected-car [products] that could be useful in driverless vehicles.  
*Source: Tech World 05/30/2014*

Audi showed off its own "Piloted driving" system earlier this year using the Audi A7.  
*Source: Mashable 06/24/2014*

We got a sneak peek at where Google is headed...they revealed their own built from scratch self driving car.  
*Source: Android News 05/28/2014*
The Most Influential

Large Automakers Play Catch-Up After Major Google Announcement

Google was a top influencer by a wide margin even prior to test driving their first fully autonomous driverless car prototype. Following their May 28\textsuperscript{th} announcement their score shot up from around 850 to 2,243, leaving competitors in the dust.

Other automakers and software companies scrambled to release their own autonomous car plans, which led to a general increase in influential conversations, but no one has yet come close getting a reaction as large as Google did.

More than half of the top influencers were car manufacturers:

- GM, Nissan, and Mercedes all say they plan to release self-driving models by 2020. Mercedes also said they are working on a self-driving truck for 2025.
- Looking to distinguish themselves, Volvo said they can have driverless cars on sale as early as 2017.
# The 10 Most Influential Autonomous Cars Companies

<table>
<thead>
<tr>
<th>RANK</th>
<th>NIS</th>
<th>Company</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,243</td>
<td>Google</td>
<td>Google argues it's safer to have a computer at the controls. The majority of accidents are due to human error, which self-driving cars can eliminate. - Source: CBS 06/23/2014</td>
</tr>
<tr>
<td>2</td>
<td>145</td>
<td>Intel</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>105</td>
<td>GM</td>
<td>GM has said it is planning vehicles by 2020 that will be able to drive themselves on controlled-access highways. - Source: GuyBower.com 05/05/2014</td>
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<tr>
<td>4</td>
<td>97</td>
<td>Mercedes Benz</td>
<td>Mercedes hopes that driverless trucks can be more efficient and safer. An automated truck should be able to [better] use space and manage fuel. - Source: Digital Trends 07/07/2014</td>
</tr>
<tr>
<td>5</td>
<td>74</td>
<td>Audi</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>59</td>
<td>Nissan</td>
<td>Nissan has announced its intent to offer driverless cars by 2020. - Source: Greentech Media 06/26/2014</td>
</tr>
<tr>
<td>7</td>
<td>58</td>
<td>Apple</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>46</td>
<td>BMW</td>
<td>[Volvo] is pledging to have self-driving autos on sale by 2017, and by 2020 wants to build a nearly un-crashable car. Source: CNET 05/16/2014</td>
</tr>
<tr>
<td>9</td>
<td>42</td>
<td>Volvo</td>
<td>Rio [Tinto] yesterday said its fleet of autonomous trucks had reached a milestone of moving 200 million tonnes. - Source: The Australian 06/09/2014</td>
</tr>
<tr>
<td>10</td>
<td>30</td>
<td>Rio Tinto</td>
<td></td>
</tr>
</tbody>
</table>
The Top 10 Influential Autonomous Car Executives

- **Chris Urmson**, Director of Autonomous Cars, Google (Score: 1,063)
- **Sergey Brin**, Co-Founder, Google (Score: 861)
- **Travis Kalanick**, CEO, Uber (Score: 387)
- **Mark Reuss**, President, GM (Score: 210)
- **Dmitri Dolgov**, Autonomous Car Software Lead, Google (Score: 164)
- **Wolfgang Bernhard**, Head of Trucks and Buses, Daimler AG (Score: 138)
- **Sven Strohband**, CTO, Khosla Ventures (Score: 124)
- **Ron Medford**, Autonomous Car Safety Director, Google (Score: 115)
- **Robin Chase**, Founder, Zipcar (Score: 81)
- **Kyle Vogt**, CEO, Cruise (Score: 81)

**Quotations**

- "With self-driving cars, you don't need much parking, because you don't need one car per person. They just come and get you when you need them." - Source: CNET 07/06/2014
- Kalanick said that self-driving cars ordered through Uber will eventually bring the cost of ridership so far down that car ownership will "go away." - Source: Business Insider 05/28/2014
- Wolfgang Bernhard, head of Daimler Trucks and Buses said self-driving trucks could lead to more efficiency, safety, and connectivity. - Source: Trucking Info 06/07/2014
- Vogt [believes in] assisting drivers with tech that can be fitted into existing cars. - Source: Venture Capital Dispatch 06/23/2014
- Zipcar founder Robin Chase thinks we should be worried about the future of driverless cars…she believes they can lead to more pollution and traffic congestion. - Source: Business Insider 05/23/2014
- Chris Urmson said that self-driving cars ordered through Uber will eventually bring the cost of ridership so far down that car ownership will "go away." - Source: Business Insider 05/28/2014
- Mark Reuss said that self-driving cars ordered through Uber will eventually bring the cost of ridership so far down that car ownership will "go away." - Source: Business Insider 05/28/2014
- Sergei Brin said that self-driving cars ordered through Uber will eventually bring the cost of ridership so far down that car ownership will "go away." - Source: Business Insider 05/28/2014

**Autonomous Cars - An Industry Influence Study | July 2014**

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## Other Top Autonomous Cars Influencers

### Journalists & Analysts

<table>
<thead>
<tr>
<th>Score</th>
<th>Influencer</th>
<th>Publication</th>
</tr>
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<tbody>
<tr>
<td>114</td>
<td>Matt Brian</td>
<td>Engadget</td>
</tr>
<tr>
<td>113</td>
<td>Sarah Silbert</td>
<td>Engadget</td>
</tr>
<tr>
<td>96</td>
<td>Egil Juliussen</td>
<td>IHS Automotive</td>
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<tr>
<td>91</td>
<td>Dylan Love</td>
<td>Business Insider</td>
</tr>
<tr>
<td>87</td>
<td>Jeffrey Hammond</td>
<td>Forrester</td>
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<tr>
<td>86</td>
<td>Chris Bruce</td>
<td>AutoBlog</td>
</tr>
<tr>
<td>86</td>
<td>Tim Stevens</td>
<td>CNET</td>
</tr>
<tr>
<td>81</td>
<td>Megan Rose Dickey</td>
<td>Business Insider</td>
</tr>
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</table>

### Politicians & Public Officials

<table>
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<tr>
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<th>Position</th>
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</thead>
<tbody>
<tr>
<td>160</td>
<td>Bernard Soriano</td>
<td>Head DMV Driverless Car Program (CA)</td>
</tr>
<tr>
<td>99</td>
<td>Bill Shuster</td>
<td>US Representative (PA)</td>
</tr>
<tr>
<td>29</td>
<td>Eleanor Holmes Norton</td>
<td>US Representative (DC)</td>
</tr>
<tr>
<td>24</td>
<td>George Osborne</td>
<td>UK Chancellor of the Excellence</td>
</tr>
<tr>
<td>21</td>
<td>Peter Rogoff</td>
<td>Acting Undersecretary for Transportation Policy</td>
</tr>
<tr>
<td>21</td>
<td>Penny Pritzker</td>
<td>US Commerce Secretary</td>
</tr>
<tr>
<td>13</td>
<td>Neelie Kroes</td>
<td>European Commission</td>
</tr>
<tr>
<td>9</td>
<td>David Willets</td>
<td>UK Minister of State for Universities and Science</td>
</tr>
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</table>

### Professors & Academics

<table>
<thead>
<tr>
<th>Score</th>
<th>Influencer</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Peter Sweatman</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>85</td>
<td>Don Norman</td>
<td>UC San Diego</td>
</tr>
<tr>
<td>61</td>
<td>Patrick Lin</td>
<td>Cal Poly</td>
</tr>
<tr>
<td>36</td>
<td>Bryan Reimer</td>
<td>MIT</td>
</tr>
<tr>
<td>36</td>
<td>Donald Grimes</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>33</td>
<td>Daniel Lee</td>
<td>UPenn</td>
</tr>
<tr>
<td>25</td>
<td>Subra Suresh</td>
<td>Carnegie Mellon (President)</td>
</tr>
<tr>
<td>24</td>
<td>Sven Beiker</td>
<td>Stanford</td>
</tr>
</tbody>
</table>

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**Other Top Autonomous Cars Influencers**

- Journalists & Analysts
- Politicians & Public Officials
- Professors & Academics
Top Themes in Influential Autonomous Car Conversations

- Automaker
- Assistance System
- Futuristic Technology
- Artificial Intelligence
- Car Project
- Prototype
- Brakes
- App
- Test Car
- Automotive Market
- Car
- Disclosure Policy
- Autonomous
- Truck
- Driverless Technology
- Autonomous Technology Autopilot
- Developer Conference
- Cruise Control
- Steering Wheel
- Robotics
- Car Ownership
- Public Road
- Human Driver
- Human Intervention
How Autonomous Car Influence is Split By Market Segment

There is only a minor difference between the total amount of influence the luxury and non-luxury brands have garnered in relation to autonomous vehicles.

The move to autonomous driving is evident across the industry. This is a technology that companies appear to believe is important to their future regardless of market segment.

Luxury vehicles represent a small percentage of total automotive sales, making their push even more notable.

Mass-Market Brands 46%

High-End Luxury Brands 54%

8% Luxury Sales

92% Non – Luxury Sales
Influence In Perspective
Comparing Influence Across The Tech Industry

Measures “Net Influence Score” of all influencers in each marketplace as of July 18, 2014.
The Appinions Methodology for Calculating Influence

Influence is the capacity to have an effect on the behavior of someone else. That’s a powerful capability, particularly in a world where media is ubiquitous and nearly everyone has the capacity to repeat or amplify an idea.

Appinions measures influence as it is demonstrated in public news, articles, discussions, and social media. We apply patented natural language processing algorithms to first extract opinions that have been publicly shared, then determine who held that opinion, and finally to calculate an influence score based on the reaction each opinion elicits.

WHAT IS AN INFLUENCER?

An influencer is a person, brand or company that expresses contextually relevant opinions on a specific topic, which elicit meaningful reactions from others. The kinds of reactions we measure include quotes, references, comments, and retweets. Someone can share opinions frequently, and have those opinions reach large audiences, and yet not be considered influential if their opinions on a specific topic fail to generate meaningful reactions. We measure only the ability to garner meaningful reactions.

HOW ARE INFLUENCE SCORES CALCULATED?

Appinions reviews full-text from online, offline, and social sources, and calculates individual influence scores for each person or company who shared an opinion on a specific topic which generated a meaningful reaction. Scores are calculated independently for each topic, based on a specific topic definition that includes keywords, key phrases, and negative keywords. It’s also important to note that all scores exist on a single scale, so you can compare the relative value of any two scores, even on different topics or from different time frames.

The score considers: 1) Which people or entities reacted to an opinion, weighted by their respective influence on that topic; 2) What is the credibility of the outlet where the reaction was published or consumed; and 3) What volume of reactions were generated based on the opinions attributed to that influencer over the past 60 days.

Reviewing all opinions from everyone who comments on a given topic, identifying all of the reactions, and completing this calculation, results in a ranked list of influencers for any given topic or theme. In this report we reviewed over 200 million opinions (within over 2 billion documents) between April 10, 2014 and July 8, 2014.
Other Recent Appinions Influence Studies

These and other reports available at dj.appinions.com.
About Appinions

Appinions is an influence marketing platform. Our software enables B2B marketers to identify, manage, and analyze the impact of influence in their business. Appinions reveals the people, topics, content, and sources that are having a measurable impact on any marketplace. Fortune 1000 clients use Appinions to strategically drive their content marketing, executive influence, product launch, and more.

CUSTOMERS
Xerox, Dell, Nissan, Aflac, and American Airlines are among the companies that rely on Appinions to keep them aware and engaged. Appinions also publishes reports with partners such as Forbes, USA Today, and The Economist.

TECHNOLOGY
The Appinions platform is built on more than a decade of research conducted at Cornell University. Its patented technology extracts and aggregates opinions from more than 25 million articles every day including offline media, newspapers, magazines, blogs, forums, and social networks, and determines influence rankings based on reactions that have been generated.

To learn more, or schedule a personal conversation:
visit http://www.appinions.com
or write us at sales@appinions.com