Community building in the digital age: Dynamics of online sports discussion

La construcción de comunidades en la era digital. Dinámicas del diálogo online deportivo

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ABSTRACT: Marca Community is arguably one of the most popular online sports communities in Spain with over 400,000 members. In its forum, users can comment on the news published by the sport-based newspapers Marca while interacting with other members. Drawing on the existing literature on virtual

communities, this study empirically examines the engagement in online discussion in order to determine the degree of "community building" promoted by the members. We propose a methodological approach taking under consideration the singularities of the sports fans and of the online conversation. A structural analysis focusing on the user interaction was conducted over the members (N=4,967) who posted comments in 8 selected articles. The findings suggest that Marca Community is a non-hierarchical liquid network wherein members participate in an equal footing.

RESUMEN: Con más de 400.000 miembros, la Comunidad Marca es posiblemente la comunidad deportiva online más popular en España. En sus foros de discusión los usuarios pueden comentar las noticias publicadas por el diario deportivo Marca e interactuar con otros usuarios. Este artículo analiza la involucración de los miembros en el diálogo con el fin de determinar el grado de construcción de comunidad que promueven. Hemos propuesto un acercamiento metodológico que tenga en consideración tanto las singularidades de los fans deportivos como del diálogo online. Llevamos a cabo un análisis estructural centrándonos en las interacciones de los usuarios (N=4.967) que comentaron en 8 noticias seleccionadas. Los resultados sugieren que la Comunidad Marca es un red no jerárquica en la cual los miembros participan en un plano de igualdad.

Keywords: **Citizen journalism, sport, online discussion, comments, community, Marca.**

Palabras clave: periodismo participativo, deporte, conversación online, comentarios, Comunidad, Marca.

1. *Introduction*

Digital media consumers are living in an era largely determined by widespread citizen participation[1]. A myriad of online users access the Internet everyday in order to express and share their opinions. Particularly, comments posted by users in news websites are one of the most extended means of online participation[2]. In those comments participants interact with each other and the media creating online discussions that may even gain more attention than the news articles posted by the hosting website itself.

Although the strategies for generating profit from the user participation are still to be resolved, the media industry allocates considerable human and material resources to enable and encourage this participation, essentially in the hope that a higher user

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[1] DOMINGO, D., QUANDT, T., HEINONEN, A., PAULUSSEN, S., SINGER, J. and VUJNOVIC M., "Participatory journalism practices in the media and beyond. An international comparative study of initiatives in online newspapers", *Journalism practice*, vol. 2, nº 3, 2008, pp. 326-342.
[2] RUIZ, C., DOMINGO, D., MICÓ, J.L., DÍAZ-NOCI, J., MESO, K. and MASIP, P., "Public Sphere 2.0? The Democratic Qualities of Citizen Debates in Online Newspapers", *The International Journal of Press/Politics*, vol. 16, nº 4, 2011, pp. 463-487.

engagement with the brand will be somehow transformed into money in the future[3]. In this effort, companies try to organize the otherwise fragmented online discussions and form virtual communities wherein users are regrouped into communities of interest[4]. That is in fact, according to Mark Deuze[5], where the future of citizen journalism lies from an industry perspective: the creation of brand communities around the news. Nevertheless, although virtual communities promoted by media industry do not find it easy to success, there are some notable exceptions, sport being one of greatest. In this sense, Deuze notes that "media projects have been particularly successful in the realm of other domains where communities of interest already exist, such as professional sport"[6].

There is little doubt about the potential embedded in elite sports to gather different kinds of people around online discussion forums. Arguably sports chatter is becoming one of the most popular virtual discussion forms nowadays. Sport-based online communities have in many cases the advantage of being rooted in offline pre-existing communities of interest, which means a supportive fan base and a stable, long-term team or sportsman identification. However, as Hynes suggests, the traditional environment for sports fandom is decisively challenged by the online experience[7]. The Internet imposes new rules that challenge the dynamics of participation, interaction, heavy/soft user engagement, or locally/globally oriented content, to name but a few. In short, and most importantly, the new medium might define the way people live the communal experience, how they share opinions and interact with each other, that is, the way the virtual community is constructed.

This work explores the community building around online sports discussions in Spain by focusing on news commenting. In doing so, we would like to assess the community engagement or disengagement achieved by the participants in those discussions, describing a user-centered picture of a virtual community around sport.

With this aim in mind a case study was selected. Presumably, the most popular Spanish online sports community is "Marca Community", with a growing number of 400,000 registered members. News comments posted by users in marca.com can rise up to 800,000-1,200,000 per month. Participants can comment on news published by *Marca* with an identified and permanent user profile. These participants establish links with each other as they mention or respond to others" opinions and messages, therefore participating in the building of a virtual community.

2. *The virtual sporting community*

Sport-based virtual communities add to the specificities of the online communities the singularities of the sport itself. Sport, and specifically football in Europe, condenses a

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[3] VUJNOVIC, M., SINGER, J.B., PAULUSSEN, S., HEINONEN., A., REICH, Z. and QUANDT, T., "Exploring the Political-Economical Factors of Participatory Journalism: A First Look into Self Reports by Online Journalists and Editors in Ten Countries", *Journalism Studies*, vol. 4, nº 3, 2010, pp. 285-296.

[4] PREECE, J., "Online Communities: Researching Sociability and Usability in Hard reach Populations", *Australian Journal of Information Systems,* vol. 11, nº 2, 2004, pp. 146-151.

[5] DEUZE, M., "The Future of Citizen Journalism", in ALLAN, S. and THORSE, E., *Citizen Journalism. Global Perspectives*, Peter Lang, New York, 2009, pp. 257-263.

[6] *Ibíd.*, p. 258.

[7] HYNES, D., "Jaysus! Is Janno a Bird? A Study of Feminity and Football in Online Forums", in KROVEL, R. and ROKSWOLD, T., *We love to Hate Each Other. Mediated Football Fan Culture,* Nordicom, Göteborg, 2012.

vast number of socially significant traits such as national belonging, fan identity, or community engagement. Quite often, however, sports communities are approached from a behavioral perspective, focusing on the aggressive conduct of sport fans[8]. Ward[9] has argued that football matches are consubstantially violent, as heroic values are enhanced, thus promoting the confrontation between football fan communities. Although violence is not exclusive of sports, it certainly plays its part in it, and the use of derogatory language and insults are key elements to virtual communities around sport. As Boyle suggests "much of the sporting online debate is characterized by partisan and hostile comment, which the nature of the platform encourages in a way face-to-face debates makes more difficult"[10].

Particularly in football, one might wonder whatever happened to those days in the decade of the 1980 when hooligans terrorized rival fans and prevented football from becoming the family-friendly commodity it is today. As the regulation intensified its fight, the "dysfunctional fans" [11] abandoned the stands or found themselves progressively secluded. Is it possible then to argue that some of those fans might have migrated to the online stands? Be that as it may, researchers have questioned the real impact of violence in virtual communities, emphasizing the socially controlled violence that takes place in them[12]. Similarly, Rokswold and Krøvel have indicated that although conflict and rivalry remain a significant element in the forging of fan identities, they provide values without endangering the basic relationships in society[13]. As a result of this view, online discussion in sport forums have been framed in terms of "the opportunity to give vent to some pent-up aggression"[14], that is to say, actual violence replaced by a simulacrum, a diluted version of the Two Minutes Hate in Orwell's *1984*.

Besides violence, a second pivotal element to understand online sports communities is related to the dissolution of the sports community concept as we know it. The internationalization of the top leagues in Europe and the US has switched the focus of interest from hyper local to global, redefining the fan behavior and their brand consumption. In fact, both the local dimension –composed by old-fashioned team supporters– and the global audience coexist. This globalization encourages the proliferation of "tourist fans" –soft users. Giulianotti has referred to this type of supporter by the name of *flaneurs*. A *flaneur* is a cool consumer, a taster, a postmodern spectator "who particularly interacts with the cool media of television and

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[8] BERNACHE-ASSOLLANT I, BOUCHET P, AUVERGNE S and LACASSAGNE MF, "Identity Crossbreeding in Soccer Fan Groups: A Social Approach. The Case of Marseille (France)", *Journal of Sport and Social Issues,* vol. 35, nº 1, 2011, pp. 72-100; DALAKAS, V. and MELANCON, J.P., "Fan Identification, Schadenfreude Toward Hated Rivals, and the Mediating Effects of Importance of Winning Index (IWIN)", *Journal of Services Marketing,* vol. 26, nº1, 2012, pp. 51-59.

[9] WARD, R.E., "Fan Violence. Social Problem or Moral Panic?", *Aggression and Violent Behavior,* vol. 7, 2002, pp. 453-475.

[10] BOYLE, R., "Social Media Sport? Journalism, Public Relations and Sport", in KROVEL, R. and ROKSWOLD, T., *We Love to Hate Each Other: Mediated Football Fan Culture,* Nordicom, Goteborg, 2012, p. 56.

[11] WAKEFIELD, K.L. and WANN, D.L., "An Examination of Dysfunctional Sport Fans: Method of Classification and Relationships with Problem Behaviors", *Journal of Leisure Research ,* vol. 38, nº 2, 2006, pp. 168-186.

[12] WARD, R.E., *op. cit.*

[13] ROKSWOLD, T. and KROVEL, R., "Introduction", in KROVEL, R. and ROKSWOLD, T., *We love to Hate Each Other. Mediated Football Fan Culture,* Nordicom, Göteborg, 2012.

[14] HORNMOEN, H., "Battling for Belonging. How Club and Supporter Identities are Created in the Mediation of an Oslo Derby", in KROVEL, R. and ROKSWOLD, T., *We love to Hate Each Other. Mediated Football Fan Culture,* Nordicom, Göteborg, 2012, p. 149.

the Internet"[15], in a market-dominated environment of virtual relationships. We believe this kind of consumer plays a big part in the online sport community.

3. *Participation in the new media*

When seeking to understand a virtual community some considerations must be kept in mind. From a sociological perspective, we could focus on the boundaries of the community in order to define it. Thus, the narrative of the "evil trespassing the border"[16] would help to frame the issue as a "they versus us" conflict. In this sense, the community is the coalition of people who shares an identity, or to put it more simply, a group obsessed about the question "who are we"[17]. However, an online community differs from the common understanding of what an off-line community is. From an operational perspective an online community is described as "a group of people with a common purpose whose interaction is mediated and supported by computer systems, and governed by formal and informal policies"[18]. Ridings[19] elaborated on the term and defined virtual communities as "longer-term" and "based on personal relationships" as opposed to 'short-term" and "gather to complete organizational task" that define online groups, a lesser form of union.

As useful as all these approaches are, we believe the new media deeply challenges the way we examine online communities. The web imports behaviors and customs to online discussion that are specific to the Internet –such as lurking[20]. It is widely accepted that the vast majority of the members in online communities are *lurkers*[21], that is, people who read and rarely participate but whose existence is anyhow "desirable" for the health of the community[22]. The medium imposes its own dynamics, as we can see, and what comes with the Internet is a huge amount of "invisible data"[23] that answers for an "unseen community"[24]. Ironically, the age of active audiences is composed to a great extent of passive participants, an alleged oxymoron, sort of silent users who prefer to stay aside. In addition to this, virtual communities are not only determined by *lurkers*, but by the low participation of those who actually do not lurk.

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[15] GIULIANOTTI, R., "Supporters, Followers, Fans and Flaneurs. A Taxonomy of Spectator Identities in Football", *Journal of Sport & Social Issues,* vol. 26, nº 1, 2002, p. 38.

[16] WARD, R.E., *op. cit.*

[17] ROKSWOLD, T. and KROVEL, R., *op. cit.*

[18] PREECE, J., *Online Communities: Designing Usability, Supporting Sociability,* John Wiley & Sons, Chichester, 2000.

[19] RIDINGS, C., GEFEN, D. and ARINZE, B., "Psychological Barriers: Lurker and Poster Motivation and Behavior in Online Communities", *Communications of the Association for Information Systems,* vol. 18, nº 1, 2006.

[20] FUKKINK, R., "Peer Counseling in an Online Chat Service: A Content Analysis of Social Support", *Cyberpsychology, behavior, and social networking,* vol. 14, nº 4, 2011.

[21] NONNECKE, B. and PREECE, J., "Lurking and Public Participation in Discretionary Online Communities", *Electronic Commerce Research,* vol. 5, nº 4, 2005; LI, X., ZENG, D., MAO, W. and WANG, Fy, "Online Communities: A Social Computing Perspective", *IEEE ISI 2008 International Workshops,* Springer, Taipei, 2008, pp. 355-368.

[22] RIDINGS, C., GEFEN, D. and ARINZE, B., *op. cit.*, p. 331.

[23] PANCIERA, K., PRIEDHORSKY, R., ERICKSON, T. and TERVEEN, L., "Lurking? Cyclopaths? A Quantitative Lifecycle Analysis of User Behavior in a Geowiki", *CHI 2010: Social Media Users,* Atlanta, 2010.

[24] RIDINGS, C., GEFEN, D. and ARINZE, B., *op. cit.*, p. 331.

Most of the comments in news sites and postings are generated by a handful of users; what has been called "the long tail of participation".

Generally speaking, citizen participation has been perceived as accessory, and users' comments regarded as a nonsensical jumble of words. Some authors have reflected on them in terms of bullshit or irresponsible[25]. Furthermore, in many cases those comments enter the realm of derogatory language and insult. Trolls or flame warriors –participants who sabotage the online discussion– become therefore recognizable individuals, inherent to the platform[26]. As a consequence, the media industry has debated the need for a stricter control of the user participation or even its cancellation.

4. *Methodological considerations to approach online discussion*

Arguably the dominant methodological approach to the study of online communities is Content Analysis (CA)[27]. Many researchers have drawn on the seminal work of Henri[28] and his Model of Content Analysis to explore the dimensions of participation, social, interactivity, cognitive skills and metacognitive knowledge and skills in e-learning forums. In addition to this method, other researchers have utilized Gunawardena's Interaction Analysis Model[29] that distinguishes 5 accumulative knowledge building phases in the users" interaction. Obviously, despite still being widely used in more recent investigations[30] these models were designed in an era of computer mediated interactions that vaguely resembles the world today.

Online discussions have attracted a great deal of attention in educational sciences. In general, student-participation-oriented studies are focused on small-scale group interactions, of no more than one hundred participants[31], sometimes involving as few as 20 students[32]. The educational context fosters new opportunities for the promotion

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[25] RUIZ, C., MASIP, P., MICÓ, J.L., DÍAZ-NOCI, J. and DOMINGO, D., "Conversation 2.0. and Democracy. An Analysis of Reader's Comments in Catalan Online Newspapers", *Communication & Society,* vol. 23, nº 2, 2010, pp. 7-39.

[26] HIMELBOIM, I., GLEAVE, E. and SMITH, M., "Discussion Catalysts in Online Political Discussions: Content Importers and Conversation Starters", *Journal of Computer-Mediated Communication,* vol. 14, 2009, pp. 771-789.

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[29] GUNAWARDENA, C., LOWE C. and ANDERSON, T., "Analysis of a Global Online Debate and the Development of an Interaction", *Journal of Educational Computing,* vol. 17, nº 4, 1997, pp. 397-431.

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[31] ZHU, E., "Interaction and Cognitive Engagement: An Analysis of Four Asynchronous Online Discussions", *Instructional Science*, vol. 34, nº 1, 2006, pp. 451-480; LEE, J., *op. cit.*

[32] MARRA, R.M., MOORE, J.L. and KLIMCZA, C. A.K., "Content Analysis of Online Discussion Forums: A Comparative Analysis of Protocols", *Educational Technology Research and Development,* vol. 52, nº 2, 2004, pp. 23-40; NARANJO, M., ONRUBIA, J. and SEGUÉS, M.T., "Participation and

of innovative e-learning experiences, offering excellent insight into the computer mediated studying behavior. Learning rooms, chats, forums and the like, are perfect environments for measuring the knowledge building (KB) by means of student-teacher as well as student-student interactions. Virtual communities in schools and universities are designed for students to facilitate their way to learn while interaction between the users is believed to promote the sharing of information and the building of deeper and collaborative knowledge. In those interactions, although constituted by users extremely motivated to participate –as often the student interaction is compulsory in order to pass the course– researchers have found a low degree of user engagement and consequently a poor knowledge building[33].

Besides the assessment of knowledge building in online communities, some studies explore what we may call "the democracy building"; in other words, the way users interact with each other in pursuance of the truth, understood as the byproduct of the critical and rational discussion in the public sphere[34]. According to this, citizen participation is nothing but the accomplishment of a democratic ideal. Works that examine the democracy building have been mostly carried out in the political discussion realm[35].

Specifically in online sports communities, little work has been done so far. There is no correspondence between the amount of research devoted to fan identity and sport-related community behavior and the research dealing with the alleged paradigm shift prompted by the new media in such communities. Alonso and O'Shea[36] analyzed the role of the voluntary moderators in online forums of clubs playing in the Australian Rugby League. Norman[37] studied a Canadian-based fan-produced sports blog and argued that the term "electronic tribe" best suited the community of fans gathered there. Hommoen[38] examined two online sports forums in Oslo, Norway, selecting two main conversation threads within them, to ascertain the battle for belonging around the identity construction of the supporters. Hynes conducted 16 e-mail interviews to study femininity in online football forums to conclude that the virtual experience is "worthy of attention because it changes and challenges the traditional environment of

Cognitive Quality Profiles in an Online Discussion Forum", *British Journal of Educational Technology,* vol. 43, nº 2, 2012, pp. 282-294.

[33] SING, C.C. and KHINE, M.S., *op. cit.*; LEE, J., *op. cit.*; CHEUNG, W. and HEWT, K., "Interaction in Asynchronous Discussion Forums: Peer Facilitation Techniques", *Journal of Computer Assisted Learning,* vol. 28, 2012, pp. 280-294.

[34] RUIZ, C., MASIP, P., MICÓ, J.L., DÍAZ-NOCI, J. and DOMINGO, D., *op. cit.*; GOLDBERG, G., "Rethinking the public/virtual sphere: The problem with participation", *New Media & Society,* vol. 13, nº 5, 2011, pp. 739-754; VALENZUELA, S., KIM, Y. and GIL DE ZÚÑIGA, H., "Social Networks that Matter: Exploring the Role of Political Discussion for Online Political Participation", *International Journal of Public Opinion Research ,* vol. 24, nº 2, 2012, pp. 163-184; VELASQUEZ, A., "Social media and online political discussion: The effect of cues and informational cascades on participation in online political discussion", *New Media & Society,* vol. 14, nº 8, 2012, pp. 1.286-1.303.

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[36] ALONSO, A.D. and O'SHEA, M., "Moderating virtual sport consumer forums: exploring the role of the volunteer moderator. International Journal of Networking and Virtual Organisations, vol. 11, nº 2, pp. 173-187.

[37] NORMAN, M., "Online Community or Electronic Tribe? Exploring the Social Characteristics and Spatial Production of an Internet Hockey Fan Culture", *Journal of Sport and Social Issues,* 2012 online first.

[38] HORNMOEN, H., *op. cit.*

football fandom"[39]. On the other hand, Steensen[40] analyzed 64 football chat rooms hosted by the leading Norwegian online newspaper. A Conversation Analysis was implemented wherein the topics, the dominant discourse mode and the intention of the turns –initiation, agreement, disagreement, follow up, etcetera– were identified. In addition to this content analysis, semi-structured interviews were arranged with the journalists in charge of the chat rooms. Steensen argued that professional journalistic institutions are not revolutionized by the participatory culture as he noticed that the discourses were messy while simultaneous conversations went on without much coherence.

So the question remains how to methodologically approach online sport communities, an approach that could take into consideration the singularities of both the sporting context and the computer mediated user behavior. Carey[41] introduced two communication paradigms. On the one hand, he talked about a "transmission view of communication", wherein the 'sending" metaphor is conspicuous and frames the communication as a process whereby messages, information, are transmitted. Instead, on the other hand, the "ritual view of communication" emphasizes the 'sharing, participation and the possession of a common faith"[42]. Virtual sport communities stand for the latter –message, content is secondary as mere sharing is central. Indeed, discussion on sport has always been considered insubstantial. Eco[43] talks about the sports chatter, a discourse that only refers to itself and the internal circumstances of its production. Previously in the same book, Eco had argued that sports chatter is "a phatic speech, emotions and feelings are expressed for the sake of it"[44], a constant contact without any message. Phatic communication, as presented by Jakobson[45], is the function of language that contributes to the establishment of communicative contact. Abril goes further and alludes specifically to a phatic community that has forced mass mediated communities into becoming "gestural patterns of relationship, proxemic communities"[46].

This viewpoint seems in accordance with the idea of modern liquid communities expressed by Zygmunt Bauman, applied by Prodnik[47] to examine virtual communities. According to Bauman, the idea of network better characterizes the essence of communication in liquid times[48]. Networks this way are attenuated forms of community largely defined by connections rather than relations. Bauman[49] has created the metaphor of the "cloakroom communities", communities constructed around a spectacle, attended by people dressed for the occasion, wherein everyone leaves the

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[39] HYNES, D., *op. cit.*, p. 189.

[40] STEENSEN, S, "Conversing the Fans. 'Coveritlive' and the Social Function of Journalism", in KROVEL, R. and ROKSWOLD, T., *We love to Hate Each Other. Mediated Football Fan Culture,* Nordicom, Göteborg, 2012.

[41] CAREY, J., *Communication as Culture,* Routledge, London, 1989.

[42] *Ibíd.*, p. 18.

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[44] *Ibíd.*, p. 165.

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[48] DEUZE, M., "Journalism in Liquid Modernity. An Interview with Zygmunt Bauman", *Journalism Studies*, vol. 8, nº 4, 2007, pp. 671-679.

[49] BAUMAN, Zygmunt, *Liquid Modernity,* MA Polity Press, Cambridge, 2000.

coat in the cloakroom before entering –his identity– so anyone else could count them by checking the hangers. After the show, everybody collects the coat, recovering the identity left on hold for a couple of hours and re-enters the reality. In Bauman's opinion, these sort of communities we live in are 'single-purpose", 'single-aspect" and 'spectacle driven". The solid, hardware relations have been replaced by software, liquid connections, easy to disconnect from.

5. *Aim and method*

The aim of this work is to examine the community building in an online sport community in Spain. Unlike the "knowledge building" or the "democracy building" previously employed for the examination of online discussion, our research objective consists in exploring the "community building". This construct differs from the former in focusing on the network dynamics of the participants while paying less attention to the content of the discussion. In contrast to the aforementioned kind of communities, sports communities are largely determined by the emotional ingredient and their members" behavior may seem irrational or erratic at times. We want to assess the level of user engagement and whether their interactions actually build bonds and strengthen the sense of community. Community building might yield insight on the way communities behave and their composition.

To address the research objective a structural analysis method was adopted[50]. This method allows us to center upon the pattern of user participation and user interaction at the comments posted on news articles, that is, for instance, the way they respond to other users, whether those users respond back, to whom, et cetera. As mentioned earlier, the aim is user-centered; therefore the focus is on the participation, the relationship between the users and the website-user interaction by means of comment moderation. In Table 1 we have produced a community building analysis template. Although drawing on the literature on online discussions and more generally on works dealing with communities, the originality and value of the template lies in its design to address the singularities of the online sports community.

The methodological tool seeks to elaborate a five-step approach to the online sporting community. Firstly, the general items of analysis were selected. Secondly, for every item indicators were chosen. Thirdly, we expose some theoretical concepts the authors have previously employed to explore those indicators in column two. Fourthly, we develop questions to address these concepts. This is a phase of operationalization, wherein theoretical terms are transformed into question whose answers can be measured and compared. Lastly, we summarize the implications for the examination of the community building these questions has.

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[50] COLL, C., ENGEL, A. and BUSTOS, A., "Distributed Teaching Presence and Participants' Activity Profiles: A Theoretical Approach to the Structural Analysis of Asynchronous Learning Networks", *European Journal of Education,* vol. 44, nº 4, 2009, pp. 521-538; HIMELBOIM, I., GLEAVE, E. and SMITH, M., *op. cit.*; NARANJO, M., ONRUBIA, J. and SEGUÉS, M.T., *op. cit.*; LEE, J., *op. cit.*

Table 1. Methodological approach to community building in online sports discussion

| ITEM	INDICATOR	THEORETICAL CONSTRUCT	OPERATIONALIZATION	IMPLICATIONS FOR THE COMMUNITY BUILDING
User participation	*Network size, composition & activity*	**Long tail** (Panciera et al., 2010) **Unseen community** (Ridings et al., 2006	No. of spammers/No. of users No. of users/ No. of readers Frequency of comments per user Distribution of users per no of comments posted	Community member's activity Lurking behavior
	Media activity	**Regulation** (Ruiz et al., 2011) (Wakefield & Wan, 2006)	Percentage of deleted comments User activity and deletion correlation Activity and deletion correlation	Undesired members of Community Violence, hooliganism related behavior Media censorship
	Time and topic-based participation	**Due-date Participation** (Lee, 2012) **Spectacle-oriented Participation** (Bauman, 2000) **Long-term participation** (Ridings et al., 2006) **Single-purpose participation** (Bauman, 2000) **Pre-existing communities** (Deuze, 2009)	Frequency and distribution of user participation since article publication Frequency and distribution of user participation throughout 8 different games	Engaged/Liquid Community over time Community Engagement/Liquidity defined by team or sport identification
User interaction	*Between-user interaction*	**Connectivity** (Naranjo et al., 2012)	No. of interactive users/ No. of users Activity and interactivity correlation	Personal relations between Community members
	Core users interaction	**Centrality, density** (Zhu, 2006) **One-way interaction** (Lee, 2012) **Online facilitator** (Guan et al., 2006; Ng et al., 2012) **or discussion catalyst** (Himelboim et al., 2009)	User responsiveness Heavy user /Non-heavy-user relationship Mention and response correlation	Creation of ghettos or sub-communities Community builders, core members of the Community Opinion leaders or horizontal community Reciprocal communication, dialogue

6. *Sample and data collection*

Marca Community was the selected case study. *Marca* is the leading newspaper in Spain and since its inception in 1938 it has been arguably the most prominent sports daily in the country. The press edition has a readership of 3,011,000 people a day, the highest for any daily in Spain[51]. Its website marca.com received 30,882,715 unique visitors/browsers during May 2012, approximately the data collection period. The average time spent on marca.com per user is 16:01 minutes, a rather high figure considering its scope. The Marca Community is very popular among sport fans, with

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[51] EGM, *Resumen general de resultados EGM: Febrero a Noviembre 2012.*

373,869 registered users by May 2012 who express their opinion about the news by posting around 1,000,000 comments a month. Regarding the rules of participation of the community, *Marca* users are warned that insults or disrespectful language will not be tolerated. Also commercial messages are forbidden. The use of lowercase letters is encouraged as well as abbreviations should be kept to a minimum. *Marca.com* reserves the right to delete comments that do not comply with these requirements.

The selected sample (*N*=15,131) comprised 8 sport matches during a time span of approximately two months –21 April to 16 June 2012. For each game only comments on the match report were examined. The comments within these matches were distributed as shown in Figure 1.

Figure 1. Number of user comments for the selected match reports
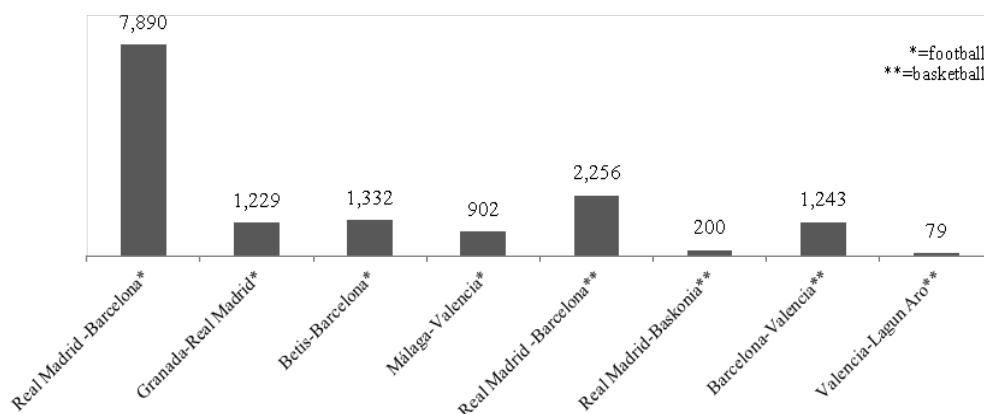
The rationale for the chosen sample is based on the teams and sports involved in the games. There were two aspects to consider. On the one hand, football is the most popular sport in Spain by far; thus variations in terms of user participation between football and the rest of sports should be expected. Consequently, we divided the sample into 4 football and 4 non-football games –basketball, as a matter of fact. On the other hand, the data would also be conditioned to the involvement of the FC Barcelona and Real Madrid CF teams. The presence of any of these teams separately and furthermore the clash between them would most definitely compromise the findings because of their huge global impact and media awareness in comparison with any other team. Hence, a set of further games were included in the sample, combining simultaneously and alternatively Real Madrid and Barcelona –and the absence of them– in football and non-football matches.

Marca management granted permission for the data collection and provided us with a detailed database that included all the comments made in the selected games, identifying: the user's nickname, the game, the complete text posted, the time and whether it was deleted or not by the moderators. All these details were accessible via marca.com but for the removed comments, for which their collaboration was necessary. In the context of online sport discussion, characterized by hostile comment as mentioned before[52], the deleted posts are essential to understand the community building or the lack of it. This study attempts to expand the scope of previous

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[52] BOYLE, R., *op. cit.*

discussion analysis works by incorporating the invisible data –derogatory language, spam, and the like– into the examined corpus.

7. Results

7.1. User participation

Prior to the analysis, the corpus was stripped of commercial messages (spam). 15,141 comments were therefore downsized to 11,496, as a result of a 24.07 percent reduction. Spammers are extremely active, posting an average of 35 comments per user and making difficult the usual discussion dynamics. Preliminary data on the network yields insights into user activity. The examined news articles gathered the attention of 324,492 readers. However, only 4,967 of those readers not only read but also commented on the news (1.53 percent), accounting for a participation rate of 2.31 comments per user. While user activity is highly dispersed –participants comment as little as once and as much as 155 times– Figure 2 shows a consistent pattern of behaviour. Two out of three users only posted a single comment. Additionally participants who commented more frequently than four times amounted to less than 10 percent of the overall users examined. These results combined allow us to portray our community as a meeting point wherein nearly 99 out of 100 readers do not participate and, furthermore, those who do participate abandon the conversation as soon as they enter it.

**Figure 2. Distribution of users sorted by number of posted comments**
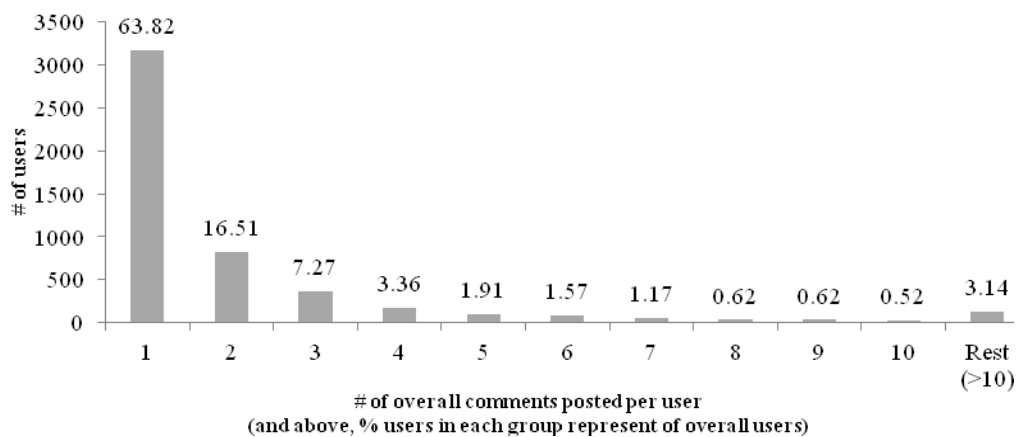
In the collected sample *Marca* journalists did not intervene in the online discussion, reducing the media activity to comment moderation. On top of the 24 percent of spam comments deleted from the discussion an additional 21.21 percent of those remaining messages was removed by the media due to rule infringement. Interestingly, the percentage of deletion was not equally distributed as a very significant correlation between the user activity and comment deletion was found (Pearson's r=.847, p<0.002), being the participants who posted a single comment the group with the smallest deletion proportion (14 percent).

Data shows, as expected, wider user participation around football games. Also comments per user in football ascended to 2.30 whereas the rate stayed lower (1.92) in basketball games. These results indicate not only that football news readers had

engaged in commenting more frequently than basketball readers but also that their engagement in the participation was more extensive and intense. Despite it was predictable that a sizeable group of users would repeatedly comment throughout the platform in different games involving the team they support, none of that happened. In our selected sample only three users commented in all three Real Madrid games (0.06 per cent of overall users) and exactly the same occurred with Barcelona games. In addition 5 percent of the users who commented on football games also did so in basketball games. Interestingly, although the football match between Real Madrid and Barcelona attracted 2,732 unique users posts (the most commented game), it was also the match with the lowest ratio of participants/readers (only 1.88 percent of the readers posted). In an online community, the boost of participation a match between these two teams can provide was expected to be high. Per contra, the kick-off of this game was of little benefit for the community as only 7.55 percent of the participants in the game returned to the forum to comment more news.

Match reports are uploaded by *Marca* approximately 5 minutes after the end of the game and remain accessible for commenting for 48 hours. During this period of time, users comment primarily in the first two hours, as can be observed in Figure 3. Thus, almost half of the overall comments were already posted within the first 24 hours, with very low activity during the last 24. In fact we could argue that by the time *Marca* administrators close down the comment section in the news the conversation in them was already finished.

Figure 3. Comment posting over 48 hours period
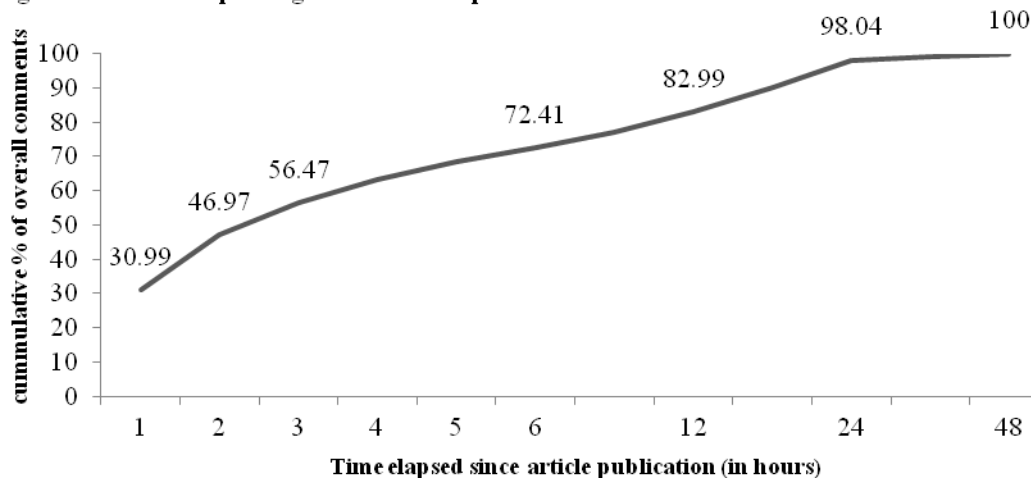
These findings can be better understood with the user participation distribution shown in Figure 4. Same as noted in Figure 3, the number of users commenting rose steeply since minute one followed by an equally steep decline after the first two hours. Participant's behaviour along the selected matches was similar as no significant differences were discovered. A noteworthy event can be observed around hour 12 of the discussions, when a tiny upturn trend is perceived throughout all the games. We must consider the fact that all selected matches concluded between 9 and 11 pm Spanish time. Hence, the time frame is compatible with the awakening of the users the next morning.

Figure 4. User participation distribution over time sorted by match
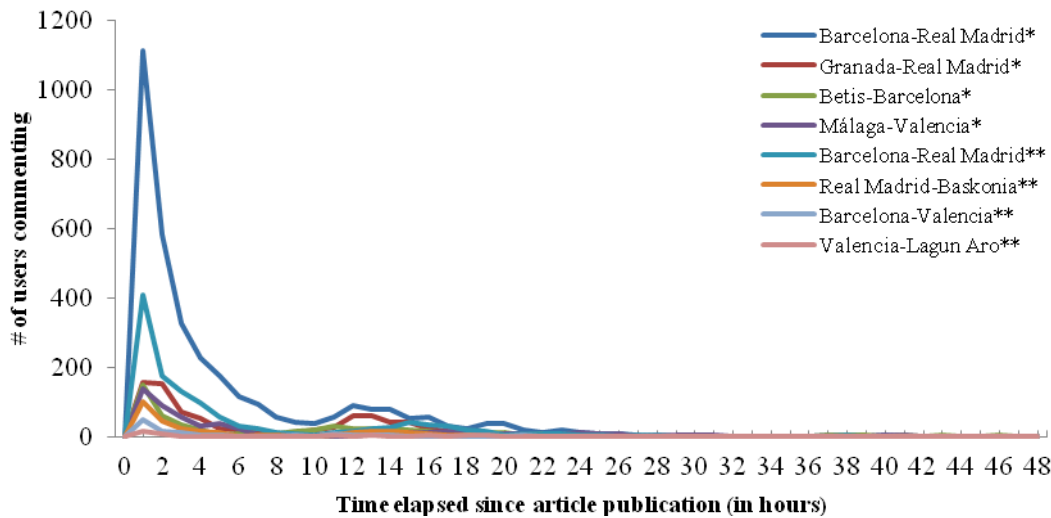
An additional observable consequence of user participation over time was the drop of comments per user. As much as the descent of users on the discussion since hour 2 was a predictable result, one could make the argument that those few users still engaged in a conversation whose termination loomed up shall more actively contribute to maintain it alive, hence elevating their ratio of comments over time. However, a statistically significant negative correlation was found between time elapsed and comments per user (varying from -.532 to -.855 according to the game, the significance for all cases always being p<.000).

7.2. *User interaction*

With the purpose of examining the community building we shifted focus from participation onto user interaction. We understand interaction as the primary networking effort in which users relate to each other and establish links. In Marca Community users not only post comments on the forum but also are encouraged to enhance their discussion experience by interacting in a Twitter-like manner, adding @username or #commentnumber to their comments whenever they want to address other members of the community. In this article we will consider interactive users to the members who either receive or/and send these sort of comments to other members. An interaction, therefore, is understood in terms of any given comment in the discussion that contains and mentions (@,#) other users.

Among the 4,967 users who posted on Marca Community solely 1,416 (28.51 percent) were interactive users. We had pointed out earlier that the overall comments per user in the forum were 2.31. However, this ratio rose to 4.43 when it came to interactive users. This increase may seem self-evident since high user interactivity could be thought as a natural consequence of high user activity. Nonetheless, this relation should not be taken for granted inasmuch a user who frequently comments does not necessarily imply a user who engages in discursive exchanges.

To explore in detail the discussion dynamics we selected a sub-sample comprising the most interactive users of the network in order to assess the role the core members played in the community building. To narrow the sample down we calculated an

index of interactivity by the formula [number of outgoing interactions (comments containing interaction sent) + number of incoming interactions (comments containing interaction received), all divided by 2]. We picked up the users who scored above 10. We found 52 core members. At first sight the implications for the community of this handful of users can be ascertained by analyzing their activity; while they represented the 1.05 percent of the overall users in the selected games they were responsible for the 13.13 percent of the comments on the discussion. Furthermore, some significant findings were identified.
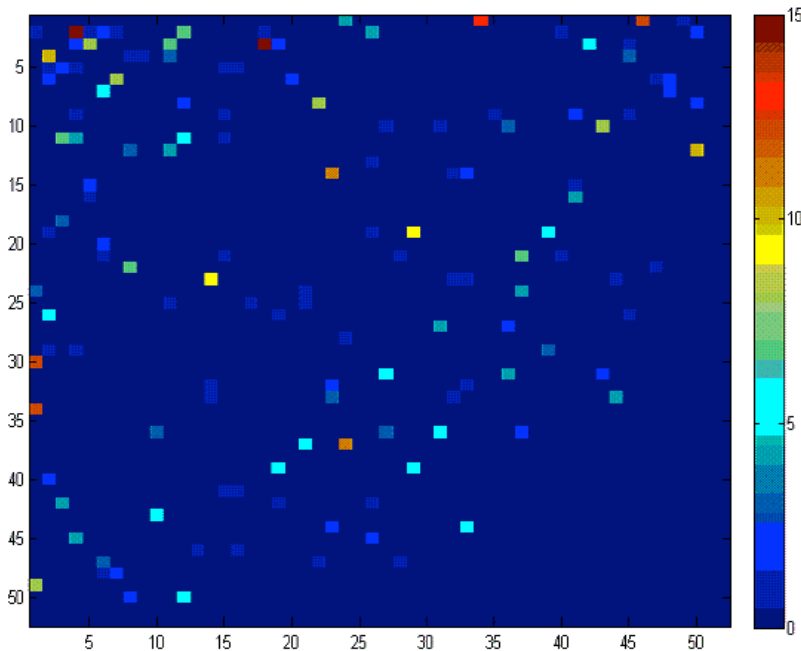
First, it was observed among the core users a deletion percentage of 29.08, considerably higher than the 21.21 percent detected in the overall sample. This result prompted us to further inquire about the link between the user interactivity and their deletion rates. However, these two variables showed no statistical correlation.

Second, we found a strong correlation between core user activity, that is, the number of comments posted on the discussion, and their interactivity. On the one hand, the user activity was correlated to their outgoing interactivity ($r=.937$, $p<0.000$); on the other hand, the user activity was also correlated to the incoming interactivity ($r=.758$, $p<0.000$). This means that those users who post most frequently in the forum are the ones who both send and receive more comments to and from other users as well.

Third, we delved into these results and sought for a correlation between the comments sent by core users to other core users and the comments received by core users from other core users. These two variables were positively and significantly correlated ($r=.748$, $p<0.000$), implying that the users who most frequently contacted other users were the ones who got contacted the most in return, although no statistical causation can be inferred from this data. This symmetry in the communication may appear obvious but, as we will point out later in the discussion section, deserves a more extensive elaboration.

Fourth, we examined the relation between the core and non-core users. We wonder whether the outgoing interaction from the 52 core users to the rest of the platform (other core users included) was more intense than the incoming interaction they received. To do that we calculated the ratio resulting from dividing their outgoing comments by the incoming ones, obtaining a 1.09 proportion that indicates the balance between these variables. On top of that, we estimated two probabilities. In the first place, we sought for the probability of a core user responding to a received interaction (A). In the second place, the opposite scenario, we tried to find the probability of a core-user of being responded when sending an interaction to another user (B). The probability was $P(A)=.459$ and $P(B)=.407$. Data showed a very similar behaviour between core and non-core users in terms of their internal interaction, slightly positioning the core-users as the promoters of it.

Fifth, we described, as presented in Figure 5, the network core users formed. It is clearly visible that almost every core user can be linked to the rest of the hardcore community with the notable exceptions of three users that remained isolated. Moreover, a core-within-the-core composed by a few members seems to embody the nucleus of the group. Finally, at the outskirts of the network dwell two small clusters disconnected from the hard-core community.

Figure 5. Heavy user interaction map

Lastly, Figure 6 allows us a close examination on the core users" internal behaviour. In this figure we can observe every interaction core users had with other core users, and more importantly, the intensity of these interactions, complementing the findings of Figure 5. To fully understand it we need to incline our heads and stare along the diagonal that descends from coordinates (X=1,Y=1) to (X=52,Y=52) and virtually divides the map into two halves. Symmetrical areas of colour in both resulting sides would indicate a high degree of reciprocity between the core users. Our hard-core community shows a considerable level of symmetry containing corresponding coloured spots in both sides of the picture. These results suggest a bidirectional conversation between the core users wherein every comment sent finds its response. And furthermore, the intensity of that conversation appears to be symmetrical as well, hinting at the existence of a real dialogue between users.

Figure 6. Heavy user reciprocity map

Axe X shows the outgoing interactions from users. Axe Y indicates the incoming interactions to users. The temperature column in the right measures the number of interactions between the users.

8. *Discussion*

Online Marca Community, as elsewhere on the Internet, is determined by what has been referred to as "the long tail of participation"[53], reminiscent of the mathematical power law. Usually a small group of individuals are responsible for the majority of the participation, becoming thus the pivotal roles in the community building. Passive users, *lurkers*, are the norm and, consequently, any conclusion derived from the observation of the actual participants should keep in mind the existence of an "invisible community"[54], all cloaked beneath the tip of the iceberg. Li[55] estimated around 90 percent the lurkers in online communities. In Marca Community *lurkers* amount to 98.5 percent.

The 63 percent of the users who engaged in the discussion only participated once. From the perspective of offline communities these results would indicate a rather disengaged body whose characterization strays far from that of the community. However, the online culture demands a broader picture for the analysis, requiring complementary evidence from other online discussions to contextualize the implications of our findings. Ruiz et al[56] studied the user participation in the online editions of four international quality newspapers. Firstly, they found a weaker user

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[53]PANCIERA, K., PRIEDHORSKY, R., ERICKSON, T. and TERVEEN, L., *op. cit.*; SPENCER, R.W., "A Pervasive Model for Participation in Voluntary Forums", *Research Techbology Management*, vol. 55, nº 3, 2012, pp. 23-31.

[54] RIDINGS, C., GEFEN, D. and ARINZE, B., *op. cit.*

[55] LI, X., ZENG, D., MAO, W. and WANG, Fy, *op. cit.*

[56] RUIZ, C., MASIP, P., MICÓ, J.L., DÍAZ-NOCI, J. and DOMINGO, D., *op. cit.*

involvement, with only around 60,000 comments posted along 3,349 news articles. In contrast, we found over 15,000 comments in only 8 articles. Additionally, the comments per user in those websites were much lower than in *Marca*. The users who posted only once represented the 63 percent in our case, increasing up to 72 percent in *El País* (Spain), 88 percent in *La Reppublica* (Italy), 93 percent in *The New York Times* (USA), and 95 percent in *Le Monde* (France). To sum up, not only more members of Marca Community participated in the discussion, but also their engagement in the conversation was higher.

Nevertheless, the participation in the discussion should be contextualized by the quality of this participation. In a research about online discussion in European newspapers conducted by Pastor[57], he found that 7.17 percent of the comments in Spanish web editions used derogatory language and insults (remember, 21.21 percent in Marca Community). This percentage descended to 1.09 in France and 0.32 percent in the UK. These findings might indicate an interesting trend that relates online sporting discussion and low quality conversation, as Boyle[58] pointed out intuitively, and could ground further research regarding the sport-related violence and online sectarianism. However, important limitations to the findings should be considered. First, sports information and general information cannot be equally treated. Second, deletion in Marca Community does not necessarily imply low quality conversation or derogatory language –e.g. some deletions respond to all uppercase writing.

The single-aspect, spectacle-driven, and short-term cloakroom communities Zygmunt Bauman talked about[59], seems to apply to our examined community. The majority of its members only participated in a single article with little user transferring between the different sports and games. Beyond the obvious, no significant evidence was found in regard to football and basketball user participation patterns. *Marca* platform for discussion, we believe, does not encourage a long-term discussion, favouring the leak of users who migrate to other article discussions or websites. The absence of a timeline in resemblance of Facebook and Twitter turns the communal experience into a less intense form of sharing and being together.

When analyzing online communities in education, Lee et al[60] classified students" involvement as "due-date participation"; in other words, students procrastinated their contribution to the last hour of the activity. Marca Community displays a very different panorama, with most of the contributions condensed in the first two hours. Expanding the liquid metaphor proposed by Bauman, we could characterize our network as an "effervescent community", whose members participate hyperactively at the beginning but, as time goes by, their impetus fades away.

If we focus our attention on the core users we must emphasize the importance of the correlation between their activity and interactivity and its implications for the community building in *Marca*. These users, beyond participating intensely on the forum –unimportant considering the already overcrowded discussion– engage in the construction of the community as their commenting activity involves a lot of interactivity, that is, a very socially oriented participation. And, what is even more relevant, the social participation they encourage takes place on an equal footing, horizontally distributed, wherein no user recognizes the rest as a leader of the community. The similarity of the outgoing and incoming interactions, plus the similar

[57] PASTOR, L., *Periodismo Zombi en la era de las audiencias participativas,* UOC, Barcelona, 2010.
[58] BOYLE, R., *op. cit.*
[59] BAUMAN, Z., *op. cit.*
[60] LEE, J., *op. cit.*

probabilities of being responded whether being core or non-core user, suggests a non-hierarchical community of users.

These data become more revealing when comparing to the dynamics observed on other online discussion platforms such as Twitter. In Twitter, for instance, users participate in very dissimilar ways, with little correspondence between the most mentioned users and the ones who mention others the most. The offline identity, most notably in the case of celebrities, causes one-way conversations that prompt a vertical hierarchy within the platform. The most mentioned users act as opinion leaders toward the rest of their followers[61]. As we have seen, core users in Marca Community cannot be identified as opinion leaders.

On the contrary, we can refer to them as online facilitators[62] or discussion catalysts[63]. First, core users when addressing other community members incite the debate. Second, the members of the community who do not belong in the hard-core group but desire to be incorporated can conveniently claim core users" attention by interacting with them and, most probably unlike Twitter, will get feedback (P=.459). Third, core users function as online facilitators because they do not easily allow other users in isolation. To the contrary, their behaviour prevents the network from creating sub-communities or ghettos. Fourth, despite the vertiginous speed of discussion in the forum core users reciprocate the comments they receive, striking up bi-directional conversations.

9. *Conclusion*

In this article we have examined the community building in an online sporting forum in Spain. The research findings draw a virtual community with no resemblance to the usual features of offline communities. The nature of the bonds promoted within the virtual platform fosters the definition of the Marca Community as a network. Discourse analysis, descent of literary theory, positions the text as the cornerstone of the research task. The essence of this network can be better explained, however, framing it in terms of a "proxemic community"[64], or a phatic community[65], wherein message content loses relevance in comparison to the communicative and sharing experience.

The amount of information involved in the big data determines the way researchers confront their task. We believe that networks are best characterized by the connections and disconnections between the members, and to a lesser extent by the exchanged content. Thus, the structural analysis[66] has enabled the authors to approach the online discussion as a system of personal relationships on a broad scale. The examination has portrayed the Marca Community as a network of members who stand on an equal footing, weakly engaged from a traditional community perspective, but

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[61] YARDI, S. and BOYD, D., "Dynamic Debates: An Analysis of Group Polarization Over Time on Twitter", *Bulletin of Science, Technology & Society,* vol. 30, nº 5, 2010, pp. 316-327; WU, S., HOFMAN, J.M., MASON, W.A. and WATTS, D.J., "Who Says What to Whom on Twitter", *WWW '11 Proceedings of the 20th international conference on World wide web*, Hyderabad, India, 2011, pp. 705-714.

[62] NG, C, CHEUNG, W. and HEWT, K., *op. cit.*

[63] HIMELBOIM, I., GLEAVE, E. and SMITH, M., *op. cit.*

[64] ABRIL, G., *op. cit.*

[65] ECO, U., *op. cit.*

[66] HIMELBOIM, I., GLEAVE, E. and SMITH, M., *op. cit.*; NARANJO, M., ONRUBIA, J. and SEGUÉS, M.T., *op. cit.*

strongly united from the standpoint of virtual communities. Giulianotti's definition of *flaneur*[67] is best suited to explain the behaviour of the community members: fans who, despite their sporting identification and sometimes heavy implication, treasure more their freedom to wander in, out, and about the liquid virtual network.

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[67] GIULIANOTTI, R., *op. cit*.

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