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Social Networks and University Spaces. Knowledge and Open Innovation in the Ibero-American Knowledge Space¹

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Abstract

Information technology-based social spaces can open up new ways to facilitate the university community's participation in decision-making processes. Although the appropriation of technology is very high and widespread among university groups, there is a very weak presence of suitable structures and processes that enable institutions to channel online participation, to analyse their

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impact on improving organisational goals and, ultimately, to make use of such open processes as a means of generating innovations in their main lines of action. Based on the experience of coordinating the UniversiaG10 project, the Social Web platform of the 2nd Universia International Meeting of Rectors, this article proposes some innovations and elements that justify the need to move towards true e-governance of universities.

Drawing on the design and results of this project, we review the bases of sociability on the Web by taking account of grassroots movements and new hybrid models of interaction on social networks, both on- and offline. Building on these experiences and a critical analysis of them, we consider ways to nudge towards open-innovation processes in higher education institutions by taking the dynamics of participation in the Social Web as the point of reference. In particular, two cases of socio-educational innovation stemming from the actions implemented while the project was running are conceptualised: firstly, the institutionalisation of participatory logics and, secondly, community-based dynamics. The conclusions highlight the opportunity to move towards e-governance models in universities in order to integrate open innovation and university-community participation dynamics through social technologies.

Keywords

distributed knowledge, higher education, social networks, open innovation, grassroots movements, nudge, e-governance

Redes sociales y espacios universitarios. Conocimiento e innovación abierta en el espacio iberoamericano del conocimiento

Resumen

Los espacios sociales basados en las tecnologías de la información pueden abrir nuevas vías para facilitar la participación de la comunidad universitaria en los procesos de toma de decisiones. Aunque la apropiación de tecnología sea muy elevada y generalizada entre los colectivos universitarios, resulta muy débil la presencia de procesos y estructuras adecuadas que permitan a las instituciones canalizar la participación online, analizar su impacto para la mejora de los fines de la organización y, en última instancia, hacer uso de esos procesos abiertos como base para generar innovaciones en sus principales líneas de acción. Partiendo de la experiencia en la coordinación del proyecto UniversiaG10, la plataforma en la web social del II Encuentro Internacional de Rectores Universia (EIRU), en este artículo se formulan algunas innovaciones y elementos que justifican la necesidad de avanzar hacia una auténtica gobernanza electrónica de las universidades.

A partir del diseño y los resultados de dicho proyecto, se revisan las bases de la sociabilidad en la web partiendo del enfoque de los movimientos grassroots (de base) y los nuevos modelos de interacción híbrida en redes sociales dentro-fuera de internet. Apoyándonos en esas experiencias y en su análisis crítico, se plantearán formas de «empujar» (to nudge) hacia procesos de innovación abierta en las instituciones de educación superior, tomando como referencia las dinámicas de participación en la web social. En concreto, se conceptualizan dos casos de innovación socioeducativa que parten de las acciones aplicadas durante el desarrollo del proyecto: la institucionalización de las lógicas participativas y las dinámicas basadas en la comunidad. En las conclusiones se pone de manifiesto la oportunidad de avanzar hacia modelos de e-gobernanza en las universidades, con el objetivo de integrar la innovación abierta y las dinámicas de participación de la comunidad universitaria apoyadas por tecnologías sociales.

Palabras clave

conocimiento distribuido, educación superior, redes sociales, innovación abierta, movimientos grassroots, nudge, e-gobernanza

Introduction

The two meetings of Ibero-American university rectors organised by the Universia network (Seville 2006 and Guadalajara 2010) allowed the heads of those institutions to contrast their views of higher education and to jointly identify the challenges faced by the tertiary education system as a whole.² The latter was held in Guadalajara (Mexico) from 30 May to 1 June 2010, under the title “Universia International Meeting of Rectors”.

From the early stages of preparing for the meeting, and in order to bring innovation to its organisational model, those in charge of the Universia International Meeting of Rectors considered that the debate on the meeting’s thematic content should be opened up to the university community. This content, initially proposed by the rectors and institutional managers, was taken as the basis for articulating the reflections and agreements stemming from the event. The idea behind the new model was to strengthen participation and openness. Indeed, it led to an open, expanded event (living meeting) that allowed the potential of online socialisation spaces to be used to the full; the actions promoted at the meetings of rectors were basically aimed at the university community, and this new model allowed that community’s interests to be integrated more directly.

In order to progress towards the goal of expanding participation, a series of Internet-based projects were implemented. We had the opportunity to coordinate one of those projects, UniversiaG10, which is the object of study and the source of the analysis performed in this article.³ Regarding the goals of the UniversiaG10 project, three areas were considered:

- Instrumental area: To develop an online conversation open to audiences belonging to Ibero-American society that might be interested in higher education.
- With the data obtained from participation: To manage the knowledge acquired and to transfer it to the debates articulated by the meeting of rectors.
- Strategic area: To try and drive innovations in the use of technologies in order to strengthen and improve the governance of the higher education institutions belonging to the Universia network.

2. The official documents generated by the two meetings of rectors are available at: *Declaración de Sevilla* (2005), <http://encuentro2005.universia.net/declaracionsevilla.htm>; *Agenda de Guadalajara* (2010), <http://www.universiag10.org/wp-content/uploads/guadalajara.pdf>.

3. In short, the UniversiaG10 action consisted in seeking out and motivating, on social networks, the type of audience that would be interested in reflecting on the present and future of the Ibero-American university system. Once in contact with the audience, and in order to create a discourse and develop a conversation around it, an information flow was generated on social networks with the aim of contributing ideas on and fostering exchanges about the Universia International Meeting of Rectors 2010. The Social Web conversation took place in the following environments: Twitter, Facebook, YouTube, LinkedIn and Delicious. In addition, in order to manage the content, a project-specific platform was designed, www.universiag10.org, which acted as a point of convergence for anyone to follow the open conversations on the Social Web. The focus, milestones and main results can be found in the final report of the UniversiaG10 project (Álvarez & Domínguez, 2010). The final report gives a detailed account of the project’s most significant data, so the reader is strongly encouraged to read it in order to validate and contrast the information contained in this work. We refer to the data contained in the report when considering the reflections and the analytical frameworks stemming from this practical intervention.

The results generated in these areas are interpreted in a theoretical and conceptual framework where the tensions arising from the expansion of new forms of sociability on the Internet are examined. In the university sphere, these tensions arise in the particular relationship between grassroots social practices,⁴ which spontaneously emerge among university-community participants, and institutional stances, which normally tend in the opposite direction due to the creation of online contexts that are constrained and limited to certain types of practices (Pando, 2010).

From the experience of the UniversiaG10 project, in which these tensions are identifiable, we endeavour to reflect on how a suitable consideration of the associative potential of the Internet can serve as a basis for driving institutional actions that generate advances (Thaler & Sunstein, 2008) that, in this case, can be applied in order to improve the model of relationships between universities and their audiences, as well as their joint knowledge production.

Theoretical and conceptual framework: hybrid sociability and grassroots movements

The growing phenomenon of new citizen practices associated with the innovative power of information technology⁵ is still far from reaching its full impact on the sphere of higher education. Universities have incorporated technologies in a generalised manner, driven by advances in the information technology and telecommunications sectors.⁶ Generally speaking, however, this proliferation of tools and systems does not appear to have taken place in a policy and institutional management context that has surpassed the scope of the specific actions of technology units and services to reach the entire range of strategic lines of an organisation.

From its initial conceptualisation, the UniversiaG10 project endeavoured to avoid these biases towards an aseptic version of technology by including the social components of interaction as the main element. In order to do that, attention was focused on expanding social participation in various web-based environments, which meant that it was necessary to learn about the traits that

4. Grassroots movements are citizen groups that spontaneously emerge. They have a specific goal that justifies their existence and gives them meaning. Here, these groups are not considered in all of their sociological breadth. They will be used specifically as an interpretational approach to the ethos and configuration of those virtual communities that shaped the earliest expressions of cyberculture. An extensive analysis of these movements and of their connection with the Internet's evolution can be found in Castells (2000 and 2001). For a study applied to the capacity of online grassroots groups to take action in various contexts and with varying goals, see Norris (2001), Juris (2006) and Castells (2009).

5. Although the term 'information technology' usually has a highly technological meaning, with specific approaches in the fields of engineering and economics (see Sáez (2004)), it is used in this article to express the material component of information in the context of the network society (Castells, 2001).

6. There are many studies on the role of information technology in higher education. Taking the Spanish context as a point of reference, the most representative image is provided by a series of UNIVERSITIC studies by the Conference of Spanish University Rectors. The latest of these studies (Uceda & Barro, 2009) provides a clearly technocentric snapshot of the socio-educational potential of information technology. As a complement to that view, a critical approach to models of technology appropriation for pedagogical purposes in higher education can be found in Domínguez (2007). This perspective has been developed further in the joint study entitled "Gobierno electrónico y gobernanza en el Sistema Universitario Español (GEGOSUE)" (Álvarez et al., 2011).

characterise human behaviour in the new socio-technical contexts, paying equal attention to the individual level (which determines online 'presence') and to the group level (in the form of 'virtual communities'). That analysis allowed the main dimensions that shape online sociability to be put into context, and to introduce a conceptual basis on which to plan socio-educational uses of and practices with technologies in various institutional settings.

Hybrid social 'presence'

Online 'presence' comprises a set of social practices that define the action and stance of individuals in the information society. Knowing their defining traits provides an essential basis on which to design effective social promotion actions. Of the many elements that shape online presence, worthy of analysis – from a theoretical and conceptual perspective – are two relevant aspects for the design of extended social actions such as those that took place at the 2nd Universia International Meeting of Rectors: (i) the techno-social structure of the environments in which practices take place; and (ii) aspects connected with people's engagement in participatory networks.

From a structural viewpoint, the Web is a public space that complements the physical environment where day-to-day sociability is shaped. The structure of this public space is not static. Rather, it evolves as a result of the complex interactions that take place between its two essential components: the technological component and the social component. In the context of that evolution and for analytical purposes, the most noteworthy trait of the Web is currently the hybridisation of on- and offline sociability. The online-offline hybridisation factor has a direct impact on the structure of sociability, since it gives rise to significant changes in people's behaviour. As a consequence of that component, the practices that take place on the most popular social networking sites (Facebook and Twitter for example) are noticeably very different from the ethos and purposes of early virtual communities. In the early years of the Web, social relationships were characterised by several clear forms of constraint, especially with regard to the topics of conversation (content connected with the development of protocols and software that made the advent of the Internet possible, civilian protests and role-playing games)⁷ and to the structure of such conversation (limited by the characteristics of the communication tools).⁸ Over time, those highly specific practices have led to forms of relationship that are more open, where technologies are directly present and embedded in people's physical lives, and the content shared covers the whole spectrum of daily life.⁹ For its part, the ubiquity of connected devices allows for forms of extended sociability that blur the boundaries between physical and virtual reality (Monge & Contractor, 2003; Benkler, 2006; Echeverría, 2009).

7. For an initial approach to the logic of virtual communities prior to the advent of social networks, see Rheingold (1993), Turkle (1995), Jones (1998), Castells (2001), Di Maggio et al. (2001) and Katz et al. (2001). A generic analysis of social movement topics on the first generation Web can be found in Diani (2000).

8. An analysis of how technological architecture impacts on social practices on the Web can be found in Mayans (2001) and Estalella (2005a and 2005b). The former deals with IRC Chat channels and the latter deals with blogger communities.

9. To this range of generic topics, a particular aspect that needs to be added is the banal and fake backdrop that predominates in accounts and conversations on social networks constituting the mainstream (Mayans, 2006; Lara, 2010).

The resultant model is a web in which relationships are distributed in the form of a network; platforms that mediate between physical and virtual reality act as communication interfaces, and online interactions constitute the 'glue' that assures the bond between actors, ultimately driving the necessary innovations to keep the system active (Freire, 2010). To a certain extent, these interactions constitute the fluid in which human individualities are expressed, the behaviour of which is equivalent to semipermeable membranes that filter contextually dependent information (Álvarez, 2001 & 2002).

(Grassroots) participation in the Social Web

The UniversiaG10 project sought to foster the presence of the Ibero-American university community in the 2nd Universia International Meeting of Rectors. In order to achieve that, a Social Web promotion strategy was designed with three objectives in mind: (i) to give the university community access to the entire content of the meeting of rectors; (ii) to activate and maintain online participation in the meeting; and (iii) to establish resources to allow the content of online debates to be reused in order to enhance the reflections made by the rectors. Generally speaking, these objectives do not differ greatly from those of other similar projects for online group management.

In order to achieve those objectives, the project design took account of the constraints on classic virtual-community promotion theories (Rheingold, 1993) arising from new forms of expanded sociability involving on- and offline practices and participants from many cultural backgrounds. The most significant innovation was a distributed communication system based on multiple open conversations. The aim was to get participants themselves to mould the development of the discourse so that it would generate a feeling of belonging. Under the UniversiaG10 brand, new sharing and socialisation spaces were also created to allow the university community's initiatives to be disseminated. Online conversation was considered to be an integrative component, and attempts were made to group conversations around pre-meeting activities, debates among participants in Guadalajara and post-meeting contributions. These innovative actions represented a step forward in the model of relationships between an institution like Universia and its audience, which was this time based on bidirectional processes and greater horizontality.

Likewise, to go beyond the classic models of interaction in virtual communities, a community participation strategy was designed. This strategy was based on the way grassroots movements operate in cyberspace. The organisational forms of grassroots movements are an important focus of analysis in terms of understanding today's online social dynamics and, by extension, they allow the organisation of online-offline group action to be elucidated.¹⁰

In the stages prior to the Social Web, online grassroots movements were articulated as 'intelligent crowds' and, with diverse goals, they used the potential of the Internet to strengthen their role and exert influence over the environment (Rheingold, 2002). Later, the capacity of any kind of group

10. See Castells (2009) for an in-depth analysis of information technology-based social movements and their impact on cultural change in the information society context.

to take action expanded significantly as a consequence of two major techno-social factors: (i) the proliferation of mobile devices; and (ii) the emergence of new open-innovation platforms, which operate and feed back on each other through social practices that take place both inside and outside the Internet space. The interplay of these two factors has led to new organisational capacities at social movements' and communities' disposal that are substantially different from those available in the pre-2.0 era. Today, information technology serves as a powerful catalyst to empower social actors and provide them with the necessary resources to implement their action in the information society.¹¹

Within its limited scope of action, the UniversiaG10 project aimed to serve as an agent that made indirect use of grassroots forms of organisation. The analytical interest resides in the precise ways of carrying out grassroots action from an institutional platform like Universia, and in how to prevent the corporate approach from negatively altering the objectives of openness and horizontality. Both aspects form part of the socio-technical innovations examined in the next section.

Focal points of socio-educational innovation

Linked to the general objectives of the project, the main innovations stemming from this experience were: the expansion of the Ibero-American university community's organisational capacity and the management of knowledge arising in that context.

To better analyse these innovations and their potential transfer to higher education institutions, we considered the utility of the nudge approach proposed by Thaler and Sunstein (2008) in the context of 'libertarian paternalism'.¹² The innovations and novel proposals arising from the UniversiaG10 project may serve as nudges to get higher education institutions to improve their open management and participation dynamics for the benefit of the university community.

Inverse socio-technical appropriation: institutionalisation of grassroots methods

From a conceptual viewpoint, it is a matter of reflecting on two intertwined approaches: (i) social action proposals based on generative communities that are inherent to online culture; and (ii)

11. The new reality facilitated by Web 2.0 tools and other types of technology, such as augmented reality, dynamic contextual information and geolocation, has been conceptualised by George Siemens under the term 'xWeb'. For Siemens (2010), the "xWeb is the utilization of smart, structured data drawn from our physical and virtual interactions and identities to extend our capacity to be known by others and by systems". In the context of this work, individuals and communities are understood to be operating in an environment thus defined.

12. Nudges are based on evidence of the fact that people do not take decisions in a void. They take them in an environment influenced by many determining factors. The person/body that creates the environment in which these decisions are taken is a choice architect (Thaler, Sunstein & Balz, 2010). This architecture is used to nudge people to help them take better decisions, without forcing any final outcome on them, while retaining the individual's choice. This approach to indirect, choice-based intervention is called 'libertarian paternalism'.

institutional initiatives that use Web 2.0 resources as a marketing strategy to access and exert influence over their target audience. The practices included in this second dimension are called 'astroturfing'. 'Astroturfing', a term derived from AstroTurf (a brand of artificial turf), is used in opposition to the term 'grassroots' (used here with the meaning of a spontaneous popular movement) and aims to pass off an advertising campaign, festival, demonstration or protest as something popular, spontaneous and independent from an organisation or company (Pando, 2010). It is about institutions or official agents using forms of action drawn from online grassroots movements in order to further their mission or strategic objectives. While UniversiaG10 was not entirely an astroturfing initiative, it did have several comparable components, in that it was a project promoted by an organisation (Universia)¹³ and that one of its goals was to enhance the impact of the 2nd Universia International Meeting of Rectors on the Social Web.

There is an obvious risk of mixing practices from opposing models of online mobilisation. Among these is the drift of institutional practices towards actions inherent to grassroots movements. This is a form of inverse appropriation that gives rise to numerous negative effects, such as a loss of credibility in the corporate discourse, the desertion of the critical mass, the unidirectionality of the conversation, the deterioration of content and the inability to generate novel arguments on the basis of a group's interests. Taken as a whole, these jeopardise the efficacy of communications that a social network is trying to promote and, therefore, of its potential as an expanded debate platform.

Ensuring that universities avoid these negative effects is key, since they are institutions whose prestige is based on the credibility and reliability of the proposals they make to and in society. Generally speaking, social network users expect their university-based interlocutors to establish sincere, non-commercial relationships that offer the chance to interact and learn about a variety of initiatives over and above those available in the physical world.

In order to correct the tendency existing in universities to inversely appropriate grassroots dynamics, the mechanisms used in UniversiaG10 suggest two possible initiatives: (i) the generation of multiple conversational environments, which expand the possibilities of topic development and provide participants with a varied offering that matches their interests; and (ii) the action's continuity over time, which is key for consolidating an institution's online digital identity, making it recognisable and generating the required level of trust to elicit fruitful interventions from its audiences.

Community-based dynamics

Higher education institutions are social networks (although they are not necessarily structured in the form of a grid) that bring together a series of actors with whom they share common interests in educational environments for the purpose of professional and research inclusion. For its part, the university community forms another network that, directly connected with the institutional web, has

13. Indeed, to quote from Wikipedia, "Astroturfing may be undertaken by an individual promoting a personal agenda, or highly organized professional groups with money from large corporations, unions, non-profits, or activist organizations." <http://en.wikipedia.org/wiki/Astroturfing> [Accessed: 10 October 2010].

its own agenda or action programme, which the actors forming part of it define. The relationship capacity of both networks is directly dependent on the capacity for both systems to share communication protocols. As both networks begin to roll out common protocols, the inside-outside dynamics will become more fluid. In this regard, the practices carried out on social networks may act as either facilitators (semi-open interfaces) or inhibitors of the development of such protocols. For its part, as noted earlier, the content of these online exchanges in the information society constitutes the social 'glue' that bonds socio-technical innovations applicable to the system.

In an environment thus defined, the articulation of filtering processes and communication protocols that relate institutions with their communities of reference (and, by extension, with other core social actors and networks) is key to the success of organisations and their managing agents (Castells, 2000, 2001 and 2009). The UniversiaG10 project pointed to two possible ways of improving that connection. Both are linked to the objectives of obtaining knowledge from group interaction and of generating innovations that support continuous improvement processes in the university environment.

The first way that became apparent – albeit indirectly – was that online institutional openness strategies can facilitate the generation of valid knowledge to bring innovation and improvement to the system, in this instance the Ibero-American university system. This is based on the role of the individual as an active user of the Web. In the UniversiaG10 project report, this figure is identified as the 'prosumer' (Álvarez et al., 2010: 15). The term, which derives from the fusion of the words *PROducer* and *conSUMER*, has a long history in the field of economic thinking.¹⁴ With the rise of social networks, it has been imbued with a new meaning and is now also used to refer to a type of user who interacts with Web content. Carried over to the educational environment, this phenomenon has led to student-as-producer theories (Neary, 2008; McCulloch, 2009; Neary & Winn, 2009; Taylor & Wilding, 2009), which situate teachers and lecturers in the role of people who provide accompaniment and guidance throughout the teaching-learning process, and who develop their expertise in a specific subject, just like curators of cultural exhibitions (Graham & Cook, 2010). A university community consisting of actors capable of producing content and articulated in a network, together with the necessary interface platforms to channel that participation, is the structural prerequisite for managing knowledge in the system formed by higher education institutions on local (geographical and identity-related) and global (society as a whole) scales.

The second way refers to community dynamics, understood as the capacity to generate institutional innovations based on the articulation of individuals' and interest groups' open participation. This process, which is directly associated with the prosumer phenomenon, has been conceptualised in various manners depending on where the focal point of interest lies. For example, it could be defined as 'crowdsourcing' if the objective is to reduce an organisation's costs and speed up its processes. It could also be called 'Open Innovation OUT' if the aim is to improve creativity (Freire, 2007).

In any event, all social open-innovation models have three fundamental components: networks, collaboration and shared assets. That is the reason why, on the UniversiaG10 open platform, we

14. For example, it was already used in 1980 by Alvin Toffler in his bestseller *The Third Wave*. Though it can also be traced back to classical social thinking. In this regard, it suffices to recall Marx's *Grundrisse*.

aimed to develop a knowledge management model that took account of those three components while proposing three articulated processes in order to: (i) design a basis for *collaboration*, taking the Social Web as the environment; (ii) integrate the actors into a *network* of shared interests by means of a discursive thread that would serve as a common denominator; and (iii) associate the result of the exchanges with a *shared* cause like the 2nd Universia International Meeting of Rectors.

Conclusions: towards e-governance in higher education

We have endeavoured to document a case in which institutions relate to their audiences through an intensive use of mediating technologies by their organisational bodies. The new forms of relationship inspired by this type of experience point to the intensive use of the potential of social media and of devices that facilitate ubiquity in order to expand capacities to generate exchanges and to create and share new knowledge. Likewise, they introduce certain innovations that are in keeping with the methodology and objectives of organisational e-governance.

In this regard, it is in the context of e-governance systems that, through the integration of digital technologies and their socio-technical derivatives, these innovations could be implemented in a way that is useful to such institutions. All of this opens up new lines of research that may be very significant for the inevitable transformation that is taking place in higher education and in its educational, organisational and management models. Such transformation is a result of the deep-seated impact of the consolidation of a new socio-technical context; a context characterised by the massive expansion of information and communication technologies.

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