ONLINE OPINION LEADERS IN LATIN AMERICA AND THE MIDDLE EAST: the case of the Top 20 most-viewed twitter users

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ABSTRACT

This study aims to present the primary results of the project "The participation and social relationships of online opinion leaders on Twitter in Latin America and the Middle East" as part of the authors' research. This study's initial hypothesis is that despite the current rise in social networking, the communication flow model proposed by Klaus Jensen (2009) is only partially valid because these digital communication settings provide increased opportunities for the personalized exposure of messages from traditional (offline) opinion leaders rather than facilitating the emergence of new leadership at the social level. The results reveal that these users exhibit intensive Twitter use in both regions and a strong inclination to share information. However, we observed that most of their messages are personal and that fewer discuss the news. In comparison, users in Latin America achieve a greater impact on their networks than do users in the Middle East. The study concludes that the results support Kensen's model but, as previous studies have confirmed, that new types of online opinion leaders are not actually being produced.

Keywords: Opinion leader. Social Networks. Twitter. Social Relationships.

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1 INTRODUCTION

This paper presents the primary results of the project entitled "Participation and social relationships of online opinion leaders on Twitter in Latin America and the Middle East" as part of the authors' research. The project's aim was to analyze the impact of new communication flows in digital settings on the generation of new online opinions in Latin America and the Middle East. The study analyzed the Top 20 most-viewed Twitter users (according to TwitterCounter, which considers the number of followers, the number

of individuals followed, and the number of messages) in the Latin American countries Colombia, Chile, Mexico, and Venezuela and the Middle Eastern countries Egypt, Iran, Libya, and Tunisia.

The motivations for the study were as follows: 1) the need for academic work that would update and extend the results of the project "The participation and social relationships of online opinion leaders on Twitter in Colombia, Venezuela, and Iran," conducted in 2010; 2) the status of these regions and countries as sites of social unrest during the past decade that has transcended the physical public sphere,

spreading to digital environments through the use of virtual social networks; 3) the way in which, in these countries and regions, movements and users within virtual social networks have managed to publicize their personal and social causes in the international media (the press, the Internet, and TV) using these virtual settings during electoral processes or uprisings resulting from internal social conflict.; 4) the internal and international conflicts that these countries have experienced with their neighbors in recent decades; and 5) the clear socio-cultural and religious differences between those who follow or access information on the Top 20 most-viewed Twitter users in the groups of countries covered in this paper. However, instead of focusing on differences, this study attempts to analyze the similarities between the social participation and social relationships of the leading users within this social network and those of other users who view their information or make contact with them.
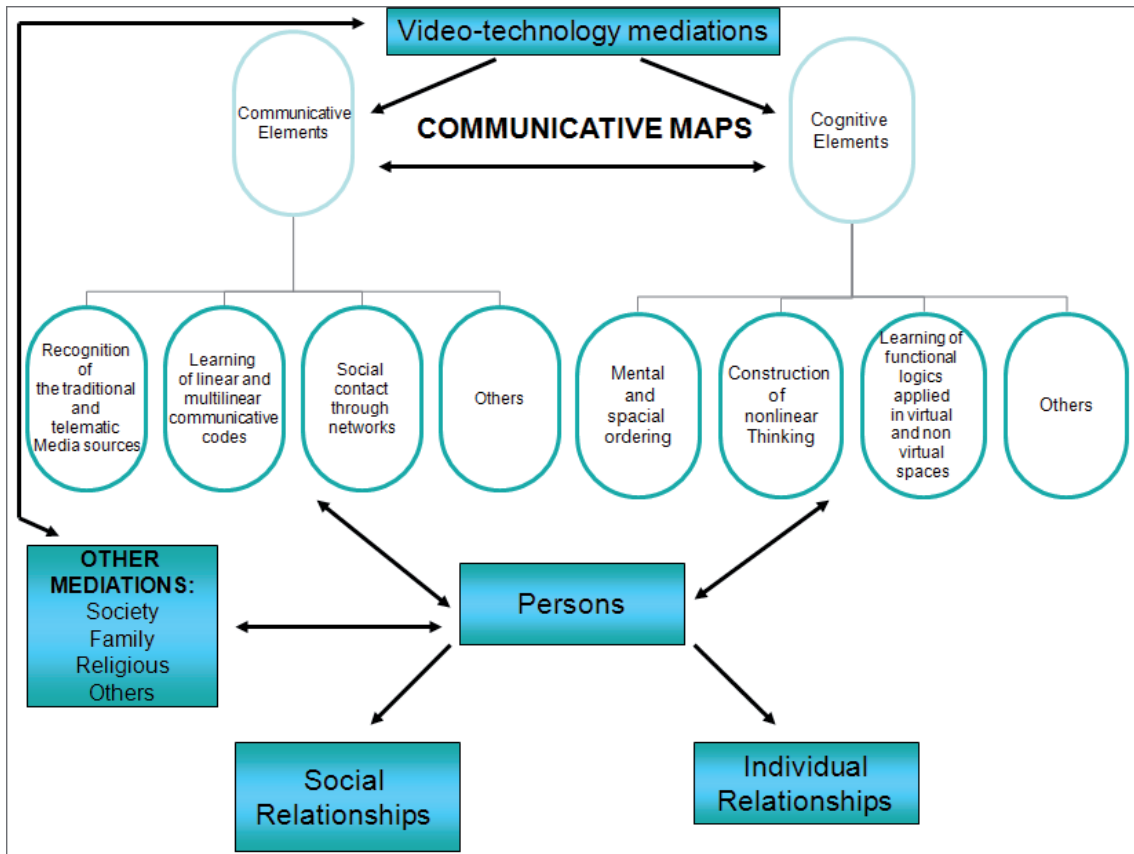
The data in this paper will help us to better understand the following: 1) the traits that characterize the most-viewed Twitter users in the countries and regions chosen for the case study, 2) the traits that characterize the messages published on the profiles of these users, 3) the generation and the nature of the social relationships of the Top 20 Twitter users, 4) the type of influence exerted by these users on other members of this social network, and 5) the nature of participation related to the Top 20 Twitter user profiles.

2 DIGITAL SOCIETY, PUBLIC OPINION, AND ONLINE OPINION LEADERS

As demonstrated by Moraes (2005), contemporary society is impacted by Information and Communication Technologies (ICT's) advancements related not only to the production and distribution of resources but also to social interaction. The growing influence of ICT on social dynamics has transformed 1) how we refer to each other cognitively and communicatively at the social level using increasingly complex communicative maps (Said, 2009) (see Graph 1); 2) spatial and conceptual boundaries, which have been weakened through real-time "online" access to all types of information and knowledge (RHEINGOLD, 1994), communication on the Internet, and the rise of online social networks (ARCILA, 2006); 3) the virtual and physical social routines performed by every individual (MILLER; SLATER, 2000; WELLMAN, 2001), which are increasingly more integrated in a more 'glocalized' setting (ROBERTSON, 1995; WELLMAN, 2001); and 4) the primacy of the "network" as a means of establishing new types of social relationships, which is itself a result of the significant increase in speed, flexibility, and access to knowledge that has resulted from advances in ICT (CASTELLS, 1997; CLEAVEr, 2004; LINS, 1998; ESCOBAR, 2004; JURIS, 2005). These new models have profoundly transformed the nature of communities, sociability, and interpersonal relationships, making them ever more individualized and remote because of the combination of virtual and physical social action that is possible given the diverse resources currently available for that purpose.

Figure 1 - Action model for the communicative maps used in contemporary societies

Within this context of transformation, the concepts of public opinion and opinion leaders should be reviewed in light of the new forms of social relationships and participation generated by the virtual nature of the Internet. For example, tools such as Twitter are reshaping some areas of journalism and are even replacing traditional aspects of the city (CAVALLIN, 2009). These transformations may also influence the concept of traditional opinion leaders in politics (PUYOSA, 2008).

The concept of public opinion has been approached from a variety of perspectives. For instance, Sartori refers to "a public, or multiple publics, whose different mental states (of opinion) are related to information concerning the state of the republic" (SARTORI, 1988). However, the rise of virtual communities (RHEINGOLD, 1994) has introduced new interaction settings for individuals, promoting a new range of discussions among citizens who are ever more glocalized and interconnected. Theories such as the Two-Step Flow of Communication (LAZARSFELD, BERELSON, GAUDET, 1944; KATZ, 1957; KATZ; LAZARSFELD, 1979), in which the media has an indirect impact through opinion leaders as a result of its direct personal ties with citizens, must be combined with new perspectives, taking into account 1) communication flows from traditional media to opinion leaders, 2) communication flows from opinion leaders to online media administered by these same leaders, and 3) the content that the citizens receive from these leaders through online media. This process is described by what Jensen (2009) calls the Three-Step Flow, a contingent model characterized by the confluence of one-on-one, one-to-many, and many-to-many communication (Figure 2).

Figure 2 - Communication flow models (Two-Step Flow vs. Three-Step Flow)
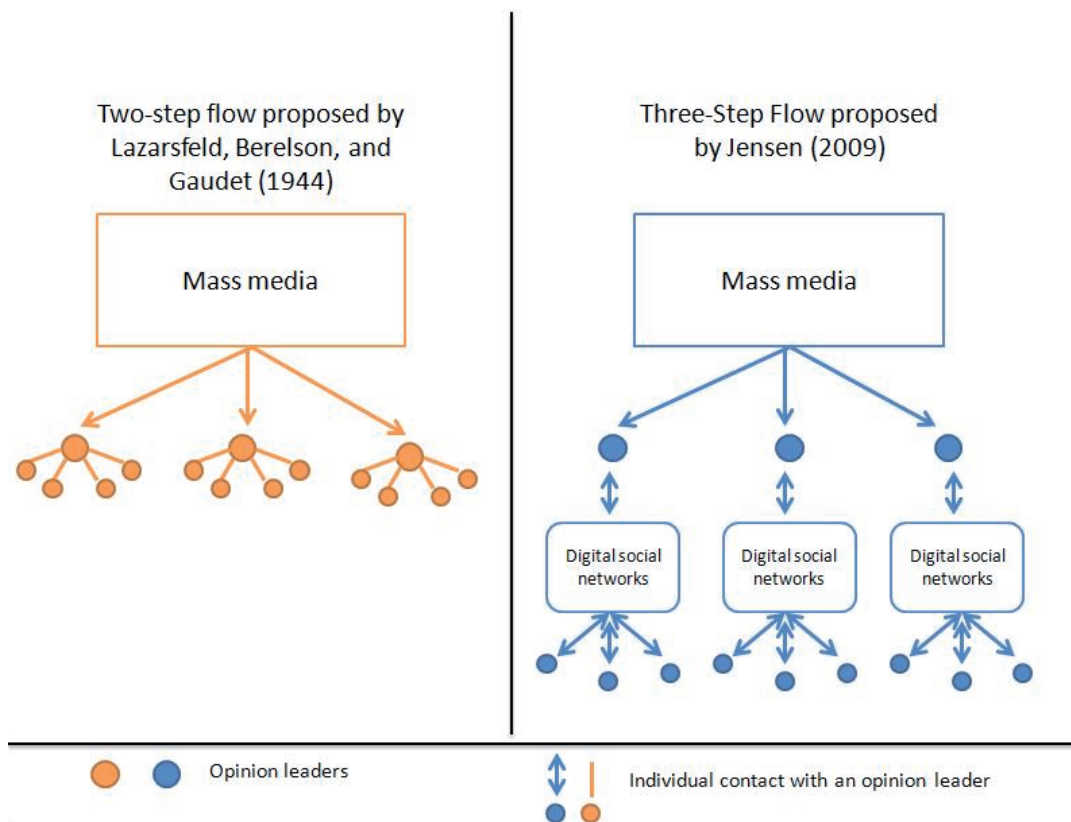
Source: Developed by Lazarfeld, Berelson, and Gaudet (1944) and Jensen (2009).

The Three-Step Flow also facilitates the rise of a new generation of online opinion leaders (Microsoft Advertising, 2009; Society for New Communication Research, SNCR, 2008) who 1) generate content that others consume, 2) have the ability to produce confidence and strengthen communication ties to potential and real followers using individual virtual media that are adjusted according to their interests and desires, 3) have an active and permanent presence on the Internet through blogs and social networks, and 4) can use different media to express informed views. However, previous studies (SAID; ARCILA, 2011) have suggested that in the early years of the transition to the digital world, many online leaders will arise via traditional dynamics.

From our perspective, the mere fact that certain individuals in social networks have massive followings renders them opinion leaders because 1) their messages have a significant impact and 2) their followers have chosen them because they have a high degree of credibility. Thus, although they do not fit the traditional profile of opinion leaders, these digital media leaders have an interesting sociological profile that differs significantly from that of other citizens who remain unnoticed within these networks[1].

3 METHODOLOGY

The study was both qualitative and quantitative. The sample focused on the Top 20 most-viewed Twitter users in the Latin

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[1] It is important to note that our decision to use numbers of followers in identifying online opinion leaders is only meant to guide our understanding of the subject of leadership on the Internet; we do not suggest that this is the only valid criterion. Other considerations such as the degree of involvement in conversations, messages from the most followed users, or dialogue within social networks regarding controversial issues might also be considered.

American countries Colombia, Chile, Mexico, and Venezuela and the Middle Eastern countries Egypt, Iran, Libya, and Tunisia[2]. These users were selected using the TwitterCounter ranking[3] for August 8-15, 2011, for which followers, individuals followed, and Tweets generated were considered.

The study analysis was focused on the following questions: What are the characteristic features of the Top 20 most-viewed users on Twitter in the regions and countries studied? How are social relationships constructed because of these users? Are new types of social leaders being generated through Twitter? How much of the news agenda is reproduced by the Top 20 users analyzed in each country?

Each of these questions was answered using a set of variables and categories intended to reveal the overall dimensions of the influence and participation of the Top 20 users selected for this project. The set of variables and categories included the following: 1) the users' social profiles and the uses of these profiles; 2) the content agendas presented by the users; and 3) the type of influence exerted by these users on other Twitter members.

Each of these dimensions was analyzed by measuring existing quantitative indicators that can be examined using the following analytical tools that are available online: Twitter's advanced search, Twerpscan, Tweetstat, Twitalyzer, Tweeteffect, TwitterCounter, and RetweetRank.

Resolving the various questions raised here using the analytical dimensions noted above will allow us to confirm the following hypothesis:

- For the Top 20 most-viewed Twitter users in the Latin American countries Colombia, Chile, Mexico, and Venezuela and the Middle Eastern countries Egypt, Iran, Libya, and Tunisia, the rise of social networking sites is helping to strengthen the communication flow model (Three-Step Flow) proposed by Jensen (2009) within these virtual settings and to develop new opinion leaders.

The data and indicators extracted using the online tools selected for this study, as well as the calculations made using data obtained directly from Twitter, fully take into account the content presented by each of the Top 20 users. For RetweetRank and Twerpscan, the analysis result is statistically significant, with a 97% confidence interval and $\alpha=0.01$ for approximately 12,000 of the total number of Tweets published by the users (RetweetRank) and over 95% of the Tweets sent (Twerpscan).

The qualitative analysis of the messages from the users analyzed was conducted based on a cluster sample with a 95% confidence interval and $\alpha=0.05$; the last 20 Tweets published on each of the user's profiles were analyzed.

The total number of messages for the Top 20 users in each country under analysis from August 8 – 15, 2011, was 1,200 (Table 1).

Table 1 - Tweets analyzed from the Top 20 most-viewed Twitter users in the Latin American and Middle Eastern countries studied

	Latin America				Middle East				Total
	Colombia	Chile	Mexico	Venezuela	Egypt	Iran	Libya	Tunisia	
Total Tweets (N) in Users	8,717,488	10,968,999	13,297,989	9,394,433	1,745,381	6,264,300	8,507	42,080	
n-messages*	399	350	378	201	363	337	40	279	
n-users	20	20	20	20	19**	17**	20	18**	
Total Tweets Analyzed	**1,328**				**1,1016**				
									2,344

Note: * The total number of messages analyzed depended on our ability to access the last 20 messages published by the users studied in the time allotted for collecting information using Tweeteffect.

        ** The number of users analyzed varied according to the level of privacy of the Top 20 most-viewed users in the countries analyzed when TwitterCounter and WeFollow were used during the fieldwork.

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2 As we explain in the previous section, we used each user's number of followers as our criterion in identifying the Top 20.
3 http://twittercounter.com/

4 PROFILE OF THE TOP 20 MOST-VIEWED TWITTER USERS

After analyzing the set of the Top 20 most-viewed users on Twitter in the Latin American and Middle Eastern countries considered in this study, we identified a number of characteristics that are common to both the users' social profiles and their use of those profiles. As observed in Tables 2, 3, and 4, the following is true of these groups of users:

In the Latin American sample,

- The users primarily (73%) belong to the countries analyzed. These users have a high level of knowledge and awareness of the realities in their respective countries.
- The users primarily play *intensive* roles (as everyday users) with great potential to impact other users within small circles of influence within Twitter. They also play connective roles due to their relationships with other Twitter members and possess excellent skill at communicating with them using the social network.
- Most of the users share professional information in their biographies (62.5%) and in messages of a personal nature (17.5%). A total of 13.75% do not provide biographical information.
- Most of the users work in the arts and media communications sectors.
- The users are primarily male or represent institutions.
- Although most of the users do not enjoy public status or social relevance in the countries studied, a notable percentage (22.5%) do enjoy a degree of social recognition.
- The primary language used is Spanish (82.5%), followed by Portuguese (15%).
- The users are very public; none of them has restricted access to or limited the visibility of their profiles or messages.
- A high percentage of the users studied (65.5%) enjoy stable status within Twitter, having begun using the social network 2 or 3 years prior. A smaller percentage (35%) can be considered "new" users, having used the site for less than 2 years.

- If we analyze these users according to the worldwide Twitter rankings (reported by TwitterRank, which measures users' numbers of friends and followers and their update frequency), we can observe that the Latin American users are *average* in terms of this index (10,873). Other tools allow us to observe that the users have a *high* number of followers and publish a high number of Tweets but that they have only an average level of impact in comparison with other Twitter users and an *average* Retweet ranking.
- In most cases, the users exhibit active Twitter participation during workdays and during the daytime: that is, in the morning or afternoon.
- In general, the users analyzed for this region tend (i.e., in 78% of the Tweets analyzed) to publish creative messages unrelated to the news agenda of the traditional media.

This percentage is accurate for the data collection period for this project.

In the Middle Eastern sample,

- The users primarily (66%) belong to the countries analyzed; each possesses a high level of knowledge and awareness of the realities of the country in question.
- These users are almost entirely (78.5%) *intensive* (everyday) users. They can have a large potential impact on other users in a small circle of influence using their Twitter channels. However, a notable percentage (17.7%) are more active within their own networks ('social butterflies'), are early adopters of the ideas that they share with other Twitter users ('trendsetters'), or act as the voice of many other users within their social networks ('thought leaders').
- Although the majority of the users analyzed use Twitter in connection with their professional lives (58.2%), a significant percentage (38%) uses the microblog for personal purposes.
- Most of the users provide professional information in their biographies (51.9%), with personal messages (37.9%) also used for this purpose.
- Most of the users work in the arts, journalism, and business. However, there

are also many bloggers and users who do not clearly indicate their profession. We also observed that communications and the Internet are the primary contexts in which the users operate.

- Like the profiles of the Latin American users, those of the Middle Eastern users are almost entirely administered by men and/or businesses/institutions.
- Most of the users do not have significant public relevance (94.9%).
- The most commonly used language is English (64.56%), and the second most commonly used language is Arabic (16.46%). A total of 5% of users use Arabic and English interchangeably.
- These users are highly public; not one has restricted access to or limited the visibility of his or her profile.
- A high percentage of the users (62.3%) have already secured a place within the Twitter community (with 2 to 3 years of activity), whereas a smaller percentage

(31.7%) are newer users (with less than 2 years on Twitter).

- The users in the Middle East are at a very low level regarding their global Twitter rankings (126,342). These users have an average number of followers, a high level of Tweet publishing, and a low level of impact in comparison with other Twitter users; they also rank very low in the Retweet rankings.
- The users exhibit active participation on Twitter during the week and are more active on the social network during the day. A total of 66% of the individuals in this region tend to access the network all day (44%) or in the morning (22%).
- In general, the users for this region tend (in 81% of the Tweets analyzed) to creatively display messages that are unrelated to the news agenda of the traditional media. This percentage is accurate for the data collection period for this project.

Table 2 - Descriptive data indicating the general profiles of the Top 20 most-viewed Twitter users by region of study

Indicator	Categories	Latin America (μ observed)	Middle East (μ observed)	Total (μ observed)
Nationality	Argentine	4%	0.0%	2%
	Brazilian	13%	3%	8%
	Canadian	1%	0.0%	0.5%
	Chilean	3%	0.0%	1.5%
	Colombian	**24%**	0.0%	12%
	American	1%	14%	7.5%
	Mexican	**24%**	0.0%	12%
	Venezuelan	**25%**	0.0%	12.5%
	Egyptian	0.0%	**23%**	11.5%
	Libyan	0.0%	**19%**	9.5%
	Tunisian	0.0%	**24%**	12%
	Others (Belgian, French, Mongolian, Moroccan, Palestinian, Portuguese, Romanian, British)	0.0%	10%	5%
	No Information on the tool	6%	8%	**7%**
Role of User[4]	Everyday Users[1]	**62.5%**	**78.5%**	**70.4%**
	Reporters[3]	**36.3%**	3.8%	**20.1%**
	Others (innovators, consumers, and information newspapers)	1.3%	17.7%	9.4%

Indicator	Categories	Latin America (μ observed)	Middle East (μ observed)	Total (μ observed)
Type of User	Personal	**25.0%**	**38.0%**	**31.4%**
	Professional	**75.0%**	**58.2%**	**66.7%**
	Not identified	0.0%	3.8%	1.9%
User's Profession	Artists (actors, singers, presenters, writers, photographers, etc.)	**35.0%**	**10.1%**	**22.6%**
	Journalists	**32.5%**	**27.8%**	**30.2%**
	Communications media employees	3.8%	1.3%	2.5%
	Academics (professors, advisers, etc.)	1.3%	6.3%	3.8%
	Bloggers/YouTube vloggers	0.0%	**10.1%**	5.0%
	Public officials	5.0%	0.0%	2.5%
	Private companies	0.0%	8.9%	4.4%
	Communities/NGOs	0.0%	2.5%	1.3%
	Athletes	1.3%	2.5%	1.9%
	Students	0.0%	2.5%	1.3%
	Politicians	2.5%	2.5%	2.5%
	Not identified	**18.8%**	**25.3%**	**22.0%**
Twitter User's Area of Action	Art	15.0%	3.8%	9.4%
	Science	1.3%	0.0%	0.6%
	Business	0.0%	3.8%	1.9%
	Communication	**32.5%**	**26.6%**	**29.6%**
	Sports	3.8%	2.5%	3.1%
	Internet	0.0%	**24.1%**	**11.9%**
	Literature/communication	1.3%	0.0%	0.6%
	Medicine	0.0%	1.3%	0.6%
	Fashion/performance	**21.3%**	6.3%	**13.8%**
	Politics	7.5%	2.5%	5.0%
	Not identified	**17.5%**	**29.1%**	**23.3%**
Twitter User's Gender	Female	15.0%	12.7%	13.8%
	Male	**58.8%**	**46.8%**	**52.8%**
	Other (institutions)	**26.3%**	**40.5%**	**33.3%**
Twitter User's Public Status	Anonymous	**77.5%**	**94.9%**	**86.2%**
	Public	22.5%	5.1%	13.8%
Twitter User's Social Relevance[1]	International	**16.3%**	**24.1%**	**20.1%**
	National	**68.8%**	**41.8%**	**55.3%**
	Not identified	15.0%	**34.2%**	**24.5%**

Note: [1] These data correspond only to the users who were identified as possessing some level of public fame or social leadership in the countries and regions analyzed in this study.

Table 3 - Descriptive data regarding the Top 20 most-viewed Twitter users in the Latin American and Middle Eastern countries studied

Indicator	Categories	Latin America (μ observed)	Middle East (μ observed)	Total (μ observed)
Average Twitter Ranking (Worldwide)[1]	Very high (<100)	10,873	126,342	68,607
	High (≥100 < 9,999)			
	Average (≥10,000 <49,999)			
	Low (≥50,000 <99,999)			
	Very low (>100,000)			
Primary Language Used in Twitter User's Profile	Arabic	0.00%	**16.46%**	8.18%
	Arabic/English	0.00%	5.06%	2.52%
	Spanish	**82.50%**	0.00%	**41.51%**
	French	0.00%	5.06%	2.52%
	French/Arabic	0.00%	1.27%	0.63%
	English	2.50%	**64.56%**	**33.33%**
	Portuguese	**15.00%**	3.80%	9.43%
	N.A.	0.00%	3.80%	1.89%
Type of Information Presented in User's Bio	Personal message	**17.50%**	**37.97%**	**27.67%**
	Professional message	**62.50%**	**51.90%**	**57.23%**
	Professional message	1.25%	0.00%	0.63%
	No message	**13.75%**	8.86%	**11.32%**
	Website	5.00%	1.27%	3.14%
User's Time on Twitter	Less than 2 years	**35.00%**	**31.65%**	**33.33%**
	2 to 3 years	**62.50%**	**63.29%**	**62.89%**
	More than 4 years	2.50%	5.06%	3.77%
Average Number of Followers[1]	Very high (≥1,000,000)	536,114	103,382	322,487
	High (≥500,001 <1,000,000)			
	Average (≥100,001 <500,000)			
	Low (≥50,001 <100,000)			
	Very low (≤50,000)			
Average Number of Tweets[1]	Very high (≥15,001)	18,658	11,092	14,923
	High (≥10,001 <15,000)			
	Average (≥5,001 <10,000)			
	Low (≥1,001 <5,000)			
	Very low (≤ 1,000)			
Average Percentage of Impact[1]	Very high (≥ 81)	53%	22%	40%
	High (≥61 <80)			
	Average (≥41 <60)			
	Low (≥21 <40)			
	Very low (≤20)			
Retweet Rankings[1]	Very high (≥100)	21.952	318.228	179.348
	High (≥101 <9.999)			
	Average (≥ 10.000 < 49.999)			
	Low (≥ 50.000 < 99.999)			
	Very low (≥ 100.000)			

Indicator	Categories	Latin America (μ observed)	Middle East (μ observed)	Total (μ observed)
Privacy of Messages Displayed in Twitter User's Profile	Private	0.0%	1.3%	0.6%
	Public	**100.0%**	**98.7%**	**99.4%**
Time of Greatest Twitter Activity	Morning	**30%**	**22%**	**26%**
	Afternoon	**28%**	14%	**21%**
	Night	5%	6%	5.5%
	Morning and afternoon	19%	14%	16%
	All day	18%	**41%**	**29%**
Average Tweets by Day of the Week	Sunday	1,343	637	990
	Monday	1,745	773	1,259
	Tuesday	2,394	791	1,593
	Wednesday	1,907	802	1,355
	Thursday	1,838	818	1,328
	Friday	1,800	682	1,241
	Saturday	1,247	608	928
User's Role According to Type of Influence[2]	Everyday Users[3]	**62.5%**	**78.5%**	**70.4%**
	Reporters[4]	**36.3%**	3.8%	**20.1%**
	Others (Social Butterflies[5], Trendsetters[6] and Thought Leaders[7])	1.3%	17.7%	9.4%
Tweet's Relationship to News Agenda	Yes	22%	19%	21%
	No	**78%**	**81%**	**79%**

Note: [1] The proposed scale was based on the research criteria used by the authors of this paper to process the information provided by the variable in question.

[2] The user roles were adopted from typologies used by Twitalyzer based on a suggestion provided by Barone (2010).

[3] Users with small circles of influence among Twitter users but substantial potential for contact within this social network. These users are characterized by intensive use of the microblog.

[4] Users connected to other Twitter members who are highly skilled in communication with them.

[5] Users with a high activity level within their networks of personal contacts.

[6] Users who quickly adopt trends and exchange new ideas with other users.

[7] Users who are the voice of or a reference for many other Twitter users.

Table 4 - Access tools used by the Top 20 most-viewed Twitter users in the Latin American and Middle Eastern countries studied

	Latin America			Middle East[1]	
RK	Name of Tool	Average Number of Tweets Sent with Tool	RK	Name of Tool	Average Number of Tweets Sent with Tool
1	Web Page	4723.06	1	TweetDeck	2006.49
2	TweetFeed	4069.87	2	Web Page	1422.88
3	TweetDeck	3929.11	3	HootSuite	283.90
4	bit.ly	993.86	4	Blackberry	280.66
5	HootSuite	896.00	5	UberTwitter	246.10
6	UberTwitter	670.38	6	Facebook	160.64
7	Blackberry	662.29	7	Twitter for iPhone	159.92
8	API	207.83	8	bit.ly	96.15
9	Twittelator	191.38	9	Twitterrific	87.82
10	CoTweets	181.75	10	TweetFeed	76.92
11	Facebook	111.40	11	Seesmic	75.13
12	Tweet for Mac	103.25	12	Osfoora HD	45.41
13	TweetMeme	90.90	13	Twittelator	32.13
14	Osfoora HD	89.00	14	TwitterFon	28.04
15	Twitter for iPhone	69.14	15	Ping.fm	19.13
16	Twitter4j	64.94	16	SocialOomph	12.82
17	TweetCaster iPhone	64.30	17	Blip.fm	10.67
18	Twitterrific	56.78	18	TwitBird iPhone	6.41
19	Mobile web	44.85	19	Mobile web	3.21
20	TwitterFox	31.28	20	Txt	2.96

Note: N-users=159; N_{LA}-users=80; N_{ME}-users=79

5 NEWS AGENDA OF THE TOP 20 USERS IN LATIN AMERICA AND THE MIDDLE EAST

The news agenda presented by the Top 20 users in the Latin American countries Colombia, Chile, Mexico, and Venezuela and the Middle Eastern countries Egypt, Iran, Libya, and Tunisia (Table 5) mostly consisted personal messages (62% for Latin America and 89% for the Middle East). Only for Latin America was a significant percentage of content news or information related for the Twitter users analyzed (28%).

Table 5 - Average percentage of messages analyzed for the Top 20 Twitter users in the Latin American and Middle Eastern countries studied

Type of Message	Latin America	Middle East	Total	Example
Personal	62.03%	88.71%	73.82%	Today is August 8...a special day for me! Exactly 40 years ago, I entered the Military Academy of Venezuela. And I began to be born again!
News/Information	28.34%	9.91%	20.20%	Comptroller warns of impending threats for drug leaders http://bit.ly/oH0USn
Professional	2.41%	0.00%	1.34%	Last day for registration tomorrow!!! Training Center @cuauhtemocb10 @cefor_cb10 in Lindavista!!! http://yfrog.com/gz2e5jhj
Promotional	5.36%	0.00%	2.99%	Andrea Echeverri among the best vocalists of Hispanic Rock!... http://fb.me/14tEngAUJ
Social	1.48%	1.37%	1.43%	Massacres continue in Syria, Libya and Yemen. A famine in Somalia. The world acts while the Arab nation slumbers. When will our soul return?
Cannot be determined	0.39%	0.00%	0.22%	Jesus!!!!!!!!!
Total	100%	100%	100%	

Note: N-messages=2,344; n-messages=2,307

To analyze the relationship of the content published by the Twitter users from Colombia, Venezuela, and Iran with the national and/or international news agenda followed by the media, we examined the sample of messages associated with each profile for each country (Table 3). We found that the analyzed messages are consistent with the general profiles of the Top 20 users in the countries and regions analyzed. This observation was made based on the µ Index for News Agenda Tracking (Índice de Seguimiento de la Agenda Noticiosa - ISAN)[4]. The profiles indicate a lesser interest in using Twitter to communicate information that was also transmitted by the traditional media during the data collection period (µ-ISAN$_{LA}$=0.22 for Latin America and µ-ISAN$_{ME}$=0.17 for the Middle East).

In examining the Top 5 words used in the users' Tweets based on data obtained and processed by TweetStats (Table 6), we discovered that most used words fell into the following categories:

a) In the Latin American sample:
- Connecting words and those related to time: e.g., in, which, the, one, but, on, and today.
- Words denoting relationships: e.g., much, kisses, greetings, and thank you.
- Words related to technology: e.g., facebook, twitter, www, twitpic and fb.
- Words that refer to the news, opinion leaders, or particular figures: e.g., president, Colombia, Chávez, and government.

b) In the Middle Eastern sample:
- Connecting words and those related to time: e.g., day, *pour, pas, je, c'est,* and *des* [for, no/not, I, it is, and of].
- Words that indicate judgment: e.g., cool, good, great, and new.
- Words that refer to actions or objects: e.g., watch, did, and going.
- Words related to technology: e.g., facebook, fb, www, and blog.
- Words that refer to the news, opinion leaders, or particular figures: e.g., Egypt, Tunisia, and Obama.

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4 ISAN=No. of Tweets related to the news agenda/total Tweets analyzed by region studied (Latin America and the Middle East). A value of 1 on this index would indicate that the users completely reproduce traditional media news using their Twitter profiles.

Table 6 - Key words most used by the Top 20 most-viewed users in the Latin American and Middle Eastern countries studied

LATIN AMERICA		MIDDLE EAST	
WORD	**FREQUENCY**	**WORD**	**FREQUENCY**
EN	21	DAY	8
QUE	19	GOOD	8
EL	16	POUR	8
GRACIAS	16	FB	7
PARA	15	EGYPT	7
COLOMBIA	8	GREAT	6
LA	7	GOING	5
POR	7	PAS	4
LAS	6	FACEBOOK	4
LOS	5	PEOPLE	3
PRA	4	THANKS	3
BESOS	4	DES	3
GOBIERNO	4	LES	3
DEL	3	CEST	3
PRESIDENTE	3	OBAMA	3
UM	3	DID	3
MUITO	3	GOOGLE	3
SALUDOS	2	JE	3
HOJE	2	DU	3
TWITPIC	2	NEW	2
MI	2	GL	2
N	2	FM	2
PERO	2	GOO	2
TWITTER	2	MAIS	2
EM	2	GS	2
FACEBOOK	2	OW	2
FB	2	EN	2
DA	2	ONTVEG	2
COMO	2	TUNISIA	2
WWW	2	WATCH	2
CHÁVEZ	2	COOL	2
MÉXICO	2	WWW	2
ABRAZO	2	BLOG	2
A	2	BEST	2

Note: N-messages=2,344; n-messages=2,307
Words with a frequency of 1 are excluded from the table.

Based on the results presented in Table 6, we can observe that among the Latin American users, the most frequently used words are connecting words and those that refer to time. In order of frequency, the other types of frequently used words are those that express relationships, those related to technology, and those related to the news. However, for the Middle East, after connecting words and those related to time, which are the words used most often (in that order), the other groups are as follows: words that express judgment, words that refer to technology, words related to the news, and words that describe actions or objects.

With regard to the volume of the messages published on the profiles of the Top 20 users in the Latin American countries and Middle Eastern countries examined here, the data obtained from Twerpscan (Table 7) indicated a degree of equality among the users analyzed in both regions, particularly in terms of Retweets and Replies (μ=9 and 7.5, respectively). However, the Top 20 most-viewed users in the Middle Eastern countries used more messages that include links than did the Latin American users (μ=43 and 34.7, respectively).

Table 7 - Percentage of Retweet, Replies, and Tweets with Links for the Top 20 most-viewed users in the Latin American and Middle Eastern countries studied (according to Twerpscan)

	Latin America				Middle East			
	μ	Max.	Min.	Standard Deviation	μ	Max.	Min.	Standard Deviation
Percentage of Retweets Published	9.0	80.0	.0	17.7	7.5	87.0	.0	13.8
Percentage of Replies Published	19.2	88.0	.0	23.9	22.8	87.0	.0	25.0
Percentage of Tweets with Links Published	34.7	100.0	.0	30/4	43.0	100.0	.0	30.6

Note: N-users: 159; N_{LA}-users=80; N_{ME}-users=79

6 INFLUENCE AND IMPACT OF THE TOP 20 USERS IN LATIN AMERICA AND THE MIDDLE EAST

To examine the impact and influence of the users analyzed in Colombia, Venezuela, and Iran, we used census data collected using the monitoring tool Twitalyzer as a benchmark. To measure user impact, this tool considers the following: the user's number of followers, the number of unique references to the Twitter user, the frequency of Retweets by the user, the frequency of user Retweets of messages Retweeted by other individuals, and the frequency of user Tweets. In determining the influence of Twitter users, Twitalyzer, which analyzes approximately 95% of all messages posted by users in the social network, uses the categorization developed by Barone (2010) as a reference, isolating 1) Everyday Users, who have a small social network but a high capacity to generate their own ideas; 2) Reporters, who are connected to other Twitter members and are highly skilled at communicating with them; 3) Social Butterflies, who exhibit a high activity level within their personal contact networks; 4) Trendsetters, users who quickly adopt trends and exchange new ideas with others; and 5) Thought Leaders, users who are the voice of and a reference for many other Twitter members.

Data generated from Twitalyzer indicate (Table 8) that the most-viewed users in Latin America generate a greater impact within Twitter (μ=49.72%), whereas the Middle Eastern users analyzed exhibit a lower impact (μ=20.06%).

Table 8 - Impact percentages for the Top 20 most-viewed users in the Latin American and Middle Eastern countries studied

Region	μ	Maximum	Minimum	Standard Deviation
Latin America	49.72%	79.00%	2.00%	18.45
Middle East	20.06%	70.00%	.00%	20.60

Note: N-users=159; N_{LA}-users=80; N_{ME}-users=79

8 CONCLUSION

We exist in a society influenced by ICT advances that impact not only the production and distribution of resources but also the manner in which we construct our social relationships and establish relationships with those who serve as our opinion leaders. The data obtained for the Top 20 most-viewed Twitter users in the Latin American countries Colombia, Chile, Mexico, and Venezuela and the Middle Eastern countries Egypt, Iran, Libya, and Tunisia indicate trends in our society's growing digitalization that are also discussed in works by authors such as Miller and Slater (2000), Wellman, (2001), Robertson (1995), Wellman (2001), Castells (1997), Cleaver (2004), Lins (1998), and others. However, our society's traditional traits also remain strong.

For instance, consider the profiles of the Twitter users analyzed in this study. Social networks can be viewed as an extension of local and/or national ties that the Top 20 most-viewed users have with other people in the Latin American and the Middle Eastern countries studied. These users are citizens of the countries considered in this paper and predominantly use the official languages of those countries (although the latter is more true in the case of Latin America). We observed a marked reproduction of the gender inequality that is usually observed among traditional opinion leaders in these countries; in comparison to women, males and institutions still have special significance. Additionally, among the users in both regions but particularly in Latin America, the "professionalized" use of Twitter is frequent. In essence, these users employ the social network to establish an identity among other users that clearly indicates their roles in traditional society. This tendency was evident in the users' presentation of information about their professions, which in most cases are in areas related to traditional communications and culture in both of the regions studied.

The data studied here also present a profile of the Top 20 most-viewed users in the Latin American and Middle Eastern countries studied. This profile includes the intensive use of Twitter, the role of the everyday user in the network, and a strong inclination to share information by publishing links to other websites (at least in the Middle East). However, these users do not tend to reference or respond to their followers. The growing use of mobile devices as Application Programming Interfaces (APIs) to access Twitter in the Middle East, in comparison with the use of computers and other API applications to access the Internet and other social networks in Latin America, also demonstrates the varying features of network societies as characterized by Castells (1997) and the other authors previously mentioned.

The data presented in this study also allowed us to determine the type of Twitter use exhibited by the Top 20 most-viewed users in the Latin American and Middle Eastern countries and the general characteristics of the message content, as well as the degree to which the users reproduced information presented by the traditional media. A strong degree of customization was visible, and relationships generated between the users and other Twitter members were not emphasized in the message content; in addition, the messages were typically creative and were unrelated to the news agenda of the traditional media. Thus, we conclude that although the communication flow model proposed by Jensen (2009) appears to be reflected to some extent in the messages analyzed, Twitter is not generating the rise of new online opinion leaders. This conclusion reaffirms the hypothesis by Said and Arcila (2011), as indicated by the relationships constructed between the users and their followers. Although these ties are related to the users' visibility in professional spheres and traditional areas of action in many cases, they also underscore the ability of digital settings to increase personal ties for traditional opinion leaders. These leaders are interested in being more visible in a unidirectional sense or in using links in their messages, often communicating their human or personal side in these contexts.

Overall, at least on Twitter, the Top 20 most-viewed users are generally traditional opinion leaders. These users take advantage of this microblogging platform as a tool for filtering or sharing personal messages that are not "publishable" in traditional media. These messages can generate emotional bonds and strengthen the existing relationship between a leader and his or her followers, making this social network more important for transcending spatial and temporal boundaries. Increasing the visibility of information or news published in traditional media is a secondary priority.

FORMADORES DE OPINIÃO ON-LINE NA AMÉRICA LATINA E NO ORIENTE MÉDIO:
o caso do top 20 mais visto por usuários do twitter

Resumo *Este estudo tem como objetivo apresentar os resultados preliminares do projeto "A participação e as relações sociais de formadores de opinião on-line no Twitter na América Latina e no Oriente Médio", como parte de pesquisa dos autores. A Hipótese inicial deste estudo é que, apesar do aumento atual das redes sociais, o modelo de fluxo de comunicação proposto por Klaus Jensen (2009) é apenas parcialmente válido porque essas configurações de comunicação digital oferecem maiores oportunidades para a exposição personalizada de mensagens de líderes de opinião tradicionais (offline), ao invés de facilitar o surgimento de novas lideranças ao nível social. Os resultados mostram que os usuários apresentam uso intensivo do Twitter em ambas as regiões e uma forte inclinação para compartilhar informações. No entanto, observa-se que a maioria de suas mensagens são pessoais e que pouco discutem a notícia. Em comparação, os usuários da América Latina atingem um impacto maior em suas redes do que os usuários no Oriente Médio. O estudo conclui que os resultados suportam o modelo de Kensen, mas, como estudos anteriores já confirmaram, novos tipos de líderes de opinião on-line não estão realmente sendo produzidos.*

Palavras-chave: *Redes Sociais. Twitter. Líder de Opinião. Relações Sociais.*

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