## Ecuadorian mass media on Twitter during the 30-S

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Abstract-Internet and the massive deployment of mobile and wireless communication systems and devices are generating new digital environments that are drastically changing the way in which social ideas and debates are produced, accessed and disseminated. Online social networks are becoming the virtual public spheres by which the social and political events of this network society are being debated. Given this new digital and technological context, many researchers are questioning the processes of dissemination of the information generated into these virtual social structures and the validity of the traditional models of media influence in these environments. In this paper, we present the results of an empirical analysis of the dissemination of information on Twitter produced by two large Ecuadorian newspapers: "El Universo" (private newspaper) and "El Telégrafo" (public newspaper) during events of police insubordination on 30th September 2010. The results show that, given the restrictions imposed that day by the Ecuadorian government on the news broadcast from the private media, Twitter became on a space of diffusion and access of citizens to alternative views. In addition, it was observed that the information emitted during the 30-S by these newspapers, presented a structure of diffusion in multiple stages and multiple directions.

Keywords-Dissemination of information, communicative processes, virtual public sphere, online social networks, Twitter, mass media, 30-S, public opinion.

## I. INTRODUCTION

HE advent of information and communication technologies (ICTs), the massive deployment of mobile and wireless communication systems and devices, and the digitalization and unlimited access to information sources, are generating a highly connected society, with dynamic structures and very complex communication models and processes [1]-[4]. Internet, as support of this new social structure, has become a network of networks that connects anything (cities, entities, machines, electronic devices, people,...) anywhere and at any time. This new digital and technological environment is drastically changing the way in which social ideas and debates are produced, accessed and disseminated by citizens and social, political and governmental organizations [5].

On one hand, the digitalization of society is leading to the massive generation of information and data, while high connectivity is giving way to the presence of multiple sources and flows of multi-directional information on these virtual networks [1]. Citizens have ceased to be passive receivers of the mass media (radio, press and television) to become

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generators of content (recommendations, opinions, audio, text, video, multimedia) and, in many cases, promoters of collective movements in political [6]-[8], social [9] and economic aspects [10]. In this sense, several theories have been put forward in response to the need to understand the influence of the traditional media on public opinion.

An initial theory, known as the "two-step flow model of influence", establishes an indirect flow of media clout from the media to its users. A small group of intermediaries, known as "opinion leaders", act as gateways or links between the sender (media) and the receivers, influencing their opinion. In this way, the message disseminated by the media, in a first stage, reaches the "opinion leaders", who collect the information, process it and, in a second stage, disseminate it. As can be seen, the idea that personal contact is a more common and effective factor than the average in influencing its users is proposed [11]. The success of the dissemination of information lies in determining the "influencers" who can disseminate information among the "influenceable" belonging to their communication and opinion network. This theory has been widely accepted in the modeling of innovation diffusion. research communication processes and marketing [12]. On the other hand, the "hypodermic" model [13] promulgates a direct media influence on users, without the need for intermediaries. That is, the media directly "injects" its message to a passive audience, which reacts in a similar way to any stimulus it receives [14]. In both cases, these models represent a unidirectional structure of the flow of information, where the message starts from a single source (medium) towards the receivers (users or intermediaries), reaching them in no more than two stages.

Despite the wide acceptance and study of the previous theories, the development of a society characterized by the digitalization of information; the support of global communication networks, especially Internet; and, the capacity for connection and ubiquitous access to information, is generating a very complex communicational structure that questions the validity of the previous communicational postulates. Citizens are becoming empowered by the processes of generation and dissemination of information and, in many cases, by the structuring of public opinion [15], [16]. Moreover, online social networks (OSNs), such as "Twitter", "Facebook", "YouTube", "WhatsApp", "Flickr", among others, are playing the role of drivers of mass distribution of novel information and diversification of views among citizens. Thus, these networks are seen as the means through which the masses can make their points of view known and debate the different aspects of social life [16]-[18].

Many authors have come to consider the presence of Internet and, especially of OSNs, as a new virtual public sphere [19],