Social networks at Spanish High Schools

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Abstract

With the emergence of social networks in today's society, its enormous power as a communication tool has not gone unnoticed by schools, which have ventured, in a massive way, to open profiles, not always with defined objectives. In this paper, it is presented a systematic analysis of the use and contents of all the Facebook and Twitter profiles of the centers that teach Secondary Education in a Spanish autonomous community. For this, general data about frequency of use of the networks have been collected; of the integration of these with the rest of the center's communication; the content of the publications, according to their subject matter, recipients or multimedia elements included; its impact and scope; and, finally, the degree of interaction of the center with the users. The results show a huge disparity in the intensity of use, the quality of publications or the existence, even, of a clear idea of the function of social networks, being the difference between public and private ownership centers, with a more effective communication by the latter. It can be concluded that the social network preferred by the centers is Facebook, it is necessary to review the integration between the different communicative tools of the center, in the publications, the image is the text, the recipients of the publications are mainly the students of the center and their families and that the interaction with users, contrary to what one might suppose, is limited.

Keywords: social networks; school management; ICT; school technology; community communication.

1. Introduction

Changes in information and communication technologies are occurring so rapidly that the education system does not always know how to make the most of the new possibilities that are opening up, such as the emergence of social networks. In the last ten years we have witnessed their spectacular increase. If in 2009 less than half of Internet users had a profile on a social network, we now find that 85% of Internet users regularly access social networks, to which we must also add that the number of profiles held by a single user in virtual communities has multiplied (IAB, 2018). Taking into account that almost 70% of Internet users admit using it mainly to visit social networks and that this figure would reach 90% among the adolescent population (Colás, González and De Pablos, 2013; CIS, 2018), denying the importance of these networks in today's society and keeping education isolated from these powerful communication tools can have consequences.

Today, 92% of 12-year-olds access the Internet regularly and three quarters of them have their own mobile phone (INE, 2018), with the starting age for social networks at 12.5 (Colás, González and De Pablos, 2013). Teenagers are more active users on social networks than adults (Li, Kawachi, Buxton, Haneuse and Onnela, 2019). Ninety percent of them access social networks, mostly on a daily basis and spend an average of more than two hours a day on these platforms and more than half are defined as content generators -as opposed to 29% of the general population- (Colás, González and De Pablos, 2013; García, López and Catalina, 2013; CIS, 2017). It is, therefore, necessary to carry out studies that deepen the use of these contents by Secondary Education centres.

Social networks are means of expression, communication and information exchange that favour virtual socialisation. They allow members of the network to interact by commenting, modifying, extending, evaluating or downloading the content shared by other users, and they can also extend the network of contacts by observing the relationships of our contacts with other users (Pérez, 2013). Currently, the most popular social network is Facebook, used by 86% of users, followed by Instagram and Twitter (47% and 46% respectively). Finally, other social networks such as LinkedIn (26%), Google+ (18%), Pinterest (13%), etc. are far behind. (IACM, 2018).

This growing popularity of social networks has led more and more educational centers to join these virtual communities and create official corporate accounts informing members of the communication community of their existence (Díaz, Mayoral and Moya, 2015). However, there are many centres that launch themselves into the virtual world without having clear objectives (Brito, Laaser and Toloza, 2012; Díaz, Mayoral and Moya, 2015; VV.AA., 2016). In other words, their presence in social networks is justified by the fact that it is an accepted tool, without reflecting on how it affects the educational community.

Social networks offer schools many advantages: (1) they are a tool for socialization and contribute to the creation of links between the members of the school community, fostering a feeling of belonging; (2) they imply constant and immediate communication between the educational community and its environment, allowing to know the opinion that is held about the school and to react to it; (3) they help to promote the activities that the school carries out and to involve the different parts in its organization; (4) they facilitate the collaboration

between schools from other regions or countries, allowing to share resources and initiatives, to coordinate plans of joint action, to carry out educational exchanges, etc.(5) allow for the free and permanent hosting of heavy multimedia content (photographs and videos) without resorting to the institutional web; (6) help reduce the technological gap between different members of the educational community; (7) offer a safe space for students to create links with their peers; (8) guide students in the construction of a secure digital identity (Martínez, Solano and Amat, 2011; Osborn and LoFrisco, 2012; Díaz, Mayoral and Moya, 2015; VV.AA, 2016).

The contents that a Secondary School can share are diverse: information related to recreational activities of the centre; information of interest for the families (menu of the school canteen, activities of the parent's association, meetings, etc.); news about the centre and/or related to the educational field; relevant educational experiences, etc., having as only limit the creativity of the person or workgroup that coordinates the social networks (Díaz, Mayoral and Moya, 2015).

The analyzed research on the use of social networks is focused on Higher Education and shows three results: (1) it provides information about the center; (2) it contributes to the promotion and communication of the activities to be carried out; and (3) it allows interaction with the educational community (Durán and Fernández, 2012; Forkosh-Baruch and Herskovitz, 2012; Guzmán, Moral and González, 2012; Osborn and LoFrisco, 2012; Quardokus, Sitomer, Bouwma-Gearhart and Koretsky, 2019). These results could be common to any type of educational center that uses them institutionaly, since they are given by the very nature of social networks. "Providing information about the school" and "promoting and communicating the activities to be carried out" has a double communicative purpose: informing and reinforcing the school's brand image. The "interaction with the educational community" is a prominent use that is currently being made of virtual communities (Osborn and LoFrisco, 2012) and is also the main concern of most authors (Brito, Laaser and Toloza, 2012; Durán and Fernández, 2012; Forkosh-Baruch and Herskovitz, 2012; Guzmán, Moral and González, 2012), since they consider that the interaction between the center and the students is negligible considering the potential for retroactivity presented by social networks. The authors attribute this weakness to the lack of staff to carry out this task properly (Brito, Laaser and Toloza, 2012) or lack of time (Osborn and LoFrisco, 2012), but strongly recommend the exclusive dedication of a person to the management of social networks, this is, a Community Manager (Guzman, Moral and Gonzalez, 2012).

The functions of a Community Manager in a school would be as follows: (1) to know the centre and, in particular, to gather information on the different activities it carries out in order to prepare adequate content; (2) to carry out a dissemination plan, that is, to create a calendar with the events to be held and, based on this, to establish a schedule of communications to be carried out on social networks; (3) to adapt the message to the characteristics of each of the networks used; (4) to interact in an adequate manner with the different publics of the centre (students, families, other centres and institutions, etc.); (5) monitor the social networks to anticipate any problems and resolve conflicts quickly, knowing how to handle negative or inappropriate comments; (6) collect all information related to the school and/or news and information related to education on a daily basis; (7) monitor the accounts on social networks of the school's teaching staff to ensure that they do not contradict the official information; (8) to sum up: manage social networks with common sense and caution, using a respectful and

correct tone, to set a good example to students and the entire educational community (Ortega y Ortega, 2013; Díaz, Mayoral y Moya, 2015; VV.AA, 2016).

The tasks of the Community Manager are multidisciplinary in nature, and it is therefore necessary for the person or team managing the centre's social networks to have knowledge of different areas (computing, psychology, communication, public relations, graphic design), as well as a good command of language and spelling. On the other hand, it will also be necessary to have a good knowledge of the centre and its philosophy and to be in contact with the management of the centre and with the different departments. Finally, personal characteristics of the educational community manager include an empathetic, assertive, moderating, problem-solving, patient and team-working personality (Ortega y Ortega, 2013; Díaz, Mayoral y Moya, 2015). Given the enormous number of requirements for carrying out their management and the impossibility of having a person exclusively dedicated to carrying out this task, it is common to create a teamwork (Díaz, Mayoral and Moya, 2015). This team can generate an active and participative community, help to disseminate the educational work of the centre and promote its training and cultural activities, but it is common for managers of educational social networks to begin the task from intuition, since it is difficult to find specialised training (Ortega y Ortega, 2013).

Thus, we find that studies on the use of institutionally social networks in schools are insufficient and in the case of Secondary Education, virtually non-existent.

2. Methodology

The aim of this research is to analyse the use of institutional social networks used by different Secondary Education centres in Spain. We have delimited the study in our autonomous community (Cantabria) because it allows us to obtain representation of public and private schools and of the urban, neo-urban and rural environment. Likewise, we have delimited the study in the stage of Secondary Education for three reasons: (1) adolescents are very active players in the way of understanding communication in the digital life. In fact, social networks imitated applications that were very successful among the adolescent public such as Snapchat (Serrano-Cobos, 2016); (2) on the other hand, for young people there is hardly any separation between digital identity and physical identity (Serrano-Puche, 2016; Serrano-Cobos, 2016) so that social networks cover a social and emotional need for them. The digital presence of Secondary Education schools in social networks is one more element to bring education closer to students and to stimulate the feeling of belonging to the school; (3) moreover; the existing literature is limited to the field of Higher Education.

In this study we have made a content analysis of the two most common social networks in the educational field in our community, Facebook (chosen by 47 centres) and Twitter (chosen by 30), adjusting the design of the research to the functional particularities and characteristics of each of them. This study has focused on those centers that had an active account on Facebook or Twitter on 1ˢᵗ of January of 2018 and, for operational reasons, publications made between 1ˢᵗ of September of 2017 and 31ˢᵗ of May of 2018 were taken into account, in order to adjust the research to an academic year. After locating the institutional social networks of the 90 schools that provide Secondary Education in our community, we found that 53 had a presence in social networks (by context: 54% of rural schools, 35% of neo-urban schools and 74% of urban schools; by ownership: 93% of privately owned schools and 29% of public schools).

Two observation templates have been designed for data collection. The data were recorded and analysed in Excel.

3. Results

The results were organized around five categories: frequency of use, integration of the networks into a communication strategy of the centre, analysis of the content of the publications, impact of the publications and the level of interaction of the centre with the users through social networks.

Frequency of use

The most widely used network is Facebook, chosen by 47 of the institutions in this study. The information provided in their profile is incomplete in 70% of the cases (almost all the centres share their address and telephone number, but many of them do not provide opening hours or contact details). The second most used network is Twitter. From January 2011, when the first one joined, until October of 2018, when the last one created its account, 30 secondary schools have decided to have an active profile in this social network. The year 2014 was chosen by most of these schools to join Twitter, a total of 10. 24 schools have a presence in both networks simultaneously.

Analysing their activity, centres publish an average of 0.67 messages per day on Facebook and 0.81 messages on Twitter. The results differ according to the ownership of the centre: in the case of Facebook, public centres publish a message every three days, while privately owned centres with state-funding make an average of five publications per week, that is, one message per day. On Twitter, the trend is similar, with 6 tweets per week for privately owned centres and 4 for public ones.

Classifying the centres according to their level of activity, for Facebook we would find 9 centres that make intensive use (between 1 and 3 publications per day), 12 centres with moderate use (between 0.5 and 1 daily updates), 23 centres with reduced use (between 0.1 and 0.5 messages per day) and 3 centres that have practically abandoned their profile on this social network (less than 0.1 publications per day). Regarding the use of Twitter, we find 2 centres with very intensive use (more than 3 publications per day), 5 centres with intensive use, 7 centres with moderate use, 12 centres with reduced use and 4 semi-abandoned accounts.

Integration of the networks in a communication strategy

Regarding the relationship between the different communication tools used by the center, we found that out of the 77 profiles analyzed, only 10% of them -both on Facebook and Twitter- do not take advantage of the option that these platforms allow to link to their institutional website. However, almost a quarter of the websites of the schools observed do not include links to their social networks.

On the other hand, paying attention to the relationship between Facebook and Twitter profiles, it has been observed that only one of the 24 schools that have accounts in both networks links both profiles. However, a fifth of the centres do include a link to their Twitter account on their Facebook page.

Another aspect analysed was the messages published on the social networks studied that refer to another centre profile, either on another social network, institutional web portal, blog of a specific subject or course, etc. It was observed that 27% of the publications on both Facebook and Twitter come from another institutional site. However, this variable is widely dispersed. In both social networks we find 4 profiles whose content comes in more than 75% from another page, while in 16 profiles of Facebook and 8 of Twitter this percentage does not reach 5%. In both social networks, the profiles that share more content from other institutional website tend to be limited to automatically share that content, without any prior introduction, being the text of the publications produced automatically, leaving incomplete sentences, which can give a negative image.

Contents of the publications

In the analysis of the actual content of the messages published by the secondary schools, we will take into account: whether the content is careful and follows the communication guidelines of the social network used, the use of multimedia content in the publications, the recipients of the published messages and the subject matter of the shared publications.

Care in the publications

In general, it can be stated that all the centres observed take care of spelling and grammar, except for some specific typographical error. However, it is noteworthy that several profiles, when sharing content from other official sites of the centre, do not take into account the characteristics of the network in which they are publishing, as they automatically obtain these messages, thus creating publications that lack their own meaning. On the other hand, there are four centres that have a presence on Facebook through a personal user profile instead of a institutional profile, despite being expressly prohibited by the regulations of this network, which indicates a misuse of this social network. The data confirm that both 23% of Facebook and Twitter accounts make some of these mistakes.

Multimedia content of publications

Most centres, and in both social networks, give priority to the use of images over text. On Facebook, it can be seen that the centres have uploaded an average of 437 photographs and 17 videos during the period observed, with several centres choosing to take advantage of the option of broadcasting live video. On Twitter, 62% of the publications and 5% of the videos contain images, which means an average of 136 photographs and 11 videos per centre. As for links to other websites other than institutional ones, we find that in Facebook a link is published every 14 publications and in Twitter the average is one link every 3 tweets.

Target audience of the messages

After a careful observation of the publications made on both social networks, it can be seen that the students are the main target audience of the publications on the social networks of the centres, as they are the ones who receive more than half of the messages. In second place are the families, with 40% of the publications, although their importance varies substantially according to the ownership of the centre, being 47% in the privately owned centres and 19% in the public ones. This difference is due in part to the fact that in privately owned centres the Infant, Primary and Secondary levels coexist, so that the younger age of the students means that families are the complementary or substitute recipients. The community in general would be the third most important audience in terms of publications on social networks, with approximately a third of the publications, with a greater emphasis in the messages coming from public centres (38%) than in privately owned (28%). Finally, the teaching staff, with 9% of the publications, is relegated to last place in the messages from both types of centres, although with a greater importance in the privately owned (11%), than in the public ones (4%).

Themes of the publications

It is difficult to analyse and categorise the subject matter of the publications produced by the secondary schools because there are very heterogeneous publications. However, it has been verified that there are messages about: (1) activities carried out in the classroom (they are the most recurrent subject in the different profiles analysed), but more in privately owned centres than in public ones. The focus given to this type of publication in public centres is of a testimonial nature, but in privately owned centres a greater emphasis is placed on reflecting the philosophy of the centre, using concepts such as "collaborative work", "active pedagogies", etc.. (2) The participation in plans, programmes and projects of the centre or designed by the public administrations, the activities carried out outside the area (mainly study trips and school outings) and the cultural and extracurricular activities have relevance in the publications analysed. Within this last group of activities, it is possible to observe in certain centres a special emphasis on highlighting the sports competitions in which they participate. (3) Celebrations are also of great importance, highlighting mainly Christmas, Carnival and end of year parties. In privately owned centres, given the religious nature of the majority, certain religious celebrations such as Easter or the celebration of the centre's patron saints are also important. (4) Publications of an informative nature are not very frequent, and are usually limited to information regarding the beginning of the academic year, pre-registration and registration periods, open days and, in some centres, school canteen menus. (5) The activities carried out by the parent's association, with few exceptions, have little impact on the information shared by the centres.

Impact of publications

With regard to the impact of the publications made on the different social network profiles, we have taken as a reference the number of followers of the account and the scope that each of the publications has had. Due to the different characteristics of both networks, a separate analysis has been carried out to better adapt to their idiosyncrasies.

Impact on Facebook

The official websites of the secondary schools receive an average of 805 "likes". The observation shows that the number of followers is conditioned by two aspects: the ownership of the centre and the location in which it is located. In this sense, privately owned centres have a greater number of followers (851) than public centres (615) and urban centres (894) stand out above neo-urban centres (516) and rural centres (773). As for the impact of publications, the study shows that they receive an average of 20 reactions per publication and are shared four times. The centres that receive the greatest number of reactions to their publications are those that also see their messages shared a greater number of times. Thus, we can distinguish between different types of centres according to their repercussion: the very popular ones (10.5% of the centres), for which each publication would receive more than 40 reactions and would be shared 9 times; the popular ones (42% of the centres), whose messages would receive between 20 and 40 reactions and would be shared 5 times; those with low repercussion (37% of the centres), with updates between 5 and 20 reactions and 2.6 times shared; and those with low repercussion (10.5% of the centres), with less than 5 reactions for each publication and 0.6 times shared. The number of responses received does not appear to be conditioned by a greater repercussion of the centre, nor by a greater activity of the same in networks, nor by its typology (around 0.6 responses for each publication). We assume that this figure is related to the participatory culture of the centre, although it is true that no centre exceeds the two comments per message.

Impact on Twitter

Regarding the number of followers, the secondary schools have an average of 339 followers, with the privately owned schools being more "popular" in this social network than the public schools, with an average of 393 followers as opposed to 162. Overall, it has been observed that 60% of Twitter profiles have between 101 and 500 followers. At both ends, 13% of accounts have more than 1,000 followers (maximum 1690) and 27% less than 100 (minimum 13). The impact observed in the different profiles analyzed in this social network is low. On the one hand, the average number of replies received by tweets is less than one and the average number of "likes" received is 2.5. In the case of the tweets, no great differences could be observed between the different centres, since the centre that receives the most hardly exceeds 2 tweets per message, however, in the case of the tweets saved as favourites it is noteworthy that while 27% of the centres receive less than one "like" per publication, 13% exceed 4. On the other hand, user's interaction with the Twitter´s profile is very low, with an average of an answer every 25 published tweets.

Level of interaction with users

To analyze the level of interaction with users, we analyze each social network separately.

Interaction on Facebook

With regard to the number of public responses provided to other users, it was noted that almost half of the centres have not published any public response. On the other hand, there is no correlation between the number of comments received from other users in the publications and the number of responses provided by the centre to these, with a ratio of 10% between both variables being exceeded in only 13% of the cases. On the other hand, 4% of the messages published by the centres are shared from another user profile or page (this is a common practice for profiles with a greater number of publications). Finally, with regard to published events, it is noted that this is a very underused option, since the average does not reach the event per centre. Although some centres are timidly starting to make use of this mechanism to promote their activities, two thirds have never used it.

Interaction on Twitter

Taking into account the number of profiles that the centre follows in Twitter, it can be seen that, on average, there are 117 users. Two thirds of the analysed accounts follow less than 100 users and one sixth of them follow less than 10 profiles. The centres make an average of 49 twittees, which represents 22% of the publications made. On analysing the five most frequently-retweeted profiles for each centre, we find great differences: while privately owned centres mainly retweet accounts related to their religious congregation, profiles dedicated to pedagogy or to other centres (normally belonging to their congregation), public centres opt to retuit public institutions, profiles related to educational plans and programmes and personal profiles of the teaching staff of the centre. With regard to the publications to which the centres give "I like", it has been observed that among the centres that have ever used this option and discarding two centres whose excess activity distorts the data, the average would be 112 tweets saved as favourites per centre. As for the types of profiles that have been given "I like", they would also follow the same pattern as the tweets. Given the little interaction that users have with the profiles of the schools studied, it is not surprising that the schools do not offer a high number of responses to their users either, with the average being one response every 84 messages. Finally, the mentions made by the profiles analysed on Twitter would follow in the same line as both the retuites and the mentions, the only notable change being the appearance of mentions of public institutions by privately owned centres.

4. Conclusion

The analysis of the uses of social networks by Secondary Schools in our community allows us to draw the following conclusions.

It is striking that 40% of Secondary Schools, with the importance they have for adolescents, do not have a social network (Colás, González and De Pablos, 2013). The data is even more striking in public schools, deteriorating their image. The over-representation of privately owned schools in social networks may lead us to believe that these schools are more committed to innovation and technology.

The social network preferred by the centres is Facebook and, given the use they make of it, this choice seems to be justified in the possibility of making text publications with no space limit and the option of creating albums to include numerous photographs. On the other hand,

the use given to Twitter seems limited to highlighting specific moments in the life of the centre, which is favoured by the agility of this platform.

A correct integration between the different communication tools of the centre poses the problem of finding a balance between publishing exactly the same messages in different places and completely ignoring other platforms. On the one hand, a quarter of the centres limit themselves to automatically sharing the same information on different networks or linking to publications on their institutional website. They should consider the usefulness of this system and check whether this really increases the scope of their publications or whether, on the contrary, it stops users from being interested in duplication (Ortega y Ortega, 2013). On the other hand, using a single communication tool means that opportunities to expand the information published on a social network are lost.

The trend in the content of secondary school publications is to give priority to image over text, although photography continues to have a clearly dominant position over video, which is the format most in demand at present (Serrano-Cobos, 2016). The spelling and grammar in the texts are carefully considered, which is essential for the official profile of the school (Díaz, Mayoral and Moya, 2015). The use of Facebook by four centres with a user profile and not an institutional profile is a major error, since it contravenes Facebook's terms of use, and this profile can be deleted if the platform detects it, losing the information.

The recipients of the publications are mainly the students of the centre and their families, without losing sight of the openness to the community, to exercise their pedagogical function beyond school time. However, there is a lack of a greater role for teachers in the publications: there are hardly any messages dedicated to their work, they are rarely mentioned and they do not usually appear in the photographs taken of the academic work.

The subject matter of the published messages follows the trend of previous studies (Durán and Fernández, 2012; Guzmán, Moral and González, 2012). School outings and events held at the centre play a major role in social networks. On the other hand, the cultural activities, projects and plans carried out, as well as the learning activities carried out in the classroom make the cultural work of the centre known. However, the lack of promotion of the activities carried out by the parent´s associations indicates a certain detachment from these associations, despite their importance in the centres.

It has also been observed that the impact of the centres on social networks is much greater on Facebook than on Twitter, both in terms of the number of followers and the dissemination of publications. This point is not only justified by the greater popularity of Facebook among the population in general, but also because its characteristics make the use that can be made of this social network ideal for the type of communication that educational centres carry out.

Unfortunately, both networks suffer from interaction (Brito, Laaser and Toloza, 2012; Durán and Fernández, 2012; Forkosh-Baruch and Herskovitz, 2012; Guzmán, Moral and González, 2012). The community is shy about making comments or queries on publications and when they are made, in many cases, they do not get a response either. When sharing publications (or retweeting), we find that, despite the fact that there are very active centres, most prefer to limit themselves to the information generated by them, which leads to a waste of the possibilities of both social networks and, more importantly, to ignore a multitude of resources that could and should be taken into account, as well as losing the opportunity to promote

relations with other educational centres, institutions or associations that enrich the work of the centre, as recommended by Díaz, Mayoral and Moya (2015).

In short, centres (although to an uneven level) can learn about social networks, especially public ones, in order to make the most of these virtual communities. Those who have not yet joined them should set their sights on those with a useful and profitable presence.

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