The internationalization of Valencian universities through Twitter

La internacionalización de las universidades valencianas a través de Twitter

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Abstract

Internationalization policies are becoming very important in the institutional communication strategies of Spanish universities. Social networks are presented as the best channel to build the brands of universities in search of students and researchers to increase their international projection. This research analyzes how the five public universities of the Valencian Community take advantage of corporate communication through Twitter to increase their internationalization policies. The study shows that actions related to knowledge transfer and innovation dominate the institutional communication of the examined universities on Twitter.

KEYWORDS

Internationalization, institutional communication, university, ICT, social networks, Twitter.

Resumen

La internacionalización está cobrando gran importancia en las estrategias de comunicación institucional de las universidades españolas. Las redes sociales se revelan como el mejor canal para construir la marca en busca de estudiantes e investigadores, a fin de aumentar la proyección a nivel internacional. Esta investigación analiza el modo en que las cinco universidades públicas de la Comunitat Valenciana aprovechan la comunicación corporativa a través de Twitter para profundizar en sus políticas de internacionalización. El estudio demuestra que las acciones relacionadas con la innovación y la transferencia de conocimientos dominan la comunicación institucional en Twitter de las instituciones examinadas.

PALABRAS CLAVE

Internacionalización, comunicación institucional, universidad, tic, redes sociales, Twitter.

1. INTRODUCTION

University institutions are paying more attention to the management of their corporate image since having a strong corporate brand is an asset that reports great benefits to these higher education centers by allowing the institution’s competitiveness to increase (Takaki, 2015). In addition, institutional communication is one of the most important tools in the design of university internationalization policies, in which the messages produced and spread by the institution must be focused from a global perspective that justifies its realization as part of a broader communication strategy; always according to their objectives, institutional policies and values (Reina Estevez, Fernández Castillo & Noguer Jiménez, 2012). The Working Group responsible for drafting the Estrategia de Internacionalización de las Universidades Españolas 2015-2020, promoted by the Ministry of Education, Culture and Sports, indicates that the concept of internationalization:

goes beyond mere student mobility and signing of international agreements. It should consider aspects of internationalization such as training curricula, circulation of minds, internationalization of research, joint or multiple international degrees with foreign partners, internationalization at home, development of transnational campuses, creation of international quality control systems, accreditation, verification, competition for the best students, international rankings of universities...
Adolfo Carratalá, Etián Menencia García

The internationalization of higher education is one of the most important contemporary trends and had its greatest expression in the Bologna process. It generates profits and benefits to universities, promoting the diversity of capacities necessary for the development of countries. Within the framework of these policies, the primary objective is focused on the attraction of foreign students and teachers and the training of nationals abroad (Rama, 2012), a purpose for which the visibility and communication capacity of universities is key.

In the last two decades, the University has undergone a huge transformation and, undoubtedly, ICTs have played a crucial role in this process (Sangrà & González Sanmamed, 2004), since traditional communication strategies do not cause the same impact on new generations than they did some years ago. The entry of the Internet into our societies has modified our environment. Due to the development of the web, new communicative, informative and development possibilities for higher education have been opened (Baelo & Cantón, 2010).

Web 2.0 has been a huge boost in the exchange and dissemination of information (González-Díaz, Iglesias-García & Codina, 2015). This communicative revolution is largely due to the changes in computerization that society has undergone, allowing organizations to interact with their audiences and communicate at a new level without temporal or spatial limitations (Reina Estevez, Fernández Castillo & Noguer Jiménez, 2012).

The irruption of social networks has changed the way in which communication between the actors of society is conceived. These tools have evolved the available means for communication, adding new channels, replacing some pre-existing protocols and opening a new scenario that the university, as the main institution in the field of formation and development of society, must be aware of in order to adapt to it (Reina Estevez, Fernández Castillo & Noguer Jiménez, 2012). With the new generation lead by the so-called “millennials” (Moya Camacho & Orozco Ramírez, 2017), we are in the presence of a new type of user, the prosumer. This user has become the central element of the communicative process by ceasing to be a mere observer (Macías-Alegre, 2016) because new technologies have given him/her the power to share, create, inform and communicate, making them an essential element in his/her life (Gómez, Roses & Farias, 2012). For this reason, corporate communication strategies and universities in the digital field should be focused on this type of user and should not be limited to the generation of content but should take into account the opinions of these actors and their contributions.

The use of ICT as a whole, in addition to positioning and disseminating the image of the institutions, plays an important role in the internationalization of the study and research models of the higher-level educational centers. These are powerful tools for the marketing or international relations departments of universities, although the presence of these entities in social media must respond to objectives aligned with the identity and strategic plan of each institution (García García, 2018).

Spanish institutions are a benchmark for internationalization through digital media, establishing among their main objectives the dissemination of the “Study in Spain” brand that is included in the Internationalization and Modernization Plan for Spanish universities. Along
with this, the network of higher education institutions also agrees to observe the mobility of students, young researchers, professors, administration and service staff as the engine for the internationalization of the European Higher Education Area (EHEA). This is a task in which the European institutions are working to facilitate and boost the arrival of foreigners belonging to such groups and promote their subsequent mobility among the Member States of the Union (MECD, 2014).

In Spain, the Campus of International Excellence (CEI) program is promoted by the Ministry of Education, Culture and Sports and it encourages the development of internationalization strategies in Spanish universities through the following actions (MECD, 2014):

1. Cross-border campus development.
2. Establishment of international agreements with transnational mobility of learning and knowledge.
3. Establishment of world class centers of excellence abroad.
4. Organization of international events in Spain.
5. Participation in international projects, associations and networks in higher education, research and innovation.
6. Development of programs and institutional strategies for international learning, knowledge and employment mobility.

This same ministerial plan indicates that the following actions are the priority internationalization practices and strategies in the Spanish university system:

1. Exchange of students, teachers and administrative staff as a growing aspect of internationalization.
2. Development and contrast of academic standards and quality assurance.
3. International collaboration in education, research and innovation.
4. Internationalization of management structures.

2. OBJECTIVES AND METHODOLOGY

This research focuses on the actions carried out by the five public universities of the Valencian Community (Universitat de València, Universitat Politècnica de València, Universitat Jaume I, Universitat d'Alacant and Universidad Miguel Hernández de Elche) in order to promote their internationalization in the social media sphere. It was carried out through the analysis of the strategies and the means used, mainly the use of ICTs, taking the official profiles of these five institutions on Twitter as a reference for the study since it is one of the social networks with the largest number of users currently. According to García García (2018), Twitter is the most important platform for Spanish universities followed by Facebook and LinkedIn. Simancas-González and García-López (2017) also point out that the institutional profiles on social networks, especially Facebook and Twitter, are the second most cited media by communication managers of Spanish universities as the main internal and external communication channel after the institutional web. The following objectives have been set in the development of this work:

General objective: Evaluate the importance that Valencian public universities give to internationalization through their institutional communication via Twitter.
Specific objective 1: Measure which internationalization factors are a priority in university communication through Twitter.

Specific objective 2: Observe the dominant formal characteristics in those tweets aimed at promoting university internationalization (language used, incorporated elements, links, hashtags, etc.).

Specific objective 3: Examine the authorship of tweets aimed at the internationalization of the institution.

Specific objective 4: Analyze the feedback generated by those tweets of the university institution that seek to promote internationalization.

The data analyzed correspond to the months of June, July and September 2018. These are key dates in the university internationalization strategies because the first two months correspond to the stage of completion of the period of studies and the last one corresponds with the beginning of the regular program. The month of August was not taken into account because it is a period in which the Spanish university is not providing services.

A total of 1,581 publications made by these institutions were analyzed in the indicated period in order to meet the objectives. The criteria of section 4 of the “Estrategia para la internacionalización de las universidades españolas 2015-2020” document prepared by the Ministry of Education, Culture and Sports (2014) were followed for codification according to internationalization factors, differentiating four categories:

- a) Entry and exit mobility. Talent gathering.

The mobility of students, young researchers, professors, administration and service staff has been considered as the engine of internationalization. According to the data collected in the ministerial report, the number of mobile students is expected to grow to 7 million by the end of the 2010-2020 decade. For the analysis of this category, three sub-levels were established. The first sub-level corresponds to actions aimed at student mobility. Entry mobility is considered to be all publications that promote degree programs, master’s degrees of the university and short courses of maximum 3 months. The publications that encourage students and teachers to make short or long stays in higher education centers different to the institution that generates the message were taken into account as exit mobility. Along the same lines, the second sub-level is designed to classify mobility actions that target teaching staff, researchers, administration and service staff.

The third sub-level includes publications related to Research and International Doctorate (factor 4.5 of the ministerial document). It focused on the messages linked to the incentive of doctoral programs in the development of international mobility measures either towards the university (entry) or aimed at doctoral students who wish to make short stays outside the institution (exit) with the support of mobility programs from universities, national support or the EU support.

- b) Knowledge and innovation transfer.

In correspondence with section 4.6 of the Ministry document regarding the Knowledge and Innovation Transfer, this category focused...
on enhancing the international leadership of Spanish universities will be applicable to those publications that promote the transfer of knowledge and technologies between academic and business fields in open and flexible environments of collaboration in R+D+i, including the interaction, dissemination and adoption of shared models of new ideas, in addition to the commercialization of R+D+i results and the strengthening of entrepreneurial activity born in the university.

Two subfactors are considered for the analysis of this category. On one hand, the International Relations factor related to collaboration agreements between universities (national or foreign), R&D Centers and Companies. Each of these subcategories is mutually exclusive for statistical analysis. On the other hand, the subfactor of the Promotion of results, classifying them as internal (publications referring to results of research carried out by university staff in collaboration with staff from other universities or 100% of the institution; events, congresses, workshops and achievements of university staff such as students, professors or researchers) or external (publications related to research results from outside the institution that are interesting or attractive for the research lines of internal or adjunct staff).

- c) Employability

It corresponds to factor 4.7 of the ministerial report that relates to the potential to get the first job and adapt to the changes that may occur in the future. This category will codify those publications that promote employment, including aspects of labor insertion in mobility programs and aspects that foster international cooperative programs with the industry and the business sector with the use of different mechanisms such as lectures in companies, internships, stays in companies for professors and researchers, recruitment of visiting professors from the industry and training of international entrepreneurs. It will also take into account publications that contain job offers or refer to them, classifying them into national or foreign.

- d) Cooperation in education with other regions

It corresponds to factor 4.8 of the Ministry document and is related to cooperation in education with other regions of the world. Much of the mobility involves knowledge and dissemination of information about the possibilities offered by Spain and its university system. This category will include publications made by the public universities studies in order to disseminate the Spanish language and culture, increasing the demand for studies in Spanish. This is because knowledge of the language and the interest in Spanish culture are usually some of the main reasons that move students when choosing Spain as their destination for studies. These students and their families later become diffusers of Spanish culture and promoters of all kinds of relations with Spain.

Based on the review of these four internationalization factors and the objectives outlined above, a coding template was designed to analyze quantitative content and extract data to contrast the activity on Twitter of the five institutions of the study. The coding of the analysis units was carried out based on five variables: correspondence with internationalization policies, presence of internationalization variables, formal characteristics of the tweet, authorship and feedback.
3. DESCRIPTION OF RESULTS

3.1. TWEETS RELATED TO INTERNATIONALIZATION POLICIES

Of the 1,581 analyzed publications, 628 are tweets where strategies linked to internationalization policies are identified, representing 40% of the total messages analyzed. This value was exceeded in some of the universities, the Universitat Jaume I (UJI) showed a higher percentage of tweets linked to observable internationalization objectives in 42% of its publications. On the other hand, the University of Valencia (UV) reported the lowest percentage with 35%, slightly below the global average (Figure 1).

3.2. DOMINANT INTERNATIONALIZATION FACTORS

3.2.1. ENTRY AND EXIT MOBILITY. TALENT GATHERING

One of the factors of internationalization with greater importance for universities is the mobility of staff and the attraction to the campus of researchers and students through messages such as the one in Image 1. This factor represents 32% of publications related to strategies of internationalization with a total of 201 tweets (see Figure 2), this value was exceeded by the communication on Twitter of the UV, UJI and Miguel Hernández de Elche (UMH) universities. In this sense, the Universitat Politècnica de València (UPV) and the Universitat d’Alacant (UA) were left behind, the latter with a discrete 20% (Figure 2 and 3).

3.2.2. KNOWLEDGE AND INNOVATION TRANSFER

Regarding the contents of their profiles on Twitter, it can be seen that Valencian universities give great importance to the dissemination of their scientific activity in accordance with the importance given to innovation and the internationalization trend of all Spanish universities (García García, 2018).

Knowledge and innovation transfer in Valencian public universities is reflected in 62% of
the total of 628 tweets linked to internationalization policies. The hegemony of this factor is in accordance with the national trend observed in 391 publications of the corpus. In this trend, innovation emerges as a key issue as it is a clear meeting point between the university and society (García García, 2018). In this case, the behavior of each university was variable. Three of the analyzed institutions reported values above the global average, highlighting the University of Alicante (UA) with 74% of its publications dedicated to this section. On the other hand, the UJI and UMH universities were slightly below the global average with 57% and 55%, respectively. Figure 4 shows the behavior of this indicator for each of the institutions analyzed with respect to the general average. Figure 5 shows an example of this type of publication, this case corresponds to the promotion of own results. (Figure 4 and 5).

3.2.3. EMPLOYABILITY AND COOPERATION IN EDUCATION WITH OTHER REGIONS

The sections of Employability and Cooperation in Education with other regions represent almost null values. In fact, together they account for approximately 6% of the total of publications with 35 tweets, which is why they are jointly presented in this subsection. The low presence of these factors is due to the fact that the efforts of higher education institutions seem to be focused on the promotion of research results and the incentives to attract talent towards their university centers as the main internationalization strategies. Individually, each university handles these issues very differently (see Figure 6). While in the UV these values represent 2% of tweets (see Figure 7), the UJI dedicates 11% of the messages of internationalization strategies published in its profile on Twitter. (Figure 6 and 7).
3.3. COMPOSITION OF TWEETS ON INTERNATIONALIZATION: MAIN FEATURES

3.3.1. USE OF IMAGES AND AUDIOVISUAL ELEMENTS

The composition of the tweets is homogeneous in the analyzed universities. There was a wide use of images in combination with texts, the use of videos was very poor and did not exceed 2% of the total publications. The images are widely used and are present in 76% of tweets with respect to the total of publications related to internationalization factors. Analyzing each university separately, it can be seen that the majority exceeds the threshold of 70% in relation to the use of images as a component of their tweets, except the UPV that only used them in 59% of the times (see Figure 9). An example of this text-image combination can be seen in Figure 8.

3.3.2. USE OF LINKS

A widely used composition is the inclusion of links in publications. These can redirect users to the institution's web portals and in some cases to other websites in order to expand the information disseminated in the publications. The links pointed to the institutional website in 80% of cases, attracting traffic to the university. Two of the five universities exceeded this average, the UJI with 93% and the UPV with 87%. The UMH used this resource less, present only in 66% of its messages. Figure 10 shows the difference in its use among universities. Image 4 shows an example of the use of links to the institutional website in a tweet accompanied by an image.
The rest of the percentages correspond to links to national domain sites (.es) in 6%, 4% redirect web traffic to other domains on the Internet. The remaining 10% corresponds to publications where no link was used. This last option varied from one university to another, the UMH published tweets that did not include any link more frequently.

### 3.3.3. LANGUAGE USED

The followers of these profiles are diverse and from different places, so language is a very important factor in communication. The general composition is given by the alternative use of Spanish and Valencian, although several universities choose to publish in one or another language. An example of this is the UJI that has two profiles on Twitter, one with news written in more than 95% in Valencian and another profile in Spanish. Both share similar news, but the first has the largest number of followers. Another example is the UA that also has two independent profiles in different languages with similar news. In general, it can be seen that although the Valencian is widely used in the official profiles of the universities as a co-official language of the Valencian Community together with the Spanish, the highest percentage at global level of messages of the institutions analyzed through Twitter is disseminated in Spanish (50% of tweets), followed by Valencian (present in 40% of publications) and to a lesser extent in English (present in 10% of tweets that have been encoded as messages aligned with internationalization strategies).

Analyzed individually, there is some variation in the data according to the university. The institutions with the highest use of Valencian over Spanish are UV and UJI with 83% and 76%, respectively. The rest of the publications are written in Spanish. On the other hand, the Twitter profiles of the UA (96%), the UMH (93%) and the UPV (80%) have the greatest use of Spanish in their publications. The first two used English in their tweets with 1% and 2%, respectively. The following table shows this relationship: (Table 1)

<table>
<thead>
<tr>
<th>University</th>
<th>Spanish</th>
<th>Valencian</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universitat de València</td>
<td>17%</td>
<td>83%</td>
<td>0%</td>
</tr>
<tr>
<td>Universitat Politècnica de València</td>
<td>80%</td>
<td>23%</td>
<td>0%</td>
</tr>
<tr>
<td>Universitat d’Alacant</td>
<td>96%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Universidad Miguel Hernández de Elche</td>
<td>93%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Universitat Jaume I</td>
<td>24%</td>
<td>76%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 1. Use of Spanish, Valencian and English in publications made by universities regarding to the internationalization factors.

### 3.3.4. USE OF HASHTAGS

Hashtags are some of the most popular concepts because of their extensive use in both personal and institutional profiles. These allow classifying and categorizing the theme of the messages that are published on social networks, especially Twitter (Castelló Martínez, 2013). Even so, its use by the universities of the Va-
lencian Community is reduced. In general, they were used in 43% of the 628 analyzed publications, this value varies depending on the analyzed institution. The UA (see Image 12) and UMH are the only ones that exceed that value with 68% and 76%, respectively. The rest does not reach 40%. The UJI made use of hashtags in 38%, followed with 20% of the UV and the one with the least values reported was the UPV with 8%. (Figure 11 and 12).

3.4. AUTHORSHIP OF TWEETS RELATED TO INTERNATIONALIZATION

The tweets that were framed in publications related to internationalization factors were classified into originals, generated by the institution that spread them or retweets. Most publications (93%) of the 628 tweets analyzed were categorized as originals. This hegemony is similar in each of the analyzed universities. Four universities show values equal to or higher than 90%, only the UMH has a lower value with 81% as shown in the following graph:

3.5. FEEDBACK IN TWEETS RELATED TO INTERNATIONALIZATION POLICIES

With respect to the interactions recorded in publications related to internationalization policies, all universities achieved some kind of action in the tweets either by likes, comments or retweets. The amount of interactions of one type or another depends largely on the multimedia resources used, as shown by the correlation of the data obtained from the presence of images and audiovisual elements with the coded response of Twitter users. Thus, those publications that included images obtained greater feedback than those that only contained text. As a general average, 13 likes, 0.2 comments and 6 retweets were obtained for each post. The following table shows the average interaction in each publication made by the universities. (Table 2).
4. CONCLUSIONS

After the study and analysis of the tweets that make up the corpus, it can be said that the public universities of the Valencian Community attach great importance to the projection of their internationalization policies, following the direction of the strategies designed by the Ministry and endorsed by the efforts that are observed through their institutional communication using their profiles on Twitter.

This emphasis on internationalization policies is within the framework of the strategy defined by the Ministry of Education, Culture and Sports of Spain in 2014 for the period 2015-2020. The communication of actions related to innovation and knowledge transfer, a priority for Valencian public universities stands out. This prevalence places this commitment as one of the basic pillars of university communication activities and as a meeting point between university and society for its capacity of placing these institutions in the international sphere as dynamic and attractive centers. Secondly, the examined institutions also show a high interest in boosting entry and exit mobility and talent gathering actions. Together, both factors represent 93% of all the publications analyzed.

As has been appreciated, the Valencian public universities give greater weight to the use of images over other multimedia resources, such as videos, for the dissemination of internationalization policies through Twitter. In most cases, the examined tweets are enriched by the

<table>
<thead>
<tr>
<th>University</th>
<th>Likes</th>
<th>Comments</th>
<th>Retweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universitat de València</td>
<td>13</td>
<td>0.2</td>
<td>6</td>
</tr>
<tr>
<td>Universitat Politècnica de València</td>
<td>13</td>
<td>0.2</td>
<td>7</td>
</tr>
<tr>
<td>Universidad Miguel Hernández de Elche</td>
<td>10</td>
<td>0.2</td>
<td>6</td>
</tr>
<tr>
<td>Universitat Jaume I</td>
<td>4</td>
<td>0.06</td>
<td>2</td>
</tr>
<tr>
<td>Universitat d’Alacant</td>
<td>14</td>
<td>0.4</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 2. Average of interactions received by each publication related to internationalization.
inclusion of links that direct followers to institutional websites to expand the information. On other occasions, they are directed towards national interest sites. In this way, it is verified that the institutional communication on Twitter related to internationalization policies of the Valencian public universities is in accordance with the trends observed at the national level, which prioritize the contents related to the brand in image or link format followed by the video format (García García, 2018). The same will to increase the international projection of the institution could explain that universities favor Spanish over Valencian, co-official language in the Valencian Community, which only dominates in the case of the University of Valencia and the University Jaume I. However, the commitment to internationalization policies does not contribute to significantly introduce the English language in the corporate communication of these universities, in whose messages it is practically non-existent.

Higher Education can and should adapt to the new requirements of society and contribute to overcoming positions of inequality in front of globalization processes, addressing inter-university affairs and relations between university and society from the logic of cooperation and not competitiveness. The internationalization factor linked to cooperative objectives should occupy a more prominent place both in the mission and in the institutional communication of contemporary universities. In the 21st century, Higher Education has been recognized as a factor in the development of nations (Sacasas-López, 2014), a purpose for which the development of policies, internationalization strategies and adequate communication is of vital importance. Many of them can only be executed successfully with the help of individual and institutional actors whose contribution is indispensable. Therefore, the responsible and effective use of ICTs as fundamental tools to meet the internationalization goals set by each institution brings progress to the country within the framework of national strategies, recognizing universities as architects of the scientific and technological development of our time.


