Social Media Effect inside University Communication: A Mexican Case

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Abstract—Social media for university marketing has become the new fad. Students, teachers and administrative personnel of different campuses use these new tools to promote their university achievements and to introduce communication within or outside campus. However, are social media tools improving communication among students and staff? Can the use of Twitter and Facebook effectively promote university activities? The purpose of this research is to explore some of these questions, based on the main research question: Is social media a trusted communication tool? Using the results from an online survey applied on a Mexican public university, we collected 80 cases of students, administrative staff and professors. Findings reveal that social media is not well understood and there is a lack of strategy to promote engagement, communication and useful content on the social media platforms used by this university.

Keywords—twitter, Facebook, university, marketing, communication, undergraduates

I. INTRODUCTION

Universities are the traditional space for ideas. However, communication of these ideas have suddenly changed with the use of technological devices such as computers, mobile phones and all kind of new technologies that use internet as the main platform creating a new space for distributing ideas, generating debates and improving scientific research.

These changes can be explained with Friedman’s ideas where the world is considered flat, horizontal and easy to communicate and share ideas or create new trends. This kind of synergy is complemented with the economic perspective, the new Wikinomics which is based on the idea of collaboration, co-production and peer to peer production. The e-commerce and mobile commerce has change the business perspective. The rising of new markets such as Apps, online movies, online music has create new business ecosystems that challenges traditional business structures and force to change consumers behavior and new rules from business.

On the political side, technological changes have created new challenges such as open government data, WikiLeaks or the cyberactivism that has mobilized social groups in order to change their country ruling government – the Arab Spring. All of these effects are part of information communication technologies that have impacted societies at different levels.

This context affects universities at different levels. Relationship among students and teachers has changed with the use of technology. New contents – digital contents – and the increased use of eBooks have been spreading; despite different kinds of risks such as bullying, pornography and psychological effects including isolation and social disorders.

Technology has created a different effect in the outside context of universities such as branding competition, development of new marketing strategies and improvement of their alliances and relationships with other universities worldwide.

There are just very few studies that analyze these changes in the relationship between students, professors and university staff that uses social media as a mean of communication. Maybe, the reason for this is because of the overwhelming use of social media by all university actors that makes it obvious.

Our research is focused on this assumption. We think that social media effects inside universities must be studied and understood with the same importance than a business search or a political output. It is relevant to understand the impact of the use of social media in universities which can affect communication, engagement, student and teachers’ performance, trust, leadership, flow of processes and decision making, among other possible effects.

The purpose of our research is to understand these effects, challenges or problems that are caused by the use of social
media. To achieve this goal we prepared an online survey and applied it to 84 cases in the Autonomous University of the State of Mexico, a public university in central Mexico, with more than 60 thousand students. This university started an important program to use social media tools – Twitter, Facebook, Blogs, YouTube and Twitcam, promoted by the University Dean PhD Jorge Olvera and his staff since 2013. This paper is divided into five sections. This introductory section focuses on the problem and its boundaries; the second section is a literature review of similar research on universities and social media; The third section describes the methodological design for the survey and instrument; The fourth section presents main findings and the last section concludes with a small discussion and future research ideas.

II. SOCIAL MEDIA AND UNIVERSITY RESEARCH

Social media developed directly from the Web 2.0 perspective. As the websites interaction started, the new Web 2.0 was created. Tim O’reilly [10] publicized the Web 2.0 concept as an interactive platform among users and developers. A more recent perspective states that “Web 2.0 refers to the second generation of the Web, wherein interoperable, user-centered web applications and services promote social connectedness, media and information sharing, user-created content, and collaboration among individuals and organizations” [11].

Even though, the social media concept is still an ongoing definition through all the technological changes that constantly updates the definition. A first attempt was developed by Boyd and Ellison [12]:

“We define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (p. 212)”.

A more recent concept of social media is proposed by Kaplan & Haenlein [13]: “Social Media is a group of Internet-based applications that are built on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (p. 61).

Accordingly to both concepts, the sharing of the words creation and exchange are important in order to understand the activity of social media. Most of the tools of social media technologies are related to Twitter, Facebook, Blogs, Wikis, YouTube, Podcasts and Skype for conferencing among others [14].

Pickering’s [15] research states two positions accordingly wether Internet will be a liberation force for democratization of knowledge or accelerate the loss of cultural diversity and natural environment. Due to this context, further research follows this same path. Goldfarb [16] explores the role of the Internet use by university students and low income households. Kang and Norton [17] surveyed 129 best national universities in the U.S. to understand the use of the World Wide Web for public relation purposes. Zeleňáková et al [18] researched on the impact of communication technologies during the process of teaching and student-professor relationship with this technologies.

Another path of research on this topic is its use for marketing purposes. A preliminary research on branding use for Asian universities and the importance of the marketing mix for different regions or cultural purposes was made by Gray and Llanes [19]. A complementary research which uses information technology for marketing purposes was made by Filip [20] who recommended its use in an integrated manner, suggesting a set of seven marketing-mix tools in planning their market relationships: program, price, place, promotion, processes, physical facilities, and people. Research linked directly to the use of social media tools and university marketing was developed by M. Fuciu and H. Gorski [21] presenting a quantitative research on the main reasons for using online networking sites by high schools students from several counties in Romania. A different case is marketing online education in New Zealand, which uses a tool named Social Media Marketing Attributes (SMMA) and the analysis of the benchmarking practice of institutions [22].

Finally, the use of social media tools in universities is disperse and includes many different topics which are incipient for our research. Some research, focusing on higher education, was developed by Falah [23] who collected 300 respondents from an online survey to find that the use of social media tools vary from task assignment, announcement, class rescheduling negotiation, examination, and they used some application such as Facebook, Twitter, instant messenger and blog sites. An important contribution that summarizes all previous research on the social media use to improve lectures, classroom activities and relationships was developed by Tess [24].

Another topic related to the subject is the risk of using social media tools inside universities such as cyberbullying [25] and the case of the University of Florida. After a 12 month discussion regarding a regional university campus, the situation quickly evolved from a suggestion of independence to a plan. This led to the ultimate closure of the university and social media had a crucial importance on the development of the events [26].

Research conducted by Stockley [27] and her team is very similar to the one we made. They surveyed 30 national universities in the U.S. which use Twitter, Facebook and YouTube, in order to understand seven points: engagement, listening, relationships, trust, authenticity, visibility and branding. They found that despite the presence of social media platforms was high, engagement was lacking.

In brief, this literature review states that the use of social media in universities nowadays is more focused on branding, public relations and marketing. Research to understand internal effects among students, teachers and administrative staff is not considered. Our research is focused on Stockley’s [27] perspective who considered several themes. We studied communication, information, trust, transparency of the information and usefulness.
III. METHOD

Our research design relates to a descriptive focus [28] and correlation among the five themes that we have selected for this study.

DESCRIPTIVE ANALYSIS

Our sample consisted of 80 cases, 64.1% were women and 35.9% men. Students were divided in high school students 9.2%, undergraduate 42.1% and staff members 22.4%. From the administrative staff 22.4% have a master’s degree and 3.9% a PhD (Figure 1). The average age of the interviewed was on the range of 20 – 40 years. All cases were selected because they use Internet and are members of the university. The online survey was held during June 2014.

RELIABILITY TEST

We developed an online survey instrument based on five variables: trust, usefulness, communication and transparency, information and usefulness. In order to validate our questionnaire we performed a pilot test and several statistical tests. We found in the reliability test a Cronbach's alpha of 0.785 for all the instrument items, with a breakdown of 0.649 for trust, usefulness with 0.783, the communication and transparency value was 0.853, the information component was 0.711 and use was 0.524. As can be seen, in general the values found in the reliability test are acceptable for the study (see Table 1).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>0.649</td>
</tr>
<tr>
<td>Usefulness</td>
<td>0.783</td>
</tr>
<tr>
<td>Communication and transparency</td>
<td>0.853</td>
</tr>
<tr>
<td>Information</td>
<td>0.711</td>
</tr>
<tr>
<td>Use</td>
<td>0.524</td>
</tr>
</tbody>
</table>

CONFIRMATORY ANALYSIS

Confirmatory analysis showed that 4 factors explain 61.7% of the total variance of the sample, 5 factors explains 67.7%, thus, the components to be analyzed after this analysis are: (1) trust, (2) usefulness, (3) communication and transparency, (4) information and (5) use. This can be seen in the scree plot (Figure 2).

The scree plot resulted from the exploratory and confirmatory analysis (Figure 2) which shows that there is not a significance difference using 4, 5 or 6 factors for the sample, but according to the important constructs for this study we decided to use 5 factors (Table 1).

CORRELATION TEST

After making the constructs, we studied the relation between all the factors in order to find an explanation.

All the relations between factors are positive. The most important one is between usefulness and trust. This means that people that found university social media useful trust in its content (Table II).

As it can be seen in Table II, if people trust social media, all the other factors are related. People who trust in the content of social media have found new communication channels and important information. Thus the most important factor for using social media is trust.

The second important component is usefulness. If people find the content useful, they will use it for communication and information.

However, the communication and transparency components don’t have a significant relation to the information and usefulness components.

Finally the informational component brings a positive use for social media.
Table II. Correlation Test

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Trust</th>
<th>Usefulness</th>
<th>Communication &amp; Transparency</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>0.673**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication - Transparency</td>
<td>0.529**</td>
<td>0.345**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>0.510**</td>
<td>0.489**</td>
<td>0.193</td>
<td></td>
</tr>
<tr>
<td>Utilization</td>
<td>0.519**</td>
<td>0.473**</td>
<td>0.21</td>
<td>0.441**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (bilateral).

IV. MAIN FINDINGS

According to our data, 98 percent of the users have a Facebook account and 88.6 percent have the university account with their friends. The variable trust in the university Facebook page is higher; however usefulness of the post is lower than this perception.

Related to Twitter, 73.7 percent of the interviewers have an account on this platform and 27.4 percent is linked to the university account (@UAEM_Mx). The variable trust on university Twitter accounts and Twitcam accounts is higher; usefulness of tweets is higher than Facebook. This research found that users’ perceptions on social network platforms have changed communication inside the university and facilitates administrative processes through these social media tools.

Our first finding related to our variables is that the correlation analysis of the factors was found a middle positive relationship between trust in social networks and the usefulness that interviewers found in university social networks. This is consistent with literature [23-24] in which this usefulness could be developed by teachers in their courses or related to administrative process.

On the other hand, there is a lower-middle, positive relationship but not of equal magnitude to communication, information and use. This is interesting because trust over social media seems to have more impact rather than communication by other means.

Also, another finding related to the usefulness variable found by users in social networks has a direct and positive relationship to information, communication, transparency and use, in this order. Most of the respondents in our online survey agreed that social networks can distribute reliable information inside the university.

However, data shows that the use of university social networks is lower-middle positive related to information. This means that information provided by university staff using social networks is not meaningful or important for the respondents. The quality of information must be researched in depth in further studies.

The relationship found among the different variables is medium to low. This reveals that social media is not well understood by the university staff and there is a lack of strategy to promote engagement, communication and useful content on social media platforms used by this university.

V. CONCLUSIONS AND FUTURE RESEARCH

This paper contributes on several research topics on this new area. The first one is well know the effects of social media, previous literature confirm this idea; however very few research provides concrete evidence on the social media use within university members, this paper provides some data related to it. The second contribution is to find evidence that supports the idea of trust on using social media tools on university communication, this contribution confirms Falah [23] research with a more wider simple (300). A third contribution is the existence of social media – twitter and Facebook – as tools for improving communication, our variable usefulness of information was related to it, this also confirm from previous research [24].

Finally we concluded that social network users that have a high use of it find social media tools useful and informational. Accordingly, universities must promote an strategy to increase the use of social media prior launch a communication strategy using this means. In addition, regarding content, users perceive it as good and that it promotes transparency, but the relationship found is medium to low, which indicates the need to find new strategies to promote engagement, communication and use of the content of social networks.

More research is needed on this field. The first aspect is to develop an improved version of our research instrument to measure specific relations among teachers and students and university staff. It is also important to research more about the content analysis from conversations that use social media tools such as Twitter and Facebook in order to find the quality analysis. A different path of research could be the university branding using social media tools; this online marketing of the Universities is another trend to study in the short term. Another path of research is to understand the effects and risks of social media inside university communities: online bullying and sex exposure of contents are increasing concerns among university members and are directly related to social media, focusing research on the uses and misuses of social tools could help, educate or reduce this concerns.

Finally, information privacy and university open data are being subject of research in order to provide some guidelines for the correct use of social media among university members. This paper pretends to expand knowledge on this area and provide university authorities a wider understanding of this new trend on education and communication.

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