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JDMI 03

Journal of Digital Media & Interaction

Vol. 2, No. 3, (2019)

DigiMedia | University of Aveiro

Title

Journal of Digital Media & Interaction, Vol.2, No.3

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Mailing Address

Universidade de Aveiro
Departamento de Comunicação e Arte
3810-193 Aveiro - Portugal
E-mail: deca-jdmi@ua.pt

Publication Date

July 2019

ISSN

2184-3120

JDMI | Volume 2 | Number 3 | 2019

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Editorial: Internet Research

Lídia Oliveira, Maria João Antunes, Nelson Zagalo

*Dept. of Communication and Art, University of Aveiro, Portugal
lidia@ua.pt, mariajoao@ua.pt, nzagalo@ua.pt*

Welcome to the third issue of the Journal of Digital Media & Interaction (JDMI). For this issue we've assembled a set of seven articles, the first four articles being regular and the other three articles constitute a thematic dossier, which is the result of the Internet Day Seminar 2019 organized by DigiMedia / UA.

Thenceforth, we open this issue with the article "Multi-layered Identities by Social Media and Prosumption Practices in Digital and Participatory Communication", by Sunny Sui-kwong Lam which is focused on web 2.0 as a context of communication conducive to the study of consumer behavior and perceptions of content producers, namely in the context of marketing digital advertising and marketing in social media and digital communication. The author also gives a contribution to the methodological level with the use of business and video ethnography to empirically investigate prosumers' behaviors and multi-layered identities via everyday social media practices.

To follow, we have the article "The Phenomenon of Participation in the Museum. A Mechanism to Build Community", by Raquel Martínez-Sanz talking about how the use of participatory technologies in museums and giving voice to non-specialists allows breaking the sense of hierarchy in the transmission of knowledge and thus transform the visitor into an active participant and the museums into participatory cultural institutions.

Next, the article entitled "Bibliometric Study on Research About the Use of the Internet. A Review of the Perspectives on Risks and Opportunities", by Isabel Villa-Montoya and Henry Gómez-Flórez presents a bibliometric analysis using the Web of Science (WoS) and SciELO-CI Citation Index (databases) on risks and opportunities of Internet use. The results show an increasing interest in the study of the uses of the Internet, but also that it is a field with high thematic dispersion and multidisciplinary approaches. The study was conducted under the Project "Risks and Potentialities of Information and Communication Technologies in Everyday Life" - The project was executed by MediaLab EAFIT, subscribed to the Research Group in Communication and Cultural Studies of the Social Communication Department of EAFIT University, Colombia, with the support of the telecommunications company TigoUne.

The last regular article is entitled "Information needs in Spanish nursing students: results of a survey", by César Manso-Perea, Aurora Cuevas-Cerveró, Esther Martínez-Miguel, Eva García-Carpintero-Blas, Sergio González-Cervantes and Oliver Martín-Martín, analyzes the importance of "Management of information" competency and its inclusion in undergraduate curricula of undergraduate nursing students. A structured questionnaire was administered to nursing students from 21 University centres. The results evidenced the

importance of information literacy (IS) to be integrated into the first year of the curriculum and show a positive impact of information competencies trainings on the students

The Thematic Dossier is the result of the Internet Day Seminar 2019, which was organized by DigiMedia Research Centre and the Department of Communication and Art of the University of Aveiro, who have been celebrating the Internet Day (May 17th) since 2017. The Internet Day (ID) it's a one-day program that puts together three main assets of the contemporary Academy: research, teaching and interaction with companies and industry. ID2019 was dedicated to the culture of interaction. In addition to the intervention of Jeffrey Bardzell (Indiana University), a panel discussion occurred with four Portuguese researchers: Emília Duarte (University Europeia), Heitor Alvelos (University of Porto), Jorge Rosa (New University of Lisbon) and Licínio Roque (University of Coimbra). As an output of this panel discussion, moderated by Vania Baldi, three articles were produced to this edition of JDMI.

The first article of the Thematic Dossier is entitled “The Metric Selfie: hypothesising a holistic view on the algorithmic individual”, by Heitor Alvelos, it approaches the role of metrics and algorithms in the construction of self-consciousness, presenting a set of examples to highlight the violence and ambivalence underlying the process, especially in social media.

The following article is entitled “A Construção da Identidade dos Novos Partidos em Páginas Oficiais do Facebook” by Jorge Martins Rosa and Daniel Cardoso analyze the presence and interaction of Portuguese political parties in their official Facebook pages, with special attention to the new political parties, in order to understand if the new political movements present new strategies of publication and interaction.

The last article in the thematic dossier is “Rhyme Schemes” by Jeffrey Bardzell, which starts from the concept of rhyme to make an analysis of the Design, in order to show how the notion of rhyme works as a theory building methodology and to identify some problem in HCI / design theory today.

We believe the set of articles presented, the ones in the dossier but also the regular ones, form a rich and diverse contribution to the domain of Internet Research, and we hope you can make the most of them.

Multi-layered Identities by Social Media and Prosumption Practices in Digital and Participatory Communication

Sunny Sui-kwong Lam
The Open University of Hong Kong
sunny.sk.lam@gmail.com

Abstract

Digital and social media systems/environments are a result of collective knowledge by the wisdom of crowds and Web 2.0 participatory cultures. They reveal the digital convergence of media, communication and content production/consumption (prosumption) by mediation, remediation and mediatization. Especially, prosumption activities by the complexity of user agency in social media create user-generated content and context as new sources of information flow among online and offline communities. Prosumers' social media practices not only show their creativity and identity dynamics but also educate about brands, products and services, lifestyles and personalities, as well as social and political issues among online communities by interactive conversations and transmedia storytelling. Their active and critical participations facilitate a restructuring of the power/knowledge relationship between production and consumption, and advocate a new global economic form of prosumer capitalism within social media ecosystems. This article explores a study of prosumption dynamics via users-as-prosumers' practices and perceptions and reactions toward digital advertising and marketing in social media and digital communication. Besides, it exemplifies the use of business and video ethnography to empirically investigate prosumers' behaviors and multi-layered identities via everyday social media practices.

Keywords: *Digital communication, prosumption, multi-layered identities, video ethnography, transmedia*

1. Introduction

This article was embarked upon a marketing research concerning the users' perceptions of social media content, participation, advertising, marketing, and user-interface by means of business and video ethnography. Especially, videography was used to record informants' everyday lives to depict their lived experience of digital communication and social media practices. The intensive, non-stop audio-visual ethnographic observation is a kind of thick description of contextual knowledge. Video ethnography helps to catch up user behaviors under the rapidly changing technological and media environments. Such new and social media systems/environments are a result of collective knowledge by the wisdom of crowds and Web 2.0 participatory cultures. They reveal the convergence of media, communication and content production/consumption via mediation, remediation and mediatization in the digital age (Jenkins, 2006; Meikle & Young, 2012; Press & Williams, 2010; Surowiecki, 2004). Both traditional and new media are "central to the making of culture" (Press & Williams, 2010, p. 10) by means of transmediatization. User-generated content (UGC) as media representation for digital communication validates the applicability of video ethnography to study user behaviors on social media platforms (Jansson, 2013) from "the lived experience and materiality" (Burgess & Green, 2009, p. 8), as well as immateriality, of everyday social and cultural practices. This demonstrates the analytical utility of video ethnography for behavior research that is more attuned to the lived realities of everyday production/consumption (Belk & Kozinets, 2005). Certainly, business and video ethnography for market

research within a short period of time is a departure from the academic tradition of extensive fieldwork. This paper calls for a compromising model between academic and market research traditions.

UGC by prosumption provides “new sources of online information that is created, initiated, circulated and used” by prosumers who are actively “educating each other about” branding and imaging, products and services, lifestyles and personalities, and social and political issues via interactive conversations (Williams, Crittenden, Keo, & McCarty, 2012, p. 127). Social media platforms such as YouTube, Google+, Facebook, Twitter, Whatsapp, Weibo and WeChat are highly reliant on UGC by prosumers’ activities. These social media and prosumption activities transcend “the lines between one-to-one, one-to-many and many-to-many communication” by a blending of mediated personal and mass communications (Meikle & Young, 2012, p. 10). This study focuses on the spectrum of prosumption activities by “the complexity of user agency” in social media and digital communication (van Dijck, 2009, p. 42). Video ethnography “as on-site, naturalistic, observational, or contextual research” (Mariampolski, 2006, p. ix) is deployed to explore the “new literacies and strategies” of prosumers and their attitudinal effect of social media practices on digital communication (Baym & boyd, 2012, p. 322), away from the skewed marketing research questions of who, what, and why of viral propagation of social media that can neither be predicted nor be controlled (Yeo, 2013). For getting “imaginative leaps” to prepare for the future market of digital communication and prosumer capitalism, it is important to understand their intention and nature of participation, to engage them with digital and transmedia consumption and production, and to give them reasons and motivations “to interact with marketing message” and digital advertising (Yeo, 2012, p. 297).

The objective of this paper is twofold. Firstly, it explores a new theoretical framework to study prosumption dynamics in social media and digital communication. Prosumer practices create not only UGC but also multi-layered identities to facilitate the participatory cultures among online communities. Secondly, it exemplifies video ethnography as an innovative and analytical toolkit for academic and market research by the qualitative investigation of prosumer behaviors in social media. The academic wisdom builds theory by questioning and exploring new knowledge and concept by problem-finding/problem-defining while the market research agency unveils the capability and efficiency to acquire empirical evidence. Their conjuncture sheds light on a holistic knowledge building and problem-solving tactic and strategy for investigating the new dynamics of prosumption practices within the complex social media systems/environments. This, also, gives hunches and hints to marketers and agencies for decision-making when strategically planning social media advertising and digital marketing campaigns. This research starts from questioning user behaviors on creating and viewing contents through social media. By identity mapping of different types of users who are typically regarded as the target consumers or facilitators for digital marketing and advertising, this paper discerns users-as-prosumers’ interactive and interdependent relationships, and their perceptions and reactions toward social media and digital communication in everyday lives of prosumption practices.

2. Social media as autopoietic systems/environments

Social media are defined as the means of interactions among online communities who create, share and exchange ideas and information via global digital networks, thus “reshaping the manner in which individuals relate to each other” by user-generated content, as well as context (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011; Muller, 2012, p. 269). Contemporary communication systems/environments are changing by the uprising of UGC and prosumption activities. This market research originally aimed to collect data of users of various levels of participation in social media and their perceptions of digital advertising and marketing. A bipolar categorization model that divides users into passive viewers and active creators was employed. Nevertheless, a multifarious conception of user agency to understand different levels of participation is adapted when developing this paper of academic and market research collaboration. With regard to Li and Bernoff’s (2008) segmentation of digital consumers and van Dijck’s (2009) critical analysis of social media users, the users can be categorized into five types based upon their different levels of participation in prosumption activities that contribute to UGC. “Creators” publish and upload videos, photos and other texts as active prosumption of UGC; “critics” give comments and ratings to the content; “collectors” save and share the content with other users; “joiners” connect and unite people of similar tastes and lifestyles by means of shared social mediated experiences; “spectators” read UGC without much contribution. Although it is argued that over 80% users are “passive spectators’ (33%) and ‘inactives’ (52%)” (van Dijck, 2009, p. 44), this world-wide statistics bearing in mind the problematic of digital divide (OECD, 2007) cannot reveal the real situation in well-developed metropolises like Hong Kong. On the one hand, the active users’ participatory involvement and community engagement in prosumption activities is much more attractive to marketers and advertisers. Especially the research subjects as younger digital generations who comprise higher levels of participation in social media activities are “highly engaged in electronic word-of-mouth via content creation and sharing” (Williams et al., 2012, p. 129). On the other hand, “spectators” or more accurately “lurkers” who “make up over” 40% to “90% of online groups” also contribute to an important component of online commerce and business by their lurking activities (Goriunova, 2017; Nonnecke & Preece, 2000, p. 73).

UGC that is fundamentally social defines social media and participatory culture via which creativity, information sharing, coordination and collaboration among prosumers happen (Meikle & Young, 2012). Social media platforms cannot function “without prosumers” (Ritzer, Dean, & Jurgenson, 2012, p. 386). The rapid changes in social media communication also alter the very structure of feeling or human consciousness leading to the evolutionary change of prosumers’ “bodily practices” (Woermann, 2012, p. 618). Their consciousness and meaning-construction practices form the psychic systems while social media architecture and organization for communication define the social systems. Social media platforms and prosumption activities explain social and cultural changes for their self-reproduction and self-organization in accord with Luhmann’s (1995) systems theory. The resulting autopoietic (self-reproductive)

systems/environments constitute the social media ecosystems maintained and strengthened by the complex global microstructures that facilitate decentralized, non-hierarchical working mechanisms (Cetina, 2005). Such autopoietic systems/environments require new thoughts and means of control and sharing as well as new global forms of connectivity and coordination by the self-organizing principles and patterns with the engagement of fragmented users (Baym & boyd, 2008; Cetina, 2005; Woermann, 2012). The new dynamic of prosumer capitalism reveals how the prosumption practices among online communities including creators and lurkers are co-creating and socializing their social and public lives with peers and/or “unknown friends”.

3. Transmediatization and prosumer capitalism

Social media and digital communication embarks a rethinking of the concept of mediatization to understand the new waves of social, cultural and economic transformations by the autonomy of prosumption practices (Hjarvard, 2008). It is necessary to explore the complexity of prosumption practices from “a holistic, nonmedia-centric view of mediatization” (Jansson, 2013, p. 279) and transmediatization with a special attention to the interconnectivity and interdependence of public and private lives, virtual and physical realities, primary and mediated experiences (Baym & boyd, 2008). Prosumers co-create their online and offline experiences by transmedia storytelling within social media ecosystems. Social brands and marketers need to act like trusted friends with prosumers and consumers to discover the new challenges and opportunities of social media and digital communication (Briggs, 2010; Plangger, 2012).

Social media practices of transmedia textures and flexibility create/co-create a sense of continuity and belonging among online and offline communities, and provide the groundwork for normalizing online/offline prosumption behaviors (Burgess & Green, 2009; Jansson, 2013). The blossoming of UGC includes prosumers of different levels of participation. The enhanced involvement of recipients and active cultural citizenship leads to the formation of communities (e.g. taste and brand communities) as groups of communal preferences in social media. They have stronger preferences to share knowledge and culture by digital communication (van Dijck, 2009; Williams et al., 2012). They employ different media and tools like cameras, screens and apps “to mediate and alter the aesthetic experience of taking part in lifestyle” across different media platforms (Woermann, 2012, p. 625). Their prosumption activities illuminate creative ideas of consumption and interaction as well as user experience and content generation by mediatization and transmediatization.

Prosumers of imagination and creativity play “new cultural roles” in social media ecosystems that request “a rethinking of both aesthetics and cultural representation” (Russell, 1999, p. xi). They are individuals of a strong “desire to engage in creative acts of self-expression” and they consume by “creating their own aesthetically significant end products” (Campbell, 2005, pp. 24, 33) to describe “their tastes, their interests and their everyday lives” (Beer & Burrows, 2010, p. 5) in social media. This new global economic form of prosumer capitalism is strengthened by social media platforms where digital content and context is abundant and created by globally networked prosumers. They are free and flexible labors working outside of professional routines and practices (Ritzer & Jurgenson, 2010). Such

prosumers possess better access to social media platforms, thus enabling them to bargain with media platform owners in cultural production formerly controlled exclusively by corporates and studios. Some may split the revenues by UGC between the owners and themselves (Burgess & Green, 2009; van Dijck, 2009). These prosumers are neither exclusively amateurs nor professionals. They are a mix of users with a strong “anti-corporate culture” and tend to blend the concepts of work and play into their user-generated content and context (van Dijck, 2009).

4. Models of prosumption practices

Most original and derivative works by prosumers are creative, mediated and/or transmediated representations in the form of cultural chaos and cultural jamming. They empower audiences by restructuring the power/knowledge relationship between production and consumption in digital media and communication. Most importantly, “power distance” that is defined as “the degree of inequality in power between a less powerful individual and a more powerful other” (Hofstede, 2001, p. 83) affects the level of prosumption participation and the construction of prosumers’ identities by contingent roles and subject positions (Törrönen, 2014) among the online communities within social media ecosystems.

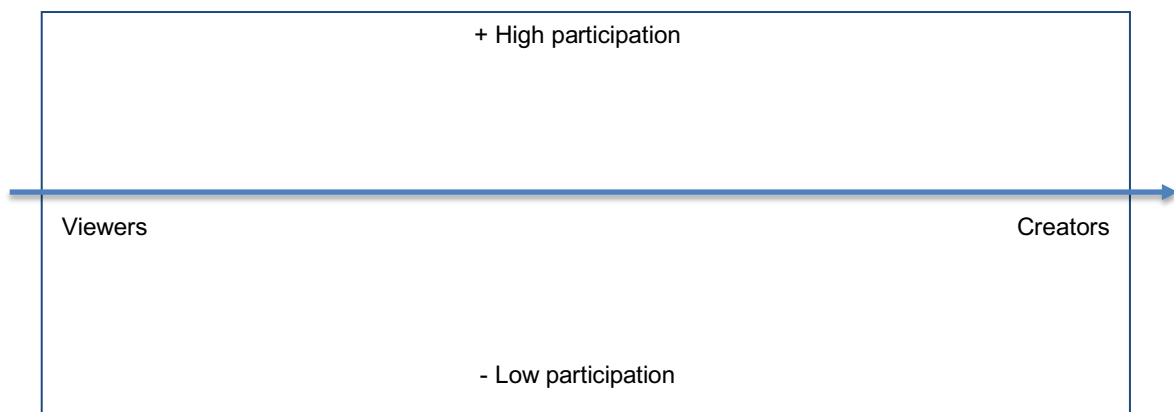


Figure 1. The Spectrum of Consumption/Prosumption Behaviors in Social Media

Figure 1 is the most original model of the market research and represents a spectrum of consumption/prosumption behaviors in social media with regard to the users’ different level of participation. Different participation determines their identity construction and roles in social media communication and marketing among the online communities. Viewers at the left terminal of the spectrum are inactive users reading rather than creating/co-creating media content; creators at the right are the major UGC contributors. The arrow from left to right measures the power distance between viewers and creators in terms of their prosumption activities. However, viewers are also prosumers by means of interactive conversations via social media networking. The vertical axis interprets different type of viewers in terms of different level of participation. At the upper left corner users-as-viewers show a higher level of participation in terms of information sharing and redistribution. When moving from left

to right, those viewers are becoming more active prosumers and contributing to UGC by comments, critiques, and/or derivative works to different extents.

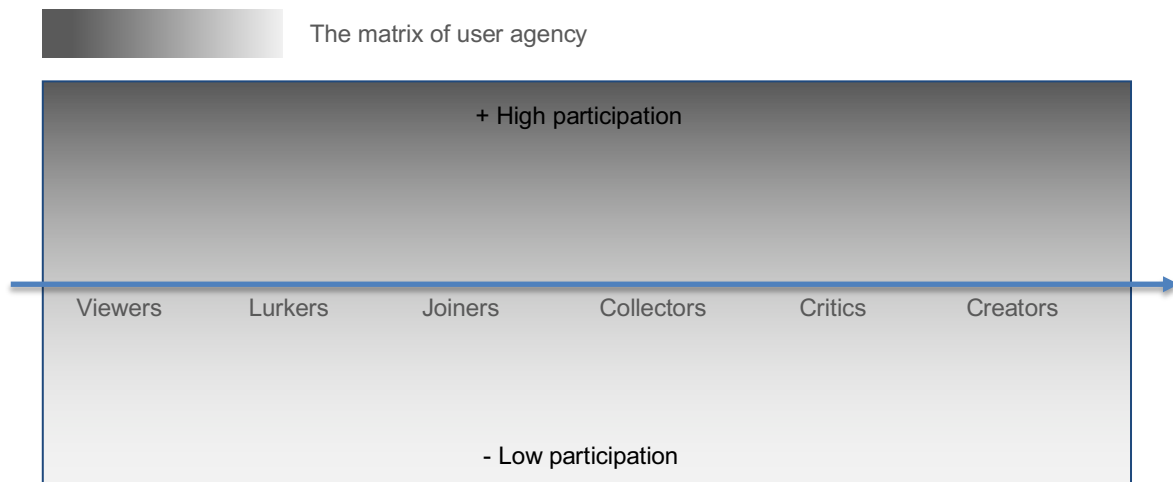


Figure 2. The Matrix of User Agency in the Spectrum of Social Media Communities and Prosumption Behaviors

Figure 2 incorporates the concept of user agency and the corresponding five types of digital consumers/prosumers – creators, critics, collectors, joiners, and spectators – into a matrix of prosumption dynamics. Viewers represent inactive users in social media sites (Li & Bernoff, 2008; van Dijck, 2009). This matrix model explains the complex and contingent roles and subject positions that social media communities may take to construct their prosumer identities. However, viewers as prosumers of almost no contribution to UGC are rare in those marketing case studies. Such viewers of limited or no contribution to social media conversations within the prosumption dynamics are not opinion leaders and play no significant role in electronic word-of-mouth and viral marketing at all. They are, indeed, not included in this research’s sampling frame as the focus of analysis is those more visible and extensive consumption/prosumption practices in relation to social media communication. Generally speaking, more visible and affective UGC comes from proactive prosumers of higher level of digital media literacy and communication skills for dynamic conversations in social media systems/environments. They may work simultaneously as creators, critics, collectors, joiners, and/or spectators. Their multi-layered identities within the prosumption dynamics form the matrix of user agency in social media. Some of their creative works by prosumption practices goes viral. Thereby, they become social media celebrities who may create/co-create online communities and make a living via advertising revenue. However, lurking has been regarded as “a natural process of human communities” instead of free-riding in digital communication (Ebner, Holzinger, & Catarci, 2005, p. 70; Nonnecke & Preece, 2000). Lurkers’ participation activities by their self-knowledge of lurking such like the Amazon recommendation system of sharing and buying generate “new frameworks for knowledge, possibility, and the experience of life” among online communities and contribute to a new mode of knowing by big data analytics in global digital networks of microstructures (Goriunova, 2017, p. 3918). Therefore, lurkers are deployed to replace spectators in the matrix of user agency such as creators, critics, collectors, joiners, and/or lurkers in social media consumption/prosumption practices.

A matrix model of identity mapping (see Figure 3a) is developed by differentiating prosumers into four identity types based upon their prosumption practices in social media. This facilitates a typological illustration of the influences of different prosumers on UGC and the construction of online communities. These identity types are “lurkers” and “activists” of lower level of prosumption participation, and “prosumers” and “produmers” of higher level of prosumption activities. They are all prosumers of multi-layered identities constituted by the matrix of user agency, that is, a hybrid complex of creator, critic, collector, joiner, and/or lurker. Activists play the major roles of critic, collector and joiner in social media communication, but also create some UGC by their amateur skills. They are more critical towards UGC compared with lurkers while produmers are more critical than prosumers. Both prosumers and produmers are major UGC contributors. In terms of power distance by prosumption activities, they are more powerful user agency and initiate the restructuring of the power/knowledge relationships in social media and digital communication. Produmers, that is, a term by the combination of producer and prosumer, possess professional media skills but flexible and creative imaginations toward social media production and participatory culture in their social and cultural performances of both dramaturgy and reflexivity (Goffman, 1959; Moeran, 2006). Prosumers in this model have only semi-professional media skills. These identity types and their dynamics within social media ecosystems will be empirically illustrated via the case studies.

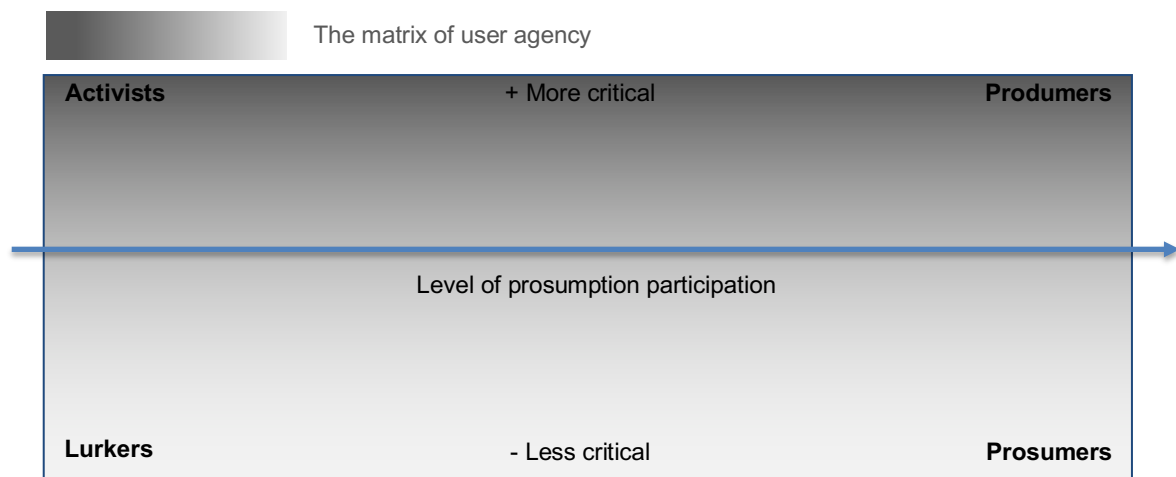


Figure 3a. The Identity Mapping of Prosumption Dynamics in Social Media

5. Business and video ethnography

As an innovative qualitative research method for understanding social phenomena without explicit knowledge, the power of business and video ethnography lies on its ability to investigate bodily practices in everyday lives whereupon the narrations of actions from qualitative interviews alone are insufficient (Mariampolski, 2006). Ethnographic studies of social media behaviors counterbalance a problematic research tendency “to reduce experience to language, discourse, texts or representation” (Thorpe & Rinehart, 2010, p. 1268) and consolidate those bodily practices into fresh ideas and insights for the development of brands, services, products, as well as other social concerns, in a new zeitgeist of digital communication (Woermann, 2012). Especially video ethnography that enhances the degree of empiricism and objectivity in behavioral research by

visual cues and representations is an effective means to cultivate a highly context-sensitive understanding of consumer/prosumer behaviors. There is a growing body of business and video ethnographic studies to investigate the ways in which advertising is viewed, engaged and personalized by the consumers within the actual social, cultural, spatial, temporal, as well as multitasking, contexts (Jayasinghe & Ritson, 2013).

Business and video ethnography is a consumer and marketing research tool for understanding culture by illuminating the consumer life in context. It condenses the ethnographic observation that generally takes academic research for months or years within a very short period of time by intensive videography and target-oriented ethnographic interviewing. Besides, a prototypical selection of cases by purposive sampling within the business framework via the systematic database from the agency plays a critical role in minimizing the number of cases but maximizing the relevancy. The recruitment process shows the efficiency of an experienced market research agency having a well-defined organizational system and an invaluable database of recruitees as human capital.

Behavioral or emotive techniques are deployed to explain unarticulated influences and emotional factors that drive consumer/prosumer behaviors. The participants talk about their stories instead of directly and simply responding to structured or semi-structured questions. Ethnography puts emphasis on the subject-driven participation during observation and interaction. Moreover, videography provides an invaluable record to capture detailed wordings, behaviors, emotions, and contexts in the field for intensive analysis.

Video ethnography in this study takes two main forms of videography – ethnographic interview and naturalistic observation. Generally, interviews record what the participants talk about what they do. Nonetheless, ethnographic interviews by videography take advantage to capture the participants' body language and expression that can be coded and analyzed. Besides, naturalistic observation by uncut video records unveils what the participants behave and do in more spontaneous and self-directive manners. Video ethnography emphasizes storytelling by stitching what the participants told and acted as reflexive and dramaturgical performances (Belk & Kozinets, 2005; Moeran, 2006).

In this research, 1 to 2 hours were used to observe every participant's relevant living or working routine on the way to work/school/play/home, and another 3 to 4 hours to study their bodily practices of social media and digital communication at home/office including around 2 hours of ethnographic interview. Generally, medium and wide shots were used to capture images of the participants' actions and reactions. Close-ups were tactically employed to focus on particular parts of the participants' bodily practices and human-computer interactions to clearly reveal social media content and prosumption activities.

All video footages of ethnographic interview and naturalistic observation of every participant were juxtaposed for comparative textual and discourse analysis. The participant's naturalistic performances and the corresponding contextual activities were triangulated with the interview discourses. Therefore, video ethnographer needs to have professional skills of documentary

videography and anthropological or social scientific research knowledge to “make sure to capture the entire context of behavior” within a very tight schedule and a not well-known natural environment (Mariampolski, 2006, p. 78). The empirical evidences by business and video ethnography helped to compile a holistic story to reflect the context and engagement of the participants in their own life world that is a key to observe and analyze consumer/prosumer behaviors in complex social media and digital communication.

6. Prosumption practices

The cases in this business and video ethnography project are prototypical exemplars on the basis of the client’s implicit expectation and the marketing research plan. They demonstrate different identity types of prosumers in the matrix model of social media practices. This justifies some pre-defined theoretical and marketing interests in the dynamics of prosumer behaviors by transmedia storytelling. The cases included limited but diverse participants from viewers to creators of social media to be operatively selected by the marketing research agency. The final fieldwork covered the production and design of UGC for both broadcasting and narrowcasting. Those prosumers created, shared and distributed/redistributed content among friends and online communities, viewed and criticized different sources of social media content via dynamic conversations and interactions, as well as interacted and commented on different types and formats of digital advertisements on social media platforms. Here some unique features of four cases from more viewing to more creating prosumption behaviors are reported. For business confidentiality and consent to the participants, visual representations of their bodily practices, that is, the most important unit of analysis, cannot be disclosed unfortunately.

Case A is a young man living with his girlfriend and working as part-time Chinese teacher and freelance copy-editor. He is a typical lurker spending a lot of spare and working hours to read news and entertainment information via social media. Once he turned on his computer of dual monitors at home, he opened browsers to display some news and play music and past radio programs via YouTube channel. “The previous interface of YouTube was different. You could find Most Popular and Most Viewed categories at the homepage. That was very useful. The categorized information is what I am looking for”, said Case A. “There must be some reason for the popularity of some social media content. Nowadays I can only see contents from my subscribed channels. It is sad for less surprise. Those popular social media contents cannot be easily found and viewed by users themselves who do not have any hints to search for that content.” Indeed, that is a drawback by marketing communication as he could only see his subscribed channels once he has signed in. He also achieved the most updated information about games and game development from some interactive chat rooms and vlogs by his lurking participation. He showed us a game promo in YouTube and complained about the video quality. “Great! I can get some updated information of game development overseas simultaneously. However, the video has limitation and cannot achieve high-definition quality. Or, just a problem of my selected video?” His self-reflexive performance and query about the video quality reflects his limited knowledge about video streaming. Then he opened a Japanese game chat room of dynamic information input by the users in real time. “You can see the live streaming of game show and simultaneously type in your

message to chat with others.” When taking a mini-bus to go home, he had kept playing games in his smartphone and tablet, which reveals the important role of a lurker in digital networks and online communities. A number of different games, game tools and accessories, and action figures had been discovered in his living room and working desk, which depicts the living context of his game and digital life. He always entertained himself by using different digital devices. “Smartphone and tablet have dramatically changed my lifestyle. In the past I must keep some physical books in my bag to avoid from being bored. Now I sometimes skip to take my bag but hold my tablet to go outside... Recently I had been struggling (with my girlfriend) for purchasing a new Sony 3D stereoscopic TV. But I have never used its 3D function. Now I am planning to change all computers at home to Apple.” His wishes were visually evidenced by his behavioral performance to go window-shopping in an electronic appliance shop. Besides, he criticized that some e-advertisements of push marketing to promote some luxury goods were irrelevant to his class and lifestyle, and made him feel very annoying. “Cartier... you are joking me!” He pointed to the video pop-up of Cartier e-advertisement on a social media platform. However, he had some good experience to get useful information for his travel from an e-advertisement of pull marketing. Although he was not an active UGC creator, he had recorded, uploaded and shared his students’ debate performances for private viewing and commenting. Nonetheless, his clumsy behaviors when searching those video clips explain his amateur status.

Case B is a young salesman who also serves as a cameraman for an amateur ballgame team to record its plays and friendly competitions for review. “When our team designs a play strategy, we will try it and shoot a video record for reviewing. Once the play strategy is successfully performed, I will stop shooting. Today is a friendly competition. So, I will only shoot some clips for record”, said Case B when he was shooting video for a ballgame in a stadium by his smartphone. The full high-definition video looked quite professional in quality and framing except its noisy audio recording. The video ethnographer also used smartphone to shoot his behaviors in the stadium in order to minimize the potential intrusion, but his speaking was professionally recorded by a wireless microphone system. Afterwards he used some amateur non-linear editing software to cut and paste those video clips for sharing with teammates via social media networks. Interestingly, the video ethnography evidenced that he did not employ some simply customized buttons on the menu bar to upload and share the final cut to social media platforms. He organized his output footages in his own filing system in a professional manner before uploading to the Internet. This is relevant to his working behavior in merchandising as he mentioned that is his habit. “Simply I will add background music to the video. Here I have just made a title ‘MXX friendly match’ on this footage.” The title was shown with a transitional effect and he had casually picked a music from his computer to the footage without any concern about copyright infringement. “I had muted the original sound track and then added this music. So, the two audio tracks don’t overlap and the video with music looks much more pleasurable.” Such kind of UGC reveals the characteristics of derivative works in social media that encourage freedom and creativity of prosumption behaviors. He edited some team’s video clips and music videos to share with the teammates and the public via YouTube (broadcasting), while some video records of their good practices would be shared with comments and feedbacks among the teammates within the private Facebook Group (narrowcasting). Those user-generated contents in the private group look more formal, or indeed boring. Intimate interactive conversations and sharing happen

among the teammates as an online/offline community. For digital marketing and advertising, he felt those pop-up images and videos annoying but acceptable if the display time was not too long to disturb his viewing. "In PC, always some pop-up windows suddenly appear to introduce some stuff or promotion. In iPad, some e-advertisements pop up only when you enter particular apps." He also pointed out some e-advertisements of pull marketing on the side column of social media platforms as fair and good, which promise the freedom of choices to audiences.

Case C is a girl studying digital media and music design. She has some solid working experience in a media production company and showed her final edit of a wedding for that company's job to the researchers. Likewise, her classmates have semi-professional knowledge and skills, and one of them had given a solo music performance in a subculture café. They are not simply viewers but the hybrid of lurker, joiner, collector, critic, and creator in prosumption. They tend to employ more professional social media platforms such as Vimeo and SoundCloud to view and share their own digital artworks and others' professional works. Nevertheless, the most popular social media platforms such as Facebook and YouTube are still their major sources of information and sharing channels. "Facebook is a platform of human community for communication among my own friends and classmates... Many foreigners post videos via YouTube. Facebook may be used to share some videos, but the original source is YouTube, that is a treasurable archive", said Case C. She explained that some social media platforms like YouTube served as massive cultural archives of both professional media and UGC. Without such archival sources, many social media networks could not function properly. Most interestingly, she relied upon those interactive comments and sharing links in her Facebook to recall some important information and hyperlinks. Her bodily practices showed that Facebook was used as a search engine to find or to recall some references among her Facebook communities. "I will see the (Facebook) Page (of Ma Shushu) to learn guitar in my spare time... I searched about guitar players in Facebook and knew that he had regularly published some guitar lessons. I felt that his stuff (UGC) was okay and then I followed him." She also mentioned that she had learned how to make up herself for job interview from vlogging and regarded social media content and marketing as fruitful sources for training and educational purposes. She was tolerant to digital marketing and advertising and happy to view different types of promotional videos and UGC via social media, especially for learning purposes. "This is a video project by our team of classmates for self-interest. I have edited a little bit with another classmate together." She was opening an edited sequence in her MacBook Pro. "This is about a promotional video of 7-11 convenient store for participating in a short film competition." She increased the volume and a video of black-and-white Hong Kong landscape faded in on the screen. "I am responsible for both video shooting and editing. But we have discussed how to shoot those shots before. (It was shot) by Canon Mark II." Many youngsters like her are "digital residents" (see White & Le Cornu, 2011) and possess semi-professional media production skills, which is evidenced by her videography and editing skills, as well as her software and hardware preferences. The youngsters' prosumption activities contribute a lot to UGC and social media communication.

Case D is a returnee from Canada and he has become a social media celebrity for some viral videos broadcasted via YouTube. He is definitely a creator as he has worked for professional radio and

television productions and he continues to produce his own digital media content for blogging and vlogging. After the viral success of some prosumption works, he established his own production company with some friends. But different from traditional professional television production, he enjoyed to work under no pressure and took a long time to develop new ideas with his partners. “Apparently, he said to me he is very powerful (and convincing) now. His reference letter should be more trustworthy”, said Case D. “Yes, yes! He has become a university professor. But, have you made an appointment with Mr. Sung yet?” said his assistant. “Not yet. I have to get ready with all the reference letters first.” They are talking about some business plan and making cultural jamming for project ideas in a café. “Can we talk about some songs usually sung during the Chinese New Year? That is not relevant (to our topic), but we always do something irrelevant (to the theme). Just like what you say about ‘Kung Hei Fat Choy’ (a Cantonese greeting).” “Say, say more.” He typed to record some ideas in his laptop and interacted with his assistant and those Internet resources from MacBook Pro, iPad and smartphone for cultural jamming. Aside from the semi-professional equipment, the situation looked more like a casual tea gathering rather than a production meeting. However, such flexible and relaxing working practices reflect the important nature of playfulness in user-generated content and context that wins “likes” from online communities. “Indeed, the funniest part is to influence other people (by UGC). I had made a vlog to joking those boys use half an hour to gel their hairs. Their hairstyles looked like Dragon Ball comic head. I saw some comments to agree with that and they dare not to make hairstyle likewise any more. This is very amazing that someone’s vlog from Canada could affect so many people’s thoughts and actions in a long distance.” He generally read all the comments on his blogs and vlogs, but has seldom replied to criticism as he mentioned that fighting back was meaningless for a large amount of negative comments. However, those comments and views from social media communities were important to his business as the numbers of likes/dislikes and viewers made statistics for his marketing and even uplifted his viral videos onto the social media top chart. His company mainly made revenue from digital advertising in terms of the overlays of e-advertisements, commissioned projects, and product placements in his videos. “This is a (commissioned project) mocking a popular variety show at that time. It is promoting a telecommunication company’s Internet, 3G and Wifi services. Here it is (a logo of the company is shown as a product placement)... The response of the advertiser is very good because the number of viewing is over 700,000 on this vlog. Even though the advertiser employs a superstar to make an advertisement, it may not achieve such a large impact online. Online platforms are indeed strange and (social media celebrities) like us can create such a huge hit rate.” Nonetheless, he showed and explained that those product placements must be rational and of the lowest level of disturbance to the viewing experience in his vlogs. “This product placement is good and the audiences know it is an advertisement and accept it. Besides, this production is of good quality (and creativity). If you twist the plot or story of a video for advertising purpose, then audience would blame on you. The theme should not be the purpose of an advertisement.” He further reminded of those advertisers that the original styles and creative autonomy of vloggers’ prosumption practices should be protected from any distorting marketing forces.

7. Conclusion

Video ethnography captured the prosumption behaviors of the subjects within the in-situ contexts. A fruitful amount of empirical and organic evidences was collected from those cases of different levels of participation to understand their prosumption behaviors within social media ecosystems. Their bodily practices as dramaturgical and reflexive performances revealed their perceptions and reactions toward digital advertisements as well as their self-presentation and self-reflection of everyday digital life of both materiality and immateriality. Individual behavioral attributes and attitudinal factors toward digital marketing, social media advertising and prosumption practices were demonstrated by the prosumers' dynamic conversations and transmedia storytelling. Such attributes and representational practices provide useful insights to marketers and advertisers, and can be used as the measurement instruments to further study prosumer behaviors and identities in digital and participatory communication.

On the basis of the matrix model of prosumption dynamics in social media ecosystems (see Figure

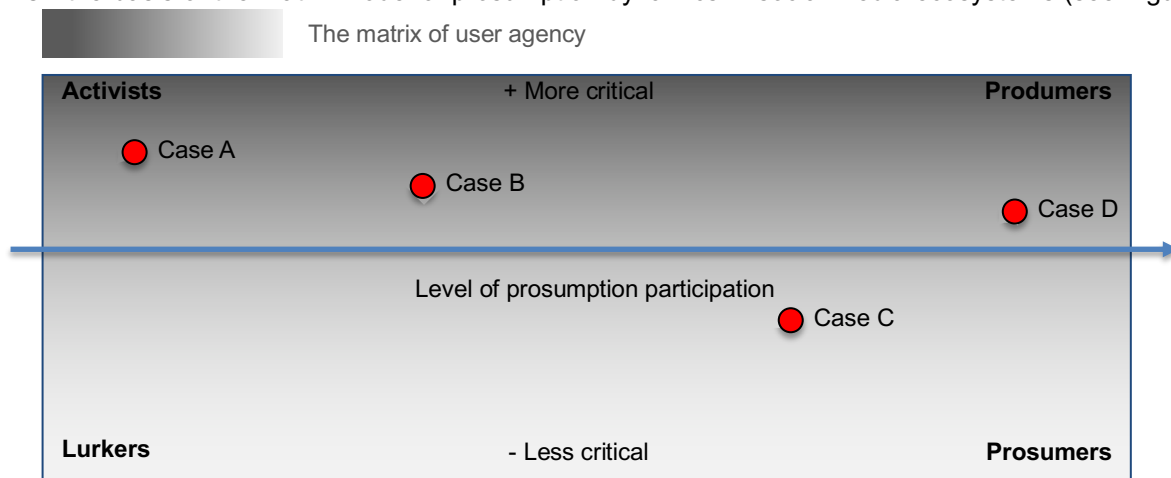


Figure 3b. The Multi-layered Identification of Prosumption Dynamics in Social Media

3a), the aforementioned four cases of this study are mapped onto the spectrum in terms of their individual prosumption practices and perceptions and reactions toward social media communication and marketing in their everyday lives (see Figure 3b). Their social media practices of different levels of participation help differentiate the four types of prosumers of multi-layered identities. This facilitates a typological mapping and understanding of the influences of different prosumer behaviors on UGC and the construction of prosumer identities as a hybrid complex of lurker, joiner, collector, critic, and/or creator in the matrix.

Case A is a lurker of rare participation in prosumption activities to provide the original or creative works to social media communities. But he is an active audience reading and sharing a lot of UGC. Indeed, he is an important consumer of digital media contents and digital devices in his everyday life. He is critical to social media platforms and digital advertising from his consumption/prosumption practices. He is close to the category of activists of critical mind and relatively high level of commenting actions both online and offline. Meanwhile, Case B is belonging to the category of activists of higher level of prosumption participation. He is more tolerant toward e-advertisements and digital marketing compared with Case A. His amateur videos contribute to UGC on different social media platforms. His friends and teammates function as lurkers, joiners, collectors, and/or critics by their dynamic

conversations and interactions. Case C should be belonging to the category of prosumers as she is an active semi-professional UGC creator and of a high level of acceptability and adoptability to digital advertising and marketing information especially for learning purposes. Case D is a typical produmer of a relatively high level of participation in blogging and vlogging. He has solid and professional media production knowledge and experience, but he prefers to work flexibly like a freelancer of higher priority in freedom and creative autonomy. His vlogs and other user-generated contents are a result of cultural jamming by dynamic conversations and transmedia storytelling among social media communities and his partners. Compared with Case C, Case D is more professional and critical to cultural production in terms of originality and creativity. Produmers understand the gap between producers and audiences and the importance of e-advertising to social media ecosystems, especially to their survival for continuous prosumption practices. So, Case D is greatly tolerant to social media marketing of different modes and participates in different sorts of digital advertising by means of his prosumption activities.

The relative short-term observation of those participants within the selected environments and contexts by business and video ethnography may not fully depict the multi-layered identities and individual attributes of their prosumption practices in social media and digital communication. The limited samples in this study also make some drawbacks in defining the spectrum of prosumption dynamics. Indeed, many implications of business ethnographic studies to the clients are kept as secrets from the market research agency and the public. A balance between academic and marketing interests is still being pursued in order to enhance theoretical knowledge and methodological power by a compromising collaboration. This may provide us some empirical solutions for a better understanding of the rapidly changing networked society and digital culture by social media and prosumption practices among online communities of multi-layered identities.

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El Fenómeno de la Participación en el Museo. Un Mecanismo para Construir Comunidad

(The Phenomenon of Participation in the Museum. A Mechanism to Build Community)

Raquel Martínez-Sanz
University of Valladolid (Spain)
raquel.martinez.sanz@uva.es

Abstract

This paper explores the different manifestations of the participation applied to the museum field emphasizing especially on the educational effects of the collective intelligence and the crowdsourcing, focusing on the configuration of communities that promote the dissemination of cultural contents. With the appearance of the Web 2.0 different forms are popularized and extended, a priori, uninterested in collaboration, nevertheless, it's advised that the participation in the cultural and artistic field has a long tradition not mediated by technology, of which the museum is a privileged witness. Regardless, it's demonstrated that placing the technology in service of the user can break the vertical and authoritarian knowledge transfer system, making the museum a concerned for the different publics' interests meeting place. The supervision of specific examples leads to the conclusion that the museum organizing participative projects which incorporate the non-expert voices, brings an image of closeness, thus strengthening their interest and commitment with the institution

Keywords: Cultural institutions, crowdsourcing, collective intelligence, engagement, Web 2.0.

Resumen

Este trabajo explora las diferentes manifestaciones de la participación aplicada al ámbito del museo, incidiendo especialmente en los efectos educativos de la inteligencia colectiva y el crowdsourcing. Se parte de la premisa que la eclosión de la Web 2.0 populariza y hace extensible distintas formas, a priori, desinteresadas de colaboración. Además, se demuestra que la tecnología puesta al servicio del usuario logra romper con el sistema vertical y autoritario de transferencia de conocimientos, haciendo del museo un lugar de encuentro. La supervisión de ejemplos concretos, permite concluir que cuando el museo pone en práctica proyectos participativos que incorporan la voz del no experto se suscita en el usuario una imagen de cercanía reforzando su interés y compromiso con la institución.

Palabras clave: Museos, Interactividad, Comunicación, Nuevas tecnologías, Participación de la comunidad.

1. Introducción

La participación es un fenómeno que adquiere fuerza con la irrupción de Internet y que se populariza con la Web 2.0. al introducir un nuevo tipo de comunicación, interactiva y cercana a la humana, pero de naturaleza electrónica y de alcance mundial (Pisani y Piotet, 2009). Este escenario da lugar a nuevo rol de usuario, el *prosumidor*, permanentemente conectado y formado en nuevas tecnologías, pero saturado de estímulos sensoriales, por tanto, difícil de sorprender que abiertamente reclama, también al museo, un trato personal que satisfaga sus expectativas.

La llegada de Internet permite romper con la autoridad del museo, hasta ese momento escasamente cuestionada fuera del ámbito más puramente académico (García Fernández, 2015). La

celebración en 1995 de la II edición del congreso “Museums & the Web” ya advirtió de los cambios que estaban por llegar: Internet cambiaría la relación entre el museo y sus usuarios y negarles su participación llevaría a comprometer la continuidad de la institución, arriesgando con ello su influencia en la sociedad más joven (Portús, Rius y Solanilla, 2009).

Este gran reto demanda un cambio de estrategia: pasar de configurar colecciones de objetos a elaborar colecciones de conocimientos, pero en esta ocasión procedentes de la contribución de la comunidad y con capacidad para ser difundidos universalmente. Dicho saber tendría la capacidad de traspasar los muros del museo convirtiéndose en fuente de inspiración y conocimiento para todos aquellos que se adentran en la Red (Hernández Hernández, 2006). A pesar de todo, no se espera que el museo ofrezca una respuesta única e unívoca a grandes preguntas, sino más bien que fomente y conduzca la reflexión y reconozca la diversidad. Actitud que da lugar a lo que se conoce como *museo participativo* (Simon, 2010; Hernández Hernández, 2011; García Fernández, 2015).

Este cambio de mentalidad en el museo, fundamentado en la promoción de la participación del usuario presencial o virtual, da lugar a contribuciones edificantes capaces de dirigir la evolución del centro (Martínez-Sanz, 2012). Sin embargo, y a pesar de los múltiples beneficios, la asunción de los principios participativos 2.0 en el museo está resultando lenta y/o parcial (Caerols-Mateo, Viñarás-Abad & González-Valles, 2017; Badell, 2015). Una exhaustiva revisión bibliográfica y sobre todo un análisis de contenido de las plataformas web de los museos resultarán esenciales para describir el estado de la cuestión.

2. Requisitos y efectos de la participación

Según el Diccionario de la Real Academia de la Lengua (RAE), el término *participación* dispone de hasta seis acepciones, siendo la primera “Acción y efecto de participar” o lo que es lo mismo, “dicho de una persona: tomar parte en algo”. Sin embargo, para ser partícipe de algo son necesarios tres requisitos, extrapolables a cualquier escenario:

Voluntad de participar

En primer lugar se precisa que el sujeto quiera participar, es decir, que exista una voluntad manifiesta de querer formar parte del proceso. El deseo de participar está íntimamente reaccionado con la motivación y, especialmente, con los valores personales del individuo y de los valores sociales apoyados por la comunidad. Sánchez Alonso (1986) determina que la consolidación de un proceso participativo resulta directamente proporcional a la asignación de reconocimiento y de valoración a la colaboración prestada.

La implicación en proyectos participativos produce en el individuo beneficios como: el desarrollo de capacidades tales como la responsabilidad, el diálogo, la escucha, la planificación o el diálogo; el aprendizaje a trabajar en equipo; o a reflexionar de manera individual e interna. Además, la participación interviene en la mejora de la calidad de vida y en la solución de problemas de toda índole.

Saber participar

En segundo lugar se requiere que el individuo sepa participar y disponga de la formación e información necesaria para que su presencia –ya sea física o virtual- obtenga los mejores resultados. En 1969, Arnstein ya adjudicó a la información la base sobre la que se asienta el fenómeno de la participación (Martínez-Sanz, 2017).

Poder participar

Y en tercer lugar, el ciudadano necesita disponer de los mecanismos que le permitan participar. Esto implica organización, libre acceso a los medios que habilitan dicha participación y libertad para expresarse. En este sentido resulta clave la planificación (Sánchez Alonso, 1986) donde se establezcan los objetivos, recursos y plazos de tiempo necesarios, además de los indicadores más eficaces de evaluación que determinen el grado de cumplimiento logrado y cuyos resultados sirvan para incorporar mejoras en sucesivas iniciativas.

3. Mecanismos de expresión de la participación en el arte

Es innegable que con la eclosión de la Web 2.0 y todas sus aplicaciones se incrementa el protagonismo de la participación en la sociedad civil. Sin embargo, es preciso hacer constar que este fenómeno ha sido una constante en el ámbito artístico y por tanto, no es algo exclusivo del siglo XXI. Seleccionamos la colaboración entre artistas y el papel del espectador en la construcción del significado de la obra como ejemplos de contribuciones valiosas no mediadas por la tecnología de las que el museo se beneficia directamente.

3.1 La colaboración entre artistas

La concepción que actualmente tenemos del arte, la cultura y el patrimonio no ha sido siempre así (Kris y Kurz, 2010). En los inicios de la Historia del Arte la función y significado que se le atribuyó a la obra y a sus artífices dista mucho de lo que entendemos ahora. Hasta la Edad Media, los artistas eran artesanos, quienes a través de su pericia elaboraban piezas cuyo valor se vinculaba con la capacidad para perpetuar simbólicamente el orden social del momento. La colaboración entre artesanos era frecuente en aras de conseguir los encargos mejor retribuidos.

El Renacimiento descubre al artista que, amparado por el mecenas, asume la libertad necesaria para dejar atrás al artesano dependiente y dirigido por los estamentos superiores –realeza, nobleza y clero-. El producto resultante de una buena idea y de una limpia ejecución alcanza la consideración de obra de arte; el trabajo se dignifica dando lugar a las primeras firmas.

Si bien es cierto que el arte comenzó siendo colaborativo (Rodríguez Ibáñez, 2012) y que con el paso del tiempo se convirtió en un acto individual, producto del interior de una única persona, generalmente incomprendida y apartada de la sociedad, lo que alimentó el carácter melancólico y solitario de los creadores, con la llegada de las vanguardias históricas se retoma el trabajo en grupo como terapia de inspiración, no solo porque la mayoría de los artistas pertenecían o mostraban simpatía por algún movimiento, sino porque la colaboración era entendida como una fuerza productiva artística.

A pesar de las diferencias entre grupos –anótense las particularidades de movimientos como el Surrealismo, el Dadaísmo, el Expresionismo o el Futurismo- todas las vanguardias luchan por instaurar una nueva forma de hacer que rompa con lo anterior y que ponga fin al aislamiento e incompreensión al que estaba sometido el artista.

El grupo de André Bretón y Tristan Tzara introdujo la participación colectiva a través de la técnica “cadáveres exquisitos” logrando que el proceso creativo se dejara llevar por el azar, fuese anónimo y dispusiese de un fuerte contenido lúdico. La obra conjunta resultante era fruto de la espontaneidad y el automatismo. Así, lo que comenzó siendo un juego acabó por instaurarse como una seña de identidad del Surrealismo que consistió en ir añadiendo elementos en secuencia (palabras o dibujos) sin poder conocer el contenido anterior incorporado por los jugadores precedentes.

El interés por la colaboración no solo traspasó el momento histórico de las vanguardias, dándole una continuidad, sino que se expande y se abre a la intervención del espectador, que hasta ahora había adoptado un papel pasivo y totalmente secundario, en lo que a la configuración de la obra se refiere (Hernández y Martín, 1998).

Las *performances* constituyen un referente en cuanto al desempeño de un rol decisivo por parte del espectador en el proceso creativo. El origen de las *performances* se vincula a dos movimientos que hicieron de la participación del espectador una necesidad y su rasgo más definitorio: los *happenings* y las *performances act*. Movimientos que en muchas ocasiones se entremezclan y confunden, principalmente porque ambos proceden de la escuela de la Bauhaus y porque en los dos el azar y la intervención son fundamentales.

Más acorde con el sentir del siglo XXI está lo que Margarita Rodríguez Ibáñez (2012) denomina “el colectivo”, forma de organización que aparece cuando el producto creativo requiere inevitablemente de la participación de distintas personas con conocimientos o habilidades diferenciadas, cuya aportación al proyecto, unida al de resto de compañeros genera un producto final de cierta complejidad. Además de la cinematografía, sirve como referente de colectivo los denominados *medialab*, laboratorios de creación donde a partir de la configuración de grupos de discusión se construye. Apostilla Rodríguez Ibáñez que “la dinámica llevada a cabo por las instituciones culturales que nacen junto al estallido de la cultura colaborativa que emana de la Red se centra principalmente en esta estructura” (2012: 94).

3.2 El espectador en la construcción del significado de la obra

Si tomamos como referencia el estudio de la participación en el arte es preciso aludir al papel desempeñado por el espectador en el proceso de concreción y dotación de significado de la obra artística. Así lo expresa el artista francés Marcel Duchamp “los dos polos de toda creación de índole artística se sitúan, por un lado, en el artista y por otro, en el espectador” (1978: 162).

Para que esto se produzca, es decir, para que el ciudadano otorgue sentido a la pieza contemplada, ha de percibirla. El acto de la percepción constituye “la vía de acceso del espectador a dos procesos, el de fruición o goce y el creativo” (Rodríguez Ibáñez, 2012: 100) y vendrá determinada por tres aspectos: la propia experiencia del ciudadano con el arte; el desarrollo de su capacidad sensitiva, es decir, para percibir; y el bagaje cultural que posea. La percepción requiere

actitud y voluntad en el querer ver, entender y completar, de ahí que se genere un proceso no solo colaborativo, sino comunicativo entre autor (emisor), obra (medio) y espectador (receptor).

La confluencia de estos tres elementos resulta decisiva en el espectador para consagrar o no la obra percibida. Martin Heidegger determina que lo que hace que un objeto sea artístico es la multiplicidad de sensaciones que desprende, “porque cuando de ella se elimina lo útil (objeto) y queda solo la verdad (lo ente) se descubre la obra de arte” (1995: 68).

La noción de *obra abierta* planteada por Umberto Eco, y referida a la pluralidad de significados atribuibles a la obra de arte a través del libre ejercicio de la interpretación, condensa la dirección preponderante del actual arte contemporáneo, que da sus primeros pasos con el arte conceptual. El artista estadounidense Joseph Kosuth resulta, además de su principal precursor, el introductor de la participación del espectador.

Algunas de las manifestaciones artísticas encuadradas dentro de la corriente del arte conceptual llevaron hasta sus últimas consecuencias la intervención del público haciendo que su contribución formara parte del mismo proceso creativo: el arte *povera*, el *land art* o los inicios del *minimal art*, asumían y esperaban una posible acción por parte del espectador.

Retomando el tema de la sensibilidad como principal mecanismo para dotar de significado a la obra, aunque ésta no es una cualidad común a todos los hombres, -lo que origina que existan diferentes grados de desarrollo-, no es menos cierto que no se pueda cultivar a través de un ejercicio continuado. La museografía interactiva (Santacana y Martín, 2010) se presenta con la intención de orientar la interpretación y establecer decodificadores de los objetos o conceptos expuestos en el museo. Esta técnica tiene la peculiaridad de conceder a los receptores la posibilidad de controlar los mensajes no lineales y en función del grado de interactividad permitida, participar en la construcción de conocimiento.

La esencia del museo de arte, como guardián y exhibidor de piezas artísticas, propicia que en su interior se den las condiciones adecuadas para que se produzca el contacto entre el espectador y las piezas, y de este encuentro surja el proceso por el cual el visitante, a través de la percepción, dote de sentido y sobre todo de valor a lo contemplado.

La introducción de la interactividad en el museo supone que sus responsables, y por ende, los profesionales que trabajan en su interior se planteen la institución como un espacio de diálogo y entendimiento con el visitante. La idea es que el museo no solo proporcione las informaciones necesarias para decodificar o entender el mensaje de la pieza artística o científica que exhibe, sino que ofrezca un valor añadido proponiendo una reflexión o una pregunta cuya respuesta no tiene por qué ser siempre cerrada.

4. El museo participativo

La última *Encuesta de Hábitos y Prácticas culturales en España (2014-2015)* recoge una tendencia que, aunque suponga una mejora gradual, demuestra el bajo interés de la población por acudir al museo. De este estudio se deriva que en torno a un 30% de los españoles ha visitado en el

último año un museo, un 28% no lo visita nunca o casi nunca y un tercio lo hace menos de una vez al año¹ (Ministerio de Educación, Cultura y Deporte, 2015).

Los datos evidencian que los museos no resultan especialmente atractivos y, por tanto, no son una opción prioritaria ni habitual entre los ciudadanos. Para fomentar el interés, los museos deben convertirse en instituciones culturales participativas, donde el visitante perciba que no solo es bien recibido sino que, de alguna u otra manera, forma parte de él.

El paradigma se encuentra en lo que se conoce como *museo participativo* que es aquel que se esfuerza por transformar a un espectador pasivo en activo; que anhela recibir aportaciones; y muestra respeto por la diversidad de experiencias y capacidades de sus visitantes. El museo participativo, por tanto, cree en el diálogo y también en la socialización al servir de nexo de conexión entre personas con iguales intereses (Miranda, 2012). Sin embargo, este tipo de centro no olvida su faceta pedagógica y apuesta firmemente por la redefinición de sus contenidos. En definitiva, el museo participativo “son los centros que invitan a sus visitantes a comprobar la evidencia científica y los registros históricos exhibidos y no sienten pudor en presentar las valoraciones y las opiniones de los no expertos” (Simon, 2010).

La ejecución de un proyecto participativo en el museo implica romper con el sistema tradicional de transferencia de conocimiento vertical y unidireccional, y dar paso a la coproducción. Para esto, el museo pone al alcance del usuario los mecanismos –generalmente, digitales- necesarios para generar, distribuir, consumir e incluso enjuiciar los contenidos, fomentando con ello su relación y *engagement* con los públicos de interés (Martínez-Sanz y Berrocal-Gonzalo, 2017). Además, los proyectos participativos mejoran las relaciones entre el personal del museo; promueven habilidades de aprendizaje específicas; y proyectan la idea de que el museo es un lugar social.

A pesar del carácter lúdico que en alguna ocasión la participación pueda adoptar, ésta no se concibe como mero pasatiempo o juego sin fundamento, sino como una estrategia que lleva implícitos los valores de la organización y es capaz de abordar problemas específicos.

4.1. El poder de la colaboración a través de la red. La inteligencia colectiva

Como reconocen Aparici y Osuna (2013) el camino para construir una cultura de la participación es largo, complejo y laborioso. Esta cultura que aspira a construir una sociedad más democrática y transparente solo se puede basar en un modelo comunicativo horizontal capaz de establecer una relación colaborativa fundamentada en el consenso y la confianza mutua. La participación, por tanto, no es un fin en sí mismo sino un medio que encuentra en la tecnología digital –y todos los cambios suscritos a ella, principalmente de tipo comunicativo y social- el soporte para expandirse.

El éxito de la Web 2.0 hizo que se multiplicasen las definiciones que trataban de acotar y ejemplificar su significado. Tim O’Reilly, uno de los máximos exponentes en sus orígenes, condensa en una sencilla frase su significado: “Aplicación que mejora cuantas más personas la utilicen” (O’Reilly, 2005). Uno de los ejemplos que mejor cumple esta máxima lo encontramos en Google, que se vuelve más inteligente y eficiente cuantas más incorporaciones e interacciones recibe: ya sea a través de un nuevo enlace, una nueva búsqueda o el gesto de pinchar sobre un anuncio. Y esto no es exclusivo del principal buscador de la Web sino que es una constante aplicable a todas las

plataformas apostilladas como 2.0. Tanto es así, que su éxito depende principalmente del volumen de aportaciones que reciban. Piénsese, por ejemplo, en YouTube, en Amazon, en Twitter, en Tripadvisor, donde junto al material compartido hay un trabajo paralelo y conjunto –realizado por la “multitud”- de selección, jerarquización y recomendación que genera un valor comunitario tan importante o más que el propio contenido allí depositado (Pisani y Piotet, 2009).

A partir de estos procesos surge una inteligencia colectiva que Costa y Piñeiro (2013: 11) describen como “la capacidad de las comunidades virtuales de estimular el conocimiento y la inteligencia de sus miembros mediante la colaboración y la deliberación a gran escala” y en donde la multiplicidad de canales, soportes y medios -*era de la convergencia* (Jenkins, 2008)- facilita que los contenidos de todo tipo alcancen al usuario hiperconectado y se expandan entre sus redes de contactos².

El empoderamiento del internauta que hace suyas tanto las herramientas para producir como las distintas plataformas y servicios web para difundir constituyen las condiciones perfectas para que se dé el fenómeno de la inteligencia colectiva.

Pierre Lévy (2004) recuerda que ninguna persona es capaz de saberlo todo, sino que la inteligencia está repartida por todas partes y la combinación y valoración de los conocimientos individuales en acción conjunta, puede llegar a crear un intelecto común que se convierta en alternativa de poder en los nuevos escenarios de participación.

En la edad del conocimiento, no reconocer al otro en su inteligencia, es negar su verdadera identidad social, es alimentar su resentimiento y su hostilidad (...). Sin embargo, cuando se valoriza al otro, según la gama variada de sus conocimientos se le permite identificarse de un modo nuevo y positivo, se contribuye a movilizarlo, a desarrollar en él, en cambio, sentimientos de reconocimiento que facilitarán como reacción, la implicación subjetiva de otras personas en proyectos colectivos (Lévy, 2004: 20).

Sin embargo, y dentro de la esfera digital se establece una diferencia entre la inteligencia colectiva de la colaborativa, indicando que el grado de implicación e interacción entre los individuos marca la separación entre una y otra. A partir del concepto *Power Law of Participation*, Ross Mayfield (2006) enumera una serie de acciones: leer, jerarquizar, etiquetar, comentar, sustituir, compartir, participar en redes sociales, escribir, refactorizar³, colaborar, moderar y liderar, que ordenadas de menor a mayor en función del grado de implicación que susciten posibilitan la transición desde una inteligencia colectiva a una colaborativa (figura 1).

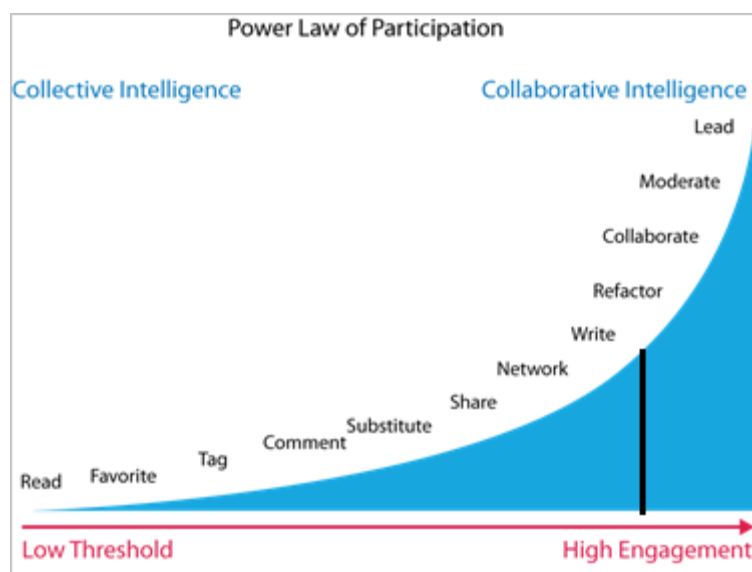


Figura 1. *Power Law of Participation* de Ross Mayfield (2006)

Para el caso de los museos, Yvonne Hellin-Hobbs (2010) identifica tres modos específicos de participación de los internautas en el proceso de interpretación y construcción del conocimiento a través de su principal mecanismo comunicativo en la Red, la página web. Se trata del etiquetado, las folksonomias y la elaboración de contenido firmado por el usuario.

A través de la página web del museo los visitantes virtuales pueden participar en la creación de contenidos culturales añadiendo sus propias "etiquetas" –como sinónimo de palabra clave- a los objetos de la colección, sugiriendo al museo nuevas interpretaciones de carácter informal. Las clasificaciones de tipo folksonómico suponen una ampliación del vocabulario del museo y una ayuda en la indexación de las colecciones. Los resultados de ambas actividades pueden dar lugar a significados no convencionales que superen los códigos unívocos de interpretación, que generalmente adoptan una expresión abstracta y que se aplican, normalmente, a los contenidos digitalizados.

En definitiva, propiciar la introducción de etiquetas (*tags*) por parte de los usuarios como sistema de identificación de las piezas de la colección creando *folksonomias* propias, permite a los museos no sólo contemplar las obras a través de los ojos de los no expertos, sino que estos rastreen y encuentren más cómodamente los contenidos depositados en la web, pues la taxonomía adjudicada por el museo –voz experta- puede resultar menos comprensible y con esto dificultar las búsquedas⁴.

Y en cuanto al contenido generado por el usuario, Hellin-Hobbs (2010) denuncia que, a pesar de las facilidades y ánimos que se emiten desde el sitio web, en contadas ocasiones las contribuciones son incluidas en el proceso interpretativo oficial del museo. Las principales causas residen en la resistencia al abandono del poder y el recelo del museo por perder el control que durante décadas ha ostentado.

Asimismo, cuando se habla de la participación de los usuarios a través de canales en línea es importante mencionar las posibles dificultades o lagunas. Y de entre todas ellas, destacamos la importancia del conocimiento para poder participar, pues obstáculos como la falta de educación, las limitaciones de tiempo o de motivación suponen una barrera al proceso participativo. Este tipo de

brecha está íntimamente relacionada con la escasez de habilidades, la inexperiencia y el limitado conocimiento de la mecánica de las TIC.

Tapscott y Williams (2007) definen a las organizaciones inteligentes como aquellas que potencian el desarrollo de comunidades virtuales masivas en vez de oponerse a ellas y, además, integran sus sugerencias. Tómese como ejemplo la iniciativa de la Danish Agency for Culture's website que a través del portal *1001 Historias de Dinamarca*⁵ pretende, con la ayuda de todos –incluidos también los no nacionales⁶- construir un sitio dedicado a la memoria cultural del país, que además de incluir la voz de expertos historiadores contempla los comentarios, vivencias e imágenes sobre los lugares e historia de Dinamarca aportados por particulares.

4.2 El *crowdsourcing*

El *crowdsourcing* se presenta como el término más aceptado para definir a los proyectos en línea iniciados por una institución o empresa apoyados en la contribución activa de un público definido, y generalmente grande, con el fin de externalizar una función utilizando una o varias plataformas web (Carletti, Mcauley, Price, Giannachi *et al.*, 2013). Sin embargo, su cuño reciente –se atribuye al periodista norteamericano Jeff Howe su adopción- hace que exista poca literatura al respecto y los límites de su significado se estén aun perfilando.

El *crowdsourcing* se nutre directamente de la inteligencia colectiva de la multitud, como también lo hacen la innovación abierta o la co-creación. Sin embargo, con el fin de distinguir unas iniciativas de otras y no caer en el error de considerar que acciones como la votación de un vídeo en YouTube, a pesar de apoyarse en el criterio y la voluntad individual, se pueden clasificar como de *crowdsourcing*, extraemos sus principales características (Tíscar Lara, 2014):

- Que disponga de una planificación y de una dirección que vele por el logro de los objetivos marcados y fomente la colaboración de los participantes.
- Que haya un grupo o comunidad potencial de usuarios con cierta voluntad de participar.
- Que exista una clara distribución de tareas para que los participantes puedan ocuparse de una forma consciente y comprometida con una parte de ellas.
- Que cuente con un cronograma de trabajo que marque el inicio y el fin del proyecto.
- Que el mayor beneficio resultante redunde fundamentalmente en la meta marcada con anterioridad por la institución, grupo o persona que lanza la propuesta de *crowdsourcing*.

De esta manera, el *crowdsourcing* es susceptible de ser utilizado en cualquier ámbito: empresarial, cultural, investigador o educativo, entre otras muchas opciones, pues como adelantó Henry Ford, uno de los grandes emprendedores de la historia, “Reunirse en equipo es el principio. Mantenerse en equipo es el progreso. Trabajar en equipo asegura el éxito”, resulta aplicable a cualquier sector de actividad.

Para el ámbito puramente cultural, autores como Oomen y Aroyo (2011); Simon (2010) o Carletti *et al.* (2013) establecen una clasificación de las iniciativas de *crowdsourcing* ligadas al museo en función del tipo de actividad propuesta a la comunidad. Por un lado, se distinguen las acciones que interactúan virtualmente con una colección de objetos con el fin de que el *crowdworker* –término con el que es conocido el sujeto colaborador- la manipule (curaduría), revise o ubique. Y por el otro lado,

se detectan proyectos que solicitan el desarrollo de nuevos recursos, por ejemplo, invitando a compartir objetos físicos o digitalizados, a documentar acontecimientos históricos o a enriquecer el conocimiento de determinado lugar.

Incluido dentro del primer grupo, ya que se parte de una colección de objetos, se encuentra la selección de imágenes para el Museo Victoria y Alberto de Londres¹. Este museo cede a los internautas la decisión de elegir la mejor reproducción de cada una de las obras. Las imágenes más votadas se insertan como principal resultado con el uso del buscador web del museo. Este proceso, que anteriormente era automático, pretende mejorarse contando con el trabajo selectivo de los usuarios, quienes tras un registro previo, pueden hacer valer su opinión.

En esta misma categoría se encuadran las iniciativas de comisariado colectivo que instan a los usuarios a determinar qué piezas consideran que deben formar parte de la exposición. En *Click! A Crowd-Curated Exhibition*, el Museo de Brooklyn abrió una convocatoria *online* destinada a artistas para que propusieran una obra propia susceptible de ser expuesta bajo una temática concreta. A continuación, se abrió un foro en línea en el que el público, clasificado en inexperto o experto según su nivel de conocimientos sobre arte, valoraba la idoneidad de las obras candidatas; y en función de los resultados, hechos públicos una vez cerrado el plazo², se procedió a montar la exposición.

Para el segundo grupo de iniciativas de *crowdsourcing*, vinculadas a la creación de nuevos recursos, detallamos la propuesta del 9/11 Memorial Museum de Nueva York denominada *Make History* que nace para documentar la Historia, concretamente la del trágico 11 de septiembre de 2001. El proyecto tuvo como objetivo recolectar material destinado a formar parte de su colección permanente vinculado con lo que sucedió aquel día y que fuera representativo de cómo impactó en las vidas de los ciudadanos. Este espacio admitió desde material audiovisual (imágenes, vídeos, mensajes de voz), relatos de experiencias o efectos personales, entre otros.

Y del Archivo Nacional de Reino Unido surge *Operation War Diary* que, apoyándose en el voluminoso material digitalizado, principalmente diarios personales relacionados con la I Guerra Mundial, solicitó el trabajo de voluntarios con un cierto conocimiento sobre el tema, para que no solo clasificasen el material, sino que además interpretaran y acercaran al ciudadano el contenido y significado del mismo.

Con iniciativas como estas se demuestra que, de manera paulatina, el ejercicio del *crowdsourcing* consolida redes de intercambio de conocimiento de gran valor para el museo a la par que el usuario refuerza sus lazos con la comunidad en la que quiere integrarse y con la que comparte intereses con el resto de miembros.

5. Conclusiones

La participación es un fenómeno creciente de nuestro tiempo que requiere motivación (voluntad), formación (saber) y organización (acceso). El museo como espacio protector pero también divulgador del legado cultural y artístico tiene la capacidad de instaurar proyectos participativos que rompan con

¹ Es posible acceder a esta iniciativa de *crowdsourcing* del Museo Victoria y Alberto de Londres a través de: <http://collections.vam.ac.uk/crowdsourcing/>

la dinámica vertical e incuestionable de transmisión de conocimientos que hasta la irrupción de Internet predominaba en el museo. Un cambio de actitud que da lugar a lo que se conoce como *museo participativo* y que además de hacer las instalaciones más atractivas persigue integrar la voz de los ciudadanos a sus dinámicas.

En definitiva, se trata de utilizar la participación como vehículo para convertir al museo en una institución relevante y esencial para la comunidad que, por una parte cubra sus expectativas y, por otra, sea portadora de la misión y los valores fundamentales del centro.

A través de la revisión bibliográfica pero sobre todo del análisis de contenido de las plataformas web se comprueba de qué forma el museo explota la participación. La inteligencia colaborativa y el *crowdsourcing* resultan las principales variables de este fenómeno que aprovecha la voluntad y el conocimiento de la multitud en beneficio de todos, siendo el museo el canalizador y promotor de las mismas. Iniciativas como *1000 Historias de Dinamarca*, *Click! A Crowd-Curated Exhibition* del Museo de Brooklyn o *Make History* del Museo Memorial de Nueva York dan cuenta de las posibilidades y efectos positivos que se derivan de convertir al museo en centros de discusión, intercambio y captación de conocimiento.

Si bien es cierto que la tecnología 2.0 ha habilitado recursos y plataformas que han extendido y facilitado los procesos participativos, se comprueba que en lo concerniente al arte la colaboración entre artistas y el papel del espectador en la configuración del significado de la obra resultan capitales haciendo de la participación un fenómeno consustancial al disfrute y comprensión del arte.

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¹ En Estados Unidos, la situación es muy parecida. Los resultados de la encuesta realizada por el National Endowment for the Arts (NEA) sobre la participación de los ciudadanos estadounidenses en el arte (SPPA) hasta el año 2012 indica que solo un tercio de la población ha visitado un museo o galería en los últimos doce meses. Este informe también remarca el paulatino descenso de visitantes que se viene produciendo desde el año 2002 y hasta la actualidad.

² Téngase en cuenta que el fenómeno del conocimiento abierto construido en colaboración ha sido objeto de estudio de numerosos investigadores quienes se refieren a él como: Intercreatividad (Berners-Lee, 2000); Inteligencia colectiva (Lévy, 2004); Multitudes Inteligentes (Rheingold, 2004); Sabiduría de las Multitudes (Surowiecki, 2005); Arquitectura de la Participación (O'Reilly, 2005); Wikinomics (Tapscott y Williams, 2007) o la Alquimia de las Multitudes (Pisani y Piotet, 2009).

³ Concepto de "refactorizar" entendido como la reestructuración de un código fuente alterando su estructura interna sin cambiar su comportamiento externo.

⁴ Véase la experiencia narrada por Nicolás del Río Castro (2012) que atañe el Museo de arte de Indianápolis

⁵ Disponible en: http://www.kulturarv.dk/1001fortaellinger/en_GB

⁶ El interés por dirigirse a un público que no se limite al internauta nacional hace que el *site* esté disponible además de en danés, en inglés, fortaleciendo de ese modo también la primera forma de participación mencionada, el acceso.

Estudio Bibliométrico de la Investigación Acerca del Uso de Internet. Una Revisión de las Perspectivas sobre Riesgos y Oportunidades

(Bibliometric Study on Research About the Use of the Internet. A Review of the Perspectives on Risks and Opportunities)

¹ Isabel Villa-Montoya and ² Henry Gómez-Flórez

^{1,2} Departamento de Comunicación Social, Escuela de Humanidades,
Universidad EAFIT, Medellín, Colombia.
mvilla@eafit.edu.co, gomezhenry77@gmail.com

Abstract

Academic work based on the Internet use is for the most part divided in two important groups: risks and opportunities, and thus separating online activities, which can negatively affect people, from those activities that can be beneficial. This article allows for a broad comprehension of the phenomenon thanks to the bibliometric analysis of a sample of 5,082 articles taken from Web of Science (WoS) and SciELO-CI Citation Index (SciELO-CI) databases. Beyond the polarized view of the problem, the article presents information related to the evolution of the subject from a global perspective that incorporates risks as well as opportunities, which are useful in investigations which are interested in the adoption and appropriation of the information technologies and communication in diverse areas of knowledge.

Keywords: *Internet use, Opportunities, Risks, Bibliometrics*

Resumen

El trabajo académico alrededor del uso de Internet suele dividirse en dos grandes grupos: riesgos y oportunidades, separando de esta forma las actividades online que pueden afectar de manera negativa a los sujetos, de aquellas que pueden resultar beneficiosas. Este artículo permite una comprensión amplia del fenómeno gracias al análisis bibliométrico de una muestra de 5.082 artículos provenientes de las bases de datos de Web of Science (WoS) y SciELO-CI Citation Index (SciELO-CI). Más allá de la mirada polarizada del problema, el artículo presenta datos relacionados con la evolución del objeto de estudio, desde una perspectiva global que integra tanto riesgos como oportunidades, útil en investigaciones interesadas por la adopción y la apropiación de las tecnologías de la información y de la comunicación en diversas áreas de conocimiento.

Palabras clave: *Uso de internet, Oportunidades, Riesgos, Bibliometría*

1. Introducción

A medida que la penetración de Internet aumenta, crece el interés académico por asuntos tan diversos como las condiciones que favorecen u obstaculizan su adopción (Goldfarb & Prince, 2008), los factores psicosociales asociados a su uso compulsivo (Durkee et al., 2012; Kross et al., 2013; van Rooij et al., 2010), las alteraciones en la comunicación personal y masiva (Y.-F. Chen & Peng, 2008), la aparición de expresiones de violencia o maltrato online como el ciberbullying (Gámez-Guadix et al., 2013), la necesidad de nuevas competencias y alfabetizaciones mediáticas (Trilling & Fadel, 2009) o la educación y las formas de aprender vinculadas a su uso (L.-Y. Chen, Hsiao, Chern, & Chen, 2014).

Ante tal amplitud y diversidad de temáticas, parece a primera vista improbable o al menos arduo identificar las líneas que unen los trabajos sobre uso de Internet en el mundo. Una aproximación

superficial a los artículos sobre el objeto intensifica aún más la mirada fragmentada del fenómeno, debido a un interés sobresaliente por comprender el uso de Internet en casos de estudio muy limitados o en regiones geográficas muy concretas. Sirvan como ejemplo las investigaciones realizadas para analizar el uso de Internet en los servicios de salud entre los ciudadanos europeos (Andreassen et al., 2007), los estudios sobre el uso de Internet para establecer relaciones románticas o encontrar pareja en las que se entrevistaron 15 ciudadanos australianos (Couch & Liamputtong, 2008) o la influencia de la mediación parental en el uso de video juegos entre los jóvenes norteamericanos (Wonsun Shin & Jisu Huh, 2011).

A la delimitación a veces extrema de los casos de estudio se suma el sesgo de la mirada selectiva entre los riesgos y las oportunidades derivados del uso de Internet. Prestando una atención especial a niños y jóvenes, reconocidos como la generación digital, autores como Livingstone (2002) observan asuntos que pueden potencialmente dañar a los usuarios más jóvenes de Internet bajo el enfoque de riesgo, y sus beneficios en la vida de los usuarios y la sociedad desde la perspectiva de las oportunidades.

Este trabajo aborda la caracterización de la producción académica sobre el uso de Internet, publicada en la Web of Science (WoS) y SciELO-CI Citation Index (SciELO-CI) entre 2006 y 2016. El análisis tiene como propósito conocer de forma pormenorizada la evolución en el número de artículos por año, el origen geográfico de la investigación, las áreas o campos donde se publica, las revistas, los autores con mayor número de publicaciones y los asuntos tratados en las investigaciones.

En el artículo se presentan primero los apartados que responden al análisis bibliométrico, mediante indicadores de producción. Segundo, se analizan tendencias temáticas por medio del análisis de las coincidencias entre palabras clave y, por último, la discusión y las conclusiones relativas al objetivo de la investigación. Los resultados de este trabajo pueden ser valiosos para diferentes colectivos como empresas de telecomunicaciones, gobiernos o investigadores interesados en la producción científica alrededor de Internet, sus referencias teóricas y sus desarrollos desde distintas perspectivas disciplinares.

2. Antecedentes

Los estudios sobre uso de Internet suelen tener en cuenta factores como los hábitos online, las habilidades, el contexto socioeconómico o la edad del usuario (Livingstone & Helsper, 2008). Desde las áreas sociales, una gran parte de investigación sobre el uso de Internet parece interesarse por conocer hasta qué punto las nuevas tecnologías impactan en los procesos cognitivos de niños y adolescentes. Las formas en que se comunican, interactúan, se divierten o se enamoran están transformándose debido al uso de Internet y principalmente a la adopción de redes sociales (Jacobsen & Forste, 2011). En este contexto, la seguridad de los niños puede verse comprometida debido al tipo de contenido que se exhibe a través de la Red (Crimmins & Seigfried-Spellar, 2014) y a la posibilidad de contacto con adultos que quieren abusar de ellos para cometer delitos sexuales (Wolak, Finkelhor, Mitchell, & Ybarra, 2008) o la violación de la privacidad a causa del marketing online o la administración de su información personal (Walrave & Heirman, 2012).

Los niños y adolescentes requieren protección y acompañamiento por parte de los padres y cuidadores. El tiempo que pasan conectados y sus actividades digitales deben ser regulados por los adultos (Khoo, Bolt, Babl, Jury, & Goldman, 2008; Lee & Chae, 2007; Liau, Khoo, & Ang, 2008a). La incursión de plataformas móviles en los entornos domésticos impulsa una importante línea de investigación preocupada por las estrategias de mediación parental para ayudar a los menores con el uso de la tecnología en los contextos familiares (Casado del Río, Garmendia, Jimenez, & Mascheroni, 2016). Aunque la investigación sobre mediación parental es amplia y sus resultados son variados, muchos de los estudios en esta línea sugieren que el visionado conjunto de contenidos entre padres y niños, y el acompañamiento activo de los mayores en el consumo de medios puede aumentar los beneficios de Internet y disminuir sus posibles riesgos (Liau, Khoo, & Ang, 2008b; Livingstone & Helsper, 2008).

En el grupo de estudios que se ocupan de las oportunidades, la investigación sobre Internet subraya su potencial para el entretenimiento y la educación. Estudios como los de (Teo & Noyes, 2011) demuestran que la percepción del disfrute, la facilidad de uso y los beneficios para el usuario tienen un papel fundamental en la adopción de las tecnologías digitales. En esta dirección, las actividades relacionadas con el consumo de bienes culturales como películas, audiovisuales, música o juegos son habituales en el entorno online y son vistas como una de las grandes oportunidades digitales.

Por otro lado, estudios en el área económica demuestran que el uso de Internet en los negocios contribuye a ahorrar tiempo y dinero porque agiliza la circulación de información debido al fortalecimiento y la promoción del capital social (Véase por ejemplo: Best & Krueger, 2006). Los servicios bancarios a través de Internet se han extendido con gran rapidez. Las tecnologías digitales han cambiado la industria de las finanzas gracias a la aparición de servicios de banca online y a la conectividad que ofrecen los dispositivos móviles (Véase por ejemplo: Riggins & Weber, 2016). Internet también está vinculado de forma favorable con la posibilidad de producir contenido creativo, mejorar la comunicación o el aprendizaje (Jacobsen & Forste, 2011). Además, la Red puede fortalecer la cultura participativa o democrática (Boulianne, 2015).

A diferencia de los trabajos realizados desde posturas que enfrentan o dividen sus miradas entre lo conveniente y no conveniente, con este trabajo se busca a través de un acercamiento multidisciplinar contribuir al acercamiento entre posturas y a la comprensión del riesgo como una condición inherente a las oportunidades asociadas al uso de Internet, ya que las connotaciones negativas del riesgo pueden conducir a una pérdida gradual de oportunidades.

3. Materiales y métodos

En esta investigación se emplean herramientas métricas para cuantificar y caracterizar de forma general la producción científica sobre el uso de internet en revistas indexadas en Web of Science en el periodo de 2006 a 2016.

Para definir la ecuación de búsqueda, primero se realizó una prueba donde se compararon los resultados que se obtienen al indagar sobre el uso de Internet discriminando los riesgos y las oportunidades. En este ejercicio los términos de búsqueda empleados fueron por un lado "Internet use" AND risk OR "Internet usage" AND risk. Por otro lado, "Internet use" AND opportunities OR "Internet usage" AND opportunities. En el primer grupo se hallaron 698 publicaciones académicas donde figuraba uso de Internet y también la palabra risk, mientras que en el segundo se obtuvieron 270 publicaciones donde el término uso de Internet aparecía con la palabra opportunity. Durante la revisión de los títulos se identificó un alto número de coincidencias en ambos grupos. De las 270 publicaciones asociadas a oportunidades, 56 figuraban también en los resultados vinculados a riesgos.

Con el fin de caracterizar la muestra se realizó una prueba de palabras clave más frecuentes donde se pudieran identificar temáticas indicativas en el estudio de riesgos u oportunidades. Los resultados de esta exploración se presentan en la Tabla 1.

Tabla 1. Primera búsqueda delimitada por riesgos y oportunidades en WoS

Temas asociados a riesgo más frecuentes en WoS	Artículos del tema que contienen en sus palabras clave "risk"	Artículos del tema sin la palabra "risk"
Internet addiction	66	193
Problematic Internet use	33	74
Cyberbullying	17	19
Compulsive Internet use	7	22
Digital divide	6	144
Internet gaming disorder	6	14
Pornography	5	11
Temas asociados a oportunidades más frecuentes en WoS	Artículos del tema que contienen en sus palabras clave "opportunities"	Artículos del tema sin la palabra "opportunities"
Education	5	39
E-health	5	62
E-commerce	3	24
E-learning	2	15
Health information	2	35
Social capital	2	42
Political participation	1	50

Fuente: Elaboración propia a partir de datos de WoS entre 2006 y 2016

Estos hallazgos preliminares mostraron que limitar la búsqueda a las publicaciones que contuvieran de forma explícita las palabras "risk" u "opportunities" causaría una pérdida significativa de información porque un gran número de los estudios sobre uso de Internet abordan diferentes temas sin etiquetarlos explícitamente como riesgo u oportunidad.

A partir de este ejercicio, en la selección de las publicaciones que se sometió al análisis definitivo fueron tomados en cuenta los siguientes parámetros: 1) Colección principal de Web of Science; 2) período de tiempo: 2006-2016; 3) Búsqueda por tema (título+ palabras clave+ abstract), 4) términos: “Internet use” o “Internet usage”. Esta ecuación de búsqueda arrojó una muestra de 4.979 artículos.

Con el fin de conocer de forma más detallada la producción científica proveniente de Latinoamérica y España, se tomaron los artículos provenientes de SciELO Citation Index (SciELO-CI), por ser una base de datos que permite descargar información bibliográfica de la misma manera que Web of Science (WoS), incluyendo campos como autores, tipo de documento, referencias citadas, título, palabras clave o referencias, entre otros. SciELO Citation Index (SciELO-CI) busca compensar la baja presencia de revistas latinoamericanas en WoS, contemplando publicaciones que, aunque no se encuentran a menudo en los primeros lugares del ranquin por su impacto académico, permiten reconocer el trabajo investigativo de América Latina, España, Portugal, el Caribe y Sudáfrica (Repiso & Torres-Salinas, 2016) y (Repiso, Jiménez-Contreras & Aguaded, 2017).

Los parámetros para la selección de artículos en SciELO-CI fueron: 1) Búsqueda desde SciELO-CI; 2) período de tiempo: 2006-2016; 3) búsqueda por tema (título+palabras clave+abstract); 4) Términos: “Internet use”, “Internet usage” y “uso de Internet”. Como resultado se encontraron 103 publicaciones. En total, la muestra del estudio está conformada por 5.082 artículos que cumplen con las características antes señaladas en ambas bases de datos.

En el análisis se examinaron indicadores bibliométricos de producción. Estos indicadores proyectaron una visión global del crecimiento o decrecimiento de la publicación del tema (producción por año), la distribución geográfica del conocimiento (producción por país), la interdisciplinariedad (producción por área) y los principales referentes en publicación (revistas académicas). Para completar el análisis, se realizó una revisión de temáticas a través de concurrencias de palabras clave con el fin de reconocer tendencias significativas en investigación sobre uso de Internet.

4. Resultados

4.1. Publicaciones por año

Los datos provenientes de WoS revelan un interés académico creciente por el uso de Internet. En una década ha aumentado la cantidad de publicaciones sobre uso de Internet en un 375%, alcanzando 750 artículos solo en el 2015. Analizando los datos provenientes SciELO-CI se aprecian unas 8,45 publicaciones por año. En el 2014 encontramos un pequeño incremento producido por ocho publicaciones adicionales en revistas procedentes de Latinoamérica y España. Sin embargo, considerando el bajo volumen de artículos hallados, no es posible calificarlo como anomalía, dado que este aumento no altera el comportamiento de la producción total vista para el campo.

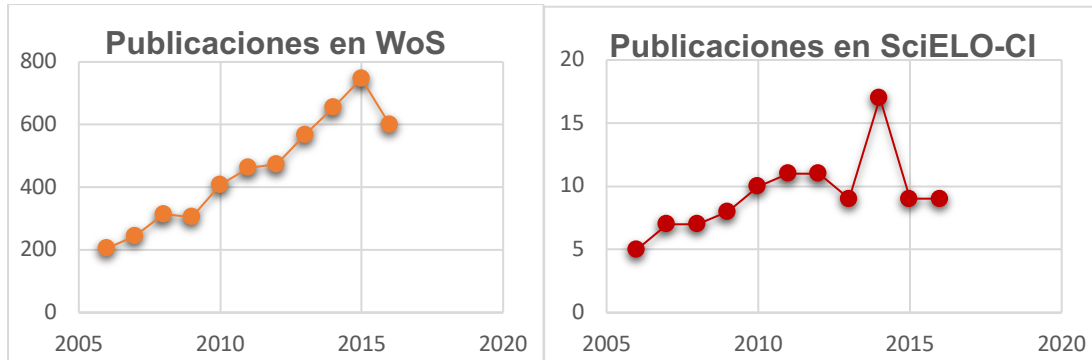


Figura 1. Producción de artículos publicados en WoS y SciELO-CI

Fuente: Elaboración propia a partir de datos de WoS y SciELO-CI entre 2006 y 2016

En la lectura de los datos es preciso tener en cuenta que no todas las revistas son ingresadas a la base de datos al mismo tiempo, algunas de ellas pueden sufrir retrasos hasta de un año. Por este motivo, aunque la ventana de observación abarca hasta el 2016, las tendencias deben observarse hasta el año 2015.

4.2. Publicaciones por país

La Tabla 2 muestra los países que lideran la investigación sobre uso de Internet, seguido del número de publicaciones generadas y el porcentaje de producción de cada país en relación con el volumen total de la base de datos. Para el caso de la información a partir de WoS sólo se presentan los 20 datos más relevantes.

Tabla 2. Producción científica por área geográfica en WoS y SciELO-CI

Países	WoS	%	Países	SciELO-CI	%
USA	1516	30,45%	Spain	25	24,27
England	285	5,72%	Brasil	24	23,30
China	264	5,30%	Chile	8	7,77
Turkey	245	4,92%	Colombia	8	7,77
Germany	215	4,32%	Mexico	7	6,80
Australia	211	4,24%	Peru	7	6,80
Spain	178	3,58%	Argentina	5	4,85
Netherlands	161	3,23%	Venezuela	5	4,85
Canada	156	3,13%	USA	5	4,85
South Korea	156	3,13%	Cuba	4	3,88
Taiwan	144	2,89%	Costa Rica	2	1,94
Italy	77	1,55%	Australia	1	0,97
Sweden	71	1,43%	Canada	1	0,97
Israel	65	1,31%	Germany	1	0,97
Belgium	57	1,15%			
France	57	1,15%			
India	57	1,15%			
Greece	56	1,13%			
Finland	53	1,07%			
Japan	52	1,05%			

Fuente: Elaboración propia a partir de datos de WoS y SciELO-CI entre 2006 y 2016

En WoS encontramos publicaciones procedentes de 93 países, lo que podría indicar una producción variada por los contextos sociales y geográficos donde se produce. No obstante, casi la tercera parte de los artículos en el campo provienen de Estados Unidos. En orden descendente le siguen países con altos niveles de desarrollo económico e industrial y con una elevada penetración de Internet, como Inglaterra y República Popular China. En SciELO-CI vemos también que España y Brasil, dos países con un importante rol económico en la región hispanoamericana, lideran la producción académica sobre uso de Internet. Cerca de la mitad de las publicaciones en toda la región se deriva de revistas provenientes de ambos países.

En los datos obtenidos, la adscripción de los artículos a un país no depende de la ubicación geográfica de la revista, sino de la ubicación de los centros de investigación o universidades a las cuales se encuentran afiliados los autores. Por esta razón, es posible encontrar artículos de autores que no provienen de Latinoamérica o España, pero que se publicaron en revistas de esta región. De este tipo, identificamos en la base de datos SciELO-CI nueve artículos de autores provenientes en su mayoría de Estados Unidos.

4.3. Áreas de investigación

La Tabla 3 presenta las 20 áreas de investigación asociadas al uso de Internet en WoS y SciELO-CI donde se concentra el mayor número de publicaciones sobre el tema, el número de revistas halladas en cada área y el porcentaje dado en función del total de áreas encontradas. Cada revista científica se especializa en campos del conocimiento o disciplinas reportadas a los sistemas de indexación académicos. A partir de estos datos fue posible registrar las áreas a las que pertenecen los artículos de la muestra.

Los 4.979 artículos de WoS se circunscriben a publicaciones reportadas en 122 áreas del conocimiento. La pluralidad de áreas muestra las diferentes perspectivas desde donde se está estudiando el uso de Internet y subraya los posibles problemas para trazar los límites de un campo de estudio interdisciplinar.

Tabla 3. Producción por áreas de investigación en WoS y SciELO-CI

Áreas	WoS	%	Áreas	SciELO-CI	%
Psychology	1087	21,83%	Psychology	11	10,68%
Computer Science	663	13,32%	Public Environmental Occupational Health	10	9,71%
Communication	644	12,93%	Business Economics	9	8,74%
Education Educational Research	458	9,20%	Medical Laboratory Technology	7	6,80%
Information Science Library Science	409	8,22%	Research Experimental Medicine	7	6,80%
Psychiatry	394	7,91%	Social Sciences Other Topics	7	6,80%
Business Economics	341	6,85%	Medical Informatics	6	5,83%

Public Environmental Occupational Health	289	5,80%	Psychiatry	6	5,83%
Health Care Sciences Services	279	5,60%	Computer Science	5	4,85%
Engineering	275	5,52%	Government Law	5	4,85%
Social Sciences Other Topics	262	5,26%	Information Science Library Science	5	4,85%
Medical Informatics	186	3,74%	Nursing	5	4,85%
Sociology	182	3,66%	Sociology	5	4,85%
Neurosciences Neurology	127	2,55%	Engineering	3	2,91%
Telecommunications	127	2,55%	Art	2	1,94%
Pediatrics	120	2,41%	Dentistry Oral Surgery Medicine	2	1,94%
General Internal Medicine	95	1,91%	Neurosciences Neurology	2	1,94%
Government Law	92	1,85%	Pediatrics	2	1,94%
Substance Abuse	90	1,81%	Surgery	2	1,94%
Science Technology Other Topics	76	1,53%	Anesthesiology	1	0,97%

Fuente: Elaboración propia a partir de datos de WoS y SciELO-CI entre 2006 y 2016

Llama la atención el predominio de publicaciones provenientes de la salud y la psicología. De las 122 áreas desde las que se ha escrito sobre uso de Internet en WoS, la quinta parte proviene de psicología. En la misma línea, se encontraron además otras áreas afines como Psychiatry (394 artículos), Health Care Sciences Services (279 artículos), Medical Informatics (186 artículos) o Neurosciences Neurology (127 artículos). Los datos indican que el uso de Internet se ha convertido en una temática significativa en dimensiones que comprometen el bienestar físico o psicológico de los individuos, sobrepasando el interés académico que puede suponer el estudio del uso de Internet para otros campos.

Es importante tener en cuenta que los datos de la Tabla 3 muestran todas las áreas a las cuales puede estar suscrita una misma revista, por lo cual la sumatoria del total de áreas excede el número de publicaciones halladas.

Alrededor de las áreas técnicas observamos un gran volumen de producción. Reconocimos 663 artículos asociados con Computer Science y 275 artículos suscritos al área de Engineering. Sobresalen también los artículos publicados en revistas provenientes de las áreas sociales como Communication (644 artículos), Education and Educational Research (458 artículos) e Information Science Libray Science (409 artículos).

Las áreas de publicación encontradas en SciELO-CI siguen patrones similares a los percibidos en WoS. Los 103 artículos de la muestra en esta base de datos están suscritos a revistas registradas en 38 áreas del conocimiento y entre éstas 16 están vinculadas directamente con la salud. Sin embargo, en este caso advertimos una baja producción de publicaciones provenientes de la ingeniería, la informática o las ciencias de la computación, tal vez porque desde el punto de vista técnico, Internet se encuentra en una fase temprana de desarrollo en los países del sur.

4.4. Revistas

La Tabla 4 presenta las 20 revistas con mayor cantidad de publicaciones sobre uso de Internet en WoS y las revistas en las que se publicaron al menos dos artículos relacionados con el uso de Internet en SciELO-CI. Los artículos provenientes de WoS aparecen publicados en 500 revistas científicas y los artículos tomados de SciELO-CI en 84 revistas. Sobre estos totales se expresan los porcentajes.

Tabla 4. Producción por revistas en WoS y SciELO-CI

Revistas	WoS	%	Revistas	SciELO-CI	%
Computers In Human Behavior	360	7,23	Revista Peruana de Medicina Experimental y Salud Pública	4	3,88
Cyberpsychology Behavior and Social Networking	117	2,35	Gaceta Sanitaria	3	2,91
Journal of Medical Internet Research	84	1,69	Jistem Journal of Information Systems and Technology Management	3	2,91
Cyberpsychology Behavior	77	1,55	Palabra Clave	3	2,91
Procedia Social and Behavioral Sciences	71	1,43	Anales de Psicología	2	1,94
New Media Society	66	1,33	Archivos Argentinos de Pediatría	2	1,94
Information Communication Society	58	1,17	Contaduría y Administración	2	1,94
Journal of Behavioral Addictions	54	1,09	Enlace	2	1,94
Computers Education	53	1,06	Estudios y Perspectivas en Turismo	2	1,94
Journal of Computer Mediated Communication	41	0,82	Ingeniare Revista Chilena de Ingeniería	2	1,94
Plos One	39	0,78	Investigación y Educación en Enfermería	2	1,94
Lecture Notes in Computer Science	35	0,70	Observatorio Obs	2	1,94
Social Science Computer Review	35	0,70	Revista Interamericana de Bibliotecología	2	1,94
Journal of Health Communication	34	0,68	Revista Médica Herediana	2	1,94
International Journal of Communication	27	0,54			
Journal of Adolescent Health	27	0,54			
Bmc Public Health	24	0,48			
Addictive Behaviors	23	0,46			
Psychiatry Research	22	0,44			
Telematics and Informatics	22	0,44			

Fuente: Elaboración propia a partir de datos de WoS y SciELO-CI entre 2006 y 2016

La alta cantidad de revistas y los bajos porcentajes de concentración de artículos en ambas bases de datos manifiesta la dispersión de revistas desde las que se está publicando en el tema, lo que, sumado al amplio abanico de áreas identificadas en el apartado anterior, confirma la transversalidad de los estudios sobre uso de Internet. Es importante notar que las cinco primeras revistas atienden asuntos relacionados con el comportamiento y la salud, coincidiendo con la tendencia vista en los

hallazgos correspondientes a las áreas de estudio. Así mismo, las publicaciones halladas en cada revista, muestran trabajos que pueden proceder de autores afiliados a instituciones ubicados en distintas zonas geográficas.

Por otra parte, de las 84 revistas científicas que han publicado artículos sobre uso de Internet en SciELO-CI, sólo 14 publicaron más de un artículo, subrayando la dispersión del problema y la tendencia vista en la caracterización de áreas. En esta base de datos, cinco de las revistas guardan relación con la salud, tres con la comunicación, dos con el área de ciencias de la información y las restantes con psicología, contaduría, turismo e ingeniería.

4.5. Autores

Entre los artículos de la muestra proveniente de WoS fue posible identificar 12.175 autores, con un promedio de 2,4 autores por artículo y en los artículos provenientes de la base de datos SciELO-CI, 287 autores, con un promedio de 2,8 autores por artículo. La Tabla 5 muestra los 10 autores con mayor producción en ambas bases de datos sobre el total de autores registrados en cada una de ellas.

Tabla 5. Autores destacados por su publicación en WoS y SciELO-CI

Autores	WoS	Autores	SciELO-CI
Griffiths, Mark D.	25	Cabra Torres, Fabiola	2
Potenza, Marc N.	16	Carbonell, Xavier	2
Cotten, Shelia R.	14	Goldfarb, Guillermo	2
Chen, Wenhong	13	Marciales Vivas, Gloria Patricia	2
Demetrovics, Zsolt	13	Melamud, Ariel	2
Jackson, Linda A.	13	Otero, Paula	2
Mitchell, Kimberly J.	13	Salzman, Ryan	2
Valkenburg, Patti M.	13		
Billieux, Joel	12		
Moreno, Megan A.	12		

Fuente: Elaboración propia a partir de datos de WoS y SciELO-CI entre 2006 y 2016

Algunos de los autores más representativos en la WoS comparten un interés por las alteraciones de la conducta en menores asociadas al uso de Internet. La mayor parte de sus investigaciones prestan atención a la adicción a Internet y a los efectos de la tecnología en la salud de los ciudadanos. Los psicólogos Mark D. Griffiths, Zsolt Demetrovics, Joel Billieux y el psiquiatra Marc Potenza estudian la adicción a Internet y otras adicciones asociadas al uso de dispositivos digitales. Wenhong Chen es experta en sociología de la comunicación. Linda Jackson y Shelia Cotten estudian los efectos del uso de tecnología en la sociedad y en la vida cotidiana. Kimberly Mitchell investiga delitos informáticos y menores de edad. La comunicadora Patti Valkenburg examina los efectos de las tecnologías en los niños, la pediatra Megan Moreno está interesada por la relación entre la tecnología y la salud de los niños.

Los datos recogidos en SciELO-CI indican que de los 280 autores hallados, la mayoría solo hicieron una sola publicación del tema durante la década en revistas indexadas en esta base de datos y solo siete autores hicieron dos publicaciones. Aunque a través de esta metodología no es

posible identificar las publicaciones de cada autor en otras bases de datos, sus líneas de investigación aportan indicios importantes sobre los objetos de estudio en Hispanoamérica. De acuerdo con la revisión de sus publicaciones, hallamos dos tendencias. En primer lugar, se identifican intereses en el área de la salud, donde se ubican los trabajos de Guillermo Goldfarb, Paula Otero y Ariel Melamud; y, en segundo lugar, atención al uso de Internet en el sector social y educativo. Son exponentes de esta segunda línea de interés los trabajos de Fabiola Cabra, Xavier Carbonell, Gloria Marciales y Ryan Salzman.

4.6. Temas

Para identificar los temas más investigados alrededor del uso de Internet tomamos las palabras clave de los artículos de cada base de datos y las normalizamos, unificando la forma en que estaban escritas, eliminando los sinónimos y las palabras que no hacían referencia a un contenido significativo sobre uso de Internet; con lo que se modificó y refinó notablemente la base de datos de keywords que teníamos de entrada. En total, se contabilizaron 3.587 palabras en la WoS. La Tabla 6 muestra las que se encuentran presentes en más de 10 artículos.

Tabla 6. Producción por temas de investigación en WoS

Palabras clave	WoS	Palabras clave	WoS	Palabras clave	Wos
Internet Addiction	548	New Media	37	Pornography	16
Adolescents	376	Social Support	36	Consumer	16
E-Health	242	Information Seeking	35	Multitasking	16
Social Media	210	Children	35	Obesity	16
Digital Divide	200	Video Games	35	Uses And Gratifications	16
Political Participation	131	Self-Esteem	34	Decision Making	15
Social Networking	116	Academic Performance	31	Identity	15
Education	106	E-Commerce	27	Privacy	15
Depression	86	HIV	27	Self-Control	15
Facebook	81	Prevention	25	Knowledge	14
Older Adults	75	Sleep Quality	24	Stress	14
Parental Mediation	63	Internet Adoption	23	Digital Literacy	13
College Students	62	Trust	22	Community	13
Loneliness	60	Gaming Disorder	20	Coping	13
Personality	59	Family	19	Culture	13
Social Anxiety	57	Rural	19	Internet Access	13
Cyberbullying	54	Motivation	18	Disability	12
Attitudes	48	Cyberloafing	17	Substance Use	11
Cancer	45	Shyness	17	Aggression	10
Social Capital	44	Mobile Internet	17	Impulsivity	10
Mental Health	40	Suicide	17	Political Communication	10
Well-Being	37	Alcohol	16	Political Knowledge	10

Fuente: Elaboración propia a partir de datos de WoS entre 2006 y 2016

La visión global de las palabras clave empleadas en los artículos de WoS muestra una atención sobresaliente a cuestiones relacionadas con la manera en que Internet puede afectar la vida cotidiana de los usuarios, su personalidad o desempeño. Entre ellos destacan temáticas como la adicción, la depresión, la soledad, la ansiedad social, la timidez, la pérdida de la calidad del sueño, la adicción al juego, la salud mental, la ansiedad o el suicidio.

Otra buena parte de las investigaciones alrededor de Internet presta atención a los jóvenes, como principales usuarios digitales. Asociado a este público se reconocieron otros temas como redes sociales y Facebook. E-Health concentra un alto número de estudios sobre las posibilidades de búsqueda y acceso a información médica, como síntomas, enfermedades, curas e intercambio de información entre usuarios sobre hospitales, médicos y procedimientos.

La brecha digital también aparece como una temática importante en los estudios sobre uso de Internet, al igual que la participación y la comunicación política, donde se aprecia un interés predominante por la búsqueda y el intercambio de información para la movilización ciudadana. En revisión temática en WoS se observa además un gran volumen de artículos que coinciden en su interés por la construcción de comunidades, usando términos como capital social o apoyo social. Estos trabajos examinan el uso de la Red para muy diversos propósitos y los beneficios del capital social en la resolución de problemas individuales y colectivos.

Tabla 7. Producción por temas de investigación en SciELO-CI

Palabras clave	SciELO-CI	Palabras clave	SciELO-CI
Internet Addiction	5	Elderly	2
Adolescence	5	E-Mail	2
ICT	4	HIV	2
Health	3	Information Society	2
Information	3	Medical Informatics	2
Surgery	2	Mental Health	2
Children	2	New Technologies	2
Control	2	Online Shopping	2
Cyberbullying	2	Physical Activity	2
Democracy	2	Political Communication	2
Digital Divide	2	Social Networks	2
Digital Inclusion	2	Trust	2

Fuente: Elaboración propia a partir de datos de WoS y SciELO-CI entre 2006 y 2016

La Tabla 7 enseña las palabras que figuraron en al menos dos publicaciones en SciELO-CI. La revisión de los artículos provenientes de la base de datos SciELO-CI evidencia coincidencias importantes con las temáticas identificadas en WoS, como la preocupación por los niños y los adolescentes, las redes sociales y los asuntos asociados a la salud con tópicos como Health, Surgery, HIC, Medical Informatics, Mental Health o Physical Activity. Además, descubrimos otros términos relacionados con Internet como ICT o New Technologies, ampliando así el rango el campo de estudio a las nuevas tecnologías de la información y la comunicación.

Otro foco de atención académica hallado en SciELO-CI está concentrado en torno a temáticas de índole social y política, con términos como Democracy, Digital Divide, Digital Inclusion o Information Society. Por último, sobresalen algunos temas más concretos con un peso significativo en la literatura académica sobre uso de Internet, como Trust, Online Shopping o Cyberbullying.

5. Conclusiones

Los datos recogidos en este estudio muestran un interés creciente por el uso de Internet, manifiesto en un volumen de publicaciones sobre el tema que mantiene un crecimiento del 375% desde 2006 hasta 2016 en WoS y SciELO-CI. Se observa un campo de estudio problemático por su dispersión y multidisciplinariedad. Los resultados ponen de manifiesto la necesidad de un enfoque transdisciplinar en los estudios sobre uso de Internet que permita descubrir las complejas relaciones internas entre aspectos que trascienden las perspectivas técnicas y sociales comunes en la investigación sobre Internet, para contemplar también su influencia en la salud física y mental de los individuos.

Los resultados relacionados con las temáticas sobresalientes en los estudios sobre el uso de Internet podrían separarse en tres grandes grupos, que probablemente responden a la evolución propia de Internet. En un primer grupo se atienden aspectos técnicos ligados a la conectividad y a los sistemas necesarios para lograr que la Red opere. En un segundo grupo, se ubican las investigaciones sobre los aspectos sociales relacionados con la transformación del individuo y su entorno debido al uso de Internet. Finalmente, en un tercer grupo encontramos trabajos que vinculan el uso de Internet con la sanidad pública en estudios vinculados a los aspectos psicosociales que rodean las formas de utilizar la tecnología.

Este hallazgo sitúa al objeto de estudio en un lugar fundamental en la construcción de una agenda pública que debe garantizar, ya no solo la conexión a la Red y su apropiación social, sino también la salud de la población, ya que el uso de Internet repercute en el bienestar de los individuos y las comunidades.

Las áreas de la salud concentran un gran volumen de producción en ambas bases de datos alrededor de temas como e-health, adicción, depresión o soledad. La influencia de la salud en asuntos concernientes al uso de Internet puede observarse además en algunas de las áreas de estudio que presentan el mayor volumen de producción académica en el campo, como psicología o psiquiatría, así como en las cinco revistas del área de la salud que sobresalen por contener el mayor número de artículos sobre uso de Internet.

El ejercicio metodológico mostró que al buscar las publicaciones sobre uso de Internet limitándolas a los términos oportunidades o riesgos se puede sesgar el análisis puesto que el estudio de los temas se aborda de forma global, sin asociar los fenómenos a una de estas perspectivas. En este sentido, llama la atención que el tema más recurrente hallado en la literatura académica relacionada con el uso de Internet: e-health, sea estudiado al mismo tiempo desde la mirada del riesgo y la oportunidad. Como oportunidad se encuentran publicaciones que atañen a la búsqueda y el acceso a información sobre síntomas, enfermedades, curas e intercambio de información sobre hospitales, médicos y procedimientos. Entre tanto, desde la mirada de los riesgos se identifican investigaciones que señalan problemas que comprometen la salud vinculados principalmente a la adicción y a las alteraciones de la personalidad. Tiene sentido entonces preguntarse hasta qué punto vale la pena

contemplar las temáticas relacionadas con el uso de Internet como riesgos u oportunidades, en lugar de abordarlas de una manera más holística que permita comprender todas sus posibles dimensiones.

Las herramientas bibliométricas aplicadas facilitaron la identificación de las principales características de la producción académica sobre uso de Internet en un universo amplio de publicaciones. Su potencial para abordar el estudio sobre el campo fue probado con solvencia en todos los indicadores analizados. No obstante, la metodología empleada puede quedarse corta para identificar relaciones entre las temáticas abordadas en la agenda de investigación. Valdría la pena entonces, en futuras investigaciones, profundizar en los vínculos entre artículos y temas de investigación, utilizando indicadores de citación y co-citación que permitieran examinar la evolución del campo a través de relaciones entre los trabajos anteriores y los posteriores, los hitos en la investigación sobre uso de Internet o los vínculos entre distintas publicaciones a través de la elaboración de clústeres o redes que mostraran su importancia relativa para el conjunto.

Agradecimientos

Este trabajo ha sido financiado por el proyecto “Riesgos y Potencialidades de las Tecnologías de la Información y la Comunicación en la Vida Cotidiana” (nº de referencia 22091). Esta investigación surge como una iniciativa impulsada y contratada por la empresa de telecomunicaciones TigoUne en el marco de su estrategia de Responsabilidad Social Empresarial en Colombia. El proyecto fue ejecutado por MediaLab EAFIT, suscrito al Grupo de Investigación en Comunicación y Estudios Culturales del Departamento de Comunicación Social de la Universidad EAFIT, Colombia.

Acknowledgments

This work has been funded by the project "Risks and Potentialities of Information and Communication Technologies in Everyday Life" (reference number 22091). This research emerges as an initiative promoted and contracted by the telecommunications company TigoUne within the framework of its Corporate Social Responsibility strategy in Colombia. The project was executed by MediaLab EAFIT, subscribed to the Research Group in Communication and Cultural Studies of the Social Communication Department of EAFIT University, Colombia.

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Information needs in Spanish nursing students: results of a survey

César Manso-Perea¹, Aurora Cuevas-Cerveró², Esther Martínez-Miguel³, Eva García-Carpintero-Blas⁴, Sergio González-Cervantes⁵, Oliver Martín-Martín⁶

¹Colegio Oficial de Enfermería de Madrid ²Facultad Ciencias de la Documentación, Universidad Complutense de Madrid ³Facultad de Ciencias Biomédicas y de la Salud, Universidad Europea de Madrid ⁴Escuela de Enfermería de la Fundación Jiménez Díaz –Universidad Autónoma de Madrid. ⁵Facultad de Ciencias y Artes, Universidad Católica de Ávila ⁶Biblioteca de la Facultad de Enfermería, Fisioterapia y Podología, Universidad Complutense de Madrid

biblioteca@codem.es, macuevas@ucm.es, esther.martinez@universidadeuropea.es,
eva.garciab@quironsalud.es, sergio.gonzalez@ucavila.es, omartinm@ucm.es

Abstract

Nursing professional practice requires continuous knowledge updating, which makes essential “Management of information” competency and its inclusion in undergraduate curricula. That requires knowing and measuring the undergraduate nursing student’s information needs and their satisfaction with learning process related to information competency training. An observational, descriptive and transversal quantitative study was carried out. A structured questionnaire was administered to nursing students from 21 University centers. Interest in informational competences integration in successive courses was shown by 73% of the participants. Almost three quarters of this percentage considered a subject on information skills as necessary. Some authors recommend information literacy (IL) to be integrated mostly into the first year of the program. Others think that each faculty must examine its curricula in order to determine the best placement for information literacy content and experiences. In all blocks analyzed, results show a positive impact of information competencies trainings on the students.

Keywords: *Information Literacy; Nursing; Competencies; Education, Nursing; Health Literacy.*

1. Introduction

The exponential information growth, the current technological context, together with the changes in education and the need of constantly analyzing information in any of its formats, put the accessing and using information skills in the basis for lifelong learning. These skills apply to all disciplines, all learning environments and all levels of education. When starting their studies at University, student’s skills are not enough to autonomously locate, access, retrieve, evaluate and critically use information, so they require basic training to interact with the information process. Theoreticians refer to the information process competences in multiple ways, such as informational or digital and multimedia competences, and all these competences are the object of informational literacy (IL).

IL concept and practices have evolve since its appearance in 1974, initially related to the work context and applied to problem solving. Since then, IL has also settled above Anglo-Saxon library and educational contexts supported by relevant institutions as ALA, IFLA and UNESCO.

IL is about acquiring the ability to know when and why information is needed, where to find it, and how to evaluate, use and communicate it effectively and ethically (Abell et al., 2004).

Universities have shown an interest in it—, as the establishment of new degree programs means a constructivist pedagogical model where the student takes center stage in their learning process. In this scenario, students need to have a set of competencies and skills which allow them to locate, retrieve, and manage information effectively. All this has led to the proposal of literacy interventions related to information and technology. Nevertheless, such literacy has not been included in many curricula in a strategic and planned manner. Therefore, students are graduating without the necessary information and digital competencies (Derakhshan & Singh, 2011).

Nursing activities, both during university and later on in professional practice, involve a great amount of information and include many information elements (García Martínez, 2011; Ortoll Espinet, 2004). Undergraduate nursing students face new pedagogical challenges, more practice-oriented, based on self- initiative and on the acquisition of skills for searching, managing and organizing the available scientific information (Guerra Martín, Lima Serrano, Zambrano Domínguez, & Lima Rodríguez, 2014). In higher education, the development of information skills is seen as one of the specific and basic competencies for professional development. Consequently, the acquisition of such skills provides students with the acquisition of a new competency: information competency. In Nursing, the Information management competency is included in the white papers of the discipline. In the Spanish context, legislation about nursing undergraduate competencies comes from 1393/2007 Royal Decree, and it is through the Ministerial Order CIN/2134/2008 that they concrete. Regarding that competencies, it is specifically contemplated the “application of information and communication technologies on health care” (ORDEN CIN/2134/2008, de 3 de julio, por la que se establecen los requisitos para la verificación de los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de Enfermero, 2008).

Assuming that the issue we are presenting is not limited to a specific social context, it is especially important in the health context considering the consequences that health care professionals’ decisions have on people’s health, and the ever-changing scientific innovation in all health-related fields.

The Evidence-Based Practice (EBP) development and the exponential information growth, leads to the argument that if scientific knowledge is wider, clinical practice must be more effective if it is based on the right decisions (Alonso Coello et al., 2014). However, in this regard, it is necessary to be able to not only recognize scientific evidence in the literature, but also to access it. Thus, EBP depends to a large extent on the ability to know information resources and to know how to find relevant literature. On the other hand, the development of information competency in nursing professionals has an impact on the quality of document production. They should know and use the tools available for them, in order to be competent in the management of scientific production related to their discipline. In this sense, they should be familiar with the different resources which include open-access publishing, and they should have access to the criteria for selecting the quality of an article in this kind of publications.

The use of ICTs is also essential to foster autonomous work in health sciences students: virtual campus, databases, or reference management software. University education must provide nursing students and future nursing professionals with the development of skills to access, process and manage the abundance of available information, as well as to know the tools available to them, so they can be competent in scientific production management. Taking this into account, we can also point out that

distance and virtual learning offers a new opportunity for nursing professionals to have a learning environment which allows them updating their knowledge in any of their future endeavors.

Likewise, one of the aspects that have been modified is the relationship between nursing professional and patient. Patients have increasing possibilities to access information related to health sciences. They can search for alternative treatments, new self-care techniques or drug information. This evolution of the users' technological profile has allowed them to adopt new practices. Nowadays, they stay informed, they share their experiences on blogs, forums and social media, they build tools and they commit to health. Professional nurses must be prepared to transfer the necessary knowledge to their patients, so they can develop attitudes and skills for locating and managing information, which can be used as a basis for decision-making at an individual level when it comes to each person's health. This reality has major implications regarding health care professional training towards the patient, in relation to the access to information and in their own training with regard to the knowledge of resources and aspects related to the dissemination of this information (García Martínez, Lleixà Fortuño, Nieto de la Fuente, & Albacar Ribóo, 2011).

ICTs have had a major impact on health sciences processes, from diagnosis to treatment, rehabilitation, administration and epidemiology. The effective use of information, supported by the use of ICTs, has allowed for higher-quality health research, health care and, ultimately, higher quality of life (Sánchez Tarragó & Alfonso Sánchez, 2007). Despite the fact that there are different interventions in the nursing program and that students receive training in information competency, some studies show that students do not have enough knowledge to access and evaluate relevant information after they graduate (Brown, Kim, Stichler, & Fields, 2010; Franks & McAlonan, 2007; Jacobsen & Andenæs, 2011; Scott, Gilmour, & Fielden, 2008; Tarrant, Dodgson, & Law, 2008).

Today's projects aiming to integrate IL in the curriculum are inconsistent, especially because these kinds of initiatives are based on an informal approach. This is either because of the librarians' proactive attitude and enthusiasm — seeking collaboration with academics — or, on the contrary, academics who seek collaboration with librarians. These initiatives with an unclear academic status — since they are not institutionally endorsed — have been occasionally successful and play a major role in building partnerships between students, academics and librarians. However, they do not guarantee or sustain a long-term IL program (McGuinness, 2007).

Against this background, several studies have suggested potential strategies for integrating IL into the Higher Education curriculum (Argüelles, 2016; Barnard, Nash, & O'Brien, 2005; Beck, Blake-Campbell, & McKay, 2012; Bønløkke, Kobow, & Kristensen, 2012; Courey, Benson-Soros, Deemer, & Zeller, 2006; Dorner, Taylor, & Hodson-Carlton, 2001; Farrell, Goosney, & Hutchens, 2013; Flood, Gasiewicz, & Delpier, 2010; Jacobs, Rosenfeld, & Haber, 2003; Jacobsen & Andenæs, 2011; Janke, Pesut, & Erbacher, 2012; Schutt & Hightower, 2009; Sin & Bliquez, 2017; Stombaugh et al., 2013; Tarrant et al., 2008; Verhey, 1999; Wadson & Phillips, 2018; Wallace, Shorten, Crookes, McGurk, & Brewer, 1999).

In Spain, librarians, academics and universities have set up collaborations in order to integrate information literacy competencies into the nursing curriculum (Domínguez-Aroca, 2017; García Martínez, 2011; Manso-Perea, Cuevas-Cerveró, Martínez-Miguel, & García-Carpintero-Blas, 2015).

In this context, the aim of this study is to know the Spanish nursing student's information needs, and to measure their satisfaction with information competency training during their learning process.

2. Methods

An observational, descriptive, cross-sectional, quantitative study was conducted.

The participants were Spanish Nursing students across all years of the degree program during 2015-2016 academic year who had taken a course covering content related to information competencies. The fact that the sample includes students from 1st to 4th year of the degree program allows representing different knowledge levels and different moments of the student's cognitive maturity (Martínez-Miguel, 2016).

A questionnaire was designed based on the researcher's reflection after reviewing the existing literature on the subject matter. It was structured in 32 interrelated questions and divided into 3 sections which provide an insight into the subject matter. The first section deals with the analysis using variables related to socio-demographic issues. The second section deals with information literacy (IL)-related issues, using the definition by the British Chartered Institute of Library and Information Professionals (CILIP). Information literacy is "knowing when and why you need information, where to find it and how to evaluate, use and communicate it in an ethical manner" (Abell et al., 2004).

The questionnaires were distributed in two different ways to facilitate student's access to them: on paper and via Google Drive Forms. Professors responsible of IL subjects selected the way of distribution and 1350 were gathered, receiving 1270 responses between October 2015 and June, 2016. Regarding geographical distribution, the participating students came from 21 (public and private) higher education institutions which offer the Nursing Degree Program, belonging to 18 Universities and 9 Autonomous Communities (Table 1).

Two types of analysis were performed: descriptive and stratified analysis. The descriptive analysis was in turn divided in two parts: socio-demographic variables and other variables. On the other hand, a stratified analysis per year was performed. Data processing and statistical analysis was carried out using the IBM® SPSS® Statistics V21.0.0 software.

Table 1: Geographical distribution

Autonomous Community	University	n
ANDALUCÍA	US	1
ARAGÓN	UNIZAR	1
CANTABRIA	UNICAN	1
CATALUÑA	URV	6

	UB	
	URL	
	UVIC- UCC	
	UPF	
	UPSA	
CASTILLA Y LEÓN	USAL	2
	UAM	
COMUNIDAD DE MADRID	UCM	4
	UAH	
COMUNIDAD VALENCIANA	UCH-CEU	1
	USC	
GALICIA	UDC	3
	UPV	1
PAÍS VASCO	UCAM	1
REGIÓN DE MURCIA		

US: University of Seville, UNIZAR: University of Zaragoza, UNICAN: University of Cantabria, URV: Universitat Rovira i Virgili, UB: University of Barcelona, URL: Ramon Llull University, UVIC-UCC: University of Vic - Central University of Catalonia, UPF: Universitat Pompeu Fabra, UPSA: Universidad Pontificia de Salamanca, USAL: University of Salamanca, UAM: Universidad Autónoma de Madrid, UCM: Complutense University of Madrid, UCH-CEU: CEU Cardenal Herrera University, USC: Universidad de Santiago de Compostela, UDC: University of A Coruña, UPV: Universitat Politècnica de València, UCAM: Catholic University of Saint Anthony.

3. Ethical Aspects

When gathering information and processing data, the ethical principles enshrined in the Declaration of Helsinki and the current Spanish legislation were respected. Informed consent from the participants was obtained.

4. Results

Of the 1270 students who participated in the questionnaire, 967 (76.1%) are first-year students, 158 (12.4%) are third-year students, 107 (8.4%) are fourth-year students, and lastly 37 (2.9%) are second-year students. Regarding school entrance, 78.5% entered via Selectividad (University entrance examination in Spain). Of the total participants, 82.7% were female.

4.1 Need for information

Among the total of the study sample, 78% of the participants had not received any kind of training in information and/or digital competencies before university. Solely 29.1% of the students go to the library

several times a week and only 4% go to the library every day. The most used service was the WiFi with an average of 5.11 — with a standard deviation (hereinafter, SD) of 2.32 — knowing that they were assessing the frequency for each option, 1 being very infrequent and 7 being very frequent. On the other hand, 41.55% of them answered that they used the Catalog to locate a book. When they do not find it, the most popular alternative among the students is to ask the librarian, with 68.4% of them doing so.

Almost 70% answered that they use Google to obtain information when writing an academic paper (Table 2).

Table 2: Method for obtaining information when writing an academic paper

Method	% Yes	% No
I use a search engine (Google)	69.37%	30.69%
I ask the librarian	5.59%	94.40%
I search databases	52.44%	47.55%
I only search books	22.28%	77.71%
I search other resources: repositories, etc.	4.88%	95.11%

The students consider that the main aim of information seeking during academic development is to Update their knowledge — an average of 4.7 out of 6 (SD of 1.30) and to Answer a clinical question — 4.57 (SD of 1.30).

4.2 Accessing information effectively and efficiently

In this section, 62.5% answered that they use search strategies with Boolean operators in databases and 76.2% used advanced search in searchers. The statement I spend more time than I would like to search for information obtained an average score of 4.06 (SD of 1.65). On the other hand, a high percentage (87.9%) are familiar with and make the difference between the different types of scientific information sources.

The students revealed that almost 50% use PubMed as a reference database or resource for health-related information search in the Nursing program (Table 3).

Table 3: Databases or resources where health-related information is found

Databases/resources	%
Google	44.57%
Google Scholar	13.31%
PubMed	49.13%
Cinahl	2.36%
Embase	0.00%
Cuiden	32.13%
IME	4.33%

IBECS	4.88%
Dialnet	18.11%
Scielo	24.33%
Cuidatge	4.41%
Enfispo	15.51%
Medes	2.44%
Cochrane	8.43%
Up to date	0.16%
Trpdatabase	2.60%
Clinical Key	0.16%
Other	31.81%

4.3 Evaluating the authenticity of the information gathered and its sources

Data shows that 63.3% of students evaluate the quality of the health-related information gathered on the Internet. Furthermore, almost three in four students (71.7%) said they reflected on the information search process and revised the strategies if necessary. Next, they were asked about the quality of the information gathered in their searches and 87.6% replied that they assessed the quantity, quality and relevance of the search results. On the other hand, 85.6% verified the sources when searching for information and 80% were able to determine whether the information provided in the resource was up to date.

4.4 Communicating information

Regarding “communicating information” item, 85.1% were familiar with the guidelines for writing an academic paper. The results show that students’ preferred means for disseminating information was the email, with 75.4% of the students using this.

4.5 Using it in an ethical and legal manner

In this section, 85.6% of the participants admitted they cited all the resources they had used in their papers, and 96.7% were familiar with the Vancouver style for citing and referencing. In line with the previous premises, they were also asked about their level of knowledge regarding this citation and reference style. An average of 6.05 out of 10 (SD of 2.19) was obtained.

4.6 Satisfaction

Students were asked about their satisfaction with the training they had received. 15.27% are below dissatisfied and 58.5% are above neither satisfied nor dissatisfied with their information-accessing skills. Moreover, 64.5% stated they know what it means to be an information literate individual.

They were also asked whether they were interested in having information competencies included in the following years of the program. 73% answered yes. Likewise, almost three-fourths of that percentage deemed it necessary to include a course providing knowledge about information competencies.

With regard to the year of the degree program, the results showed that fourth-year students (82.75%) are the ones who do deem it necessary to include a course providing content related to information competencies (Table 4).

Table 4: Preference for integrating a course providing knowledge on information competencies, by academic year

Academic Year	% Yes	% No
First	57.70%	42.30%
Second	65.30%	34.70%
Third	71.60%	28.40%
Fourth	82.75%	17.25%

5. Discussion

The results show that first-year students were the most involved in the study. Some authors recommend-IL to be integrated mostly into the first year of the degree program (Secker, 2011), Others think that each faculty must examine its curricula in order to determine the best placement for information literacy content and experiences (McCleary-Jones, 2016). Although some Universities prefer to include this kind of content in the last years of the degree program, there are reasons to recommend introducing it since the beginning, because this is when they first start having information needs, the time to develop and determine the necessary skills for their professional life during training, as well as the possibilities of extended and flexible learning produced by them (Nodarse Rodríguez, 2005).

There is a common tendency of greater female enrollment in the health sector in general and in nursing in particular. These results support previous studies on information competencies in health science disciplines, which show greater participation of women compared to men (García Martínez et al., 2011; Guerra Martín et al., 2014; Lázaro Ruiz, 2016). Nevertheless, gender was not relevant to the answers of the questionnaire.

The results show a high percentage of students who had not received training in information competencies before University. Some authors point out that such training should be pre-university training (Hernández-Rabanal, Vall, & Boter, 2018) which would be followed by more advanced training in University and, later on, continued training during professional life (García Martínez, 2011; Kim & Shumaker, 2015).

Other studies show that a high percentage of students claim they do not use resources available at the library and they mainly use Google to seek information when writing academic papers (Comas, Sureda, Pastor, & Morey, 2011; Fast & Campbell, 2004; García Martínez, 2011). This result could be considered as disheartening, especially if we take into account that the responses were obtained after the students had received training in information competencies. In this regard, the results also showed a positive percentage of 52.44% when it comes to using databases for academic papers.

The analysis demonstrates the importance that students attach to updating their knowledge and to answering a clinical question as the purpose of performing a bibliographic search. These answers have an impact on health care in the form of decision-making based on scientific research, in the context of EBP.

Using PubMed does not necessarily indicate a strong comfort level using it. The fact that they resort to Google as a second option may be due to its use for immediate needs or when they encounter an obstacle in databases (Morley & Hendrix, 2012).

The results show that either more time needs to be devoted to teaching content related to citation and reference or to the use of reference management software, or that it is necessary to work more on that throughout different courses, so that they practice more often. The ethical and legal use of information must be addressed in different areas of higher education, in order to instill academic honesty in students. To this end, this effort needs to be reinforced in health sciences, due to the ever-changing scientific innovation in this field.

The analysis indicates that it is in the fourth year when students are more aware of their information needs throughout their academic career and have a greater insight into the need for a compulsory course offering contents related to information competencies. Moreover, it is in the final year when the students' academic maturity becomes clear. Their information needs also keep changing throughout the years. As fourth-year students are close to their graduate profile, they ask themselves research questions which are more related to decision-making in clinical practice, in order to be able to solve a clinical question. When it comes to clinical practice, information sources, data base and electronic resources are used most frequently by recently graduate nurses, who have received IL competencies training in compare with those with more years of professional experience and a more distant training experience (Wahoush & Banfield, 2014). But nevertheless, scientific literature does not explore other IL aspects as knowing when and why there is an information need, critical evaluation or the usefulness of the information retrieved by the nurses.

It is also in their final year dissertation where 4th year students prove that they have achieved the competencies related to the degree. Therefore, it is our understanding that achieving competency in information management and use is a prerequisite for meeting this course's targets. The minimum percentage obtained in responses from first-year students is due to the fact that these students are not involved with research papers yet. This training is more productive later in their academic career, when they are more aware of their academic reality and are involved in research projects (Burke, 2012). Academic papers, such as the final project, offer the opportunity to integrate information competencies into the university curriculum (Gómez-Hernández & Benito-Morales, 2001). Other authors point out that when IL training is provided to students who have been assigned to research work, students see this as an incentive, which leads to higher participation rates and, consequently, better results (Bent & Stockdale, 2009; Limberg, Alexandersson, Lantz-Andersson, & Folkesson, 2008).

The size of the sample and a multidisciplinary team made up of information and health care professionals must be pointed out as the strengths of the study. Regarding its limitations, the questionnaire has not been validated and it would be beneficial to pre-test the questionnaire.

6. Conclusions

To conclude, nursing professional practice requires ongoing knowledge updates. This makes information management competency essential and requires its integration into the programs curricula. The information needs of incoming freshmen change as they progress through their academic studies and their knowledge on the discipline evolves, culminating in the final project. This confirms the need to design IL in a progressive manner, providing greater support to first-year students and evolving up to the final project, which allows for a comprehensive evaluation of the program competencies.

EBP reaffirms the importance of information competencies as a guarantee for seeking and accessing the best evidence to support clinical decision-making. Students show high satisfaction levels regarding the training experiences received in information competencies, and they demand for a specific course which enables the development of these competencies to be integrated into the curriculum.

University libraries must be the starting point for initiatives aiming to build a strategy for integrating IL into the academic curriculum, which require collaboration among all members of the university. The results of this research confirm that university libraries must guide and promote IL instruction in Higher Education. In our opinion, this must be one of its key roles.

University libraries enjoy a strategic position at universities. Therefore, it is imperative that they be in line with their new roles and take responsibility for the training of future graduates so that they are labour market-ready in terms of information literacy.

Promoting IL encourages librarians to engage in the teaching process — direct and seamless learning — getting close to the students, better identifying their needs and shortcomings, and working together with academics when it comes to designing academic activities.

It is essential to provide university students with gradual IL instruction through different courses throughout the program. This would mean developing an inclusive approach to information literacy competencies in a scenario where the IL-related course of study is duly planned.

Given that students need to intensely interact with information in nursing education, the higher education community should be sensitized and made aware of the importance of IL training as specific, cross-cutting training integrated into the curriculum. This would enable the actual development of this competency in future nursing professionals by training teachers and explaining — using evidence-based practice — that it is not possible to achieve it if future professionals do not know how to manage information needs.

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The Metric Selfie: hypothesising a holistic view on the algorithmic individual

Heitor Alvelos
University of Porto
halvelos@fe.up.pt

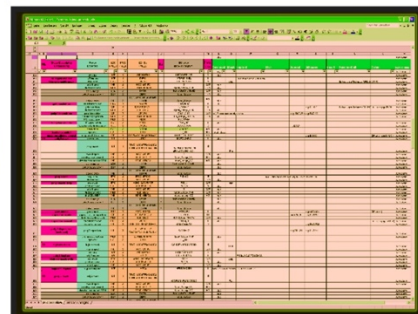
Abstract

This essay addresses a growing phenomenon whereby various aspects of our lives, from the professional to the personal, are being continuously scrutinised and rated through sets of metric parameters. We substantiate this claim with empirical evidence, and argue that these rating exercises may ultimately provide an illusion of rigour while in fact being dominated by subjective undercurrents and modes of impact.

Keywords: *Self-perception, analytics, evaluation, perverse media*

A defining phenomenon of contemporaneity is a constant state of self-consciousness: both literal, as a heightened awareness of our own selves, and as a preventative expectation of self-restraint in face of the other. This is compulsive and pervasive, permeating the various dimensions of the individual, from the professional to the intimate. Granted, no good would likely stem from a permanent exercise in collective abandonment (we've learned that much from certain post-WW2 subcultures), yet calculated mutual reassurance hasn't exactly turned out to be a particularly fertile option when pursued continuously and reciprocally.

This *breed* of self-consciousness can be partly traced to the exponential ubiquity of evaluation exercises. Largely fuelled by the plain fact that automation makes them *possible* ("because we can"), these exercises are therefore embraced as an assumedly desired reassurance of reliability and order in a World narrative projecting multiple signs and instances of volatility. How else would we be able to read *meaning* in the angst-inducing zeitgeist, right?



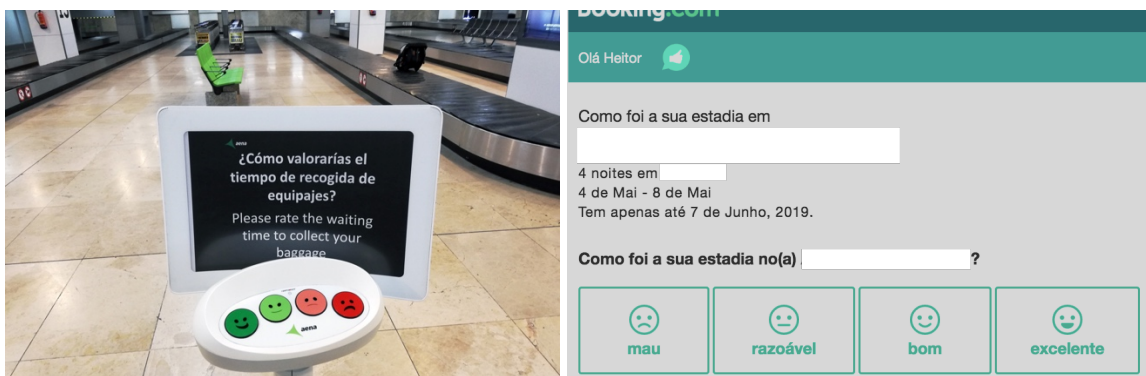
A further path of enquiry and speculation would be the largely unregulated and imperative dynamics between evaluation, surveillance and data mining/analytics: we have largely entered a habit of logging every administrative procedure and interaction in some writing form or another, in a felt, pre-emptive expectation of potential conflict, even litigation - just as job offers may depend on a measure of detective work on our social media history, including the potential unearthing of AV documentation of past lapses of judgment provided with overblown resonance and longevity. Self-consciousness has thus become the micro-management of one's own presence and associated actions under the ghost of potential perpetual resonance. The conundrum of big data versus who would exactly take an interest in the trivial individual is unlocked as a haunting intuition that one day, context, legislation and complex analytics will converge in unforeseen consequences. Just as the mobile phone counts our steps in an endearing coercion to "stay healthy", so its silent, associated geo-tracking renders detective work redundant. Better stay out of the shady alleys, just in case the current syndrome of automated hermeticism takes a dislike on us at some point.

Job evaluation itself is now often performed via algorithm-regulated self-insertion of activity indicators. In growing instances, the calculation of one's professional worth is obtained in the shape of an absolute number, further subjected to productivity and rating indexes verified according to the evaluator's overview, with quotas subsequently attributed in order to meta-regulate the regulatory system itself. The algorithm is, in this way, ultimately surpassed by the subjective, yet the illusion of rigour remains: hermetic, self-evident, decanted into the percentage we become. Of relevance is also the fact that focusing one's performance on a narrower range of typologies of activity will ultimately become detrimental: apparently averse to specialisation, the algorithm tends to reward a continuous flow of multi-tasking, a perverse *phobia* of dedication and depth.

The evaluation exercise contains an intrinsic measure of antagonism; it looks and feels as if it is meant to be unpleasant throughout if we choose to *attempt* to be in charge of it. The interface mirrors the severity of the exercise, in itself a challenge. The way to render the experience bearable is ultimately the focus on the competitive element: to regard professional self-evaluation as a video-game, to self-automate the insertion of data while watching a live re-calculation. The alternative is the sheer acceptance of full automation: the "system" will gather whichever data it finds and process-(construct)-calculate its measure on the spot, providing a transcendent measure of one's worth. Overall, this clearly parallels the gradual emergence of "citizen rating" programs as abundantly reported, the ultimate psychic impact being that work mode becomes one's default *modus vivendi*.



This ready availability of computation has therefore created the ubiquity of the measurable experience: not only are we meant to reciprocally and continuously rate the quality of our multiple daily instances, we are invited to consider this to be self-evidently necessary; if not necessary, then an escape valve for the various micro-narratives that inevitably offer a semblance of struggle, no matter how residual. Recent personal observations include the invitation to rate a passport control agent performance while inspecting one's documents, an airport baggage collection, and various hotel stays. All three of these have taken place at sites of displacement, where our territorial identity is checked, our belongings hopefully reunited, our comfort restored while in transit; further rating sightings include shop purchases, public toilet visits, online chats with a bot regarding a parcel delivery, a car oil change procedure, and long-distance flights.

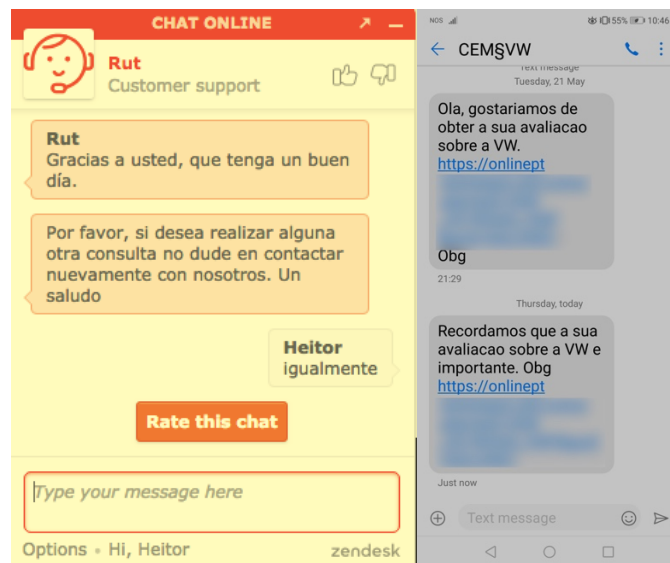


Four pieces of evidence emerge from this “rating” fixation. The first is a corroboration of the above job-evaluation syndrome: a statistical magic trick is performed, devoid of substantiation and density, projecting analytical rigour where in truth a simple void lurks: we are left in the dark as to the *nature* of the experience we are invited to rate. Does my rating of the toilet experience pertain to the level of cleanliness, a personal distaste of the omnipresent background music, or the sheer physiological relief? On a more charged protocol, what would constitute grounds for a negative rating of the passport control experience? Did the agent smile? Did any of his/her questions make me feel uncomfortable? Certainly being denied entry would merit a negative rating; but in such instance, would I still be allowed to rate? The speculative possibilities stemming from all observed instances provide exponential anecdotes for intellectual delight.

The second piece of evidence is actually tacit, and it is an intuition: we somehow *know* the attribution of any option other than the maximum score will be regarded as a failure of some kind.

The provision of the experience is meant to be immaculate. What lingers spectrally is the possibility that a rating below “exceptional” will have consequences: an internal enquiry, perhaps? Someone’s job at stake? Who knows: often all we have is a set of buttons to push, and no further details are welcome or even possible within the interface. We therefore play safe, out of a vague hunch that we have been coerced to state the extraordinary in face of the ordinary, invited to comply with the perpetuation of the measurable where only the subjective or the *irrelevant* would be rigorous. Micro-scrutiny gives way to

a kind of neurosis, whereby our brains are invited to comply with the processing power of “smart data” that surrounds us.



The third piece of evidence is a boomerang effect. By attributing a rating to the experience of the subjective, we *subject* ourselves; we enter the hall of mirrors where the effective, underlying rating is the rating experience itself. The magic trick is completed by the vanishing of the option *not* to rate: still there in plain sight, yet effaced either by force of courtesy or the playful aesthetics of the interface. Yet the day will come when rating will be mandatory: it's all a matter of turning it slowly and gradually into an acquired taste.

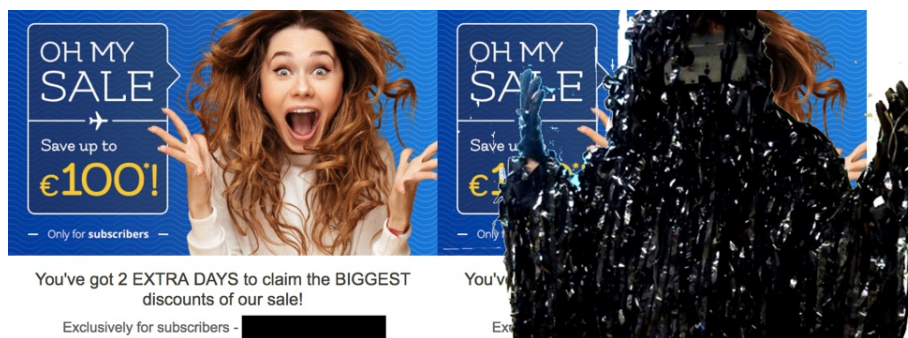
The fourth piece of evidence is a dissonance, a rupture between the intrinsic violence of unfounded, unnecessary judgement and these aesthetics of playfulness: in daily routines, whenever not tangibly impactful on ourselves, rating is often presented in the shape of a lexicon of emoticons and primary colours, soft aesthetics at the very least, a chasm between the imperative of judgment with ambivalent consequences and its contradictory, purposefully designed surface of innocuous, childish play. Spectral presences roam the mind here, imprints of yet another state of flux: the x-ray ritual as we enter the airport boarding gate area, somehow the ultimate metaphor for the transparency that is now the underlying ideology, transparent to the point of invisibility. And yet, besides the unquestionable and honourable need for safety screening, various airports now include their own colourful, playful children's x-ray queue. Once traversed the ultimate exercise in transparency and dispossession, in a matter of seconds we are ejected into the glossy, neon-fuelled delirium of duty-free shopping as a currently mandatory pathway to the boarding gate. The “duties of freedom”, the spectral violence of terror giving way to the sensory violence of over-consumption; the x-ray screens that read our nude bodies for weapons give way to the HD-screens offering to rebuild us with cosmetics, as if announcing the body as an agent of violence by default, only redeemable through a post-anatomical reinvention via digital self-actualisation.

The trauma of dutiful dispossession is instantly compensated by the soothing experience of consumerism.



We digress for a good reason.

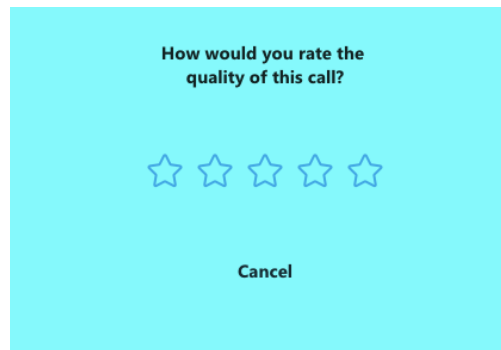
All of the above converge in a conviction: that the line that separates the trivial from the transcendent is now blurred and ultimately extinguished by the presence of *paradox*. The relentless rating of plain transactions and interactions, of plain states of being and evolving, roots itself in a fundamentally radical shift in perception, that of reality as devoid of ambivalence. That ambivalence is actually amplified by the self-proclaimed exactitude of the metric exercise, its acknowledgement hostile: *being alive* is meant to translate at any point as continuous euphoria, an individual externalisation, a theatrics of the superlative.



The endpoint of this perversion, including its self-infliction, may be observed most acutely in online social media. Firstly in the tightrope walked by "influencers", to whom only a colossal number of followers will suffice in a construction of positivity ultimately regulated by a calculating neurosis under the permanent spectre of semantic catastrophe: one small error of judgement and your character is slaughtered. And yet this exercise is rooted upon the catastrophic, as the stratospheric figures it pursues can only be based on a relinquishing of personal sovereignty, a loss of control.

Secondly, the endpoint may ultimately be observed in each single selfie posted by the millions, where the individual constantly rehearses his/her persona and monitors its transient viability, translated in the

impoverished lexicon of appreciation: Like-Love-Haha-Angry-Crying-Wow. The self rendered a personal statistic through the cosmetic abdication of texture, be it physical, narrative, relational. The body no longer viable as a space of fertile abandonment, no longer a territory of discovery, no longer a witness of its own history or a bearer of the marks of History — but rather a compliant, self-competitive construction of atemporal exhaustion.



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Images sent to the author via email / SMS by various promotional entities, and gathered at various online and offline environments inhabited by the author; images have been occasionally edited in order to emphasise the metaphorical elements or protect sensitive information.

Figure 1 (left) by David Trullo, 2016; used by permission of the artist.

A Construção da Identidade dos Novos Partidos em Páginas Oficiais do Facebook

(Building New Party Identity on Official Facebook Pages)

Jorge Martins Rosa
ICNOVA, NOVA FCSH
jmr@fcsb.unl.pt

Daniel Cardoso
CICANT, ULHT, e NOVA FCSH
danielscardoso@gmail.com

Abstract

Antecipando os dois escrutínios de 2019, as eleições europeias de 26 de Maio e as legislativas de 6 de Outubro, surgiram recentemente alguns novos movimentos, a maioria dos quais entretanto oficializados enquanto partidos, que procuram apresentar-se como novidades no espectro político, ocupando posições até aqui supostamente inexistentes. Iniciativa Liberal, Aliança, Volt e Chega, além da demarcação ideológica, parecem também apostar em modalidades distintas de interação com os seus potenciais eleitores, em particular aquelas proporcionadas pelas novas tecnologias, como é o caso dos sites de redes sociais. Procuraremos aqui identificar (e diferenciar) as estratégias de comunicação no Facebook de cada um desses movimentos num período ainda a alguma distância dos atos eleitorais, mas em que estes – em particular as eleições europeias – já estavam presentes na agenda política nacional.

Palavras-chave: *comunicação política, partidos políticos, eleições, Facebook, envolvimento*

Foreshadowing the two electoral ballots of 2019 in Portugal, the European Elections of May 26 and the legislatives of October 6, several new movements appeared in the national political scene – most of them meanwhile becoming official parties – presenting themselves as novelties, occupying supposedly inexistent positions in the political spectrum. Iniciativa Liberal [Liberal Initiative], Aliança [Alliance], Chega [Enough] and Volt, besides the ideological differentiation, also seem to bet in new modes of interaction with their potential electors, namely those enabled by information technologies, as is the case of social network sites. In this paper, we will aim at identifying (and differentiating) the communication strategies on Facebook for each of these new movements during a period still ahead of the electoral acts, but in which these – particularly European Elections – were already in the Portuguese political agenda.

Keywords: *political communication, political parties, elections, Facebook, engagement*

1. Introdução

Começamos por desfazer um provável equívoco antes mesmo que este se manifeste. Por mais que se possa argumentar que as plataformas de redes sociais são cada vez mais uma extensão da vida “real” – ou melhor, *offline* –, tal não significa que sejam uma mera duplicação desta última. Por outras palavras, não há nem tem de haver uma correspondência de um-para-um entre domínios, e aliás essas correspondências ou sua ausência são também distintas de domínio para domínio, isto é, de plataforma para plataforma. Os contactos ou aqueles que seguimos no Twitter não têm de ser os mesmos do Facebook, nem os do Instagram, e assim por diante.

Ora, esta advertência é particularmente válida quando se procuram observar os equivalentes virtuais de empresas, marcas, instituições e outras organizações, comparando a sua relevância

online com o peso que têm *offline*. No caso que aqui nos traz, também isso ocorre com os partidos políticos portugueses. Salvaguardando as flutuações nas preferências de voto a que nos habituámos a chamar “alternância democrática”, seria de imaginar ao menos uma preservação de escala, com os partidos sistematicamente mais votados – PS e PPD/PSD – a terem o maior número de seguidores nessas plataformas, seguidos dos de média dimensão que têm representação parlamentar, e num terceiro patamar, bastante abaixo, uma multiplicidade de “pequenos partidos” com um peso marginal.

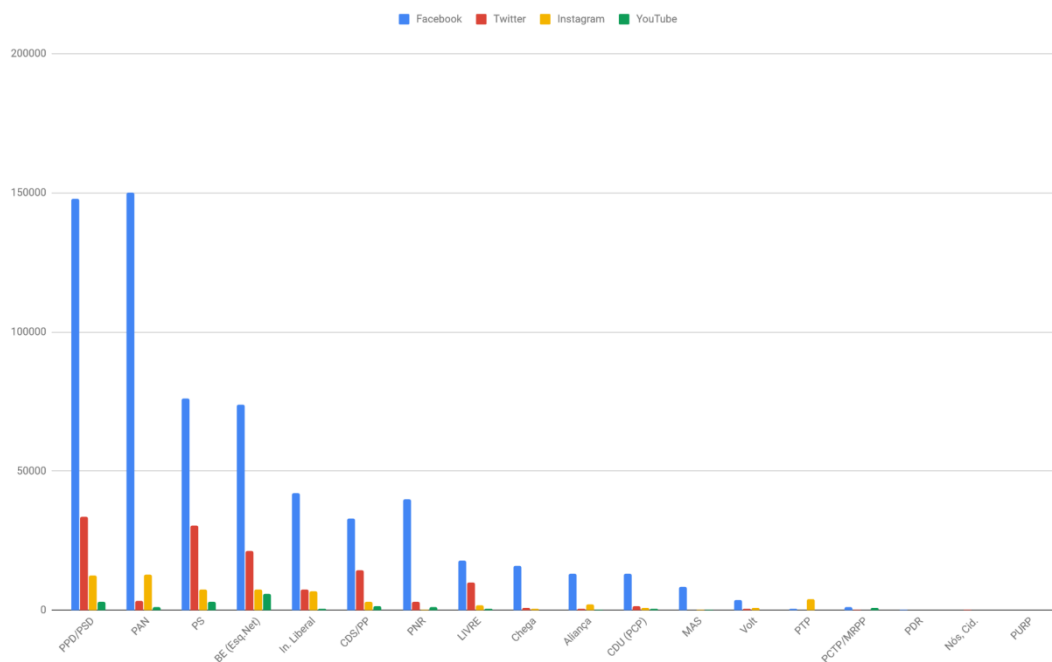


Figura 1. Número aproximado de seguidores, em plataformas de redes sociais, de partidos e movimentos políticos.
(Fonte: Pesquisa dos autores. Período: Maio de 2019.)

Surpresa ou não, a verdade é que, apesar de a tendência global ser de facto essa, são tantos os desvios a essa tendência que nem sequer devem ser classificados como exceções. O gráfico [Figura 1] sintetiza essas anomalias, apresentando o número aproximado (com arredondamentos) de seguidores em Maio de 2019. Ainda que seja desnecessário enumerar todos os casos, até porque não é esse o objetivo deste artigo, assinala-se o do PAN [Pessoas, Animais, Natureza], que lidera em número de seguidores no Facebook (e YouTube), ligeiramente acima do PPD/PSD que lidera no cômputo geral, e ambos com quase o dobro dos seguidores do PS, que se esperaria estar a disputar a primeira posição. Será o Twitter mais fiel à realidade do que o Facebook? Nem por isso (embora no caso dos partidos com representação parlamentar a distorção seja menor se tomada esta plataforma), pois então o LIVRE estaria a bater-se taco a taco com o PCP/PEV. Poderíamos continuar o retrato para as outras redes sociais consultadas – Instagram e YouTube –, mas estas são ainda mais residuais, seja em número de seguidores seja na mera existência de contas oficiais. E se é certo que estes valores podem estar a ser inflacionados devido à presença de contas falsas (ou

bots) propositadamente criadas para esse efeito, essa possibilidade – que também mereceria um tratamento que não daremos aqui – apenas confirma a diferença entre a realidade e o mundo virtual.

2. Novos partidos, novos eleitores?

Foquemo-nos, nem tanto por essa representatividade que acabámos de contestar mas apenas por ser a plataforma dominante, no Facebook. Também não nos interessam, para esta ocasião, as prestações dos partidos hegemónicos, nem mesmo as daqueles que, apesar de minoritários, já estão implementados no panorama político nacional. Sendo 2019 um ano duplamente eleitoral, com dois escrutínios, as eleições europeias de 26 de Maio e as legislativas de 6 de Outubro, não pôde deixar de ser notada a aparição de alguns novos movimentos, na sua maioria entretanto oficializados enquanto partidos, que procuraram apresentar-se como novidades no espectro político mesmo que nos seus interstícios, ocupando posições até aqui supostamente inexistentes ou indevidamente representadas.

Talvez por terem eclodido neste panorama em que a comunicação através da internet e outros meios digitais é já tomada como adquirida, Iniciativa Liberal, Aliança, Chega e Volt, além da demarcação ideológica, parecem também apostar nessas modalidades distintas de interação com os seus potenciais eleitores. Terá sido também o caso de outros comparativamente recentes, como o PAN ou o LIVRE, mas com estes quatro surge a oportunidade de olhar para as suas estratégias de comunicação e interação com os cidadãos eleitores quase a partir do momento da sua génese.

É esse o objetivo desta breve reflexão, que, apesar do seu carácter preliminar e nesta fase da pesquisa ainda inconclusivo, procura aqui apresentar um primeiro retrato de cada um desses movimentos num período ainda a alguma distância dos atos eleitorais, mas em que estes – em particular as eleições europeias – já estavam presentes na agenda política nacional.

Dos quatro, o primeiro a entrar oficialmente no panorama político enquanto partido foi o Iniciativa Liberal [IL], com a ratificação pelo Tribunal Constitucional a 13 de Dezembro de 2017. O Aliança teve esse reconhecimento a 23 de Outubro de 2018, pouco mais de uma semana antes do início do período coberto pela nossa análise. Já o Volt e o Chega não conseguiram essa oficialização em tempo útil para se apresentarem às eleições europeias. No caso do Volt, por não terem de todo logrado obter as 7500 assinaturas requeridas; no caso do Chega, o processo foi ainda mais atribulado, pois um primeiro pedido foi recusado devido a irregularidades na lista de subscritores, e, tendo o mesmo ocorrido por ocasião do segundo pedido, houve contudo uma aprovação, a 10 de Abril de 2019¹, estando o caso, no momento da escrita deste artigo, a ser analisado pelo Ministério Público². O subterfúgio encontrado para que o seu presidente, o ex-militante do PPD/PSD André Ventura, se apresentasse como candidato constituiu na criação de uma coligação – intitulada “Basta” – entre dois outros pequenos partidos da mesma área ideológica, o Partido Popular Monárquico [PPM] e o Partido Cidadania e Democracia Cristã [PPV/CDC], surgindo este como cabeça de lista independente. Os dados que apresentamos abaixo não têm este fator em conta, pois ocorreram fora do período analisado.

2. Metodologia e *corpus*

Como já mencionado, e embora tratando-se de um estudo ainda em fase preliminar e exploratória, o objetivo foi o de identificar e diferenciar as estratégias de comunicação nas plataformas de redes sociais de cada um destes movimentos. Para esse efeito, foi efetuada uma recolha de dados a 15 de Março de 2019, através da aplicação Netvizz, englobando essa recolha todas as publicações feitas nas suas páginas oficiais – e respetivos comentários, embora estes saiam fora do âmbito deste artigo – entre 1 de Novembro de 2018 e 28 de Fevereiro de 2019, somando 120 dias.

Consideraram-se como variáveis relevantes o tipo de *posts* e a sua frequência (absoluta e relativa), sendo também feita uma categorização de acordo com o seu conteúdo semântico, detetável não só no texto (quando ele existe) como também no que as imagens, vídeos ou ligações permitem inferir. Num momento posterior, também fora do âmbito deste artigo, essa mesma categorização servirá para uma análise de conteúdo mais fina, de que aqui se apresenta apenas uma visão muito geral, aplicando-se apenas aos *posts* de imagem (nos quais se teve também em conta a métrica de *engagement*). Foi feita ainda uma análise de frequência ao vocabulário utilizado, sendo esta limitada às 100 palavras mais comuns com 4 ou mais caracteres.

3. Como publicam?

A Tabela 1 resume (classificando-as por tipo) as publicações dos quatro movimentos ao longo dos meses indicados. Ainda que com variações significativas na frequência – ligeiramente menos de um *post* por dia no caso do Volt, quase três por dia no caso do IL -- , em todos os casos estas são feitas com regularidade.

As maiores diferenças ocorrem no modo como o fazem. As publicações com imagens ou fotos dominam no caso do IL, com as outras categorias, em particular o mero texto (*status*), com percentagens quase residuais. Esse é também o tipo de publicação mais comum do Volt, mas aqui havendo uma distribuição mais equilibrada. Para o Aliança, dominam os *links*, com a imagem num segundo lugar algo afastado; no resto a distribuição assemelha-se. No caso do Chega, quase um empate entre imagem e *link*, com as restantes possibilidades com percentagens minoritárias. Esta é a altura de assinalar uma notável diferença de estratégia deste movimento, cujas razões, ainda que suspeitemos quais sejam, deixamos por indagar: é o único que permite que qualquer utilizador publique no mural da página. Ora, estas publicações dos utilizadores quebram o padrão que acabámos de identificar. Nem imagens nem ligações predominam, ainda que a sua frequência não seja de desprezar, cabendo esse papel dominante às publicações só de texto. Naturalmente, procuraremos ter em conta essa diferença sempre que pertinente ao longo da análise.

Tabela 1. Resumo das publicações (por tipo) nas páginas oficiais do Facebook.

(Fonte: Pesquisa dos autores. Período: 1 de Novembro de 2018 a 28 de Fevereiro de 2019.)

	Status	Link	Imagem	Vídeo	Nota	Total
Iniciativa Liberal	3 (1,2%)	29 (11,6%)	195 (78%)	23 (9,2%)	0	250 (2,83/dia)
Aliança	27 (14,75%)	83 (45,36%)	53 (28,96%)	20 (10,93%)	0	183 (1,525/dia)
Volt	2 (17,7%)	22 (19,47%)	69 (55,75%)	19 (16,81%)	1 (0,88%)	113 (0,94/dia)
Chega (Página)	3 (1,95%)	74 (48,05%)	69 (44,81%)	8 (5,19%)	0	154 (1,28/dia)
Chega (Utilizador)	78 (45,88%)	48 (28,24%)	35 (20,59%)	9 (5,29%)	0	170 (1,42/dia)

À exceção das notas, praticamente inexistentes, e dos *posts* de *status*, que serão diluídos na análise ao vocabulário feita de forma indiferenciada a todas as publicações, cada um dos restantes tipos merece um olhar mais à lupa, a que nos dedicamos já de seguida.

3.1. Vídeos

Sendo um tipo de publicação comparativamente minoritário, apenas num dos casos superando de modo muito ligeiro os 15% dos *posts* ao longo do período selecionado para o *corpus*, não há aqui surpresas a assinalar. Para tal contribui o facto de, de forma quase invariável, se tratar de vídeos dos canais oficiais de cada um dos movimentos, ora diretamente provenientes da página Facebook, ora do canal do YouTube³.

Assim ocorre com o IL, com 22 vídeos da sua página de Facebook e 1 da do YouTube. Assim *quase* ocorre com o Aliança, com 19 vídeos da sua página de Facebook, 1 de outra página associada ao partido e especificamente dedicada à promoção do cabeça de lista para as eleições europeias (Aliança Europa – Paulo Sande⁴), 3 do canal do YouTube, e apenas 2 que fogem a esta regra: um de um militante do partido, invocando direito de resposta acerca de uma notícia da SIC em que era visado, e um do jornal *Sol*, em que Pedro Santana Lopes, o presidente do partido, é entrevistado.

Continuando a predominar os vídeos da página do Facebook, há um pouco mais de variação no caso do Volt. Dos 19 vídeos, os 3 do YouTube são partilhas de um vídeo de autor anónimo sobre o Tratado de Lisboa, de um *podcast* sobre eleições, e de um outro do líder do Volt Itália, Andrea Venzon, sobre os 100 anos do armistício da I Guerra Mundial. No caso dos vídeos do Facebook, 3 dos 15 são de canais de outros Volt (Europa, Países Baixos e Luxemburgo), sendo os restantes os previsíveis da página portuguesa. Há ainda um vídeo da EuroNews com uma notícia sobre a Macedónia do Norte.

Finalmente, no caso do Chega todos os 8 são aparentemente da página oficial de Facebook, mas 3 republicam vídeos do *Correio da Manhã TV* que de alguma forma mencionam o movimento. Não esqueçamos contudo os que são aí publicados por utilizadores. É aí que se manifesta a maior diversidade, ou talvez incoerência não fosse o caso de os conteúdos replicarem uma certa tónica que

é também a do próprio movimento, e que classificariamos como populista e justicialista: sobre casos de corrupção, confirmados ou alegados, sobre o caso CGD, sobre imigração e em particular imigrantes muçulmanos, sobre a supostamente chamada “ideologia de género” e, talvez destoando do resto, um vídeo de Al Gore sobre mudanças climáticas.

Como primeira conclusão preliminar relativa às publicações com vídeos, podemos então afirmar, e mesmo sem aprofundar a análise ao ponto de identificar e caracterizar o conteúdo desses mesmos vídeos, que de modo geral há uma intenção – expectável, aliás – de controlo sobre o que se publica. O “oficial” predomina, com ocasiões pontuais de partilha de conteúdos de outras proveniências que complementam, mas no essencial confirmando, a “imagem de marca” que o movimento ou partido quer transmitir. A exceção – que não o é na verdade – é o caso do Chega. Ao permitir que os utilizadores publiquem – mas não haverá quase certamente um processo de *gatekeeping* dos gestores da página, apenas deixando passar o que confirma essa mesma imagem? –, transmite-se a ilusão de um espaço em que os seguidores podem confirmar a sua identificação, e portanto uma identificação “popular” (as aspas são intencionais e irónicas), com os ideais do movimento.

3.2. Links

Percentualmente falando, o recurso a este tipo de publicação é bastante variável entre cada um dos movimentos: abaixo dos 12% para o IL, perto dos 50% para o Chega (página), e com valores intermédios para os restantes. Esta variação desfaz-se quando nos concentramos nas ligações propriamente ditas – quase sempre ora para *sites* noticiosos, ora para os *sites* oficiais da organização – e regressa, com um significado distinto, quando procuramos identificar esses *sites*.

O padrão é bem claro no caso do IL, com 6 ligações para o seu *site* oficial e quase todas as restantes para notícias em órgãos de comunicação social. De entre estes, predomínio para *O Observador* e para o *Eco*, havendo apenas um para jornal regional (*O Minho*). Há ainda uma ligação para um blogue de direita (*O Insurgente*) e uma outra para o *site* de contestação ao Artigo 13 da Diretiva Europeia sobre os Direitos de Autor.

Algo similar, mas com maior diversidade, no caso do Aliança, com 34 ligações para o seu *site* oficial e uma para um comunicado no seu canal do YouTube (que o Netvizz identificou como *link* e não como vídeo), e as restantes, incluindo 6 cujo *link* identificado é para o serviço de *short URL* Bit.ly, para os tais *sites* noticiosos. Três dessas ligações são para jornais regionais (*Notícias da Maia*, *Jornal de Leiria* e *Região de Cister*), sendo as restantes para os nacionais, com uma distribuição que poderíamos considerar equitativa. Arriscariamos talvez, dada a elevada percentagem de ligações para notícias sobre o partido, a hipótese de que aqui se optou por reproduzir e partilhar o serviço de *clipping*, sem critérios muito restritos de controlo sobre o que é publicado.

O Volt tem como peculiaridade a existência de ligações para *sites* noticiosos estrangeiros (*The Economist*, *Euractiv*, *The New European*, a edição portuguesa do *Euronews*), distribuindo-se no que resta entre *links* para *sites* oficiais (5: 3 para *volteuropa.org* incluindo um através de serviço de *short*

URL, e 2 para voltcalendar.eu), 1 para a página de Facebook do Volt Noruega, e os previsíveis órgãos noticiosos portugueses.

Esta pluralidade no que respeita às ligações para *sites* de notícias (apesar de uma clara preferência pelos posicionados mais à direita no caso do IL) altera-se ligeiramente no caso da página do Chega. Ainda que quase todos os jornais mais comuns tenham a sua presença ao longo do período analisado, há um notório domínio do *Correio da Manhã* (11 publicações, sendo que nenhum outro ultrapassa as 5) e, tanto ou mais relevante, apenas neste caso se encontram ligações para o *Notícias ao Minuto* (também 11), numa zona cinzenta no que respeita ao seu estatuto como OCS, e para o *PT Jornal* (13), já oportunamente identificado como *site* das chamadas *fake news*⁵. O que resta é algo disperso, sendo de assinalar dois *links* para publicações brasileiras (uma delas a *Folha de S. Paulo*) que alertam para a eventual emergência dos populismos na Península Ibérica – alerta esse que é contestado no próprio texto introdutório dos *posts* em causa – e apenas 5 para *sites* do movimento (4 chega.pt e 1 partidochega.pt).

Finalmente, no caso das ligações partilhadas por utilizadores na página do Chega, repete-se em parte o padrão das da página propriamente dita. Diversos *links* para *sites* noticiosos, de novo predominando o *Correio da Manhã*, uma dose q.b. para duvidosos, repetindo-se o *Notícias ao Minuto* e acrescentando-se, em vez do *PT Jornal*, o *Portugal Glorioso* e o *Tuga Press* e uma “notícia” satírica do *Tá Feio*. Apenas dois para notícias em jornais internacionais (*Business Insider* e *The Guardian*), com a característica comum de ambos serem sobre o “Estado Islâmico” Em territórios ainda mais populistas, uma publicação dum blogue anti-islâmico. Aliás, se considerados os conteúdos destes contributos dos utilizadores, o anti-islamismo (em particular) e as posições anti-imigração (em geral), além de alegados casos de corrupção e afins, tendem a marcar o tom.

3.3. Imagens e fotos

Ao contrário das duas alíneas anteriores, em que considerámos a totalidade das publicações dentro do período de quatro meses definido à partida, a elevada percentagem (e número absoluto, mais de 400 no total) de *posts* de imagem, sendo aliás o tipo de publicação mais comum em 3 dos 4 movimentos, seria impraticável seguir a mesma abordagem descritiva. Além disso, em boa parte dos casos a imagem é de difícil categorização por si só, sendo necessário articulá-la com o texto que a acompanha e contextualiza – ou mesmo com o texto que faz parte da própria imagem. Para contornar estes dois obstáculos, optou-se: 1) por um lado por uma limitação a apenas 15 publicações para cada caso, tomando-se como critério de seleção a métrica de *engagement* – que aqui utilizaremos de forma intercambiável com “envolvimento” –, isto é, o somatório das reações (*likes*, etc.), comentários e partilhas; 2) por aplicar uma classificação ao conteúdo, classificação essa que está a servir como base de trabalho para a restante pesquisa associada ao projeto PINBook PT⁶, em particular para a análise de conteúdo a empreender recorrendo ao programa NVivo. Por questões de espaço, não se enumeram neste artigo todas as subdivisões nem o modo como a elas se chegou, sendo feita apenas uma breve descrição nos casos em que o seu significado possa ser dúbio. Adiantamos contudo que essa categorização está estruturada em três níveis hierárquicos, “temas”

(as grandes categorias), “subtemas” e “códigos” (as microcategorias), ainda que aqui nos confinemos aos dois mais abrangentes.

Aplicando então esses critérios, e salvaguardando que a distribuição pelas categorias nestes *posts* que geraram mais envolvimento poderá ser muito diferente da mesma distribuição se tomada a totalidade, o cenário é o que descrevemos de seguida.

Todas as 15 publicações de imagem do Iniciativa Liberal cabem no tema “Política Nacional”, confirmando o tom bastante ideológico da sua estratégia de comunicação. Ao descer ao nível seguinte, temos 9 *posts* que se enquadram no subtema “Economia” – sendo que 4 desses 9, onde se incluem os dois com maior *engagement*, pertencem ao código “Setor Público x Setor Privado”. As restantes 6 publicações enquadram-se no subtema “Situacionismo Político”, com duas delas no código “Ética e Política”. No que respeita aos valores da métrica de envolvimento para estas publicações, e recordando que este é o movimento com maior número de seguidores de entre os que estão aqui em análise, situa-se entre 2206 e 43284. Este valor altíssimo é contudo um *outlier* mesmo considerando a prestação da página, pois o envolvimento cai para 5467 na publicação que conquistou o segundo lugar.

Ainda que próximo no que respeita à ideologia política – direita liberal –, o Aliança não poderia ser mais diferente no modo como usou os *posts* de imagem. 13 das 15 publicações inserem-se no tema a que chamámos “Autopromoção”, mesmo que podendo fazer-se de seguida uma distinção mais fina entre *posts* sobre atos de gestão interna, eventos, a divulgação de elementos imagéticos da campanha – caso do que teve maior *engagement*, com a mera apresentação do primeiro cartaz para as eleições europeias –, a própria presença *online* (p. ex. a mudança da imagem de capa), ou a presença nos órgãos de comunicação social. Restam duas publicações que apenas podem ser classificadas em “Diversos”: uma mensagem de boas festas e uma outra sobre o falecimento de um militante e dirigente do partido. Os valores de envolvimento são muito mais baixos do que no IL, variando entre 379 e 1278.

Confirma-se, para o Volt, um maior ecletismo e também uma preocupação mais sistemática com questões do foro internacional, em consonância com a sua vocação europeísta. É certo que 7 dos 15 *posts* são de “Autopromoção”, com particular destaque para a recolha de assinaturas ou outras formas de apoio. É certo também que outros 2 entram em “Diversos” (um de boas festas, um com a nova imagem de perfil). Mas nas 6 restantes publicações temos 2 sobre “Direitos Fundamentais” – aqui se encontrando o que gerou maior envolvimento, em memória do Holocausto –, 2 sobre “Problemáticas Socioculturais”, mais concretamente sobre questões que estavam então em destaque na comunicação social, e que partilham alguma proximidade com a temática dos direitos fundamentais, e 2 sobre “Política Internacional” – uma defendendo a criação de um exército a nível europeu, outra sobre a situação na Venezuela. Previsivelmente, os valores de *engagement* são sempre baixos por comparação com os restantes movimentos, situando-se para o Volt entre 48 e 319.

O Chega, também então ainda procurando recolher assinaturas para a sua legalização enquanto partido político, não escapou a um número significativo de publicações de imagem enquadráveis na

“Autopromoção” (6 para ser mais concreto, mesmo que por vezes tentando deslizar para outros temas, como no caso em que a primeira entrega de assinaturas no Tribunal Constitucional serve como pretexto para defender a prisão perpétua), e em “Diversos” (2). Duas outras publicações entram no tema “Problemáticas Socioculturais” (a situação laboral dos guardas prisionais e o assim chamado “politicamente correto”), pertencendo as restantes 5 a “Política Nacional”. Destas, apenas uma é sobre “Economia”; as outras 4 inserem-se no subtema “Situacionismo Político”, com um viés claro em torno da corrupção e do nepotismo – a publicação com maior envolvimento é sobre o caso, então na agenda da comunicação social, dos familiares na política – e também sobre o populismo (mais concretamente, negando esta acusação e devolvendo-a a outros partidos e movimentos). O envolvimento situou-se entre 514 e 2246, valores ligeiramente acima do Aliança mas muito longe dos do IL.

Já no caso das publicações deixadas na página pelos utilizadores, é necessário salvaguardar que os valores de envolvimento são extremamente reduzidos – entre 1 e 5 –, como que contrariando o que afirmámos acima acerca da estratégia de indiferenciação entre o que é publicado pela página e estes contributos “anónimos”: apenas 16 publicações tiveram algum tipo de reação, e apenas uma delas teve um comentário. Efeito do algoritmo do Facebook, que não dá destaque a estas publicações? Não temos como confirmar. Em todo o caso, consideremos essas 16 publicações, apenas mais uma do que as 15 que constituíram a linha de corte nos restantes casos. 6 são sobre “Política Nacional” (2 sobre “Economia”, ora sobre impostos ora sobre as despesas do Estado; 4 sobre o “Situacionismo Político”, em sintonia com as publicações da página sobre corrupção e nepotismo⁷); 2 são sobre “Política Internacional” (uma delas sobre a Europa, mais concretamente reproduzindo uma teoria conspirativa sobre refugiados; outra de apoio a Bolsonaro); há ainda 3 sobre “Problemáticas Socioculturais” (custo dos empréstimos à habitação, violência doméstica, relatos de pobreza “digna” por oposição a quem supostamente não é merecedor de apoios do Estado), e 5 que cabem no tema “Autopromoção” na medida em que são apoios ao movimento, nomeadamente incentivos às assinaturas para sua oficialização. Aspeto igualmente relevante é o facto de alguns utilizadores serem “repetentes”, contribuindo com mais de um *post* nesta lista.

4. Que palavras?

De forma a compreender se existiam conceitos linguisticamente predominantes nos *posts*, foram verificadas quais as 100 palavras mais frequentes (aglutinando variações gramaticais e retirando palavras com menos de quatro caracteres), recorrendo para esse efeito ao programa NVivo 12. Ainda que o objetivo seja o de, tal como se fez acima apenas para um subconjunto das publicações de imagem, articular estes conceitos com as categorias semânticas, por motivos de espaço apresenta-se aqui apenas uma visão muito geral e superficial dessa análise a empreender, mas que ainda assim consideramos trazer algumas pistas relevantes, e que de modo geral reforçam o que foi encontrado acima.

Os gráficos abaixo [Figuras 2 a 6] sintetizam o que foi encontrado depois de aplicada uma restrição adicional, uma frequência relativa igual ou superior a 0,2% do total de palavras do *corpus*⁸

(e daí que o número de termos varie de gráfico para gráfico), que complementamos com brevíssimos comentários.

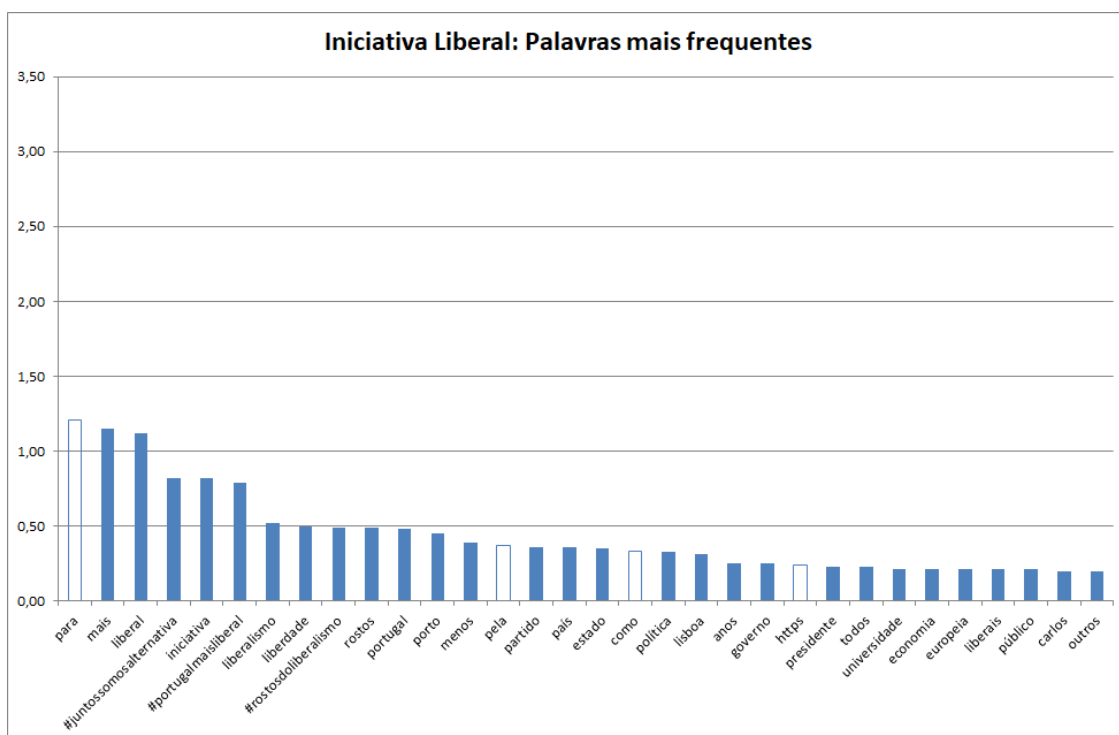
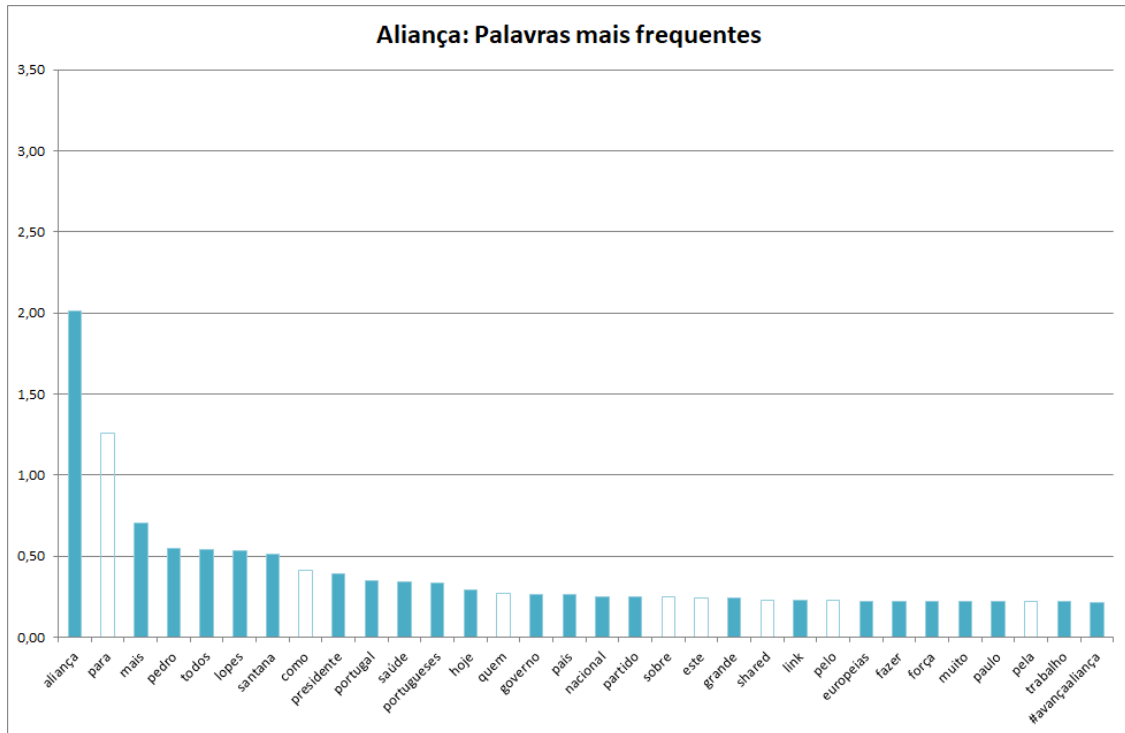


Figura 2. As 32 palavras mais frequentes nas publicações da página do Iniciativa Liberal. (Fonte: Pesquisa dos autores. Período: Novembro de 2018 a Fevereiro de 2019.)

Começando pelo IL [Figura 2], predominam “liberal” (muitas das vezes acompanhado de “iniciativa”, e portanto identificando o nome do partido) e outros termos derivados, além de *hashtags* como “#portugalmaisaliberal” ou “#rostosdoliberalismo”, este último marcando um conjunto recorrente de publicações de imagem com fotos de apoiantes. Além destas, outras palavras como “estado”, “governo” ou “economia” parecem confirmar o carácter ideológico das publicações, que já havíamos mencionado. As referências à Europa estão contudo menos presentes do que se esperaria em período de pré-campanha para as eleições para o Parlamento Europeu, embora nalguns casos as imagens devolvam os *posts* para esse contexto, que assim fica omissos das palavras que os acompanham.



**Figura 3. As 32 palavras mais frequentes nas publicações da página do Aliança.
(Fonte: Pesquisa dos autores. Período: Novembro de 2018 a Fevereiro de 2019.)**

O vocabulário mais frequente do Aliança [Figura 3] confirma também um certo “olhar para o próprio umbigo” – ou aposta na suposta figura carismática do seu líder – que já havíamos notado nas imagens e em menor grau nos vídeos. A palavra “aliança” surge bem destacada, bem como “pedro”, “santana” e “lopes” a identificar o presidente do partido respetivamente como 4.º, 7.º e 6.º termos mais comuns, enquanto “paulo” (de Paulo Sande, o cabeça de lista às europeias) surge muito abaixo, ainda que o seu nome tenha sido anunciado no final do primeiro dos quatro meses que constituem o nosso *corpus*⁹. Talvez os únicos termos, de entre os que ficaram acima da linha de corte, que apontam com alguma fiabilidade para questões ideológicas são “saúde” e “governo”; outros, como “portugal”, “portugueses”, ou “nacional”, são mais ambíguos quanto a esse tipo de uso, carecendo de uma análise mais aprofundada.

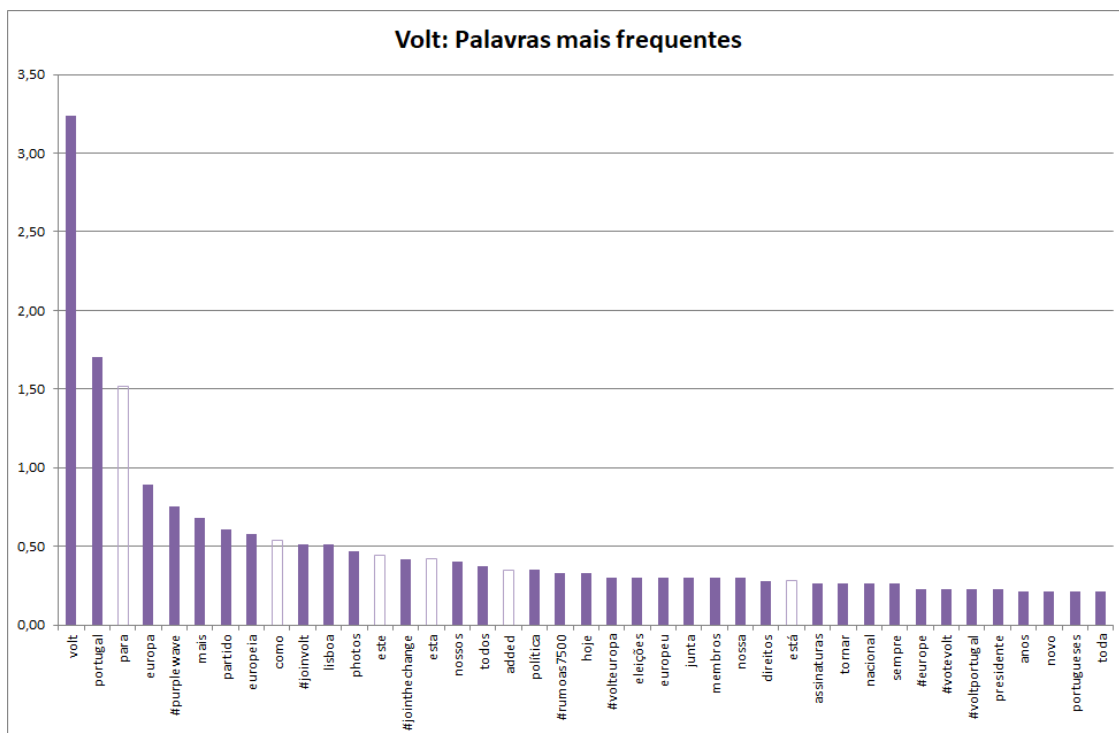
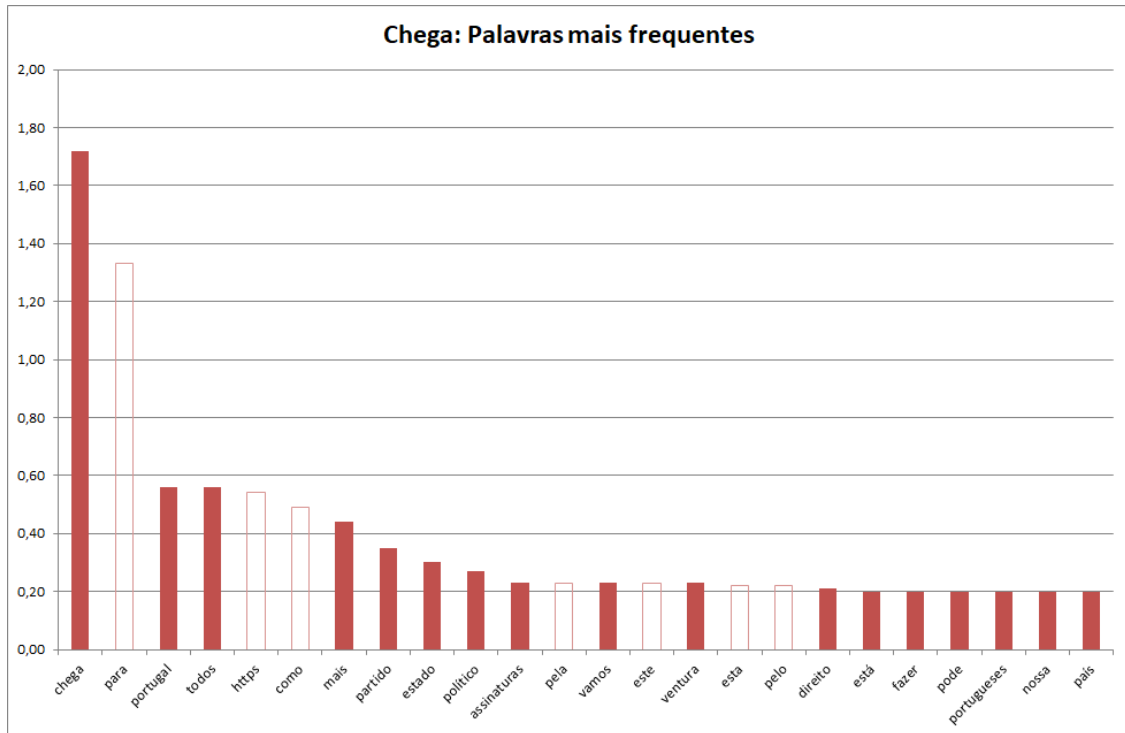


Figura 4. As 41 palavras mais frequentes nas publicações da página do Volt.
(Fonte: Pesquisa dos autores. Período: Novembro de 2018 a Fevereiro de 2019.)

Para o Volt [Figura 4], o número de termos incluídos na lista dos mais frequentes é maior; são 41 em vez dos 32 de ambos os casos anteriores. Isto aponta para uma maior riqueza de vocabulário, que apenas em parte é contrariada pela liderança destacada de “volt” como termo mais comum, com os restantes mais uniformemente distribuídos. “Portugal” e “europa” surgem logo a seguir, o que é coerente com o europeísmo de que o movimento se reclama, e é também de assinalar a presença de diversas *hashtags*, sendo “#purplewave” a mais utilizada. Algo previsível a ocorrência de “assinaturas”, pois a recolha de subscritores para a legalização enquanto partido era uma das prioridades durante este período – cf. também a *hashtag* “#rumoas7500”.



**Figura 5. As 24 palavras mais frequentes nas publicações da página do Chega.
 (Fonte: Pesquisa dos autores. Período: Novembro de 2018 a Fevereiro de 2019.)**

No caso do Chega [Figura 5], optámos por não diferenciar entre as publicações da página e as dos utilizadores. Ainda assim, ocorre o oposto do Volt no que respeita à quantidade de termos dentro do intervalo que delimitámos: são apenas 24 – 17 se excluídas as *stopwords* –, denotando um vocabulário mais pobre. O termo “chega”, usado quer enquanto interjeição quer como identificador do movimento, é o *outlier*, e quanto aos restantes, predominam palavras ambíguas quanto ao posicionamento político, como “portugal”, “portugueses” ou “estado”, cuja interpretação carece de uma leitura no seu contexto. De referir ainda a presença de “assinaturas” (pela mesma razão invocada a propósito do Volt) e “ventura”, identificando o líder do movimento.

O próximo e último gráfico [Figura 6], que aglutina as palavras de todas as publicações das quatro páginas, permite ainda aventar algumas inferências adicionais. Quando a barra tem a cor de cada um dos gráficos anteriores, significa isso que o termo em questão é usado exclusiva ou quase exclusivamente pelo movimento respetivo: é o caso de “chega”, “iniciativa” e “liberal”, “volt”, e “aliança” que dispensam qualquer comentário além da confirmação da interjeição “chega” como palavra insistentemente usada. A verde surgem termos usados de modo indiferenciado por todos, caso de “portugal” e curiosamente “mais”. E por fim, a cinzento, termos que apenas passam a linha de corte para duas ou para três páginas, o que também permite encontrar algumas “afinidades eletivas”: “estado” é comum ao Chega e ao Iniciativa Liberal; “política” e “lisboa” ao IL e ao Volt¹⁰; “país” comum a todos exceto Volt; e “portugueses” comum a todos exceto IL.

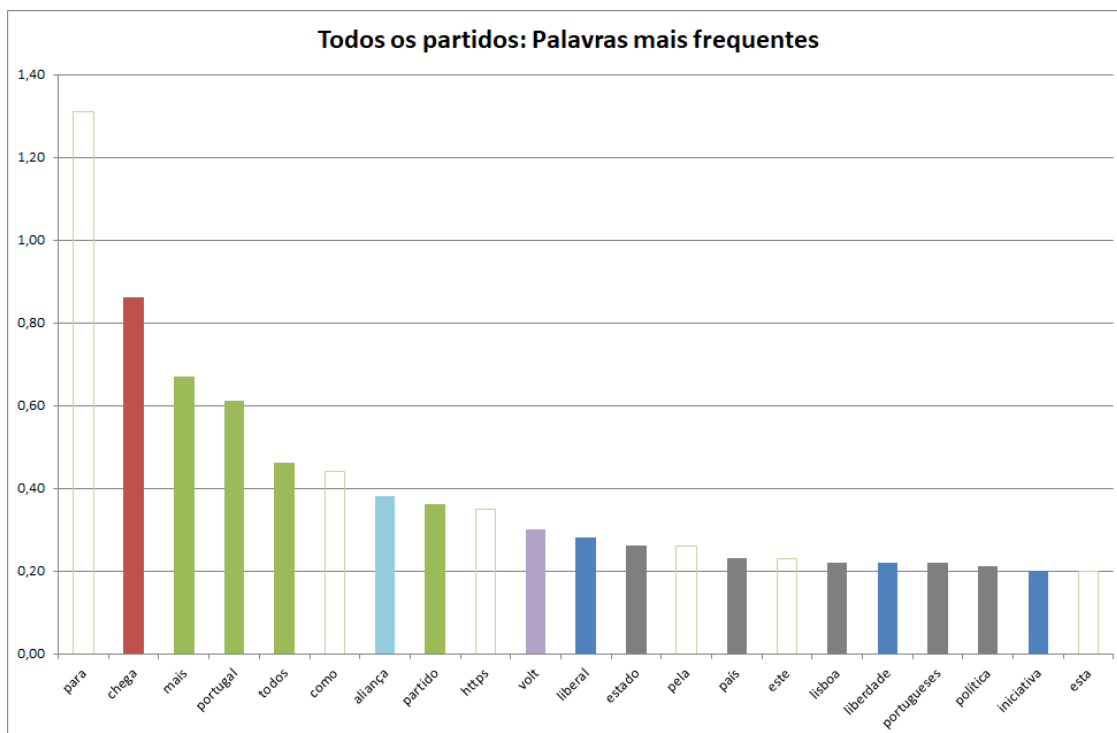


Figura 6. As 21 palavras mais frequentes nas publicações, consideradas todas as páginas.
(Fonte: Pesquisa dos autores. Período: Novembro de 2018 a Fevereiro de 2019.)

5. Conclusões

Repetindo-se a ressalva de que os resultados desta leitura têm um carácter provisório, e que portanto carecem de uma análise mais aprofundada para que possam verdadeiramente considerar-se conclusões, ainda assim é possível resumir os *insights* que dela emergiram.

A primeira tendência global é o forte recurso a *posts* de imagem, embora se deva acrescentar que são muito raros os casos -- quase todos do Volt -- em que essas imagens não vêm acompanhadas de texto. Este é, de forma esmagadora, o tipo de publicações mais comum do IL, e nos restantes casos ocupa sempre uma fatia significativa do total. Nos casos em que não é este o tipo mais comum de publicação, esse lugar é ocupado pelos *links*, exceto no caso das de utilizadores na página do Chega.

Essa é, aliás, uma outra diferença a assinalar: apenas este movimento permite essa possibilidade, dando a ilusão de maior abertura à palavra do cidadão comum, mas em contrapartida essas publicações raramente despertam o envolvimento (reações, comentários e partilhas) dos seguidores da página.

No caso dos *posts* de vídeo, predomina um uso que classificáramos como "institucional", isto é, publicam-se quase exclusivamente vídeos oficiais de cada movimento, com pontuais partilhas de notícias da comunicação social. Não se registam diferenças significativas, seja na quantidade relativa de publicações seja no seu conteúdo, entre cada um dos quatro movimentos analisados, sendo de novo a exceção os que são partilhados pelos utilizadores do Chega.

Relativamente às ligações, regista-se também alguma uniformidade na estratégia global, que consiste em privilegiar *links* para páginas dos seus *sites* oficiais ou para notícias (na maioria dos casos sobre o partido ou movimento) nas edições *online* de órgãos de comunicação social. A variação torna-se contudo mais manifesta quando atentamos na escolha destes, podendo aqui propor-se a hipótese de um enviesamento que resulta de se privilegiar, de modo mais evidente nos casos do IL e do Chega, aqueles cuja matriz ideológica é a mais afim à do próprio movimento: O *Observador* para o IL, o *Correio da Manhã* para o Chega. O Aliança é menos seletivo, inclusive verificando-se uma presença comparativamente maior de jornais regionais, enquanto o Volt alarga estas ligações a meios de comunicação estrangeiros. Ligações para blogues e outro tipo de *sites*, embora ocorram, são raras, exceto no caso do Chega -- quer em publicações da página quer nas dos utilizadores --, a única situação em que se identificam os chamados *sites* de *fake news*.

Regressando às imagens, mais concretamente àquelas que geraram maior envolvimento, podemos traçar uma divisória entre o uso destas para abordar temas mais política ou ideologicamente vinculados -- o Iniciativa Liberal fá-lo em exclusivo; o Volt e o Chega com maior moderação -- e um uso mais fático ou autopromocional -- aqui é o Aliança que o faz em exclusivo; Volt e Chega fazem-no também, em boa parte devido à necessidade, durante esse período, de mobilizar os seus seguidores para que ajudem a oficializá-los enquanto partidos através das suas assinaturas. Tratando-se de um intervalo temporal que poderíamos classificar como já de pré-campanha para as eleições europeias, os grandes ausentes destas publicações parecem ser os temas ligados à política internacional, salvaguardando-se o caso do Volt, que procura trazê-los para a sua agenda.

Por último, a análise às palavras mais frequentes tende a confirmar o que foi sendo dito acima, em particular o que acabámos de recordar no caso das imagens: é rara a presença de termos que denotem a discussão de questões diretamente relacionadas com a União Europeia (com o Volt a fazer algum esforço no sentido contrário), ou mesmo com a política e economia nacionais (estando aqui o IL na contracorrente). No caso do Aliança, é de assinalar que, tendo uma outra página destinada a promover o seu cabeça de lista a estas eleições, são praticamente inexistentes as republicações de *posts* dessa página -- apenas duas no período analisado.

A haver, mais do que uma conclusão final, uma hipótese resultante deste trabalho que permita traçar futuros caminhos de pesquisa, arriscaríamos dizer que todos estes movimentos delineiam uma estratégia de comunicação nas plataformas de redes sociais que procura ir ao encontro do seu público, ou -- o que é uma hipótese muito mais interessante mas também mais difícil de operacionalizar¹¹ -- de um "público imaginado". Isto é, trata-se muito menos de tentar converter eleitores indecisos do que confirmar, para aqueles que constituem o universo de seguidores das respetivas páginas, uma identidade (do partido ou movimento) e uma afinidade (entre este e os seus seguidores) que lhes são anteriores. Numa situação limite, como parece ter sido o caso do Aliança, através dum quase silêncio relativamente a essa identidade, que assim é tacitamente assumida; nos outros manifestando-se de forma mais aberta: o europeísmo do Volt, o ultraliberalismo (se não

mesmo libertarianismo) do Iniciativa Liberal, e o populismo-que-se-recusa-reconhecer-se-nessa-palavra do Chega.

Apoios

Este artigo, bem como a comunicação que esteve na sua origem, apresentada no Departamento de Comunicação e Artes da Universidade de Aveiro por ocasião do Internet Day, resulta de investigação produzida no contexto do projeto de investigação PINBook PT: Redes de Participação Política no Facebook Portugal (PTDC/COM-CSS/28269/2017), financiado pela Fundação para a Ciência e a Tecnologia.

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¹ Cf., entre outras notícias na comunicação social, <https://www.publico.pt/2019/04/10/politica/noticia/tribunal-constitucional-accita-partido-chega-andre-ventura-1868715> (última consulta a 16 de Maio de 2019).

² Cf. <https://www.tsf.pt/politica/interior/assinaturas-do-chega-sob-suspeita-de-falsificacao-havia-subscritores-com-8-e-114-anos-10834602.html> (última consulta a 16 de Maio de 2019).

³ Não deixa de ser curiosa esta inconstância. Nos casos em que há um canal do YouTube, que pode ser duplicado como vídeo via Facebook, por que motivo ora é usada uma plataforma, ora a outra?

⁴ Facto que não pode passar sem ser assinalado: há apenas duas ocorrências de partilha de publicação originalmente dessa outra página.

⁵ Cf., entre outras peças jornalísticas no *Diário de Notícias* sobre o tema, da autoria de Paulo Pena, <https://www.dn.pt/edicao-do-dia/21-out-2018/interior/como-funciona-uma-rede-de-noticias-falsas-em-portugal-10046731.html> (última consulta a 16 de Maio de 2019).

⁶ Ver os agradecimentos no final do texto.

⁷ Destacamos uma citação – adaptada e descontextualizada, mas não apócrifa – de Platão, sobre o ser-se governado por maus políticos como consequência da indiferença perante a política.

⁸ Acrescente-se que, além desses três critérios de corte (a frequência absoluta, a frequência relativa, e o número de caracteres), não foi – propositadamente nesta fase – introduzida uma lista de *stopwords*, isto é, de termos sem relevância semântica (preposições, artigos, etc.). Nos gráficos, identificam-se esses termos ao deixar as respetivas barras sem preenchimento.

⁹ Cf. <https://sicnoticias.pt/pais/2018-11-30-Paulo-Almeida-Sande-e-o-cabeca-de-lista-do-Alianca-as-europeias> (última consulta a 16 de Maio de 2019).

¹⁰ Mas “lisboa” é-o por motivos distintos. No caso do IL em contextos diversos, referindo-se a eventos, apoiantes, candidatos, e pelo menos num caso criticando a medida alegadamente centralista de redução nos valores dos passes sociais; no caso do Volt maioritariamente indicando locais de recolha de assinaturas, e num dos *posts* referindo-se ao Tratado de Lisboa.

¹¹ Uma análise aos comentários permitiria talvez confirmar essa e outras suspeitas, mas terá de ficar para ocasião futura.

Rhyme Schemes

Jeffrey Bardzell
Indiana University
jbardzel@indiana.edu

Abstract

What “rhyming” gives us is an approach to establishing a serious basis of comparison between two seemingly unrelated thought systems. This comparison forms a basis for cross-pollinating nuances, applications, criticisms, and extensions of those ideas.

Keywords: *rhymes, design, theory, interaction, HCI*

Wicked Definitions: A Rhyme

In 1973, Horst Rittel and Melvin Webber published what would become a classic paper in design theory, “Dilemmas in a General Theory of Planning.” Looking at a range of public crises concerning social policy—from protests against racism, student protests, and war protests—the authors observe that some social problems have clear definitions and solutions, while others do not. In the former category are expectations that a government can provide clean water to homes and other buildings. The latter category includes agenda-setting at the level of national policy and with it the specification of desired outcomes. Such problems seemed almost intractable; stating what the social problem is, is part of the problem itself.

This line of reasoning led to the most enduring contribution of the paper, which revolved around the authors’ claim that “Planning problems are inherently wicked.” From there, the authors developed a theory of “wicked problems” that has influenced many fields ever since. They offer several distinguishing criteria wicked problems: they cannot be formulated, have no stopping rule, no “ultimate” way to test their solution, no room for trial-and-error, and so on. Matters of social policy, particularly those connected to social justice and equity, are wicked problems, and the problem-solving mentality of many policy experts was a poor fit to such problems, the cause of policy failures, and the underlying reason for the public’s loss of faith in governance.

A little over 15 years earlier in a completely different academic field, the philosopher Morris Weitz (1956) was wrestling with the problem of how to define art. The primary job of art theory, he believed, was to provide a definition of art—that is, the necessary and sufficient conditions of identifying a work as art—as the basis of any further appreciation or critique of art. But as he surveyed recent historical efforts to define art—significant form, aesthetic attitude, and organicist theories—they all seemed to fail. They were too narrow (excluding works that we commonly call art), too broad (including non-art), not subject to verification or falsification, and so on, leading Weitz to conclude, “Aesthetic theory—all of it—is wrong in principle in thinking that a correct theory is possible” (1956, p.410).

It was entirely a coincidence that I read these two papers back to back. I read them for two different research projects I was working on at the time. And there is no reason to believe that Rittel and Webber had ever heard of Weitz's work, or vice-versa. I've never seen anyone link them together in art or design theory. But as I was transcribing my notes on Weitz from the book margins to a separate research diary, representing Weitz's ideas with simple schema, my hands seemed to be tracing the same figures that they had been two hours earlier for Rittel and Webber.

Both groups of authors started from the assumption that inquiry concerns could and indeed must be defined as a prelude to actual work and as the basis of any evaluation of their success. Further, both had inherited disciplinary histories where the theories had clearly failed. And in response, both made the same move: they proposed a view that such definitions were impossible. Both then offered an account of why the definitions were impossible—in both cases pointing to the intrinsic complexity of open systems. For Rittel and Webber, there was complexity in deciding where to place a highway—it was a hard decision to undo; for Weitz, there was complexity in defining the “novel” when one of the criteria by which we judge novels is whether they transform what we think the novel is and does. Rittel and Webber concluded that a unified notion of the “American way of life” as a basis for policymaking was fundamentally flawed, while Weitz rejected any unifying theory of art on the same terms. And both groups of authors then offered alternative views with practical professional implications for their respective fields.

The previous paragraph is an example of what I'm calling a rhyme. What I'm trying to capture with this is more than surface affinity; I believe that each group of authors is confronting a substantially similar problem (i.e., the failure of the present belief in unifying definitions/problem frames) with a substantially similar approach (i.e., to reframe the problem away from providing an even better unifying definition/frame towards an account of why such a frame is impossible), and a substantially similar agenda for moving forward (i.e., to conduct inquiry in a way that makes no effort to pin down a problem and its success criteria as foundational). And while both groups of authors are from different disciplines and were almost certainly not directly influenced by each other, they share this much: both sets of authors can be seen as responding to the failed agendas of modernism in mid-twentieth-century American thought.

What “rhyming” gives us is an approach to establishing a serious basis of comparison between two seemingly unrelated thought systems. This comparison forms a basis for cross-pollinating nuances, applications, criticisms, and extensions of those ideas. For example, Weitz argued that art is an open concept, and he proposed that we attend not to what art *is* but what the use of the word “art” *does* in language. Who uses the word, and in which situations, and for what purposes? Weitz argues that while art theories and definitions ultimately fail to define art, where they are successful is in encouraging others to attend to some dimension of art that had hitherto been neglected. It becomes possible to transfer that reasoning to Rittel and Webber's thinking: perhaps a design problem is also an open concept, and design researchers might better attend to the conditions under which the term is used—are they likewise used to call attention to neglected dimensions of the situation, or for some other reason? Moving in the opposite direction, we can ask whether the ten criteria that Rittel and Webber

use to identify “wicked problems” can in some way elucidate the nature and consequences of an open concept of art. What does it mean for practice, for example, if we grant that a theory of art has no ultimate test or proof?

Another benefit of the rhyme formulation is that it avoids reducing one to the other. In this example, we don’t have to claim that Weitz was really engaged in “design thinking” or that Rittel and Webber were “really” aesthetic philosophers. That is, rhyme leaves enough space for the concepts to depart from each other. This is important in fields like design, where liberal borrowings from the sciences, arts, and humanities do not mean that design can be reduced to or explained by them. It provides a means to challenge the tendency of disciplines to try to colonize each other.

I believe that the explication of rhymes is useful now, at a time when many design disciplines and institutions are under pressure to produce research like more traditional academic fields. But whether design research seeks to walk and talk like a science (as in the design science movement and more recently in fields like human-computer interaction) or as if it were its own intellectual universe (with its own epistemology (Cross, 2006; Dorst, 2015), how design researchers understand “theory” (Redstrom, 2017) and research methods such as “practice-based design” and “research through design” remains unclear.

My own point of view is that design needs to walk a line between recognizing and building on its scientific, artistic, and humanistic genealogy and establishing its own identity apart from them. And thus the rhyme’s ability to establish substantial affinity without asserting identity seems apt to me. I’d like to share two more rhymes in this piece to talk about how I see them as making headway in design theory.

Rhyme 2: The Poetics of Experience Design

The first connects to a controversy a few years ago in the design community concerning experience design. Experience design by this time had become a major industry buzzword and was also shaking up the HCI community (see, e.g., McCarthy & Wright, 2004). By reframing usability into user experience, interaction designers were widening the scope beyond functionality to integrate issues of lifestyle, meaning, and more. Yet there were also efforts to try to engineer experiences, that is, for designers to exert a form of control where they were literally trying to design experiences, rather than interfaces. There was a political notion of domination and control embedded in the idea of designing experiences that rubbed some the wrong way. For instance, Jon Kolko wrote in 2009,

“The supposed new model is to design something for a person to experience, yet the allusion to experience is only an empty gesture. An experience cannot be built for someone. Fundamentally, one has an experience, and that is experience is always unique.”¹

Many other blog posts came out shortly thereafter making very similar arguments. Here is Helge Fredheim:

¹ From: <http://www.jonkolko.com/writingBrandUX.php>

“Many designers label themselves “UX designers.” This implies great confidence in the capabilities of the designer; it suggests that the user experience can be designed. But [...] we cannot do this. **Instead, we can design for UX.** We can design the product or service, and we can have a certain kind of user experience in mind when we design it.”²

These counterarguments are both reasonable and politically appealing as well. And yet as I read them, I thought about Hollywood blockbusters, Pixar, and Disney—all seem to cause millions of people to laugh, to gasp, to sit on the edge of their seats at precisely the same moments, and also to cause the vast majority of them to report back a certain kind of overall positive experience. There’s no mind control there, and it’s easy to imagine an individual who is the exception to these reactions, but still—aren’t these movies a kind of evidence that people can, in fact, design experiences?

The objection to the “we can design experiences” argument seemed to hinge on a distinction between the subjective and the objective. The idea is that we can design interfaces, movies, spaces, and so on (all objective) but that experience is located in the subjective (“one has an experience” in Kolko’s words), so all we can do is “design *for*” experience. What troubled me about this formulation is that it seems to be too pure, to raise the standard of designing experience beyond what we ordinarily mean by those words. It puts too much in the eye of the beholder. It seems to imply that hundreds sitting in a theatre simultaneously burst into laughter by coincidence.

A way out of this puzzle is to reconstrue the links between the object and the subject in creative acts. This is what Lim et al. (2007) attempted to do with the notion of an “interactive gestalt.” The paper is “an attempt to develop an understanding of interaction as its own distinctive entity, something emerging between a user and an interactive artifact.” They continue,

“We believe that existing approaches [...] have a large gap between use qualities and artifact properties which designers need to bridge. We argue that this gap is what makes interaction design unclear and difficult in terms of forming aesthetic interactions.”

The subject/object distinction (i.e., between artifact properties and use qualities) is one that seems to require “bridging.” On the object side are “artifact properties such as size, texture, weight, layout, arrangement, and structure,” and on the subject side are “user experience qualities such as pleasantness, fun, ease-of-use, and affect.” So far, they have replicated subject/object distinction that underlies the claim that user experiences cannot be designed. But they propose the concept of “interaction gestalt” as a third entity, something which can be designed, and that incorporates both artifact and use qualities within it, using notions like “shaping.” That is, designers can shape interaction gestalts by shaping objective qualities (textures, weights, layouts, and structures) and subjective qualities (stories, emotional trajectories, and a sense of fun).

On the one hand, it seems as though developing a new conception of “interaction” as a concept that somehow transcends the subject/object distinction is a very difficult, even metaphysical task. But if it can be done, it can explain with some strength and nuance how it is that designers do, and do not,

² Bold in original. From: <https://www.smashingmagazine.com/2011/03/why-user-experience-cannot-be-designed>

“design experiences.” By finding the common ground of “shaping” Lim et al. appear to have done just that.

But of course, this was not the first time I’ve heard “shaping” used in this way. As an undergraduate, I read Jerome Stern’s *Writing Shapely Fiction*, which treats creative writing as a kind of craft that gives shape simultaneously to novelistic words and readerly experiences. And echoed more deeply in that is one of the earliest and most influential works of literary criticism and aesthetics: Aristotle’s *Poetics*. In it, Aristotle writes,

“Let us discuss the art of poetry, itself, and its species, describing the character of each of them, and how it is necessary to construct plots if the poetic composition is to be successful, and furthermore the number and kind of parts to be found in the poetic work.” (*Poetics*, I, 1447a, 1981)

His project is to specify how the parts of poems are composed into the different types of poems. But he doesn’t stop there, as this canonical passage in which he defines tragedy makes clear:

“Tragedy is, then, an imitation of a noble and complete action, having the proper magnitude; it employs language that has been artistically enhanced by each of the kinds of linguistic adornment, applied separately in the various parts of the play; it is presented in dramatic, not narrative form, and achieves, through the representation of pitiable and fearful incidents, the catharsis of such pitiable and fearful incidents.” (*Poetics* VI, 1449b, 1981)

Most significant for our purposes is the last part, what tragedy (understood as a composition of parts) “achieves,” and that is catharsis. *Catharsis* refers to a specialized kind of emotional purgation that is an outcome of experiences of tragic resolutions of pity or fear. In other words, Aristotle directly links what we might call objective qualities (i.e., the structures and elements of a tragic play) with what we would call subjective qualities (i.e., emotional states and even a distinctive type of experience: catharsis). Translating Aristotle into a design idiom, we might say that tragedians design experiences of pity and fear that result in catharsis.

With very little editing, it is possible to express the rhyme between Aristotle and Lim et al. using their own words:

“Tragedy is, then, an imitation of a noble and complete action, having the proper magnitude; it employs language that has been artistically enhanced by each of the kinds of linguistic adornment, applied separately in the various parts of the play; it is presented in dramatic, not narrative form, and achieves, through the representation of pitiable and fearful incidents, the catharsis of such pitiable and fearful incidents.”

(*Poetics* VI, 1449b)

“Interaction gestalt [is, then, understood] in relation to [an] interactive artifact, which can be described by artifact properties such as size, texture, weight, layout, arrangement, and structure [, and] user experience, which can be described by user experience qualities such as pleasantness, fun, ease-of-use, and affect”

(Lim et al., pp. 145-6)

In short, Lim et al.'s difficult metaphysical project (to define "interaction" in a way that overcomes the subject/object divide) is here connected to a tradition of scholarship that goes back to the ancient world: poetics. This scholarship not only includes other attempts at offering a poetics, but also entire traditions of critical commentaries about those attempts.

The parochial question of whether interaction designers can design experiences becomes a new manifestation of how humans construct aesthetic works intended to achieve experiential qualities. By treating this as a question of "poetics," rather than a *sui generis* question unique to design, designers gain access to all that we have learned about poetics from a tradition spanning back well over two millennia. Instead of an unproductive debate about whether we can "design experience" or merely "design for experience"—does the pronoun really change anything? - we can reposition the debate in a much more theoretically rich space by linking it to poetics. Yet because interaction design merely rhymes with that tradition (i.e., it is not reducible to it), interaction design also has the potential to extend, critique, and transform poetics as well, much like scholars of film did nearly a century ago.

Rhyme 3: Variations on Themes

The final rhyme I will present came most recently in my work, and it was the first time I started to think of these specifically as "rhymes." Recently appointed as director of a graduate program in HCI/design, I was finding myself needing to explain concepts like "design thinking" to prospective students and their parents, not as a researcher but as someone trying to attract people to his program! Kees Dorst had just published his book *Frame Innovation* (Dorst, 2015), in which he offers a synoptic account of design thinking targeted at a fairly broad audience, and I turned to it for help in articulating what a professional Master's of Science in HCI/design was good for.

In one chapter, Dorst presents design thinking as unfolding across five steps:

1. **Problematic situation**, which is the starting point of design and includes understanding previous attempts to resolve it and trying to figure out why they failed
2. **Thematic analysis**, which entails understand the underlying universals (e.g., needs) at work in the situation
3. **Frame generation**, the core of Dorst's book, which entails proposing new organizational principles and new ways of seeing the situation
4. **Solution proposals**, which are concepts, designs, directions, and so on within the new frames that can improve the situation
5. **Pattern retention**, which refers to retaining the knowledge gained through design activities.

Reading this mainly as a teacher, I was primarily concerned at the time with whether I could explain each of these steps to students, develop good assignments around them, and so forth. And for each of the five steps I could, except for one: thematic analysis.

What Dorst writes about thematic is comparatively short. Here I excerpt liberally from two key sections of the book, starting with how Dorst defines thematic analysis, including its contents and intended outcomes.

“In theme analysis, we identify and seek to understand the deeper factors that underlie the needs, motivation, and experiences of the [stakeholders]. [...] Expert designers move away from the problem situation toward the human dimension [...] The universal themes that drive the patterns of human behavior are manifold: they include the need to develop an identity, to feel at home, to deal with the loneliness that is an inseparable part of the human condition. [...] Themes are a tool, a form of capturing the underlying phenomenon in a situation one tries to understand. [...] A theme analysis ends with an understanding of the “universal,” a selection of themes that are relevant to the problem situation on the deeper level at which [stakeholders] have much in common. Because these universals are hidden beneath the surface of our everyday (professional) lives, it can be quite difficult to make them explicit. [...] But for the process of frame creation to work, the themes have to be very explicit.” (Dorst, 2015, pp. 65-66, 77)

Key in this passage is the use of two metaphors: one of surface and depth, and the other of universals. The idea is that on the surface a situation presents particulars, but we can also read how they reflect universal needs, desires, and experiences. This sounded exciting, but I was curious about how designers *do* this. In this respect, I found Dorst to be somewhat vague and not very actionable.

“What the expert designers engage in is a subtle process of theme analysis that is very close to the practices used in “hermeneutic phenomenology.” [...] The elaborate methodologies that have been developed in hermeneutic phenomenology work through a process of filtering the texts or descriptions of experiences, finding patterns, and filtering these again until a core insight is achieved. The themes described in phenomenology are typically both deeply personal and universal. [...] But whereas in hermeneutic phenomenology, philosophers seek to reach a deep understanding of the human experience that underlies a text (hence “hermeneutics”), designers are interested in “reading” a problem situation.” (Dorst 2015, pp. 66, 77)

I’m inclined to view Dorst as introducing a rhyme of his own here, claiming that the phenomenological hermeneutics of philosophers rhymes with designers’ interpretation of a problem situation. So far so good. The problem is that Dorst only very generally describes what phenomenological hermeneutics scholars do—his phrase “elaborate methodologies” seems to suggest that explaining it is out of the scope of the book. While an account of how a philosophical approach does this work is out of scope of the book, Dorst unfortunately stops short of offering an account of what designers do when reading a problem situation. In short, this part of Dorst’s account came across as not very actionable and certainly not teachable—and I say that as someone with training in phenomenological hermeneutics. Yet it was hard for me to imagine taking the next step, frame generation, without a strong thematic analysis. I hunted around elsewhere in the same book and then turned to other recent design theory for an answer, and I came up short.

Sometime around that point, I sheepishly realized that I had gone through a doctoral education in literature, where analyzing themes was foundational training. I realized that one doesn't need to turn to advanced scholarly methodologies like phenomenological hermeneutics, since even an undergraduate manual will cover it. Initially, I turned to some handbooks on analyzing themes in literature and art, and from there I turned to scholarly work on theme in literary studies and philosophical aesthetics. Suddenly, I had more explanations and debates than I needed. These provided a level of theoretical granularity that vastly opened up for me whole new avenues of theorizing and teaching this aspect of design thinking.

What I had found, of course, was a rhyme. It was also the first time the rhyme metaphor had occurred to me, and it would later shape how I pursue and characterize my own theory work in design, becoming something of a research methodology for me. But first, let me lay out the rhyme. Theorists of literature describe "theme" as follows:

"[Themes] provide unity and value in the work beyond the immediacy of the subject, inviting reflection on matters of more universal human concern." (Lamarque, 2009, pp. 136-7)

"A theme is what a literary work is about, at a more or less general, abstract level. This notion of about-ness typically carries with it the further idea that themes articulate what works are 'significantly or importantly about.'" (Brinker 1993, cited in John, 2016, p. 205)

Both of these definitions cohere with Dorst's account of what a theme is (a universal) and does (integrates and contributes to the overall sense of a situation). The first quote integrates the surface/depth metaphor while the second uses a paraphrase of it (concrete/abstract), and both quotes appeal to the notion of universals. I've established a basis for viewing this as a rhyme. Now, to its payoff.

In literary theory and philosophical aesthetics, considerable theorization of "theme" has been developed as a result of centuries of interpretative practice. This adds some granularity, some distinctions, that one can't find in Dorst or anywhere else in the design literature that I've seen. I will sketch a few examples for their suggestiveness, though it is out of the scope of this piece to develop them at length.

Although themes are typically referred to as universals, universals can be represented both as concepts and also propositions. For example, "pride" is a concept, while "pride comes before a fall" is a proposition. The first nuance is the question of what themes *are*: concepts or propositions? Peter Lamarque characterizes themes as concepts, saying that themes in the works of William Shakespeare include

"concepts such as (of *MacBeth*) "evil," "inhuman and supernatural," "fantastical and imaginative," or (of *Lear*) "catastrophic redistribution of power and property," "laws of human kindness," or (of *Othello*) "male modes of thought and behavior", "feminine values"." (Lamarque, 2009, p. 150).

Each of the above concepts is expressed grammatically as a noun phrase (i.e., there is no verb). Philosopher of art Eileen John likewise views many themes as concepts, but she then extends themes to also include propositions:

“It seems that theme, as paradigmatically a type of general content, can take the form of a concept (or complex of concepts), such as ‘the boundary of consciousness’ and ‘the pure but transient vision’ (Frye 1957, pp. 57, 61), or of a proposition. Henry James’ works are said to hold the theme that ‘you cannot have both [moral and worldly beauty] at the same time’ (Wilson 1963: 68) or similarly that ‘a man has to sacrifice his gods to his passions or his passions to his gods’ (Conrad 1963: 15).” (John, 2016, p. 206)

The difference is not merely grammatical. Themes as concepts “can be thought about or dwelt upon, but [they are] not something that can be called true or false” (Beardsley, 2981, p. 404). In contrast, propositions can be evaluated as true or false.

This distinction is relevant to design, as we can see by returning to Dorst. In both the theory section and throughout his many case studies, Dorst only appeals to themes as concepts, never as propositions. Yet propositional themes have at least the potential to be linked to more scientific modes of thinking, because they are more easily falsified. That is, it is possible to translate proposition-based themes into research for design hypotheses as well as into evaluative measures. At a minimum, this distinction introduces a more nuanced way of accounting for and developing design practice, insofar as it conducts thematic analysis.

A second nuance from the theory of themes has to do with what themes *do*. Eileen John synthesizes the literature to suggest that themes have both internal and external functions. Internally, themes unify/integrate a work. They can do so in numerous content-dependent relations: “contrast, exaggeration, framing, reinforcement, undermining, complicating, distinguishing, and so forth” (John 2016, p. 208). Beyond merely unifying the work, there is “the specific deepening or thickening of meaning that theme brings to a given work” (John 2016, p. 208). This account introduces two forms of granularity to thematic analysis: that themes can be expressed through contrast, exaggeration, complicating, and so forth, and that themes contribute to the “thickening of meaning.” Given Dorst’s characterization of design problem situations as “paradoxes” and as resisting prior attempts at resolution, linking themes to the “thickening of meaning” both helps to explain why thematic analysis is a powerful design tool and also offers insight about how to do it.

Themes’ external functions are also of interest. John identifies two such functions. First,

“Theme with its general content can be ‘a semantic point of contact between the individual text and other texts,’ able to link works across a writer’s oeuvre and to link literary and non-literary texts of all kinds (Brinker 1993:26; Perkins 1993; Lamarque and Olsen 1994:398-439). [...] Lamarque and Olsen speak of ‘perennial themes’ that are returned to again and again in literature and that come to have, partly through their literary treatment, a standing importance in a culture (Lamarque and Olsen 1994).” (John, 2016, pp. 406-8).

Dorst's final step in his model of design thinking is documenting design patterns and similar design outcomes for future application to similar future problems. The ability of themes to cut across instances can very easily be seen as a basis for such applications. The second external function of themes John identifies is as follows:

"The other external relation highlighted in discussions of theme is the text's or the author's relation with the reader. [...] It seems on [literary theorist Northrop Frye's] account that awareness of theme involves the reader's sense that thematic content is being offered by someone with particular dispositions and sensibilities." (John, 2016, p. 209)

Themes help tie readers to works through an interpersonal connection: the reader understands the themes as expressions of an individual's (e.g., an author's or narrator's) dispositions and sensibilities. Philosopher of literature Olsen writes that theme "emerges through the reader's constructive labour. There is no theme for the reader who is unwilling or unable to engage in this constructive labor" (Olsen 1987: 176). To carry out the rhyme: themes help tie designers to problem situations by mediating designers' connection to the dispositions and sensibilities of stakeholders of the problematic situation. There is a word for that, and it is a buzzword in contemporary design discourse: empathy. But the themes are not simply "found" in situations; they are the result of a kind of skilled and intentional labor—and the discovery and analysis of themes is a practical mechanism by which empathy is achieved.

Now I'd like to switch directions to move from Dorst's thinking back to art and literature. I do so because I read Dorst as making some observations about themes that could illuminate themes in art, indeed, even helping to legitimate the humanistic study of the arts at a time when they are under attack. One of the themes that Dorst discusses is the concept of *friction*:

"the theme of "friction" began to emerge as a bridge between the human and the technical realm. This theme opened up a rich conceptual field, as "friction" can describe both a traffic flow blockage and the human feeling of being held back from what you want to achieve. Using the word "friction" allows us to become more subtle in our thinking, realizing that blockages may be beneficial, even pleasurable. [...] These concepts that bridge the human (cultural) domain and the technical or economical realms can be inordinately useful as themes." (Dorst, 2015, p.77).

Dorst has proposed a criterion of successful frames—that they can bridge the cultural, technical, and economic domains—that coheres with the notion that themes serve external purposes. Here Dorst has specified a different external purpose than what was found in the aesthetics literature. Whereas the aesthetics literature addressed the ability of themes to link different works or authors together, Dorst has proposed that themes can serve as a kind of boundary object between cultural, technological, and economical realms. It is easy to see why this would appeal to a designer, who in many cases is responsible for all of these realms. But it also suggests that artistic works, not just designs, can do this work. In an era where the fetishization of STEM is marginalizing the arts and humanities, here is a professional practice—design—making the case for the vitality of the arts, if only society engages in its "constructive labor" of pursuing empathy.

Thickening Theories' Meanings

I have watched debates unfold in HCI about the complex relations among design practices, designed artifacts, and knowledge production since I became active in the community in the mid-2000s: research through design, critical and speculative design, constructive design, and practice-based research. More broadly, I've come to reflect on the relationship between design and other disciplines. Many of these debates seem to reproduce arguments I've read about in the past—arguments that, if they did not lead to resolution, at least led to more subtle and developed places. I have struggled to find a way to prevent the reinvention of wheels (the consequence of a *sui generis* conception of design) while avoiding treating design as if it were merely derivative of earlier fields (the consequence of a design-as-art or design-as-science view). The rhyming metaphor helped me assert substantive similarities without (I hope) engaging in disciplinary colonialism.

In this essay, I have also tried to show how the notion of rhyming works as a theory building methodology. I identify a problem in HCI/design theory today. Next, I find prior scholarly writings that seemed to be grappling with similar issues. Through a side-by-side comparison, I seek to establish the basis of the rhyme; that is, I claim that there is a substantive similarity between the two discourses. Similarities can be found in how intellectual problems are identified, how key terminology is defined, what are the elements identified as relevant to the matter, which cases or examples are used, when and where the respective works were created, as well as of course how the authors claim to have solved or advanced the problem, including its implications. Next, I look in each discourse for nuances, definitions, mechanics, applications, and other useful features of a theory and introduce them into the other discursive domain. If that helps me advance some dimension of the target domain, I then reciprocally determine if that advance illuminates anything about the source domain (which has now become the target). I quote liberally to encourage others to perceive and think for themselves. By moving back and forth and reversing the flow of knowledge, I aspire to advance my understanding of the concept in both domains, hopefully avoiding any colonial dynamics.

But more positively, I find myself experiencing a “thickening of the meanings” of the theories with which I am engaging. I hope this thickening helps me develop contributions in service of the design research community. But at a minimum it helps me appreciate and find new applications of the intellectual achievements of those who have gone before.

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