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## Looking for the perfect tweet. The use of data mining techniques to find influencers on twitter

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## ABSTRACT

The purpose of this study is to investigate influencers on Twitter to discover the characteristics of their tweets through PIAR, a unique data mining research tool developed by the University of Salamanca that combines graph theory and social influence theory. An analysis of 3853 users posting about two automotive Japanese car firms, Toyota and Nissan, reveals the characteristics influencers have on this social network. The findings suggest that influencers use more hashtags and mentions on average when they tweet, and their word count is fewer than those with less power on this virtual community. Surprisingly, they tend to include less embedded links on their posts. Additionally, influencers have on average a large number of people they follow and they clearly express their opinions and feelings (either positive or negative) when tweeting. The results broaden the understanding of how influencers write and behave on social networks when they communicate with their users' community. Further, it provides insights for practitioners and marketers on how to discover influencers talking about their brands by observing tweets' content.

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## 1. Introduction

In recent years, social media have transformed the worldwide web into a participatory community where both users and companies co-create, share and modify content. The importance and the attention that social media has gained is widely studied among the scientific community as their growth seems unstoppable. According to *Social Media Today (2015)* nearly half of the global population (3175 billion people) are Internet active users. Social media have become increasingly fashionable with 2206 billion active users, 87.2% out of which access through mobile platforms. This means 12 new active mobile social users join these platforms every second, meaning one million per day!

All this incredible numbers have made brands realize the importance of social media to engage with customers in the digital world. Among all the different web 2.0 tools, microblogging sites have emerged as one of the most dynamic platforms for user-generated content. Microblogs are a set of Internet tools where users publish short updates to friends and interested observers via text messaging, instant messaging (IM), e-mail or the web (*Java,*

*Song, Finin, & Tseng, 2007*). Twitter is the most worldwide used microblogging platform. Born in 2006, it has 320 million monthly active users (*Twitter, 2015*) 80% of which are mobile. According to the latest statistics (*Internet Live Stats, 2015*), 7077 tweet are sent every second, meaning 611,452,800 tweets per day. Thus, is not surprising that microblogging platforms play a dominant role as a social medium that facilitates information sharing in many sectors such as news, travel or branding (*Jansen, Zhang, Sobel, & Chowdury, 2009; Parra-López, Bulchand-Gidumal, Gutiérrez-Tano, & Díaz-Armas, 2011*). Nevertheless, Twitter users also write on this social platform to complain about brands and share their frustrations (*eMarketer, 2014*). Consequently, by analyzing the information that users exchange, we can gain insights about their sentiments towards brands, companies, news or any other piece of relevant information. We refer to influencers as those individuals from a virtual community who are able to modify shopping behaviors of others (*BusinessDictionary, 2015*). Most brands try to involve influencers on their marketing campaigns, as professionals in the field believe they are effective to reach their commercial targets (*Augure, 2015*). Despite the efforts made by organizations and brands, the identification of influencers is still the main challenge for both companies and marketers (*Augure, 2015; Pal & Counts, 2011*). On the same line, *Ikeda, Hattori, Ono, Asoh, and Higashino (2013)* point out that research studying the community

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