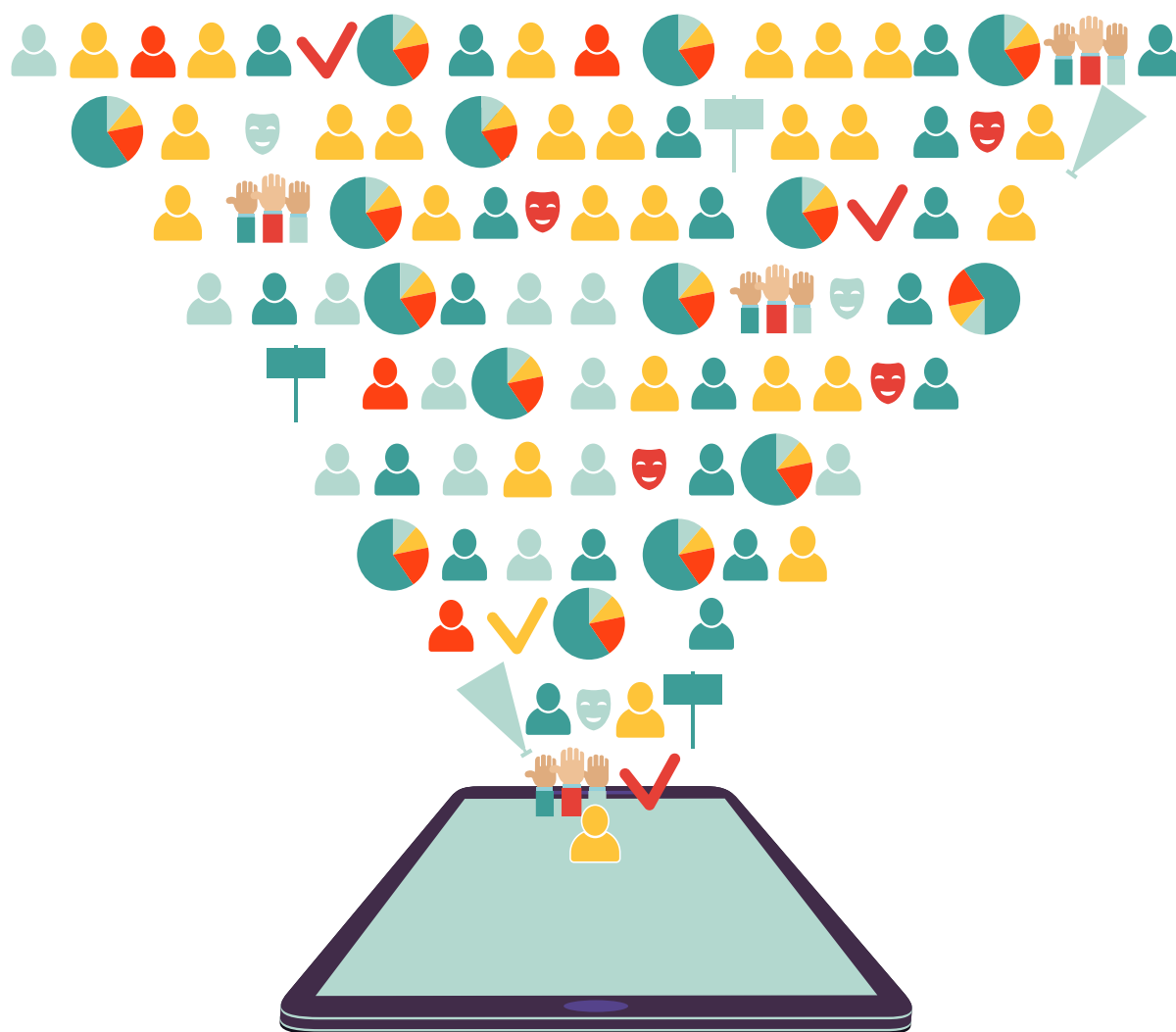


Digital uses to promote democratic experiences



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Democracia e tecnologies digitals

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Abstract:

Information and communication technologies are shaped by society but also modified by political structures and it is precisely because of recent technological developments that the debate about their great democratic potential has been updated and stimulated. The idea of an information society has served to open the debate on the democratic principles that should be present in technology. Hence the importance of paying attention to the subject. Linking technologies and democracy implies talking about a wide range of scenarios in which different users, content, and various elements interact.

KEYWORDS

Democracy, Participation, Information and Communication Technology, Digital Technology.

Resumen:

Las tecnologías de la información y la comunicación están moldeadas por la sociedad, pero también modificadas por las estructuras políticas. Y es precisamente por los desarrollos tecnológicos recientes, que se ha actualizado y estimulado el debate sobre el gran potencial democrático que tienen. La idea de una sociedad de la información ha servido para abrir el debate sobre los principios democráticos que deben estar presentes en la tecnología. De ahí la importancia de prestar atención al tema. Vin-

cular tecnologías y democracia implica hablar de un amplio abanico de escenarios en los que interactúan diferentes usuarios, contenidos, y diversos elementos.

PALABRAS CLAVE

Democracia, Participación, Tecnologías de la información y la comunicación, Tecnología digital.

Resumo

As tecnologias de informação e comunicação são moldadas pela sociedade, mas também modificadas pelas estruturas políticas. E é justamente por causa dos desenvolvimentos tecnológicos recentes que o debate sobre seu

grande potencial democrático tem sido atualizado e estimulado. A ideia de uma sociedade da informação tem servido para abrir o debate sobre os princípios democráticos que devem estar presentes na tecnologia. Daí a importância de se prestar atenção ao assunto. Ligar tecnologias e democracia implica falar sobre uma ampla gama de cenários nos quais diferentes usuários, conteúdos e vários elementos interagem.

PALABRAS-CHAVE

Democracia, Participação, Tecnologias de Informação e Comunicação, Tecnologia Digital.

Unlike high-risk technologies, information and communication technologies are a systemic network technology that generates factors that support democracy (Barber 2002). All those innovations that involve networks and services have expanded their capabilities and reduced the cost of transmitting voice, video, text, data and images in real time. They have even convincingly demonstrated the full potential to reshape the organization of society, mainly because ICTs are seen as disputed terrain, sites of discursive struggle, as the focus of activism (Dahlberg, 2011) and as educational spaces.

Technology is shaped by society but it is also modified by political structures (Werle 2000). And it is precisely because of recent technological developments that the debate on the great democratic potential of information and communication technologies (ICT) has been updated and stimulated. The idea of an information society has also served to open the debate on the democratic principles that should be present in technology. Hence the impor-

tance of paying attention to the subject. The interrelation between society and technology is recognized and in the interrelation which economic, social and cultural change processes interact with technological changes. These changes lead to different types of information society, considered democratic. Democratic quality arguably depends on how ICTs are applied, because technology can enable people to obtain the information they need to examine competing political positions and issues, and provide the means for their recording and subsequent aggregation as 'public opinion' of elections through electronic voting, web feedback systems, petitions, email, online surveys, etc. (Dahlberg, 2011). It can also allow access to services designed to improve access to education for the disabled or other disadvantaged minorities. Democratic quality can even be the result of a historical accident. For example, the evolution of the Internet and the TCP/IP protocols on which the networks are based. In the beginning, there was no plan to guide the

development of the web with the intention of obtaining dividends. It ended up being an accident because there was talk of a democratic dividend of a public domain nature.

According to the authors Catinat and Vedel (2000), everything depends on how public authorities make use of ICTs. Technology is social both in its origins and in its effects (Mackay 1995), and it is not only in the framework of its use, but even in the framework within which technology is designed, which makes them play a crucial role in shaping the democratic quality of ICT.

The social and political importance of ICTs is undoubtedly remarkable. Firstly, the scope and breadth of ICT systems, where information and communication infrastructures and their penetration into society can be considered in an analogous way. The combination of the scope, breadth and degree of penetration of such systems underscores the importance of their democratic quality. These characteristics may be more or less compatible with the values and structures of democracy. Second, it is related to the network nature of ICTs. One of the generic properties of a network technology is interdependence and complementarity. And depending on the design created for users, they have effects that are not limited to just one individual, but also affect all users of those technologies (Iversen et al., 2004). Therefore, all the options regarding its design and use can be evaluated from the point of view of its democratic ramifications.

The importance of information and communication technologies for a democratic society

has also been supported by expectations related to the growth and development of the Internet. It is considered that the web facilitates digital democracy, democracy online, and that thanks to it we interact in different contexts (global and local) with different impacts (social, political and personal) and with different objectives (positive and negative). But ICTs by themselves do not strengthen democracy. Their effects largely depend on the purposes for which the technologies are used and are mainly determined by the design of the technologies used, which may be compatible with the general principles of democratic governance (equality, access, transparency, accountability of accounts, etc.). Whether a technology supports or impedes democracy can rarely be directly attributed to the interests and preferences that shape the design process.

The Journal *Obra Digital* has felt the need to attend to a little-explored area that brings together two important issues in our day to day: ICTs and democracy. Our number 19, corresponding to the months of September 2020 to January 2021, consists of 6 articles in the block of the monograph entitled "Digital uses for the promotion of democratic experiences" and is coordinated by Dr. Jordi Collet -Sabé and Dr. Mar Beneyto-Seoane, both researchers from the University of Vic - Central University of Catalonia. In the articles in this issue, the authors establish a holistic body of knowledge that invites us to reflect and deepen on the different social and educational impacts that have been generated in the process of interaction between technologies and democracy. As experts on the subject, the authors are in a good position to describe the state of the art, reflect

on the different processes that take place in different virtual environments, their link to democracy, and the analysis of the social and educational impacts that can be generated in these spaces. Linking technologies and democracy implies talking about a wide range of scenarios in which different users, content, and various elements interact.

I do not want to close this presentation without inviting our readers to check the two miscellaneous articles that make up our number nineteen. The first of them titled the "Netflix as an audiovisual producer: a snapshot of the serial fiction co-productions" and "Participatory learning contexts in secondary school: from pre-sential education to virtuality."

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Digital uses to promote democratic experiences

Usos digitales para la promoción de experiencias democráticas

Usos digitais para a promoção de experiências democráticas

INTRODUCTION

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Abstract:

This monograph invites to reflect and deepen on the different social and educational impacts that have been generated in the process of interaction between technology and democracy. It does so through six articles that share the same axis: reflecting on the different processes that occur in different virtual environments, their link (or not) with democracy and the analysis of the social and educational impacts that are (or not) generated in these participatory spaces. Linking technology and digital democracy implies talking about a wide range of scenarios in which different actors, content, strategies, types of participation, power relations, among many other elements interact. It is in this diversity of areas, elements, actors and effects that this monograph focuses on. The set of articles that we present show how technology and digital democracy interact in different contexts (global and local) and what types of impacts (social, political and personal; positive and negative; etc.) this interaction can generate.

KEYWORDS

Democracy, Participation, Information and Communication Technology, Educational Technology.

Resumen:

El monográfico invita a reflexionar y profundizar sobre los diferentes impactos sociales y educativos que se han generado en el proceso de interacción entre tecnología y democracia. Y lo hace a través de seis artículos, que comparten un mismo eje: reflexionar sobre los distintos procesos que se producen en diferentes entornos

virtuales, su (no) vinculación con la democracia y el análisis de los impactos sociales y educativos que (no) se generan en estos espacios participativos. Vincular tecnología y democracia digital implica hablar de un amplio abanico de escenarios en los que interactúan diferentes actores, contenidos, estrategias, tipos de participación, relaciones de poder, entre muchos otros elementos. Es en esta diversidad de ámbitos, elementos, actores y efectos en la que se centra el presente monográfico. El conjunto de artículos que presentamos nos muestran como tecnología y democracia digital interactúan en distintos contextos (globales y locales); y qué tipos de impactos (sociales, políticos y personales; positivos y negativos; etc.) puede generar esta interacción.

PALABRAS CLAVE

Democracia, Participación, Tecnologías de la información y la comunicación, Tecnología de la educación.

Resumo

Esta edição convida a refletir e aprofundar sobre os diferentes impactos sociais e educacionais que têm sido gerados no processo de interação entre tecnologia e democracia. E o faz por meio de seis artigos que compartilham o mesmo eixo: refletir sobre os diferentes processos que ocorrem nos diferentes ambientes virtuais, sua (não) vinculação com a democracia e a análise dos impactos sociais e educacionais que (não) são gerados nesses espaços participativos. Vincular tecnologia e democracia digital implica falar sobre uma ampla gama de cenários nos quais interagem diferentes atores, conteúdos, estratégias, formas de participação, relações de poder, entre tantos outros elementos. É nesta diversidade de áreas, elementos, atores e efeitos que esta edição se concentra. O conjunto de artigos que apresentamos mos-

tra-nos como a tecnologia e a democracia digital interagem em diferentes contextos (global e local); e que tipos de impactos (sociais, políticos e pessoais; positivos e negativos; etc.) esta interação pode gerar.

PALAVRAS-CHAVE

Democracia, Participação, Tecnologias de informação e comunicação, Tecnologia educacional.

Beyond the official definition of democracy as a political system, John Dewey already stated a century ago that democracy is, above all, a horizon of life in common where people live the experience of facing challenges, conflicts and complexities of everyday life, together. In this vision of democracy, the objective is not to get rid of others understood as a barrier, as an annoyance or as a simple instrument of own individual fulfillment, but to co-construct with others a new reality in common, shared, diverse, more equitable, fairer and freer. Today, the different online environments have become an integral, daily and significant part of the lives of individuals, families, groups and societies. In this monograph, we ask ourselves about the role of these various digital environments as facilitators or impediments of experiences of authentic democracy.

Specifically, this monograph raises different questions and unresolved challenges, all of them linked to the digital sphere and the concept of democracy. The set of articles presented provide reflections and analysis from perspectives related to digital participation from a broad perspective (such as social and political participation), to more specific perspectives (such as participation in educational contexts). In addition, the articles in the monograph also offer us theoretical and empirical approaches that analyze how the digital world is evolving

more and more as a participatory space and, at the same time, how participation spaces have been increasingly digitized. The monograph invites to reflect and deepen on the different social and educational impacts that have been generated in the process of interaction between technology and democracy. It does so through six articles that share the same axis: reflect on the different democratic processes that occur in different virtual environments and describe the social and educational impacts that are generated in these participatory spaces.

In the first article entitled “Digital technologies, big data and ideological (neoliberal) fantasies: threats to democratic efforts in education?”, Dion Rüsselbæk reflects on the phenomena linked to digital technologies and big data, and on the impacts that these generate in democracy in the educational context. It does so by using the work of Jacques Rancière, Slavoj Žižek, and Giorgio Agamben. In the article, the author indicates that a form of instrumental power based on digital technology and supported by neoliberal ideological fantasies tends to eliminate or exclude certain democratic aspects of education.

Next, in the article “Democratize digital school governance: action research results”, by Mar Beneyto-Seoane and Jordi Collet-Sabé, the results of a doctoral thesis are presented. The

educational impact generated by the democratization of participatory and digital processes introduced in the school context and in the educational community is described. The main results of the research show us that democratizing school digital participation modifies school power relations, can increase spaces for digital participation, improves the digital competence of the different members of the school community, and can contribute to reducing the digital and educational divide.

Raquel Tarullo, in her article "Informative habits and online participation: a study about young undergraduates in Argentina", analyzes quantitatively and qualitatively the information habits of university students in Argentina. The intention of the study is to determine the sources of news consumption of young people, and the use of the interaction tools of social networks. The most relevant study results describe the information stages of the students, their digital information environments and the habits or uses that they develop in the digital context.

In the following article, "Engagement between politicians and followers on Facebook. The case of the 2016 general elections in Spain", Susana Miquel-Segarra, Amparo López-Meri and Nadia Viounnikoff-Benet mainly raise the type of interactions and engagement that some Spanish political parties generate on Facebook, the differences in interaction according to the type of content that political parties and candidates publish on Facebook, and the role of hashtags and mentions in the posts they publish on this social network. The main results show that, although there are significant levels of digital interaction, the degree of engagement is low.

Continuing with the thread of digital uses in the framework of political parties, Célia Belim in her article entitled "Has the digital environment

been democratized?", presents us with an analysis on how digital political communication influences democratic rules. Specifically, the article focuses on studying the digital uses in social networks and in the non-electoral period of government and opposition parties of various countries with full democracy and imperfect democracy in Europe and in the Community of Portuguese Language Countries (CPLP). The main results of the study show differences in digital paradigms, objectives, content and uses between opposition parties and government parties.

To close the monograph, Cristian Castillo in his article "Simplicity in public administration and improvement of democracy" analyzes the digital experience of the government of Ecuador in relation to its public policy. To do so, the article reflects on the concept of democracy and its quality. Specifically, the study shows the impact of the implementation of digital strategies and channels on administrative procedures and processes. The main results of the research show that the use of digital media could help improve the quality of a substantive democracy.

To close this issue of the journal, two miscellaneous articles are presented. In the first, entitled "Netflix as an audiovisual producer: a snapshot of the serial fiction co-productions", Tatiana Hidalgo links the technological phenomenon derived from the streaming of the NETFLIX platform and its cultural dimension. That is, the audiovisual platform's way of producing and the user's way of consuming. Specifically, the study reveals the current importance of recognizing the supply-demand strategy applied by the large audiovisual platform NETFLIX. Another relevant aspect of the article is the description of this strategy, from which we highlight

some results such as that the co-production of serial fictions on the platform that manages to involve more participants in the creative process, lowers costs, enhances the development of local fiction and gives importance to minority markets, among others.

The second article in the miscellany (and the last article in this issue of the *Obra Digital Journal*), is entitled "Participatory learning contexts in secondary school: from presential education to virtuality". In this article, framed in the thesis of Laura Farré-Riera, it is proposed how to conceptualize the participation of students in secondary education, what aspects condition the participation of students in the school context and what elements should be considered in a non-presential educational context or, in other words, in an online format. A main aspect high-

lighted by the author is that, despite the fact that there is a certain belief that the modality (presential or virtual) determines the active participation of the students, in reality this participation is strongly conditioned by the pedagogical model that exists in the educational center.

Digital technologies, big data and ideological (neoliberal) fantasies: threats to democratic efforts in education?

Tecnologías digitales, big data y fantasías ideológicas (neoliberales): ¿amenazas a los esfuerzos democráticos en educación?

Tecnologias digitais, big data e fantasias ideológicas (neoliberais): ameaças aos esforços democráticos na educação?

1

ARTICLE



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Abstract

Many fantasies hold that digitalisation can construct democratic spaces for discussing experiences about educational matters. However, based on thinkers such as Rancière, Žižek and Agamben, it is argued that increased big data production in education through digitalisation does not support such democratic spaces. Instead, it mirrors a neoliberal fantasy and a form of instrumentarian power that distributes the sensible in mechanical (numerical) ways. Democracy in education is at risk of being dismantled by perceptions that democratic conversations and struggles are unproductive and do not contribute to the desired numerical visualization of learning results, achievements and competitiveness of students.

KEYWORDS

Distribution of the sensible, Instrumentarian power, Numerical imagination, Digital pictures.

Resumen

Muchas fantasías sostienen que la digitalización puede llegar a construir espacios democráticos con el objetivo de discutir experiencias sobre asuntos educativos. Sin embargo, pensadores como Rancière, Žižek y Agamben, argumentan que el aumento de la producción de **big data** en la educación a través de la digitalización no es compatible con los espacios democráticos. En cambio, refleja una fantasía neoliberal y una forma de poder instrumental que distribuye lo sensible de manera mecánica (numérica). La democracia en la educación corre el riesgo de ser desmantelada por la percepción de que las conversaciones y las luchas democráticas son improductivas y no contribuyen a la visualización numérica deseada por los resultados de aprendizaje, los logros y la competitividad de los estudiantes.

PALABRAS CLAVE

Distribución de lo sensible, Poder instrumental, Imaginación numérica, Imágenes digitales.

Resumo

Muitas fantasias sustentam que a digitalização pode construir espaços democráticos com o objetivo de discutir experiências sobre temas educacionais. No entanto, pensadores como Rancière, Žižek e Agamben argumentam que o aumento da produção de big data na educação por meio da digitalização não é compatível com os espaços democráticos. Em vez disso, reflete uma fantasia neoliberal e uma forma de poder

instrumental que distribui mecanicamente (numericamente) o sensível. A democracia na educação corre o risco de ser desmantelada pela percepção de que as conversas e as lutas democráticas são improdutivas e não contribuem para a visualização numérica desejada pelos resultados de aprendizagem, as realizações e a competitividade dos estudantes.

PALAVRAS-CHAVE

Distribuição do sensível, Poder instrumental, Imaginação numérica, Imagens digitais.

1. INTRODUCTION

Problematizing digitalisation is a 'risky business' as many fantasies are attached to the phenomenon. Digital technologies seem to be both inevitable and necessary if we are to be able to cope with the destined future. However, what future is that? We, as human beings, play vital parts in the future through the ideas, beliefs and convictions in which we invest. That said, the future is not a coming event. It has already arrived, so to speak, not in a finished form but in an unfinished form. Critically engaging questions about the future requires reflecting on what influenced them in the past and the present and how ideological fantasies about the future also influence them. To problematize our contemporary *modus operandi*, (what we do to cope with the future), we must focus on how the past, present and future are always intertwined so that no final endings or beginnings exist.

We must bear in mind that the future is being used to support many investments made to digitalise modern societies. Powerful forces such as politicians and private corporations exploit altruistic arguments to legitimise digital investments. The arguments sound like the following.

Digitalisation has the potential to strengthen future democracy by allowing people to connect, communicate and share information with each other. Digitalisation can be used to install order and harmony in a disorderly, inharmonious world. Digitisation can bring more transparency to matters such as what goes on in state institutions, so nothing is hidden from politicians and the public.

It is difficult to deny that digital media such as Facebook, YouTube and Twitter can facilitate political conversations from which democratic agoras (public spaces) can emerge and lead to live action. Consequently, such media can be (and have been) used to mobilise demonstrations such as Occupy Wall Street, a protest against economic inequality and the power of financial institutions. Digital media can play vital roles in political changes, as we have seen in the Middle East (e.g. the Arab Spring), and they can support non-profit organizations that advocate democracy, human rights and enlightenment. Here, we can mention the organization Ideas Beyond Borders, whose purpose is to empower individuals oppressed by totalitarian regimes by giving them access to, for example, online information, knowledge and perspectives that can support critical thinking,

engagement and democracy (see <https://www.ideasbeyondborders.org>).

However, we must not forget that digital media regulate and structure the conversations that can take place in such agoras, thereby possibly (re)producing different inclusion and exclusion mechanisms. For example, if we do or say something that does not meet specific standards, norms or values, we might be put in jail. That is, blocked and excluded from participation by Facebook. Our freedom to communicate with others as democratic citizens thus “is strictly prescribed by the coordinates of the existing system” (Žižek, 2019, p. 4) and the underlying logic that frames and structures this system. Digital media are not only public spaces or agoras in which we, as free human beings, can communicate in democratic ways. Digital media are also spaces in which big data and information about others and us are collected and produced. Big data, though, is a contested term that has many meanings and can be produced and used in many ways. As Williamson states, it is “simultaneously technical and social” and has “the power to change how and what we know about society, the people and institutions that occupy it” (Williamson, 2017, p. xi). Furthermore, myths, ideologies and fantasies of objectivity are attached to big data and are being used for political purposes (Jurgenson, 2014).

Collection of big data about our behavioural activities sustains what Zuboff (2019) calls instrumentarian power. This form of power mirrors an ideological fantasy (Žižek, 2008a) that human behaviour can be engineered and predicted by scientifically generated data, numbers and statistics. This fantasy supports a utopian desire for societal safety, harmony and order. Moreover, it sets aside subjective idiosyncrasies and transcends the uniqueness of particular contexts. It thus installs automated decision-making, freeing us from the burden

of decision-making. That is, from the tyranny of choices that can “increase our anxiety and feeling of inadequacy” (Salecl, 2010, p. 15). We presume that by relying on big data and digital technologies, we can avoid such burdens and can be guaranteed certain outcomes. In other words, there is a strong belief that we can use big data to figure out things (e.g. how to learn in the most effective way) and produce risk management strategies to protect ourselves from unpleasant surprises such as “our absence of completeness”. However, many factors (e.g. ethics, mind-sets and values) cannot be studied and understood by relying only on big data and the patterns and correlations that seem to exist between different sets of data (Eynon, 2013; Herzogenrath-Amelung, 2013).

Big data, though, remains widely used. It is closely connected to the well-described neoliberal agenda in which comparisons, transparency and competition are seen as means to make humans, public institutions and private organizations more efficient and productive (Harvey, 2007; Mau, 2019). Brown (2015) stressed that a particular form of reason configures political and democratic matters in economic (measurable and data-based) terms. Brown’s (2015) basic argument is not that the market logic corrupts democracy; instead, she argued that neoliberalism converts political and democratic matters into economic and numeric ones, as Clarke and Phelan (2017), Mau (2019), Rose (1999) and others have also argued. Following Brown’s (2015) line of thought, one of the main threats to democracy is the powerful belief that competition is the driving force within almost all spheres of society, including education. This belief installs a particular logic in which we, as human beings, are understood and must understand ourselves as ‘firms’. This firm logic encourages us to focus on our competitiveness and the value of our capital in the eyes of others. To optimize our positions in the (labor)

market, we constantly ask certain questions: How do I look in others' eyes? How do they see me? What can I do to be seen and heard in ways that increase my capital value? Learning seems to be key here, particularly, instrumental forms of learning that politicians and learning experts can govern, control and measure (Biesta, 2010; Lewis, 2013; Simons & Masschelein, 2007).

Digital surveillance technologies are used in education, often uncritically, as learning management systems to produce, monitor and present big data on, for example, students' behaviour, well-being (e.g. moods, thoughts and feelings) and learning results. Politicians and the public rely on such data to judge whether schools, teachers and students meet learning expectations and objectives. More than ever, digital technologies govern learning processes in schools and produce huge amounts of data that inform whether learning takes place in the most effectful and productive way.

My ambition in this article is to problematize the phenomena of digital technologies and big data and their impacts on democracy in education. What ideological fantasies are they formed by, and which do they contribute to forming? How do they regulate the distribution of the sensible, and what are the consequences for democracy? I analyse, discuss and reflect on these questions, drawing on Jacques Rancière's work on aesthetics and politics, Slavoj Žižek's work on ideological fantasies and Giorgio Agamben's work on what it means to be a special being and seen as a pure singularity.

Against this background and through examples from different educational contexts, I illustrate how a digitally based instrumentarian form of power supported by neoliberal ideological fantasies contributes to erasing time and space for democratic matters in education. I do not aim to argue against digital technologies. Instead, I argue that we need to free ourselves from the

ways in which digital technologies are used to monitor, regulate and produce numerical data about students' (learning) behaviour, progress and results in school. We, therefore, must set such technologies free from their proper uses and places in education and discuss whether they should and can be used otherwise (Agamben, 2009; Lewis & Alirezabeigi, 2018). If this is to be possible, however, we must be aware of the ways in which digital technologies regulate the distribution of the sensible, as elaborated in the next section.

2. IDEOLOGICAL FANTASIES AND THE DISTRIBUTION OF THE SENSIBLE

According to Rancière (2004, p. 13), politics and democracy revolve "around what is seen and what can be said about it, around who has the ability to see and the talent to speak, around the properties of spaces and the possibilities of time". Put differently, a certain form of the aesthetic-political distribution of the sensible installs a regulative (aesthetic) regime that historically determines a priori what is judged as (dis)orderly, what something or someone is described and defined as and what is (in)visible (not) sayable and (not)audible (Rancière, 2004). Within such a regime, "the partition of the sensible is dividing-up of the world". For example, the division of people and political matters within that world (Rancière, 2010, p. 36). In other words, a regime has consequences for the ways in which our aesthetic sensibilities are framed and the ways in which we engage in various (e.g. political and educational) matters in the world (Sjöholm, 2015). In an education dominated by a digital-data and number regime, as Taubman (2009, p. 52) described it, it becomes difficult to employ vocabularies and concepts that transcend the regime. Consequently, to be deemed legitimate, idiosyncratic

and concrete, qualitative and sensible experiences must be translated into and expressed by abstract and quantifiable numbers. What cannot be quantified does not count, and only what can be counted has quality. The more we are convinced that others take such a mechanical and numerical starting point seriously, the more we too take it seriously, and vice versa (Mau, 2019, p. 49).

According to Žižek (2008b), a given regime is ideological par excellence. An ideology relies on a phantasmatic background. Indeed, “the fundamental level of ideology, however, is not that of an illusion masking the real state of things but that of an (unconscious) fantasy structuring our social reality itself” (Žižek, 2008b, p. 30). For example, an ideological fantasy supports a common belief that meaning exists in a ‘meaningless world’ (we only have to find it). In other words, a fantasy provides us an “illusion which structures our effective and real social relations. Thereby, masks some insupportable, real, impossible kernel (conceptualized by Ernesto Laclau and Chantal Mouffe as ‘antagonism’: a traumatic social division which cannot be symbolized)” (Žižek, 2008b, p. 45). An ideological fantasy makes us believe and act as if a ‘natural’ logic lies behind the structure of social positions and roles within a certain social and symbolic order, although we know that is not the case.

Žižek (2009a) gives us a concrete example of how an ideological fantasy often paradoxically works in our digitalized societies. On one hand, the state and big companies control and penetrate our lives in undemocratic ways, while on the other hand, we find state regulation necessary “to maintain the very autonomy it is supposed to endanger” (Žižek, 2009a, p. 32). In this case, the fantasy conceals this paradox, “yet at the same time it creates what it purports to conceal, its ‘repressed point of reference’” (Žižek, 2008a, p. 6).

I further argue that such an ideological fantasy regulates and contributes to the ways in which the sensible is divided. And a particular division of the sensible can explain why we see and hear persons or things as reasonable or noisy, why we believe there is no opposition or social antagonism between freedom and control (as mentioned) and why we act against our better knowledge that state regulation, control and surveillance that suppress our freedom cannot simultaneously support autonomy and democracy. In other words, we act as if we do not know it, even though we know it. Moreover, fantasy structures our desire. However, do we even know that we desire security, control and regulation along with freedom, autonomy and non-regulation? That is what a given fantasy tells us that we must desire such opposite matters that are seemingly illogical on one level but quite logical on another if we want to live in a democratic society. The point is that ideological fantasies can mask absurd arguments, so we find them reasonable and act based on them as if we really believe in them.

To problematize such a paradoxical fantasy and how it divides the sensible, one must try to observe oneself, others and the world from another point of view. To avoid any misunderstandings, let me state here that we can never grasp reality itself by shifting to a more ‘appropriate perspective’. Every perspective is “always-already framed, seen through an invisible frame” (Žižek, 2009b, p. 29). Something always eludes a given perspective and perhaps can be grasped by another perspective, which in turn produces a void that other perspectives must fill, and so on (Žižek, 2009b). Žižek (2014) provides an illustrative example of what it means to problematize a given fantasy by observing a situation from another perspective:

A loss of the phantasmatic frame is often experienced in the midst of intense sexual activity—one is passiona-

tely engaged in the act when, all of a sudden, one as it were losing contact, disengages, begins to observe oneself from outside and becomes aware of the mechanistic nonsense of one's repetitive movements. In such moments, the phantasmatic frame which sustained the intensity of enjoyment disintegrates, and we are confronted with the ludicrous real of copulation. (Žižek, 2014, p. 28)

To problematize such a given phantasmatic frame is difficult. When we begin to disengage ourselves from the activity or game, we might experience a loss of enjoyment as we dissociate and exclude ourselves by questioning the “mechanistic nonsense” in which we are participating. That might be the reason why we play the digital game even if we know that by doing so, we might support anti-democratic tendencies. This playing might explain why the unequal distribution of roles and positions within a particular classification and categorization regime can be sustained and avoid criticism.

Agamben (2007, p. 59) puts it thus: “The transformation of the species into a principle of identity and classification is the original sin of our culture, its implacable apparatus”. It seems impossible to be an unrepresentable or indistinct, special being free from any determination. Stated differently, it is impossible to participate in communities “without affirming an identity” (Agamben, 1993, p. 86). It is a problem if we are never given the possibility to emancipate ourselves from the classifications and categorizations that ascribe to us certain identities. Moreover, the lack of such possibilities can maintain unequal positions from which we cannot free ourselves.

For example, typifying students is a common practice in the educational field. However, if students never have the possibility to remain “indistinct and unrepresentable and free of any

determination to be or not to be set in advance” (Lewis, 2013, p. 41), they cannot be free in a democratic sense. Our ability to see and hear students as special beings—that is, as “more than the sum of their abstracts” (de la Durantaye, 2009, p. 162)—is a basic condition for supporting democratic spaces. If only the few and not all can play different roles and occupy different positions, and this situation can never be reversed (but is irreversible), then time and space for democracy vanish (Rüsselbæk Hansen & Toft, 2020).

Where then are we left? What democratic possibilities exist in a time when ever more things and thus more aspects of our lives are turned into machine-readable data and numbers? What does it mean “to be recognized, if the object of recognition is not a person but a numerical datum”? (Agamben, 2011, p. 53) Before turning to these questions, we need to take a closer look at the contemporary form of instrumental power that supports and is supported by the ideological fantasy that produces a contemporary desire for digital technologies and big data.

3. NEOLIBERAL LOGIC, COMPARISON AND OTHERS' EYES

Today, a mix of state, public and market fields structure the social in complex ways. How this looks is difficult to observe as these fields do not have clear borders between them. Although such borders have never been clear, it still seems reasonable to claim that state politics had a different character in the past than the present. Think, for instance, of Adam Smith's ideological fantasy of the invisible hand assumed to regulate the market and to automatically achieve equilibrium without any state or government interference. Today, few seem to believe in such an invisible form of regulation.

Instead, it is believed that a state-driven, visible hand is needed if we are to learn to act like individuals (not collectives) that are driven to compare, compete and measure ourselves against each other in the market. We seem to need to learn to accept that unreasonable “demands, setbacks, humiliations and failures have to be chalked up to oneself—and we then just have to wait cheerfully for new opportunities” (Nachtwey, 2017, p. 134). Such a logic stigmatizes and disciplines losers and places winners in positions they are so afraid to lose that they fight even harder than before.

Despite the dysfunctionalities this logic obviously produces, a strong belief exists that the market is a special realm in which ‘miracles’ happen. Rhetorically asked: Who wants to say no to miracles? Political initiatives are developed to install what Brown calls a neoliberal governing rationality (a form of state-initiated market logic) into spheres traditionally based on other rationalities, with the following consequences:

both persons and states are construed on the model of the contemporary firm, both persons and states are expected to comport themselves in ways that maximize their capital value in the present and enhance their future value, and both persons and states do so through practices of entrepreneurialism, self-investment, and/or attracting investors. (Brown, 2015, p. 22)

Our competitiveness becomes the overall issue, and we are strictly commodified as homo economicus and homo calculus who can calculate our own (economic) value and that of others. On one hand, we are liberated to enhance our “human capital, emancipated from all concerns with and regulation by the social” (Brown, 2015, p. 108). In a Marxian sense, we are free from ownership and have the freedom to sell our labor power. On the other hand, we are on our own due to the decline of collective solidarity.

We possess (pseudo) freedom from all constraints, except the rule of the market. We are encouraged not to act politically but to focus on our individual human capital and the ways in which others can invest in it. I engage with others, but not politically; others are only interesting in so far as they can make me look good in the (job) market. Not every looks count; only the ‘right’ symbolic looks count. Consequently, I must strive to achieve looks derived from valuable symbolic positions. To paraphrase Kant, others are treated not as ends in themselves but instead as (symbolic) means to strengthen my ‘firmability’.

Typical ways of judging the value of others’ capital and our own include data gathering, measuring and comparing. Using numbers allows us to rate and create tables and graphs to make complex (e.g. learning) matters simple and visible. We must not forget, however, that numbers isolate information from their particular contexts and are blind to diversity:

Numbers translate the idiosyncratic, the individual and the unique into universal and compatible codes which effectively strip away all the specifics of the case and, by that very act, make links across temporal and spatial boundaries. (Mau, 2019, p. 34)

The clarity and certainty attached to numbers are nothing more than a fiction supported by an ideological fantasy. Many know that but still act as if it is not the case.

The reason for our ‘number-fetish’ might be that something sublime emerges in numbers and the many assumptions attached to them. First, they are the language of ‘real evidence-based science’. Second, they are magical and mystical because they can simplify complex matters. Third, they come in many disguises such as lucky vs. unlucky, good vs. bad, and value laden vs. neutral. Fourth, they can be commu-

nicated by and to almost everyone. Fifth, they can transcend cultural borders and cover up social antagonisms. Sixth, they can tell us about our happiness, intelligence and learning achievements and potential. Thus, we are told by the so-called experts.

But why do we listen to such nonsense? Why do we not act as thoughtful human beings and problematize the ideological fantasy that tells us that numbers possess sublimity? Why do we not mix poison into such a fantasy “in order to increase its degree of toxicity to the limit of what can be survived” (Steinweg, 2017, p. 66)? An answer to this question might be that thinking, despite its advantages, is not always considered to be worth the time spent on it. Thinking is not always pleasant and sometimes is the opposite. Thinking can raise radical doubts and open up unpleasant views on the reality: “Oh, I did not know that!” “Looking at it in this way makes me sad!” “I don’t want to know this, and instead, I prefer to hold on to my pleasant belief!” Moreover, thinking does not guarantee security and requires a break from our ordinary conceptions of reality. Thinking means that one loses oneself and gets “lost again and again” (Steinweg, 2017, p. 2). Consequently, we can be encouraged to not think or poison an ideological fantasy with ‘dangerous’ critical thoughts. Another reason to avoid thinking is that fantasies do thinking for us. Often, they set us free from the burden to think for ourselves. Is that not what phantasmatic numbers do? Is that not the reason why we stick to them and act as if we believe in them even though we know that doing so is problematic?

4. INSTRUMENTARIAN POWER AND ITS EFFECTS

As argued, great interest lies in digitally produced numerical data about each and every one of us. This interest arises from a form of

instrumentarian power that seeks products (e.g. digital technologies) designed to “forecast what we will feel, think and do: now, soon and later” (Zuboff, 2019, p. 96). This form of power is inspired by ideas of radical behaviorism and the promise of behavioural engineering and regulation. Radical behaviorism reduces human experiences to measurable, observable behaviors and has no interest in the meanings of experiences such as pain, suffering and joy. Put differently, our mind, soul and (un)consciousness are not of great interest as they cannot be observed, measured or calculated.

Instead, “instrumentarian power aims for a condition of certainty without terror in the form of ‘guaranteed outcomes’ [...]. It severs our insides from our outsides, our subjectivity and interiority from our observable actions” (Zuboff, 2019, p. 378). Such a regime of power replaces social trust, meaning and understanding with a focus on digitalisation, mathematical calculations and predictions. Human experiences are dispossessed not only by abstractions of concrete experiences but also by the idea that human experiences are raw material for datafication and numerical descriptions (Zuboff, 2019, p. 233–234).

With this short introduction to instrumentarian power, we can see its similarities to the contemporary form of (neoliberal) governmentality that overturns the traditional hierarchical relation between causes and effects. The reason for this is that “governing the causes is difficult and expensive, [so] it is safer and more useful to try to govern the effects” (Agamben, 2014, p. 2). In the focus on effects, not causes, a certain ideological fantasy is at stake: a fantasy oriented towards “what” questions (e.g. What works? What can be measured?) instead of “why” questions (e.g. Why does it work? Why measure it in the first place?). Asking “what” questions more than other types of questions affects the distri-

bution of the sensible, including in education, as examined in the next section.

5. DIGITAL TECHNOLOGIES AND A NUMERICAL IMAGINATION IN EDUCATION

Digitalisation and big data in education, if we follow Han's (2017b, p. 58) argumentation, "free knowledge from subjective arbitrariness". In other words, we will not need to rely on our own judgements, perspectives and practical experiences as big data is assumed to be able to tell us what troubles students, what they have learned so far and what one can expect of those with particular habitus and socio-economic backgrounds. In principle, all we have to do is look at and listen to data on students. Using data in this way eliminates the need for critical thinking as it "empties of sense the language itself" (Han, 2017b, p. 59). Consider this example from an ethnographic study on an ordinary English school class. As we are told, at the beginning of a typical day, the teacher asks the students if they have met their individual "behavior-for-learning target last week" (Livingstone, 2014, p. 5). Then, we are told that:

Teachers entered data live into the computer or recorded it on the white board and entered it later. Thus, at the start and end of each day, the students' data could be read out to the class, making progress or failure visible, and inviting constant reflection on their learning trajectory. Then, behind the scenes, both attainment and behavior are measured, standardized and made available for manipulation. Since class time was heavily occupied in data collection, and since a panopticon-like punishment room awaited those whose record showed too many bad marks, we initially thought the system

would be hugely unpopular with the students. But we were wrong, as both youth and parents explained to us. (Livingstone, 2014, p. 6)

The example illustrates how a particular distribution of the sensible takes place. The teacher describes what she sees and hears as important data about each student's learning, which are presented to the class "at the start and end of each day". The students are encouraged to focus on their successes, failures and learning progress. As we can see in the field notes, the digital technology (or system) is not unpopular with the students. To the contrary, the students find the standardized system to be fair and helpful as it can tell them whether they are on the right learning track. They believe in the system as it indicates that the school has control over their learning. It is also mentioned that the student behaviour is measured, and the data are "made available for manipulation... behind the scenes". The aim is to control future forms of behaviour and punish those students whose records show "too many bad marks". However, what does it do to the democratic space in the classroom when everything that students say and do is recorded and put into a computer as "pure reliable data"? Under such conditions, are students willing to ask critical questions to the social order, norms and values when the teacher and others may judge behind the scenes such questioning as disorderly behaviour and a threat to the school order?

Recording what students say and do in class can be seen as an innocuous, helpful approach, but what makes sense in one concrete context does not necessarily makes sense in another. Therefore, it is not without consequences to try to understand and govern blurry issues from a distance, far from particular contexts. Transforming blurry concrete matters into clear abstract data supports a form of an "oxymoronic numeric imagination", which can be defined as

the predisposition to seek out certain kinds of quantitative explanations that “have little respect for complexity of the actual human world” (Morozov, 2013, p. 260). Instead, the world is assumed to reveal itself through a numerical imagination. Who has the symbolic positions to do the imaginary work is rarely questioned? It seems to happen by itself; the numbers do the job for us. However, that is not the case. As argued, numerical forms of imagination are difficult to resist because they are supported by a powerful phantasmatic frame. When we rely on a numerical imagination, the social is distributed in linear, factual and quantitative ways; displacing other forms of imagination that could transcend such distributions and provide opportunities to imagine, sense and think about persons and things in non-mechanical and numerical ways (Morozov, 2013, p. 260).

Another example we must consider comes from an article in *The Guardian*, “Under digital Surveillance: How American Schools Spy on Millions of Kids”, published on 22 October 2019. This article illustrates how digital technologies are used in schools in the United States to monitor what students write in their emails, documents and chat messages. If something is considered to be risky and indicates (or is interpreted to indicate) self-harm, bullying or other suspicious matters, schools respond immediately as they are under pressure from politicians and parents to keep students safe and to protect them from themselves, others and the ‘dangerous’ world, if needed.

In the same article, it is argued that monitoring students is important because it prepares them and gives them a “training ground” to learn what monitoring means and what they must be aware of when they are being monitored. They must learn to be monitored in school, we are told, as they can expect to be monitored in their future jobs. Why must schools teach students to accept being monitored? Instead of

accepting this premise, would it not be a democratic gesture to prepare students to fight such forms of totalitarianism that are threats to a democratic society in which they, as free human beings, can think, speak and act politically without risk of sanctions or punishments?

6. DIGITAL PICTURES AND THE MESSY REALITY

Today, we can find many examples of how digitalisation is used to make things more understandable by drawing clear pictures of complex matters. However, we must not forget the lack of understanding that accompanies digitalisation. To understand what is said, it is not enough to focus on what is actually being said. The positions from which we speak and the ways in which things are said (e.g. ironically or mirroring contextual norms and values) must always be considered. Unfortunately, such aspects are rarely taken into account when digitalizing things.

Consider, for example, the digital platform Aula introduced in Danish schools in 2019. The purpose of this platform is to collect data about educational matters and to communicate the data to parents and politicians. The data are stored in the Data Warehouse created by the Danish Ministry of Education in 2014. In this digital warehouse, users can shop as customers and find “pre-defined reports and interactive maps, which compare and benchmark schools against municipal and national averages (providing numerical data on, for example, well-being, final exam grades and students’ absenteeism)” (Ratner & Rupert, 2019, p. 8).

The questions are what such data shopping does and what pictures of schools, teachers and students we are ‘sold’ and ‘told’ in the Data Warehouse. They are abstract, numerical imaginative pictures that do not say much about concrete messy reality. That is, what actually

goes on in different school contexts. Seeking abstract numerical pictures indicates a paradox as there is a strong (political) focus on concrete educational matters such as whether students follow their individual learning plans, have the right learning attitudes, are willing to learn in the recommended ways and have the sufficient desire to learn. The form of knowledge that seems to matter to politicians is based on monitoring and can be expressed in numerical and data-based ways. Paradoxically, there does not seem to be much interest in other forms of knowledge that might generate more precise insights into the concrete messy educational reality. Many politicians seem to wish to not approach it but instead to be able to inspect and control it from a safe distance. Confronted with the imperfect school realities, for example, we witness a contemporary political tendency to quantify such experiences when qualitative experiences are reported. That is, translate them into numerical pictures. Thus, they seem more orderly and not as horrifying.

Such translation mirrors what is called the Paris syndrome. As Han argues (2017a), this syndrome “refers to an acute psychic disturbance that affects mainly Japanese tourists” who experience fear, anxiety, dizziness and racing hearts when they encounter the “marked difference between the idealized image that travelers have beforehand and the reality of the city, which fail to measure up”. This experience leads to a hysterical “tendency to take photos” which “represents an unconscious defense reaction with the aim of banishing the terrifying truth through images” (Han, 2017a, p. 28). Isn't it a similar trend that we can see in society in general and in education in particular when more educational matters are translated into “numerical images” to make them easier to handle and enjoy? In mechanical and phantasmatic ways, the problem is that numerical pictures make social antagonisms invisible and, consequently, we lose

our sensibility for the dirty, imperfect, complex (educational) reality.

7. CONCLUSION

When we rely on and use digital technologies to produce numerical data and pictures about ourselves, others and (educational) reality, it has consequences in the distribution of the sensible (Rancière, 2004). We must be aware that technologies always divide the sensible, influencing the questions we are (not) encouraged to ask and what is (not) worth spending time on. Many of us use numerical data to inform decision making instead of basing our decisions on democratic discussions. However, if the decisions already favor and are grounded in numerical data that cannot be questioned and problematized there is nothing more to say or discuss. However, big data and digital technologies can inform, enrich and open up for democratic discussions. Especially, if they are used in ways that can transcend our immediate horizons of experience and let us see what we might not have been able to see before. And if they are used in ways that support critical thinking instead of controlling and monitoring such forms of thinking in education (Thompson & Sellar, 2018).

Monitoring by digital technologies takes place not only in totalitarian states but also in democratic western states. In the educational field, digital technologies are used to generate big data, for example, on students' learning tracks and results. The data can be used to trace “good” and “bad” learning patterns. That is, which patterns must be maintained or broken through regulations, sanctions and punishments. However, is this what education should be about?

If we want to support democratic experiences, conversations and struggles in education and

thereby the freedom to think, speak and act in ways not mechanically regulated by numbers, we must question the distribution of the sensible in education (Rüsselbæk Hansen & Phelan, 2019). We must:

challenge the opposition between viewing and acting; when we understand that the self-evident facts that structure the relations between saying, seeing and doing themselves belong to the structure of domination and subjection. It begins when we understand that viewing is also an action that confirms or transforms this distribution of positions. (Rancière 2009, p. 13)

Therefore, it is of vital importance that we avoid, for example, capturing students through digital technologies and reducing them to quantitative forms of data that deny their ontological indeterminacy (Agamben, 1993). We should avoid transforming their lives into a “learning game” that supports “willful self-control and reinvention” and makes it difficult to be seen by others as more than numerical data. That is, as special and unique human beings (Lewis, 2013, p. 9).

In addition, we must adopt a strategy that can liberate us from “that which remains captured and separated by means of apparatuses”, in this case, digital technologies (Agamben, 2009, p. 17). By this, I mean that we must try to liberate ourselves from the seductive ideological frames that make us believe (uncritical and without doubt) in instrumental technologies even though we know that they might not support democracy. If we want to support democracy in education we need our freedom to imagine things otherwise (including ourselves and others), our freedom to question things without condition (Larsen, 2019) and our freedom to profane things (to make them inoperative) by releasing them from their normal uses (Agamben, 1993). If we are free to use digital technologies and big data in non-instrumental and mechanical ways and to *play* with them in new/other ways, we may use them to construct different forms of democratic spaces that we should not be without (Lewis & Alirezabeigi, 2018).

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Democratize digital school governance: action research results

Democratizar la gobernanza digital escolar: resultados de una investigación-acción

Democratizar a governança digital escolar: resultados de uma pesquisa-ação

2

ARTICLE



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Abstract

This article presents the results of a doctoral thesis that analyzes the digital school technology from a democratic perspective and develops an action research to promote the participation, inclusion and

reduction of inequalities in this field. The research has focused on thinking, designing and building more democratic digital practices in a diverse Catalan school with the aim of reducing the digital gap that exists between the different members of the educational community and promoting more

and better participation and inclusion. In this paper, we show the impact that the incorporation of school digital technology from this democratic perspective generates in the governance of the educational center. Mainly, the results show that this perspective generates more spaces for digital participation and improves the relationships established in these spaces.

KEYWORDS

Social inequality, Democracy, Educational technology, Participation, Family-school relationship.

Resumen

El presente artículo presenta los resultados de una tesis doctoral que analiza la tecnología digital escolar en clave democrática, y desarrolla una investigación-acción para promover la participación, la inclusión y reducir las desigualdades en este ámbito. La investigación se ha centrado en pensar, diseñar y construir prácticas digitales más democráticas en una escuela catalana diversa, con la finalidad de reducir la brecha digital que existe entre los distintos miembros de la comunidad educativa y promover más y mejor participación e inclusión. En este artículo mostramos el impacto que la incorporación de la tecnología digital escolar desde esta perspectiva democrática genera en la gobernanza del centro educativo. Principalmente, los resultados nos muestran que esta perspectiva genera más espacios de participa-

ción digital y mejora las relaciones que se establecen en estos espacios.

PALABRAS CLAVE:

Desigualdad social, Democracia, Tecnología de la educación, Participación, Relación padres-escuela.

Resumo

Este artigo apresenta os resultados de uma tese de doutorado que analisa a tecnologia digital democrática da escola e desenvolve uma pesquisa-ação para promover a participação, a inclusão e reduzir as desigualdades nesse campo. A pesquisa concentrou-se em pensar, projetar e construir práticas digitais mais democráticas em uma escola catalã diversa, com o objetivo de reduzir o fosso digital existente entre os diferentes membros da comunidade educacional e promover mais e melhor participação e inclusão. Neste artigo, mostramos o impacto que a incorporação da tecnologia digital escolar a partir dessa perspectiva democrática gera na governança do centro educacional. Principalmente, os resultados mostram que essa perspectiva gera mais espaços para a participação digital e melhora as relações que se estabelecem nesses espaços.

PALAVRAS-CHAVE

Desigualdade social, Democracia, Tecnologia educacional, Participação, Relação pais-escola.

1. INTRODUCTION

The incorporation of digital technology has shaken the daily practices and dynamics of schools (Bosco *et al.*, 2016). Not only with regard to the material dimension (location of the computer room, the computer cart and interactive whiteboards in the classrooms, among other examples), the time dimension (dedication of a certain amount of teaching time to

learning linked to digital technologies) or that related to content (incorporation of digital competence in the school curriculum), but also in what is more hidden and invisible: interpersonal relationships between different educational actors (Albar, 1996; Castells, 2003). Given this situation, a review of the scientific literature shows a persistent and growing interest in the nature (what) and the organization (how) of the relationships that occur in the school context

with the use of digital technology. (Adell & Castañeda, 2015; Beneyto-Seoane & Collet-Sabé, 2016; Beneyto-Seoane & Collet-Sabé, 2018; Beneyto-Seoane *et al.*, 2013; Bosco *et al.*, 2016; Cobo, 2017; Fullan, 2013; Selwyn, 2011, 2016). And what are its effects (expected and unexpected) in educational, relational, democratic and inclusive terms.

This article is added to the investigations that seek to describe, understand and improve digital relationships in the educational context from a democratic and inclusive perspective (Baena *et al.*, 2020). Specifically, it focuses on the impact that adopting a democratic perspective in the face of digital school inequalities could generate. For this, it starts from the theoretical framework, methodology and results of a doctoral thesis on democratic digital school technology, in which an action research on participation and digital inequalities in schools is carried out.

2. DIGITAL INEQUALITY AND SCHOOL DEMOCRACY

Talking about digital relationships in the school context implies attending to the relations of digital inequality. But what do we understand by digital inequality in the school context? To conceptualize this term, we start from two references in the field of digital and educational research. On the one hand, the sociological perspective of the *Relational System of the Digital Divide* (Van Deursen & Van Dijk, 2010; Van Dijk, 2012, 2005; Van Dijk & Van Deursen, 2014). And on the other hand, the *Dimensions of School Democracy* (Feu *et al.*, 2017; Feu *et al.*, 2016).

Regarding to *Relational System of the Digital Divide*, Van Dijk (2005) exposes that “the

point of departure of this notion of inequality is neither the essences of individuals nor the essences of particular collectives or systems but the bonds, relationships, interactions, and transactions between people” (p.11). In this sense, the relational system is defined as a structure that links different elements that condition, determine or influence digital inequality. For this author, this perspective has two advantages. On the one hand, digital inequality does not reside solely in the particular characteristics of each individual, “*this kind of explanation will unearth more of the actual mechanisms creating inequality than will an explanation in terms of individual attributes*” (Van Dijk, 2005, p. 12). On the other hand, it allows differentiation of various types of inequality, since it understands that inequality is created according to how the structures of society value and position the individual characteristics of people: “*the social recognition of differences and the structural aspects of society refer to the relatively permanent and systemic nature of the differentiation called inequality*” (Van Dijk, 2005, p. 12).

The relational system proposed by Van Dijk is characterized by four elements: categorical characteristics (personal: sex, age, birth origin, competencies and personality; and position: work, family, nationality and education); the distribution of resources (power relations with material, temporal, mental, social, and cultural resources); access to digital technologies (related to motivation, material or physical, skills and uses); and participation in society (how people digitally participate in the society). The link established between these four dimensions allows describing how digital inequality is generated and structured:

- 1.- The structural inequalities of society (derived from the value assigned to categorical

characteristics) produce an unequal distribution of resources.

- 2.- An unequal distribution of resources causes unequal access to digital technologies.
- 3.- Uneven access to digital technologies also depends on the characteristics of these technologies.
- 4.- Unequal access to digital technologies causes unequal participation in society.
- 5.- Unequal participation in society reinforces structural inequalities and unequal distribution of resources.

Faced with this system of inequality, the same author considers that the school environment is one of the most important for applying practices that reduce the digital divide so that it influences the future in the context of society.

In relation to the *Dimensions of School Democracy* (Feu et al., 2017; Feu et al., 2016), it is a perspective that proposes four dimensions to identify and define democratic school practices. These dimensions are (Feu et al., 2013, pp. 4-6):

- Governance: it refers to the structures and procedures through which political decisions are made and the public is managed; it refers to a method and rules of coexistence.
- Habitability: political participation in freedom and equality not only in a formal but also in a material matter; concern and response to the conditions in which people live; basic conditions of quality of life and well-being for all the people that governance needs.
- Alterity: it is the acknowledgement of those and what is not like "us", the recognition of the different, the foreigner, the vulnerable person, the minority group, the one who suffers, the one who has another sex or ano-

ther sexuality or capacity, etc. Also the one that is not human because it is an animal, plant, nature or landscape.

- *Ethos*: it is defined as a way of being in the world and with others, which constitutes a basic dimension of the previous three [...] values and virtues were part of an ethos that manifests itself transversally in all three dimensions.

The reason that leads us to use this perspective of school democracy to analyze digital inequalities is that there is a close link with the relational system approach explained above. A first example of this is that there is a familiarity between the power relation systems (which decide the distribution of resources) and the organs of power (governance). A second example is found in the fact that access to digital technology (whether material or temporary) is directly related to the basic conditions of quality of life (habitability). A last example is that attending to the inequality system implies recognizing the others, who are not like "us" (alterity). In this sense, if we add the relational system of the digital divide approach to the democratic school perspective, we can make visible, analyze and propose responses to the digital inequality that we find in educational centers and among its members (teachers, students, families and administration and services personnel "ASP"). On the one hand, because it contemplates the elements that condition and structure digital inequality (Van Deursen & Van Dijk, 2010; Van Dijk, 2012, 2005; Van Dijk & Van Deursen, 2014). And on the other hand, because it views them from a democratic and inclusive perspective that seeks to overcome these inequalities (Feu et al., 2017, 2013, 2016).

Starting from this double theoretical approach, one of the research questions was: what impacts on inclusion and participation could the

incorporation of the democratic digital perspective generate in the school governance of an educational center?

In order to answer this question, we present what were the decision-making processes that were carried out at the center in relation to school organs of government, as well as describe the changes and impacts caused by the digital democratic perspective in the participation bodies (pre and post investigation). We are going to describe this process taking into account the perspective and experience of the different members of the school community: teachers, students, families and administration and services personnel (ASP).

3. METHODOLOGY: RESEARCH ACTION

Action research was chosen from the start (Cohen et al., 2011; Elliott, 1993; Ferrance, 2000; Lewin, 1946; Stenhouse, 1993; Ulvik et al., 2017), for being a methodology in which changes are introduced for school improvement through the collaboration, participation and decision making of the members of the same educational community. In this research, this methodology involved a process of planning, acting, observing and self-reflecting on a situation. It was carried out through the active participation of the researcher and the people involved in the situation (Bartolomé, 1992; Elliott, 1993; Kemmis & MacTaggart, 1988a; Kemmis & MacTaggart, 1988b; Latorre, 2003; McNiff et al., 2003; Ulvik et al., 2017; Beneyto-Seoane et al. 2019). Specifically, the action research focused on: determine the digital and participatory reality in the school context; accompany the educational community in the incorporation and use of digital school technology from a democratic perspective; and determine the impact of digi-

tal practices on digital inequalities, educational inclusion and school governance.

In relation to the data collection tools, the action research used: interviews, discussion groups, questionnaires and document analysis (Bisquerra, 2004; Cohen et al., 2011; Quintanal & García, 2012; Rodríguez et al., 1999).

Regarding the context, the research was carried out at a public school from a municipality of 45,000 inhabitants in the province of Barcelona, which offers classes from the second cycle of infant education to primary education (it is a school of about 450 students, 350 families and a team of 30 teachers). The profile of the families of the center is characterized by a great cultural diversity (60% of them were born outside of Spain). The families' level of studies is medium low (only 36.4% have passed primary school and 39% have completed secondary school). In the professional and labor sphere, 72.6% of families occupy unskilled jobs. In addition, the peripheral location of the school in relation to the center of the city causes it to be far from most of the municipal public services such as the library, the university, municipal offices, museums, the art center, etc.

The main reasons for choosing this center were the ease of access to information and the development of the study and, on the other hand, the characteristics of the school itself (diverse and unequal family profiles with a clear desire to improve its educational practice, and involved in educational and digital innovation networks).

Regarding the data collection and analysis process, 4 main phases are distinguished: preliminary, initial, central and final.

- The preliminary or planning phase of the investigation was carried out in the 2014-2015 academic year. A bibliographic search was ca-

ried out on the main topic of the research to find out the current state of the question on digital school technology. Then, the first contact with the center was established.

- In the initial or action phase (2015-2016 academic year), first, the initial data collection was carried out (the first discussion groups, interviews, questionnaires for families, students, teachers and ASP on the initial state of the question). This allowed to determine the initial situation of the center in relation to school governance. Secondly, a first data analysis was carried out to share the main results with the teachers. And thirdly, the teachers reflected, debated and chose what actions they should develop according to the decision-making bodies and their operation.
- In the central or observation phase, during the 2016-2018 period, the actions carried out in the school related to school governance were observed with the intention of collecting data, evaluating and changing dynamics if necessary. During this observation process, new needs and limitations arose, so new actions were developed (new data collections, discussion groups, interviews, questionnaires, observations and design of actions).
- In the final or reflection phase that took place from the middle of the 2017-2018 academic year to mid-2019, a second collection of final data was carried out and the results were analyzed in order to assess the impact of the project on school governance. Despite the fact that we placed the reflection period in this final phase, we want to highlight that reflection situations occurred throughout the entire investigation process. This has allowed to improve the incorporated actions or detect the need to plan new actions. This constant reflection is what has given the study a

cyclical dynamic, characteristic of an action research.

The action research has collected and analyzed information from five actors of the school community: the students, their families, the teaching team, ASP, and the documentation of the center as well.

- In relation to the students, initial and final data were collected from the fifth and sixth grade primary students through discussion groups. Approximately 100 students participated in total. Each group or class was divided into two subgroups. Two focus groups (initial and final) were carried out with each subgroup, having a total of 8 focus groups.
- Regarding families, 134 responses to the questionnaires were obtained in the first data collection, and 236 in the second collection. In addition to the questionnaires, two focus groups were held (initial and final for each group) with the families that belong to: The School Parents Association (SPA), "Mares d'Enllaç" (mothers linking foreign born and local born families) and the delegated families of the WhatsApp group.
- Regarding teachers, 30 questionnaires were answered in the first phase of data collection and 22 in the second collection. In addition, three focus groups were held with all the teachers, 11 follow-up meetings with the head of studies, three focus groups with the coordinators of the educational cycle (infant education and primary school) and two interviews with the TAC coordinators.
- Regarding the ASP, two interviews (initial and final) were conducted with the school administration and two focus groups (initial and final) were held with the school cafeteria staff.
- In relation to the documentation, an analysis was carried out of the main documents of

the center (Educational Project, Organization and Operation Rules and TAC Project), as well as the main digital platforms that the school uses (web and class blogs).

This methodological structure allowed to collect data on technology, the digital inequalities of a specific school and, focusing on the purpose of this article, on the impact that its incorporation has generated in school governance.

4. IMPACT ON SCHOOL GOVERNANCE: ANALYSIS OF RESULTS

In this section, we expose the impact of action research on school governance. The results have been divided according to the dimensions of governance proposed by Feu et al. (2013): according to the structure or participation bodies (virtual spaces where you can participate) and according to the procedures or relationships established in these bodies.

4.1. IMPACT ON THE STRUCTURE AND DIGITAL PARTICIPATION BODIES

As we pointed out, talking about the participation bodies refers to the structures or spaces where people meet, speak, participate, collaborate, make decisions and act. The results show us that the incorporation of the democratic perspective in the digital dimension of the school has promoted the creation of new structures and digital participation bodies.

Next, we present the different structures that were created as? the first results of the action research.

4.1.1. DIGITAL PARTICIPATION BODIES OF TEACHERS

- Online video about the process of teaching and learning mathematics at school: this action arose from the interest of teachers to provide a resource for families so that they could support their children in school homework related to mathematics.
- Teacher training on digital school technology for participation: in the first results, an interest of teachers in improving their digital skills in school technology for participation was detected. Taking this need into account, the teachers carried out a training that allowed them to add more participatory digital practices in their classrooms.
- Creation of a blog for the early childhood education cycle: this action arises from the need for families in the early childhood education cycle to learn more about the daily school life of their children and the interest of teachers in showing their work to families. The teachers of this educational stage decided to create a blog where they could show the families the activities carried out at the school.
- Review of the rules of the WhatsApp group of teachers: in the first results, certain inconsistencies were detected in the use of the WhatsApp group of teachers. Based on these results, the teachers decided to have two WhatsApp groups: one for important information from the management team or from the coordinators and another group more playful where they can share images, phrases, congratulations, among other topics.
- Preparation of an ICT introduction document for new teachers: the teachers stated that they felt certain limitations when welcoming new teachers to the center, specifically, when sharing the center's digital resources. For this

reason, they decided to create a document that explains the digital resources of the center, their operation and their organization.

- Digital informative notes: the teachers detected that the informative notes on paper addressed to the families, often did not reach their destination. For this reason, they decided to reinforce these notes and also send them via email.

4.1.2. DIGITAL PARTICIPATION BODIES OF STUDENTS

- Elaboration of YouTube videos where the students make book recommendations: this proposal was born from the interest that the students had in using the YouTube video platform. Teachers noted this interest and incorporated the use of this platform in the Catalan language course (students made book recommendations through this platform).
- Training of sixth-grade students on internet security: the students showed a certain lack of knowledge about the dangers and safety on the internet in the first results (especially those students with families of immigrant origin, a low level of studies and with a low job position). In addition, teachers detected certain risk situations. For this reason, the teachers decided to carry out a training with sixth graders on internet security.

4.1.3. DIGITAL PARTICIPATION BODIES OF FAMILIES

- Linkage of Catalan language classes to school digital technology: it was detected in the first analysis that families with less linguistic competence in Catalan were also those with less digital competence. This situation meant that these families were also the ones that least consulted the school's web spaces. For this

reason, teachers decided to teach Catalan using the school website (families had to solve problems by looking for information on the school website).

- Creation of a WhatsApp group for families: the families showed a high interest in improving communication with the school in the initial phase, for this reason they proposed to create a WhatsApp group. In this group, the delegated families of each class and the head of studies were added. In this group they shared relevant information from the school (field trips, last minute notices, organizational aspects, reminders, among other examples).
- Enabling email for communication between families and school: teachers decided to create an email to communicate with families based on the same interest detected in the previous action (improve communication between families and school). In this way, instead of calling the school (e.g., to report an absence), families could send an email (reporting the absence).

4.1.4. DIGITAL PARTICIPATION BODIES OF THE ASP

- Preparation of a *lipdub* about the school cafeteria: it was observed through the first results that one of the most invisible school agents in digital spaces was the staff of the cafeteria. With the intention of giving visibility to the service and the staff, they made a *lipdub* with the intention of showing it to the school community.
- Creation of a section on the school website describing recipes from the school cooks: the teachers created a space on the school website where the cooks proposed their recipes or explained what daily life is like in the school cafeteria.

In the different spaces that we have just presented, we can observe dimensions such as access (motivation, material, skills and uses) (Van Dijk, 2005) or habitability (creating the conditions for participation) (Feu et al., Serra, Canimas & Simó, 2013) are present. For example, access to technology is promoted, interests and motivations are gathered to design a digital technology adapted to school needs and interests, and the knowledge of the different members is recognized to improve their digital skills.

From the spaces and bodies that we have just exposed, we can sketch the following section linked to the procedures and relationships established in these participation bodies.

4.2. IMPACTS ON PROCEDURES AND RELATIONSHIPS

When we speak of the impact on procedures and relationships from a digital democratic perspective, we refer to the transformations that have occurred in the objects of discussion (the aspects on which decisions are made) and in decision-making (relationships of power that are established when participating in technological environments) (Feu et al., 2013) that occur in the spaces of participation. We also refer to power relations, the distribution of resources or the recognition of others for digital access (Van Dijk, 2005).

In relation to the spaces for participation and decision-making, we observe that the people involved in the spaces of participation have mainly been all school agents (teachers, students, families, and non-teaching staff) based on the results collected in the final and reflection phase (2017-2018). However, those who have made almost all the decisions have been the teachers. They were primarily responsible for thinking, designing, building, and developing

action research actions. Next, we specifically expose how the relationships established from the research have been.

4.2.1. DIGITAL PARTICIPATION RELATIONSHIPS OF TEACHERS

As we have previously explained, the teachers decided to create a new WhatsApp group. The intention was to be able to differentiate important school information from more personal information. This intention indicates that the democratic digital perspective promotes that teachers want to improve the quality of participation in digital decision-making spaces. In other words, the perspective encourages teachers to bet on improving the quality of access to digital school technology (Van Dijk, 2005) and improving their participation and involvement in school decisions.

A second result that we find in the relations of digital participation of teachers is that the democratic digital perspective modifies the power relations that exist in the teaching staff. The decision to create and design a new WhatsApp group was made based on the interest and need of the entire teaching staff (and not only from the management team). This situation shows us that this perspective generates experiences of equality among teachers, regardless of the position they occupy.

4.2.2. RELATIONSHIPS OF DIGITAL PARTICIPATION OF THE STUDENTS

Through the results of the research on the relationships of digital participation of students, we observe that at the end of the project there have been some changes in decision making and student access.

An example is that, at the beginning of the research, the students could make some decisions about aspects related to the classroom (choose who to do the work with, who to sit with or what to do in their spare time), but no decision was linked to the digital environment. On the other hand, in the final results, the voice of the students (their opinions and motivations) took a new dimension and influenced the type of digital activities that were carried out in the classroom. This change occurred because the teachers recognized the opinion of the students and decided to incorporate their motivations into the educational practice. This situation can be observed in the recommendation of books through YouTube and the training on network security.

From these examples we highlight three aspects. First, we observe that adopting the democratic digital perspective promotes that the school looks for new ways of articulating student participation (Dahl, 1999; Dewey, 1995; Feu et al., 2013) and improve motivational access to technology (Van Dijk, 2005). Second, it encourages teachers to build strategies to guarantee the same access to digital technology for all students (Van Dijk, 2005) when training on digital security is offered to all students. Third, although we observe that the democratic digital perspective has favored the recognition of the interests of the students and has promoted certain changes in classroom practice, there is still a long way to go regarding decision-making. Through the results we observe that who ends up making the last decision about the digital actions that concern the students are the teachers, and in no case are the students themselves. In the initial phase, the students formulated a list of improvements that they would make in relation to digital school technology (e.g., create a web communication space, make videos about their abilities, access computers in infor-

mal spaces, among others), but the teachers were the ones who prioritized and chose the proposals, and established how and when they would be carried out. In other words, the digital democratic perspective favors the recognition of the interests and needs of students (what), but it does not seem to make them participate in decision-making (how and when), nor does it profoundly modify the power relations established between teachers and students (Dijk, 2005; Feu et al., 2013).

4.2.3. DIGITAL PARTICIPATION RELATIONS OF FAMILIES

When we compare the initial and final results on the school governance of families, we observe that after the action research there were certain changes in the relationships of digital participation of families. Some of the most relevant changes are linked to power relations and digital access.

Regarding power relations, families showed a high interest in being more informed about school daily life and in improving their participation in school in the first results. The teachers showed similar interests. Faced with this situation, families and teachers organized to think about how they could improve their relationship and collaboration. To respond to this need, they jointly created a WhatsApp group. This situation shows us that embracing the democratic digital perspective allows families and teachers to speak, share and reflect on their relationships and how they participate in the school. It also motivates them to promote improvement actions. This situation indicates that the democratic digital perspective favors the approach, recognition and collaboration between families and teachers. (Feu et al., 2013).

Another aspect that the results of the research related to power relations show us is regarding

the degree of institutionalization. We observe that after adopting the democratic perspective, families not only make decisions in the formal government bodies (school council, SPA, coordination ...), but they begin to be taken in more informal and digital spaces (the WhatsApp group of families and teachers). This informal digital space also becomes a space for consensus and decision-making, a space for governance.

In the final results we also observe that families, apart from being the recipients of school information, begin to have a more active and participatory role (at the time they take charge of the WhatsApp groups and their rules). We note that teachers give them some decision-making power in this area. This indicates that the democratic digital perspective conditions the degree of decision-making, allowing families to stop being mere recipients of information and allowing them to become more part of the digital school environment.

The changes produced in the digital relations between families and schools, in the degree of institutionalization and in the degree in decision-making, indicate that the democratic digital perspective once again affects power relations (more horizontal and equal relations are established between families and teachers) (Collet-Sabé and Martori, 2018); in the distribution of resources (more spaces are created to communicate, collaborate and participate); and in digital participation (Van Dijk, 2005), although teachers are the last agents to approve (or not) a decision.

In relation to digital access, we observe that the democratic digital perspective has promoted inclusive digital practices that have sought to reduce the existing digital divide between families. An example of this were the Catalan language classes in school digital technology.

These have tried to offer families both linguistic and digital skills in order to be able to function satisfactorily in everyday school, regardless of their categorical characteristics. (Van Dijk, 2005).

4.2.4. DIGITAL PARTICIPATION RELATIONS OF THE ASP

In relation to the ASP, the results of the research show us that the democratic digital perspective promotes, as we have already commented in previous situations, the creation of new spaces for digital participation, especially when the intention is to make those most invisible school agents visible. (Barroso, 1995; Feu et al., 2013). However, we observe that the creation of these digital spaces has generated some discontent in the ASP that has participated in the research after analyzing the results. This data analysis shows us that this discontent arises because the incorporation of said perspective has been imposed and does not appear from the motivation of the agents involved (from the management team to the ASP).

This situation shows two aspects. On the one hand, the democratic digital perspective insists on recognizing and including those invisible school agents. On the other hand, the imposition of the democratic digital perspective does not guarantee that the agents participate in a real and meaningful way. This situation makes it necessary to improve power relations, promote equity in the distribution of resources (Van Dijk, 2005) and incorporate this perspective from the proposal, collaborative construction and taking joint decisions (Feu et al., 2013), in order to integrate this perspective in a satisfactory way.

5.CONCLUSIONS

Through the results of action research, we can draw three major conclusions. First, we can conclude that the democratic digital perspective pushes the different members of the school community to speak together about school participation, reflect on what are the existing power relations in the center, rethink the distribution of digital resources and improve school digital access.

Secondly, we observe that the democratic digital perspective promotes, on the one hand, the recognition of all members of the educational community in decision-making bodies. On the other hand, it encourages the generation of new digital spaces for participation that are more inclusive and less unequal.

Third and lastly, despite the clear intentions of the perspective to improve digital and democratic quality, we observe that there is still a hierarchical order that limits progress towards optimal quality. An order in which teachers have the last word (power) in everything related to digital school technology and participation (on students, families and ASP). Teachers are ultimately responsible for deciding what needs are prioritized, what actions are developed and how they should be done. In this sense, there is still a long way to go and this perspective must be developed to achieve greater horizontality, better participation and inclusion of all the school community. In this way, it seeks to avoid possible situations of exclusion (as in the case of prioritizing the list of student needs) or discontent (as we have observed in the case of ASP).

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Informative habits and online participation: a study about young undergraduates in Argentina

Hábitos informativos y participación online: un estudio sobre los y las jóvenes universitarios/as en Argentina

Hábitos de informação e participação online: um estudo sobre os e as jovens universitários/as na Argentina

3

ARTICLE



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Abstract

This research explores the information habits and digital participation practices of young undergraduates in Argentina. A mixed methodology was used that combined quantitative and qualitative data obtained from surveys (n = 1243) and interviews (n = 132). The results indicate that students are informed in two stages: they find the news incidentally and then delve into those news with which they empathize. They prefer digital environments,

but television is part of their informational habits. They read what others share and comment, but prefer to stay away from digital conversations.

KEYWORDS

News consumption, Undergraduates, Social media, Political participation, Digital public space.

Resumen

Esta investigación explora los hábitos informativos y las prácticas de participación digital de los

y las jóvenes universitarios/as en Argentina. Se utilizó una metodología mixta que combinó datos cuantitativos y cualitativos obtenidos a partir de encuestas (n=1243) y entrevistas (n=132). Los resultados indican que los y las estudiantes se informan en dos etapas: se encuentran con la noticia incidentalmente, y luego profundizan en aquellas noticias con las cuales empatizan. Prefieren entornos digitales, pero la televisión forma parte de su dieta informativa. Leen lo que otros comparten y comentan, pero prefieren mantenerse al margen de las conversaciones digitales.

PALABRAS CLAVE

Consumo de noticias, Estudiantes universitarios, Redes sociales, Participación política, Espacio público digital.

Resumo

Esta pesquisa explora os hábitos informacionais e as práticas de participação digital de jovens universitários/as na Argentina. Foi utilizada uma metodologia mista que combinou dados quantitativos e qualitativos obtidos a partir de questionários (n = 1243) e entrevistas (n = 132). Os resultados indicam que os e as estudantes são informados em duas etapas: eles encontram as notícias por acaso e depois se aprofundam nestas notícias com as quais eles simpatizam. Eles preferem ambientes digitais, mas a televisão faz parte de sua dieta informativa. Eles leem o que os outros compartilham e comentam, mas preferem ficar afastados das conversas digitais.

PALAVRAS-CHAVE

Consumo de notícias, Estudantes universitários, Redes sociais, Participação política, Espaço público digital.

1. INTRODUCTION

The incorporation of social media into daily practices has caused the modification of a large part of social, political, cultural and educational processes, in a versatile scenario of constant mutation in which the interaction between technology, uses and the public is steeply and continuously transformed. One of these changes is related to news consumption and political participation. On the one hand, the gradual abandonment of traditional media as a source of information accompanied by a growing consumption of news on social networks is the subject of academic analysis due to the consequences that this change seems to bring to the formation of informed publics, necessary for the construction of a society based in democratic values (Dahlgren, 2018; Pariser,

2017). Likewise, social networks have enabled new spaces and performances of participation, mobilization and political activism, previously reserved for the urban sphere (Jenkins et al., 2018) especially in younger communities (Tarullo & García, 2020).

The highest percentage of internet connections in Argentina is concentrated in the youngest population: almost 80% of Argentines between the ages of 15 and 34 are daily Internet users and the highest percentage of social networks users is also in this age range (INDEC, 2017, 2018; Sistema de Información Cultural de la Argentina, 2017). Argentina is the third in the ranking of countries whose population spends more hours browsing profiles in social media (Kemp, 2018).

Facebook, YouTube and WhatsApp are the most used social networks in Argentina (Hootsuite, 2018; Sistema de Información Cultural de la Argentina, 2017). Followed by Instagram (27.30%), Twitter (13.20%), Snapchat (6.30%) and LinkedIn (2.10%) (Hootsuite, 2018; Sistema de Información Cultural de la Argentina, 2017). However, Instagram has grown steadily in the last year among adolescents and young people for an architecture based on sharing photos and videos, and stories that only last 24 hours in the digital space (Alhabash & Ma, 2017; Anderson & Jiang, 2018; Newman et al., 2019).

These novel habits in technological devices modify behaviors and practices, including those related to news consumption and political participation. The vast majority of Argentines say they inform themselves on online spaces: 86% affirm that the web is the main source of news (Newman et al., 2019), this percentage includes the search for content on informative sites that only operate online and the incidental consumption of news published on social networks (Antunovic *et al.*, 2018; Serrano-Puche *et al.*, 2018). In this sense, 63% use Facebook for information, while WhatsApp is chosen by 39% of the population, Twitter by 15%, YouTube by 25%, Instagram by 18% and Facebook Messenger by 11% (Newman et al., 2019). Instagram is the only social network that not only has not decreased the number of Argentines who use it to be informed, but also has grown five points compared to 2018 (Newman et al., 2018; Newman et al., 2019).

In the latest report on digital cultural consumption in the country, it is stated that 35.40% of Argentines comment and share content of any kind on social media and more than 32.80% read the publications but do not comment on them (Sistema de Información Cultural de la Argentina, 2017). Regarding interaction with news content, 58% of social network users sha-

re news on these platforms or via email, while 31% choose to comment on content of public interest (Newman et al., 2019). In this scenario, this research investigates the information habits of undergraduates in Argentina to find out their sources of news consumption and asks whether or not they use the interaction tools that social networks allow when this group claims to consume news in digital spaces, such as content sharing and the ability to express comments. These practices can be understood as collaborations in the expansion of public space and in the participation in public issues (Dahlgren, 2018; Jenkins et al., 2018; Pereira et al., 2012).

2. BACKGROUND OF THE TOPIC

An important group of investigations shows the essential role that news consumption has for the democratic life of a society based on its impact on the social, cultural and political participation of citizens in general (Bailey et al., 2014; Carpentier et al., 2013; Dahlgren, 2005) and the youngest in particular (Almansa-Martínez *et al.*, 2013; Barredo Ibáñez et al., 2018; García Jiménez et al., 2018; Yuste, 2015).

Among the various studies that have served as a background for this article, the research of Antunovic *et al.* (2018) stands out and concludes that surveillance, incidental access to news and direct consumption of it from different interests and motivations, are the three moments that make up the new information behaviors of young people who primarily use the digital space (Antunovic et al., 2018). Access to news in digital spaces and through mobile phones, but in coexistence with traditional media, is part of the information habits of young Spaniards in a scheme in which the social and family routine affects this civic practice (Martí-

nez Costa et al., 2019). A recent study on information habits and political participation among university students carried out in Colombia reveals the low participation in online and offline spaces of this social group (Barredo Ibáñez et al., 2018). Casual access to the news from social networks and quick access to informative content in digital spaces to check news of interest are part of the conclusions of the investigation by García Giménez et al. (2018). A study on incidental consumption of news on Facebook reveals that prior knowledge on the published topic is the main reason for involvement with the news that users casually find in that social network (Karnowski et al., 2017). In Argentina, the work of Mitchelstein and Boczowski (2017) examines the incidental consumption of news based on the informative content that young people find on their timeline when browsing digital networks.

Consuming news about public affairs is associated with the formation of a civic subject committed to participating in topics of general interest and also with the exercise of duties and rights as citizens (Martinez & Maldonado, 2017; Valenzuela, 2013). Likewise, being informed is one of the fundamental pillars for speaking and discussing public affairs in socialization spaces. (Brites, 2017; Campbell & Kwak, 2011; Graber & Dunaway, 2017; Habermas, 1990, 2006).

With informative consumption practices in digital spaces, the architecture of social networks provides tools for interaction and conversation that allow an expansion of that Habermasian discussion space (Carpentier et al., 2013; Dahlberg, 2001; Dahlgren, 2018). On this question, different studies have investigated with different and even contradictory results. On the one hand, there are the investigations that maintain that social networks have collaborated in the expansion of civic participation (Dahlgren, 2018; Papacharissi, 2015), while other studies

show that what happens in digital areas does not have its corollary in the offline world, and that practices in the online dimension are typical of *slacktivism* or couch activism rather than real manifestations of participation (Fuchs, 2017; Gladwell, 2010; Morozov, 2011). This scheme is complemented by the expanded use of smartphones as access devices to the digital world of news (Deloitte, 2018). Although for some, the consumption of news through smartphones is the only way to access informative content (Mossberger et al., 2013; Napoli & Obar, 2014), the cell phone screen limits the attention and consultation of news for a large majority and is related more to a “sample” of content than to the concentration and attention that these types of publications demand (Dunaway et al., 2018).

Likewise, recent research indicates that the increasing use of Instagram and Snapchat to the detriment of Facebook by younger age groups has essential consequences regarding news consumption. Although this social network has been used to transmit false news, especially in periods of electoral communication campaigns (Bounegru et al., 2017; Guess et al., 2018; Tucker et al., 2018), the interactions that Facebook allows are not allowed by Instagram or Snapchat, networks that currently receive migrated youth and adolescents from Facebook (Tarullo, 2020) and whose architecture prioritizes the image over the text, and the emoji over the word (Brake, 2018; Sampietro, 2019).

The objective of this study is to investigate the informative habits of undergraduates in Argentina using the following research questions:

RQ1: What are the sources of information of the population group studied?

RQ2: What are the mediums they choose to access news in the digital space?

RQ3: What is the frequency and depth with which university students are informed?

RQ4: To what extent does the studied group interact with digital news content using the tools that social networks support?

3. METHODOLOGY

This research used a mixed methodology. A questionnaire was carried out in digital format for the collection of quantitative data. At a later stage of the study, semi-structured interviews were conducted in order to obtain qualitative information that would allow the phenomenon of study to be examined and analyzed in all its complexity. The participants were undergraduate university students from central Argentina, as detailed below, who belong to the National University of the Northwest of the Province of Buenos Aires (UNNOBA), Argentina. The research is based in this institution because it is a line of study of a broad project that explores the digital skills of university students and professors and the relationship of these skills with their academic and civic practices.¹ The UNNOBA student body is made up of more than 85% by students who come from localities in central Argentina (UNNOBA 2015, 2016, 2017).

For the collection of quantitative information, a sample (n = 1243) stratified by academic school was constituted from a simple random sampling among the students who attended class in

the period between May 20 and June 10, 2018.² 95% of the participants were between 18 and 24 years old, with a mean of 24 years and a mode of 21 years. The distribution by gender of the sample is 39.70% men and 59.50% women, while 0.80% preferred not to specify.

With a confidence level of 95%, the obtained results cannot be extrapolated to the entire Argentine university population due to the exploratory nature of this study.

To collect the qualitative data, a non-probability sample was designed using the snowball technique. The representativeness in the gender and in the academic school of origin of study of the respondents was achieved by putting together, in the first instance, a set for convenience of one male student and one female student for each school. This initial sample of eight students in total was the beginning of the linear sampling to access the definitive sample of n=132 interviews. Half of the interviewees identified themselves as female and the other half as male.

3.1 INSTRUMENTS AND VARIABLES

3.1.1. QUESTIONNAIRE

To assess the relevance of the questions included in the questionnaire and the convenience of the digital format of the survey as a data collection tool, the design of the tool was tested in a group of 30 students (N = 30) selected from a convenience sampling. With the obtained results, the questionnaire was examined in detail to make the necessary adjustments, questions and response options were corrected. Finally,

¹ This research is within the framework of the R&D Project "Digital competences in the university and its impact on the academic and civic practices of students and teachers"

(Exp. 0556/2019) financed by the National University of the Northwest of the Province of Buenos Aires, UNNOBA.

² UNNOBA is constituted of the following faculties: Technology, Agriculture, Natural and Environmental Sciences, Economics, Jurisprudence and the Institute of Human Development.

the designed survey included closed questions with a single answer and on objective aspects related to: the informative habits of undergraduates, the identification of social networks as a source of news and the use of interaction tools in relation to the news content that the participating group consumes in digital spaces, such as sharing and commenting.

The thematic axes included in the questionnaire that the participants answered were related to:

- Sources used to access news.
- The device or medium used to access digital news.
- Frequency of news consumption.
- Depth of news consumption.
- Consumption of news shared by contacts.
- Sharing news on social networks.

In all the questions included, the range of options was constructed from the answers obtained in the test carried out before the application of the final questionnaire to the study sample (N=1243).

After the questionnaire was presented by the research team prior to the class, the students answered the questionnaire in digital format and anonymously through their mobile phones during the period between May 20 and June 10, 2018. The response time was between 7 and 10 minutes.

3.1.2. THE INTERVIEW

For the interviews, a guide for interviewers was used with exploratory questions on various topics of the research project and from which the results included in this article arise.

The interviews conducted by the author and ten other members of the study group were executed face-to-face and recorded with the participants' oral consent. The average duration of the interviews was 34 minutes. In a second stage, they were recorded entirely by project participants. To guarantee anonymity, false names were used. Interviews were conducted in common institutional spaces such as hallways, library, dining room, and other meeting places of the academic community. The sampling was performed by saturation of the information collected rather than in the representation of the number of determined individuals (Mejía Navarrete, 2000)

The analysis of the interviews began with the review of the transcripts. From this individual coding, recurring themes were identified regarding the informative habits of young people, as well as the participation of this group in digital spaces.

In both instruments, it was indicated that news was understood as "all information about events and topics that involve more than just the lives of their family or friends" (MESO, 2018, p.16).

4. RESULTS

Regarding the RQ1 on which is the source that university students choose to inform themselves, the data obtained indicates that 46.10% (n = 573) prefer digital environments to access informative content. This participation includes the incidental encounter with the news while consulting and browsing social media walls (Karnowski *et al.*, 2017; Mitchelstein & Boczkowski, 2017). It also includes the fact of investigating the details of those informative contents of their interest and whose first access could be made through different channels: digital adver-

tisements, notifications, a post shared by their contacts or television news. This practice could be observed in previous studies (Antunovic et al., 2018). Alicia, an engineering student, explained this practice in the interview conducted in this study commenting the following: "I get informed by checking twitter or watching television, and if there is any news that interests me I look for it on the internet in some online newscast that explains it better because there are times that they don't explain it very much on television. So if it interests me, I look for it."

This first access to the news is considered in some previous studies as quick and vigilant monitoring (García Jiménez et al., 2018), while others describe it as incidental consumption of the news (Mitchelstein & Boczkowski, 2017). This is synthesized by Melina, a design student, when she explains: "I get informed with what appears, with advertising in general. I do not follow any means of communication like El Clarín or Infobae. But if I'm interested in what appears, I go in and read it." The same happens to Jazmín, a law student: "I generally do not visit news sites, but the news appears to me on Facebook, Instagram or Google ads on the phone. If I'm interested, I'm going to get involved, but I don't particularly look for them on an online site, I find them."

Traditional media continue to be an option for undergraduates when it comes to staying informed, although with uneven percentages: almost 37.80% (n=470) of those surveyed still prefer television to consume news, while reading the newspaper is an informative practice represented only with 1.80% (n=22) of university students. These results are close to the parameters observed at the global level of traditional media, while the newspaper and radio have lost audience partly due to the migration of their followers to digital versions of these media. Television still holds the public's attention

when it comes to reporting routines (Newman et al., 2019).

Watching the television news program at noon and at night remains a family news habit among the population group studied, despite the fact that the media ecosystem has changed: "I watch TV at lunch or dinner from Monday to Friday, and well, on weekends not because there is no newscast," says Morena, a student of economic sciences. The newscast is watched as a family, it is a custom that has been sustained over time and has been observed in previous studies (Martínez Costa et al., 2019). Jana, a computer science student says: "At 12 noon we watch *Telefé* and at night we watch the newscast while we eat as a family." Likewise, the TV always on also affects the high percentage of students who inform themselves by this means: "I get information from the newscast at dinner, with the family, but also because it is what is always on at home," says Matías, a nursing student.

The response of Nicolás, a mechanical engineering student, synthesizes this convergence of media and practices to stay informed: "I put the TV on in the background mainly in the news channels, in TN, *Telefé* and especially when I have dinner or lunch. I watch and listen, and based on that I will find something that interests me on the internet. My source of information is the internet, because it's all there and you can read many things."

A significant figure is 5.80% (n=72) of the respondents who get informed through WhatsApp on a behavior of audiences in the consumption of news that has begun to be studied in the academia, especially in electoral scenarios and the incidence of this practice in the diffusion of false news and scenarios that collaborate in the disinformation of the citizen (Bounegru et al., 2017; Guess et al., 2018; Tuck-

er et al., 2018). When inquiring in the interviews about these habits, the participants explain that they usually dismiss or check the news they receive on WhatsApp: "If I am interested, I investigate or go deeper. If I do not, I ignore it. Sometimes they are nonsense, I am not interested," says Damián, a law student. Alejo, from engineering, says that he usually receives news via WhatsApp but it is local news from his town, and related to traffic accidents. María, from the nursing school, says that the news she receives via WhatsApp are related to her degree: "some discovery or vaccine, always related to health issues." 8.90% (n=110) of the sample said that they do not consume news, demonstrating the importance that this population group gives to being informed.

Regarding the RQ2 that examines the media chosen to access news in the digital space, the results indicate that the smartphone is the most used device by students to access the digital world in general and the world of news in particular. 88.41% (n=1090) prefer this device to browse online, while the remaining percentage is divided between notebooks (6.22% n=77), desktop computers (4.90% n=61) and tablets (0.47 %, n=5). This almost universal use of the mobile phone, identified in previous reports (INDEC, 2018), is synthesized by Georgina, a law student that states: "The phone is an extension of my body." "It is my everything," confesses Pedro who studies administration.

The studied population group uses their smartphones to access their social network profiles, get informed and, secondly, look for more information about those contents that motivate and interest them. For this reason, Juana, from the nursing school, identifies her mobile as something that accompanies her everywhere and lets her navigate everywhere. Thus, the smartphone is that part of the body that the youngest use for their daily practices, among which

information consumption is included (Tarullo, 2020).

Regarding the research question about the frequency and depth of news consumption, the findings of this study reveal that 50.70% (n=630) claim to consume news every day, 41.70% (n=518) some days a week and 3.70% (n=46) get informed only once a week. Likewise, almost 57.90% (n=720) read the complete note, 25.30% (n=314) read the first five lines and 13.50% (n=166) read only the headline. When inquiring about this practice in the interviews, the complete consumption of the news is related to the particular interest, which is consistent with the first search for news content that is related to individual preferences. "If I am interested, I read them to the end," says Alberto, a law student. Lola expresses the same thing: "If the news reaches me and interests me, I look for it. And if I find it and I'm interested, I read it in its entirety. If not, I just leave as I get bored."

Regarding RQ4, 15.51% (n=192) share news with their contacts on social networks, while the percentage amounts to more than double (33.36% n=416) of those who say they do not share news content on these platforms. 48.48% (n=602) of the population group studied said that they only do it sometimes and 2.65% (n=33) revealed that they do not read news on social networks. Regarding the consumption of information content shared by contacts on social networks, 14.30% (n=178) preferred not to access this content, while 82.90% (n=1030) chose to consume the shared news. If sharing is not a widespread practice among young people, neither is the expression of comments: Facundo, although he shares the screenshots he publishes in his stories on Instagram, says that he never comments: "I share news, I read what others think, but I do not share. I do not like it." Andreína, from the Faculty of Agronomy, prefers non-virtual and face-to-face meetings

to make comments and express her opinion: “we talk about politics in meetings with family and friends, I chat a lot and I try to get informed by family and acquaintances. I try to draw conclusions and find something positive in the news, but I do not have an opinion on social networks.” Pedro also prefers the presence and intimacy of his closest contacts to give his opinion: “I don’t feel like sharing my opinion on certain news. I discuss them with my friends, I have some friends with whom I can share like ‘did you saw what happened with such...’, but in some meeting, face to face, not on social networks.”

And just as reading what is shared is more common than sharing, the studied group claims to read the comments but prefers not to comment. The matter of reading the opinions of others is related to two topics: curiosity and fun. Ernestina, from the law school, says that she is not interested in giving public opinion but that she does read the comments that others leave: “I do it to see what people think about this issue, the views they have on a subject.” Jana reads for fun: “Yes, and I laugh a lot at the comments. I think I spend more time there than reading the news, I read them for fun.” Katia does the same because she says: “there is always a joker who publishes a gag in the middle.”

Paradoxically, the reasons for not participating in public discussions and conversations in digital spaces are related to the violence that they observe in most interactions: “People fight a lot, they are very violent. I don’t want to go through that,” said Juana, a nursing student. “Once I tried, I left a comment on Twitter, but deleted it. They started to attack me so much that I left,” José confessed.

5. DISCUSSION AND CONCLUSIONS

University students from central Argentina access the news in two stages (Antunovic et al., 2018). First, they find the news incidentally on the walls of their social networks (Mitchelstein & Boczkowski, 2017; Serrano-Puche et al., 2018), they receive notifications on their mobile devices, they are offered advertising from some journalistic medium while browsing digital environments or watch it on the television newscast. This causes the young people studied here to consider that they inform themselves daily, although this is not a practice that they carry out in a conscious or reflective way, at least in this first moment. In a second phase, if the content of the news found through browsing or in the newscast is related to their interests, they carry out a search consistent with these motivations (Antunovic et al., 2018), carefully and thoughtfully.

In this two-step information diet, television continues to be the protagonist, a fact verified by other studies (Antunovic et al., 2018; Martínez Costa et al., 2019). Young people continue to reproduce a habit that resists the passing of the years and the changes in media ecosystems: the television newscast is watched as a family and while having lunch and dinner. However, this practice is complemented by the second stage of the informative routine of the studied group, characterized by the search for those news topics with which the students say they feel attracted or motivated. It remains for future studies to determine what these topics are and if the topic affects the channel chosen for the search.

As observed in previous studies on information habits and political participation of university students (Barredo Ibáñez et al., 2018), the use of digital interaction tools is not frequent in the

studied group, at least in the case of informative content. This unequal relationship between those who consume the news shared by their contacts on one of the social networks they regularly use and the practice of sharing seems to indicate that young undergraduates continue with informative habits that refer to traditional media, based on a model of communication in which the public remains in its role of receiver despite having devices and platforms that enable the exchange of content and roles (Graham et al., 2013; Graham et al., 2014).

This passive rather than active observation intervention was also identified in the qualitative approach when investigating the participation of young people by commenting on the informative content: students read what others write, comment and think on social networks about topics of public interest but choose not to make their own comments public. Although they use social networks for their daily practices (INDEC, 2018), sharing visions and issuing comments remains for the face-to-face sphere in meetings and encounters with an intimate circle of friends and family where there is no aggression or violent discussions, which turn out to be expellers and inhibitors of youth participation practices in digital environments. We ask ourselves in light of these results, if the moment of the family television newscast turns out to be the meeting in which comments are shared and opinions are made public. This concern may motivate future studies that allow us to continue understanding the phenomenon discussed here.

As the smartphone is the screen from which young people enter the world of news, it would

be enriching to investigate how the attention with which content is accessed is molded from the use of these devices to recognize the degree of incidence of the mobile in the attention provided by the university student to the analysis and interpretation of news related to public affairs of common interest (Dunaway et al., 2018).

Therefore, the particular interest in the formation of a personal and individual informational diet based on searching for those contents with which they empathize, plus the scarce participation and digital interaction with informative contents puts into question the role of social networks in expanding public space (Couldry et al., 2014; Dahlgren, 2011). It remains to investigate in future research what are those issues with which young people empathize and how many of these coincide, or not, with topics of public interest, attending to the need to be informed to collaborate in the construction of a society based on democratic values (Bauman, 2012; Couldry et al., 2014; Pariser, 2017).

This study has its limitations. Due to its exploratory nature, its results cannot be extrapolated to the entire Argentine university population. On the other hand, it would be enriching to study in depth other forms of political participation in digital environments of young people beyond those studied here. It would also be important to delve into the issues related to the conversations on issues of public interest that the youngsters said to carry out in face-to-face meetings and encounters and their possible interaction with the digital participations of the studied group.

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Engajamento entre políticos e seguidores no Facebook. O caso das eleições gerais de 2016 na Espanha

4

ARTICLE



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Abstract

Social networks have incorporated citizens into political life, especially in electoral periods. The objective of this research is to evaluate which elements of the messages disseminated by politicians on Facebook favor a higher degree of engagement, support and commitment from followers. The posts published by PP, PSOE, Podemos and Ciudadanos, and their respective candidates are examined with the techniques of content analysis during the campaign of the 2016 general elections in Spain. The results indicate that the degree of engagement is very low, despite registering significant levels of interaction.

KEYWORDS

Facebook, Social media, Political communication, Electoral campaigns, Interaction, Engagement.

Resumen

Las redes sociales han incorporado a la ciudadanía en la vida política, especialmente en periodos electorales. El objetivo de esta investigación es evaluar qué elementos de los mensajes difundidos por actores políticos en Facebook

favorecen un mayor grado de *engagement*, apoyo y compromiso de los seguidores. Con las técnicas del análisis de contenido se examinan los *posts* publicados por PP, PSOE, Podemos y Ciudadanos, y sus respectivos candidatos, durante la campaña de las elecciones generales de 2016 en España. Los resultados indican que el grado de *engagement* es muy bajo, pese a registrarse niveles de interacción significativos.

PALABRAS CLAVE

Facebook, Social media, Comunicación política, Campañas electorales, Interacción, *Engagement*.

Resumo

As redes sociais incorporaram os cidadãos à vida política, especialmente nos períodos eleitorais. O objetivo desta pesquisa é avaliar quais elementos das mensagens divulgadas pelos atores políticos no Facebook favorecem um maior grau de engajamento, apoio e comprometimento dos seguidores. Com as técnicas de análise de conteúdo, se examinam os posts publicados pelo PP, PSOE, Podemos e Ciudadanos, e seus respectivos candidatos, durante a campanha das eleições gerais

de 2016 na Espanha. Os resultados indicam que o grau de engajamento é muito baixo, apesar de registrar níveis significativos de interação.

PALAVRAS-CHAVE

Facebook, Mídias sociais, Comunicação política, Campanhas eleitorais, Interação, Engajamento.

1. INTRODUCTION¹

Social networks have achieved a relevant presence in electoral campaigns. At the same time, they have changed the way of disseminating information and involving citizens in political life (Gil de Zúñiga et al., 2018). These platforms allow a hybrid and bidirectional communication model (Chadwick, 2017) more balanced and participatory between political parties and their voters.

Most of the literature has focused on the use of Twitter, although Facebook is the social network with the most users (Galeano, 2019). Although the study of dialogue is gaining interest as a way to retain followers (Miquel-Segarra et al., 2017; Pennington et al., 2015; Valera-Ordaz, 2019), the analysis of the uses and functions that politicians attribute to social networks predominates (López-Meri et al., 2017; García-Ortega & Zugasti-Azagra, 2018).

In this context, the objective of this work is to deepen the knowledge of the relationships established between politicians and voters on Facebook. Specifically, the analysis focuses on the degree of engagement generated by the parties and their candidates from the interactions with their social audience in the 2016 general elections in Spain. With this approach, it is sought to know which factors generate greater commitment among the potential electorate

on Facebook, which is a little studied phenomenon, at least in the case of Spain.

2. POLITICIANS AND THE ELECTORAL USE OF FACEBOOK

Political actors mainly resort to social media for three reasons: marketing, mobilization and the opportunity to dialogue with the electorate (Woolley *et al.*, 2010). Regarding marketing, politicians better capture voters' attention when they share personal issues and images than when they make political statements or comment on news (Enli & Skogerbø, 2013). Therefore, political parties resort to the strategy of personalization of the leader, appealing to emotions and avoiding political issues (Puentes-Rivera et al., 2016; Stier et al., 2018), in accordance with the precedent established by the 2008 and 2012 electoral campaigns in the United States (Bimber, 2014; Serazio, 2014). Consequently, it is common to maintain an emotional tone on Facebook (Abejón-Mendoza & Mayoral-Sánchez, 2017; Stromer-Galley, 2014). In this sense, candidates in the opposition attack the adversary and appeal to fear, while the candidates who seek to repeat their mandate focus on their achievements and opt for humor (Borah, 2016).

Regarding mobilization, political actors turn to Facebook to ask for votes or invite users to attend their events (Bene, 2018; Stetka et al., 2019), although some also risk more daring actions, such as encourage online donations

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(Gerodimos & Justinussen, 2015). In this field, new or alternative parties design more creative content as some authors point out (Casero-Ripollés et al., 2016), and this strategy could be classified as effective if we take into account the fact that their followers demonstrate greater commitment in terms of comments and responses (Stetka & Vochocová, 2014), although the level of engagement could be due to other factors such as having a more ideological and faithful electorate.

Regarding dialogue, political actors dedicate themselves to including links to their website and news about them, which reinforces the party's internal communication and its vocation for self-reference (Cervi & Roca, 2017; Sampietro & Valera-Ordaz, 2015). In general, no real conversation is generated with the audience (Magin et al., 2017; Renedo et al., 2018), with some exceptions (Sørensen, 2016). Sometimes political actors respond to users' first comments, giving the appearance of bidirectionality, but the dialogue is residual (López-Meri et al., 2020; Slimovich, 2016). The same happens on Twitter (Alonso-Muñoz et al., 2016; Pérez-Dasilva et al., 2018; López-Meri et al., 2017), where they talk more with other politicians than with citizens (López-Meri & Casero-Ripollés, 2016).

In fact, the debate on political news linked to the accounts of political actors usually comes from citizens (Ballesteros-Herencia & Díez-Garrido, 2018). Precisely, the ideology and history of each party are factors that generate disparate effects in relation to the conversations. For example, it was found that the discussions linked to the Facebook pages of left-wing parties in the 2015 elections in Spain, especially if they were new parties, tended to build community because they were led by like-minded people, which promotes social cohesion, group identity and mobilization. Meanwhile, the discussions associated with the pages of the right-wing par-

ties favored individualism, personal expression and the search for information (Valera-Ordaz, 2019).

3. POLITICAL COMMUNICATION, INTERACTION AND ENGAGEMENT ON FACEBOOK

Interaction on Facebook is possible thanks to the possibilities offered by this social network for sharing, commenting and evaluating posts in public, as well as sending private messages. You can also use resources that originally come from Twitter such as the hashtag and the mention, tools that facilitate the visibility and potentially make posts viral. Since 2015, Facebook has diversified the reactions offered by the "like" button so that users can better identify their emotions about a post. In addition to the traditional "like", a resource similar to that offered by other social networks, Facebook allows you to express five other reactions: "Love", "Haha", "Wow", "Sad" and "Angry."

Studies on Facebook interaction in the field of political communication have mainly focused on four aspects: studying how politicians and voters dialogue, checking whether the strategy of political actors improves the engagement or commitment of their followers, finding out if exposure to messages about politics increase the political participation of citizens, and try to predict the behavior of the electorate from the expression of their preferences.

The dialogue between politicians and voters has been analyzed through user comments. However, the results are inconclusive because case studies abound and trends are difficult to establish. In some countries, positive comments predominate (Bronstein, 2013), partly

because users tend to post comments on the pages of parties related to their ideology (Valeria-Ordaz, 2019). In other cases, it depends on the type of party. For example, alternative parties received messages of support in the 2013 elections in the Czech Republic, while traditional parties received criticism (Stetka & Vochocová, 2014). A tendency to polarization is also detected through negative allusions to rivals both in the candidates' posts and in the comments of their followers (Abejón-Mendoza et al., 2019).

As for the engagement of users, it is measured from the interactions that an account achieves (comments, shared posts and reactions) with respect to the number of its followers (Balbueno et al., 2017). In relation to this, posts that include photographs or emotional aspects generate more engagement (Enli & Skogerbø, 2013; Abejón-Mendoza & Mayoral-Sánchez, 2017). In addition, Facebook users react more passionately to posts that contain negative or emotional content, memes, videos, mobilization messages and requests to share (Bene, 2017), although some study maintains that positive content attracts more interactions (Gerbaudo et al., 2019). Users also tend to share partisan and polarized comments (Woolley et al., 2010).

On the other hand, alternative parties generate more engagement than traditional parties in some countries (Stetka & Vochocová, 2014). This is the case in Spain, where actors linked to new parties (Podemos & Ciudadanos) manage to attract more interactions than traditional parties (PP and PSOE) both on Facebook (Ballesteros-Herencia & Díez-Garrido, 2018) and on Twitter (Miquel-Segarra et al., 2017). In the case of Facebook, it is observed that the expression of emotions is respectful, while emojis and stickers are used to express rejection and the most visceral criticism (Coromina et al., 2018).

The relationship between the use of social media and political participation has also been studied with contradictory results, so it cannot be said that there is a scientific consensus in this regard. Some authors have tested this correlation (Gil de Zúñiga et al., 2012; Valenzuela et al., 2018), while others do not find enough support (Gustafsson, 2012; Pennington et al., 2015). The most optimistic studies argue that the size of the network of contacts and the strength of the links on Facebook makes political participation more effective (Valenzuela et al., 2018), with actions such as political self-expression, the search for information and voting in the offline sphere. On the contrary, the most unfavorable studies even affirm that Facebook not only does not influence political participation, but also negatively affects it (Theocharis & Lowe, 2016), and that the degree of commitment depends on the political interests of each user and not the number of Facebook friends (Carlisle & Patton, 2013).

Finally, regarding the possibility of predicting the behavior of the electorate, the research has focused on the preferences expressed through the "like" button (Barclay et al., 2015; Williams & Gulati, 2013) and, from the *Facebook-Cambridge Analytica data scandal* (Cadwalladr and Graham-Harrison, 2018; Moreno-Muñoz, 2018), in the use of big data and artificial intelligence to obtain private data and influence the opinions and political decisions of users.

With the aim of delving into the elements (videos, photos, links, mentions, hashtags) that generate greater interaction and engagement on Facebook and from the posts of the main parties and candidates who ran in the 2016 general elections in Spain, the following research questions are posed:

RQ1. What type of interactions and degree of engagement do the main Spanish political par-

ties and their candidates in the electoral campaign generate on Facebook?

RQ2. Are there differences in terms of interaction and engagement according to the type of content linked on Facebook (videos, photos or links to other websites) by political parties and candidates during the electoral campaign?

RQ3. What role do hashtags and mentions play as generating resources for interaction and engagement in Facebook posts published by political parties and candidates in the electoral campaign?

4. METHODOLOGY

4.1. SAMPLE

The sample focuses on the electoral campaign of the general elections held in Spain on June 26, 2016. The 15 official campaign days, the day of reflection, the day of the elections and the day after the elections are analyzed. During this period, the messages published from the official Facebook profiles of the main Spanish political parties are studied: Partido Popular (PP), Ciudadanos (C's), Partido Socialista (PSOE), Podemos, and the messages emitted from the official Facebook profiles of their leaders: Mariano Rajoy (PP), Albert Rivera (C's), Pedro Sánchez (PSOE) and Pablo Iglesias (Podemos). The sample has been captured using the Netvizz application, with the total number of posts downloaded being 418 (Table 1). 66.5% of the messages have been published in the official party profiles (278) and 33.5% have been published in the profiles of the candidates (140) (Table 1).

Table 2 shows the followers that the official profiles of parties and candidates had at the time of the investigation:

Table 1

Sample of posts by parties and leaders

| Parties | n | % | Leaders | n | % |
|------------|-----|------|----------------|-----|------|
| PP | 76 | 27.3 | Mariano Rajoy | 38 | 27.1 |
| PSOE | 93 | 33.5 | Pedro Sánchez | 55 | 39.3 |
| Ciudadanos | 59 | 21.2 | Albert Rivera | 14 | 10.0 |
| Podemos | 50 | 18.0 | Pablo Iglesias | 33 | 23.6 |
| Total | 278 | 100 | Total | 140 | 100 |

Source: Facebook data, June 11, 2016.

Table 2

Facebook followers of official profiles

| Parties | n | Leaders | n |
|------------|-----------|----------------|---------|
| PP | 150.906 | Mariano Rajoy | 208.544 |
| PSOE | 130.500 | Pedro Sánchez | 138.234 |
| Ciudadanos | 270.312 | Albert Rivera | 288.345 |
| Podemos | 1.076.900 | Pablo Iglesias | 616.416 |

Source: Facebook data, June 11, 2016.

4.2. DIMENSIONS AND ANALYSIS INDICATORS

Three dimensions have been established in this research: characteristics of the messages, user interaction and level of engagement. According to Balbuena et al. (2017), this work differentiates the concept of interaction (comments, number of times shared and reactions) from the concept of engagement (measurement of the weight of the different interactions received based on the number of followers).

To analyze the dimension of the characteristics of the messages, three indicators were studied: the links, the mentions and the hashtags. Regarding links, we analyzed their presence, the type of link (corporate or external), their content (campaign events, appearance on media, party issues, etc.) and the place they were directed (video, image, web, etc.). As for mentions and hashtags, their presence was analyzed.

To evaluate the second dimension, user interaction, the three types of interactions available on Facebook were defined as indicators: comments, shares and reactions (*Like, Love, Haha, Wow, Sad, Angry*).

Finally, to measure the third dimension, level of engagement, the formula employed by Balbuena et al. (2017) was used. This proposal arises from the adaptation of previous research and takes into consideration particular aspects of political communication (Oviedo-García et al., 2014). The formula weighs the impact of each type of interaction on the degree of engagement or commitment of the followers, establishing three levels:

- Low level: reactions (*Like, Love, Haha, Wow, Sad, Angry*).
- Moderate level: comments and participation in the conversation.
- High level: content sharing.

Therefore, not all interactions have the same weight when it comes to measuring user engagement, as reflected in the formula used in this research (Balbuena et al., 2017):

| |
|--|
| <p style="text-align: center;">Engagement level</p> $\frac{[(\text{N}^\circ \text{ of reactions}) \times 1 + (\text{N}^\circ \text{ comments}) \times 2 + (\text{N}^\circ \text{ of shares}) \times 3]}{(\text{N}^\circ \text{ of followers})}$ |
|--|

To analyze the differences between groups in the indicators defined as quantitative variables, the Student's t-test for independent samples and the one-factor ANOVA were applied. The established significance value was <0.05.

Intercoder reliability calculated using Scott's Pi formula reached a level of 0.97.

The analysis was performed using SPSS version 22.0.

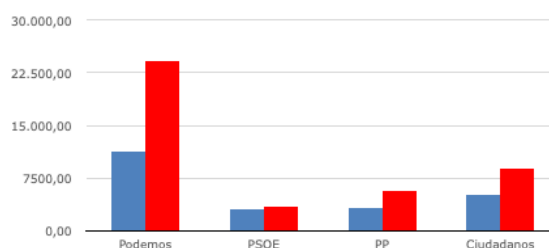
5. ANALYSIS RESULTS

5.1. LEVEL OF INTERACTION AND ENGAGEMENT

In relation to RQ1, regarding the interaction of political parties and candidates (comments, shared posts and reactions), both Podemos and its leader Pablo Iglesias registered the highest level (Figure 1) with an average of 11,216 and 24,154 interactions, respectively. These averages have been calculated with respect to the total sum of interactions recorded by each user in the sample. Although the degree of interaction is always higher in the assumption of the candidates, the differences are only statistically significant in the accounts of Pablo Iglesias ($p < .001$) and Mariano Rajoy ($p = .010$).

Figure 1

Average interaction by parties and candidates



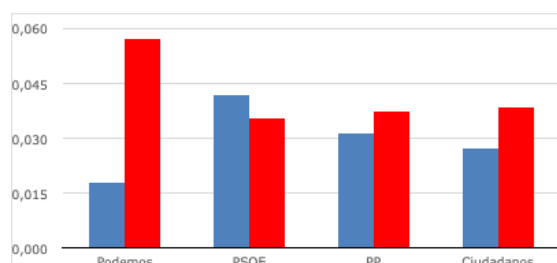
Regarding the level of engagement that weights the impact of the different interactions in relation to the number of followers (Balbuena et al., 2017), it is observed that it is higher among the leaders in all the formations, except in the PSOE where the engagement of the party is superior to Pedro Sánchez (Figure 2).

On the other hand, the data shows that the differences are statistically significant ($p < .001$) only in the case of Podemos and its leader. It is interesting to observe how Podemos' engagement rates are the lowest of all the profiles analyzed (0.018), while in the case of its leader,

Pablo Iglesias, this index is at the highest value (0.057). Therefore, the data shows that it is he who generates engagement and not his party.

Figura 2

Medias de engagement por partidos y candidatos



Source: Own elaboration from the formula of Balbuena et al. (2017).

5.2. THE INFLUENCE OF LINKS

Regarding the RQ2 and the format of the links, the posts that direct to videos receive more interactions than the rest (Table 3), especially in the case of the candidates whose accounts accumulate a greater number of interactions with an average of 13,145 (data calculated from the total interactions recorded by all the candidates' posts that contain videos) (Table 3).

If the data is analyzed according to the type of interaction, we observe that the posts most often shared are those that contain videos, both of the parties and their leaders. In the case of the parties, these differences are significant ($F(3, 136.79) = 19,244; p < .001$). Posts that go to videos are shared more than posts that go to images ($p < .001$) or to websites ($p < .001$). However, the number of posts of the candidates that direct to online media and that have been shared is relevant, surpassing even those that contain images.

There are also significant differences in the amount of comments based on the type of links in the posts of parties and candidates. In the case of parties ($F(3, 69,312) = 18,522; p < .001$), the links that lead to videos have more

comments than those that lead to images ($p < .001$), to websites ($p = .003$) and online media ($p = .004$). These results have theoretical implications, given that the importance of video is corroborated as one of the resources with the most capacity to attract the attention of the electorate and promote their active participation, specifically through the comments they leave on the accounts of political actors.

Regarding the reactions, although the differences are nonsignificant in the global figures, when we analyze the types of reactions in detail, significant differences are detected. In the case of parties, in the amount of "love" ($F(3, 34,386) = 8,579; p < .001$), we see how posts that direct to videos have more "love" than those that direct to images ($p < .001$). Regarding the amount of "wow" ($F(3, 9,233) = 13,422; p = .001$), it is observed that posts that direct to videos have more "wow" than those that direct to images ($p = .008$), to websites ($p < .001$) and online media ($p = .001$).

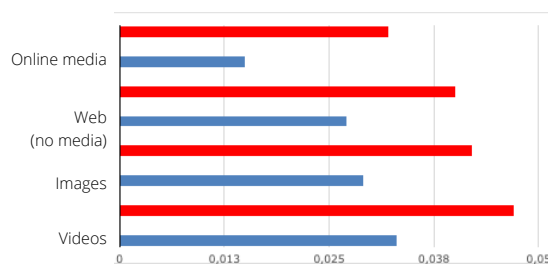
In the case of the candidates, there are significant differences in the amount of "love" ($F(3, 27,463) = 3,967; p = .018$). Posts that lead to videos have more "love" than those that lead to images ($p = .008$) and online media ($p = .025$). Also in the amount of "haha" ($F(3, 32,218) = 3,013; p = .044$). Posts that direct to videos have more "haha" than those that direct to online media ($p = .028$).

In relation to the different link formats, the data reveals that the level of engagement is very low. Although engagement seems higher in posts that include videos, the differences are statistically nonsignificant (Figure 3). In all cases, the level of engagement is higher in the candidates' accounts. This means that, although the video publications gather more comments, the volume of interactions and reactions is insufficient

Table 3*Averages of the types of interaction according to the link format*

| | Videos | | Images | | Web (no media) | | Online media | |
|--------------------|---------|-----------|---------|-----------|----------------|-----------|--------------|-----------|
| | Party | Candidate | Party | Candidate | Party | Candidate | Party | Candidate |
| Shares | 1.538,0 | 2.548.1 | 641,1 | 897,13 | 516,5 | 1.556,3 | 321,5 | 1.353,4 |
| Comments | 623,4 | 1.795.9 | 326,1 | 876,15 | 208,1 | 1.166,5 | 284,0 | 544,5 |
| Reactions | | | | | | | | |
| Like | 2.980,6 | 7.084,4 | 2.463,7 | 6.014,2 | 1.695,6 | 4.531,4 | 1.718,0 | 3.780.0 |
| Love | 326,9 | 1.498,76 | 154,3 | 488,6 | 153,3 | 857,4 | 101,0 | 369,3 |
| Haha | 42,5 | 106,88 | 8,1 | 32,3 | 5,6 | 39,9 | 4,0 | 18,3 |
| Wow | 5,7 | 19,20 | 2,8 | 5,4 | 0,9 | 28,8 | 0,5 | 47,7 |
| Sad | 12,1 | 15,15 | 7,6 | 78,2 | 6,1 | 8,7 | 1,0 | 1,9 |
| Angry | 33,11 | 76,61 | 15,1 | 39,7 | 31,4 | 43,0 | 6,0 | 7,2 |
| Total reactions | 3.401,1 | 8.801 | 2.651,5 | 6.658,5 | 1.892.9 | 5.509,2 | 1.830.5 | 4.224,5 |
| Total interactions | 5.562,5 | 13.145,1 | 3.618,7 | 8.431,7 | 2.617.4 | 8.232,0 | 2.436.0 | 6.122,4 |

to be able to affirm that the degree of commitment of the followers is high. Therefore, despite the fact that the electorate participates in the online debate generated on Facebook, the results suggest that this would not necessarily translate into greater political participation in the offline sphere.

Figure 3*Engagement averages according to the link format*

Source: Own elaboration from the formula of Balbuena et al. (2017).

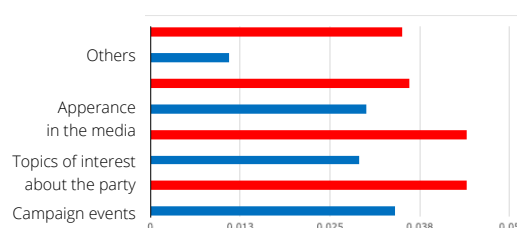
Regarding the content of the links (Figure 4), the data shows that there are no significant differences in the interactions and reactions of the audience. Regardless of whether the links refer to campaign events, topics of interest about the party or appearances in the media, the behavior of party followers and political leaders on Facebook is maintained with respect to the number of comments or the times in which they have shared posts.

On the other hand, if we analyze the relationship between the content of the link and engagement, significant differences can be seen in the case of parties ($F(3, 49,985) = 14,718$; $p < .001$) (Figure 4). It is observed that the messages of the "others" category (content of web pages where they request information, content of leisure and free time, etc.) create less engagement than those that lead to campaign events ($p < .001$), topics of journalistic interest about

the party ($p = .021$) and appearances in the media ($p = .023$). However, these more personal and less politically related contents registered in the “others” category generate more engagement when they are disseminated by the candidates’ accounts.

Figure 4

Averages of engagement according to the type of content linked



Source: Own elaboration from the formula of Balbuena et al. (2017)

Table 4

Averages of the types of interaction according to the type of link

| | Corporate links | | External links | |
|--------------------|-----------------|-----------|----------------|-----------|
| | Party | Candidate | Party | Candidate |
| Shares | 1.299,0 | 1.524,7 | 1.367,5 | 1.237,9 |
| Comments | 533,29 | 1.250,9 | 607,03 | 571,6 |
| Reactions | | | | |
| Like | 2.715,5 | 6.257,5 | 3.363,9 | 4.680,2 |
| Love | 282,63 | 888,2 | 290,2 | 430,0 |
| Haha | 34,7 | 60,9 | 28,5 | 19,9 |
| Wow | 4,8 | 12,6 | 5,6 | 25,6 |
| Sad | 9,8 | 35,5 | 17,6 | 87,8 |
| Angry | 25,2 | 49,2 | 57,1 | 36,8 |
| Total reactions | 3.072,6 | 7.304,1 | 3.762,9 | 5.280,3 |
| Total interactions | 4.904,9 | 1.0079,6 | 5.737,5 | 7.089,8 |

Regarding the source of the link, although there are no significant differences in the interactions and reactions that the parties obtain, the situation is different in the case of the candidates. As Table 4 reflects, the corporate links published by the candidates get more comments than the external links ($p < .001$). They also record more “love” ($p = .029$) and more “haha” ($p = .003$).

On the other hand, the source of the link does not influence the level of engagement, very similar between parties and candidates (Table 5).

Table 5

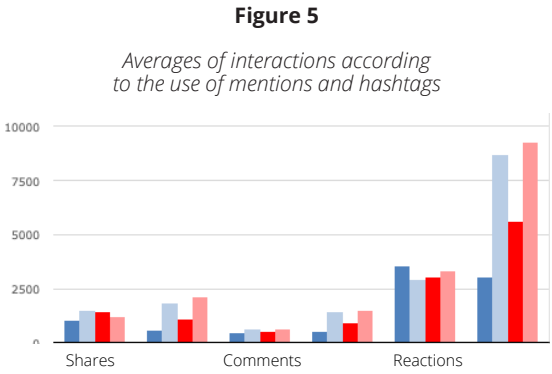
Engagement averages according to the type of link

| | Corporate links | | External links | |
|------------------|-----------------|-----------|----------------|-----------|
| | Party | Candidate | Party | Candidate |
| Engagement level | .0316 | .0437 | .0308 | .0341 |

Source: Own elaboration from the formula of Balbuena et al. (2017).

5.3. THE IMPACT OF HASHTAGS AND MENTIONS

Regarding RQ3 on the impact of hashtags and mentions on interaction and engagement levels, it is observed that the posts of political parties that do not include mentions (@) have more comments than those that include this resource (Figure 5), the difference being statistically significant ($p = .033$). However, the use of mentions does not affect the number of times posts are shared, nor the number of reactions and interactions of followers. On the other hand, the use of hashtags (#) does not mean differences in any of the interventions of the followers of the analyzed accounts.



In the case of candidates, excluding mentions seems more effective than in the case of parties. When their posts have no mentions, they are shared more times ($p < .001$), have more comments ($p < .001$), produce more reactions ($p < .001$), and generate more interaction ($p < .001$) than when they include mentions, the differences being significant. Likewise, when they avoid the use of hashtags, they generate more reactions ($p = .046$) and interactions ($p = .038$) than when they include these labels, the differences being significant. However, the use of hashtags does not affect the times that posts are shared and commented.

Finally, it is evidenced that posts without mentions create more engagement than those that include them, both in parties ($p < .001$) and in candidates ($p = .015$). As observed in Table 6, the use of hashtags does not affect the engagement of posts, neither in parties nor in candidates.

These results reveal that mentions and hashtags are not as effective on Facebook as on Twitter, the social network from which they emerged. According to the data, the use of these two resources on Facebook does not imply greater interaction or participation of users in the accounts of political actors.

Table 6

Engagement averages based on the use of mentions and hashtags

| | | Engagement level | |
|----------|-------------|------------------|------------|
| | | Parties | Candidates |
| Mentions | Have | .0224 | .0321 |
| | Do not have | .0371 | .0457 |
| | Total | .0316 | .0414 |
| Hashtags | Have | .0314 | .0411 |
| | Do not have | .0318 | .0420 |
| | Total | .0316 | .0414 |

Source: Own elaboration from the formula of Balbuena et al. (2017).

6. DISCUSSION AND CONCLUSIONS

The obtained results allow to produce contributions of interest on the elements that enhance interaction and engagement among followers of political parties and candidates on Facebook. First, regarding RQ1, it is observed that the interactions in the candidates' posts (number of times shared, comments and reactions) were higher than the interactions received by the parties. This indicates that personalization in the leader may be a good strategy to get more comments and reactions (Gerodimos & Justinussen, 2015; Puentes-Rivera et al., 2016; Stier et al., 2018), in line with the trend of political hyper leadership of recent years (Feenstra et al., 2016). However, the level of engagement or commitment, a formula that weighs the impact of the different types of interaction in relation to the number of followers (Balbuena et al., 2017), was reduced and very similar in all cases, without significant differences between the parties and their leaders. Although it was logical that the levels of interaction increased when the number of followers was greater, this relationship did not exist with the level of engagement. Therefore, the number of followers does not guarantee greater engagement according to this case study. This finding indicates that simply following candidates does not guarantee greater commitment (Pennington

et al., 2015), and questions the importance of the size and links of the network of contacts on Facebook (Gil de Zúñiga et al., 2012; Valenzuela et al., 2018).

Secondly, it is shown that quantitative data such as the number of followers, the number of publications or the number of interactions did not condition or determine the level of engagement, as seen in other countries (Carlisle & Patton, 2013). For example, Podemos is the account with the largest number of followers and exceeds its candidate in posts, but Pablo Iglesias generated more engagement than the party account. In the case of the PSOE, the interactions were similar between the party and its leader, but the level of engagement was higher in the party. In any case, it is confirmed that the new parties, specifically Podemos and its candidate, attracted more interactions than the rest, as in the previous elections (Ballesteros-Herencia and Díez-Garrido, 2018). This result is directly related to the largest number of followers. It is true that other factors that are not analyzed in this work may intervene, such as the age of the followers of Podemos, presumably younger and with more abilities to participate in the online environment than in the case of traditional parties.

Third, it is concluded that the emotional involvement of the followers is not relevant. Although Facebook has incorporated buttons

that allow users to diversify their emotions, the highest number of reactions corresponded to the “like” button, in line with previous research (Coromina et al., 2018). The rest of reactions obtained very low figures. It should be noted that users preferred to use those buttons that transmit positive emotions (“love” and “haha”) over negative or unfavorable ones (“sad” and “angry”) in relation to the political content of the electoral campaign. This preference for positive emotions can be related to studies that find a correlation between the positive content of posts and the engagement of Facebook users (Gerbaudo et al., 2019). Further research in this regard would be necessary as other studies show the tendency to polarization through negative messages addressed to rivals (Abelón-Mendoza et al., 2019).

The fourth contribution refers to the characteristics of the posts, specifically the format and content of the links (RQ2). In this sense, it is verified that the level of interaction increased significantly when links directed to videos and images were incorporated, in line with previous literature (Bene, 2017). On the other hand, it is ruled out that the content of the links determines the behavior of the followers on Facebook. That is, regardless of whether the links lead to campaign events, topics of interest about the party or appearances of the candidates in the media, the levels of interaction and engage-

ment did not vary. It is only seen in the case of the candidates that the corporate links (of their own content) obtained a better response from users than the rest of the content, a fact that would reinforce the tendency to self-reference that characterizes political actors both on Facebook (Cervi & Roca, 2017; López-Meri et al., 2020) and Twitter (Pérez-Dasilva et al., 2018; López-Meri et al., 2017).

Finally, as the fifth contribution and in relation to RQ3, there is little impact of mentions (@) and hashtags (#) in terms of engagement. The use of these resources on Facebook does not generate positive values regarding the level of commitment of the followers. Regarding the different types of interactions, the relationship between comments and mentions stands out. In this sense, comments decrease when the posts include mentions. In addition, posts without mentions generate more engagement than those that include this resource in both party and candidate accounts. This is a novel conclusion because most of the previous literature has focused on the response of the followers to the post as a whole or on the presence of links and images as elements of attraction, but the relationship between the use of mentions and hashtags and the response of the audience on Facebook had not been studied until now. According to the results of this research, the use of mentions and hashtags on

Facebook does not guarantee greater user interaction. Instead, it seems that the content of the post and the format of the links, especially if it is a video, have more influence as motivators of participation. This trend can be useful for designing the communication strategies of political actors.

These contributions are interesting to plan and execute the strategies of political actors on Facebook. It is one of the social networks that, despite being one of the most used in Spain, generates a low level of commitment among followers in the field of political communication. Furthermore, these results contribute to a better understanding of the relationship between different types of interaction and the level of engagement in the context of an electoral campaign. Although the study focuses on the Spanish case, the main conclusions can be extrapolated to other contexts, given that the observed trends can help any political actor to optimize the management of his/her activity on Facebook.

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Has the digital environment been democratized?: Digital uses in the non-electoral period of government parties vs. opposition parties in European countries and the Community of Portuguese Language Countries (CPLP)

5

ARTICLE

¿Todo lo digital se ha democratizado?: Usos digitales en un período no electoral de partidos de gobierno vs. de oposición en los países europeos y la Comunidad de Países de Habla Portuguesa (CPLP)

E tudo o digital democratizou?: Usos digitais em período não eleitoral dos partidos do governo vs. da oposição em países da Europa e da Comunidade dos Países de Língua Portuguesa (CPLP)



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Abstract

This article focuses on the digital uses in democracies in Europe and the CPLP of political parties that carry out government functions and the opposition in a non-electoral environment. Under a mixed theoretical and methodological approach, the results show that opposition parties use the participatory paradigm more and government parties use the information paradigm. The most significant differences between the government and the opposition parties lie in the type of content, the actors and the themes. Between Europe and the CPLP, the main differences lie in the objectives implicit to the uses. Democracy reveals trends in digital uses.

KEYWORDS

Digital democracy, Government, Opposition, Non-election period, Europe, CPLP.

Resumen

Este artículo se centra en los usos digitales, en las democracias en Europa y la CPLP, de los partidos políticos que desempeñan funciones de gobierno y oposición en un entorno no electoral. Bajo un enfoque teórico y metodológico mixto, los resultados muestran que los partidos de oposición usan más el paradigma participacionista y los partidos de gobierno el paradigma informativo; que, entre el gobierno y los partidos de oposición, las diferencias más significativas radican en el tipo de contenido,

los actores y los temas declarados y que, entre Europa y el CPLP, las principales diferencias radican en los objetivos implícitos de los usos. La democracia revela tendencias en usos digitales.

PALABRAS CLAVE

Democracia digital, Gobierno, Oposición, Período no electoral, Europa, CPLP.

Resumo

Este artigo foca-se nos usos digitais, em democracias da Europa e da CPLP, dos partidos políticos a desempenhar funções governamentais e da oposição num ambiente não eleitoral. Sob uma abordagem metodológica e teórica mista, os resultados mostram que os partidos da oposição usam mais o paradigma participacionista e os partidos do governo o paradigma informacional, que entre os partidos do governo e os da oposição as diferenças mais significativas residem no tipo de conteúdo, atores e temas enunciados e que, entre a Europa e a CPLP, as principais diferenças residem nos objetivos implícitos aos usos. A democracia revela tendências nos usos digitais.

PALAVRAS-CHAVE

Democracia digital, Governo, Oposição, Período não eleitoral, Europa, CPLP.

INTRODUCTION

The encounter between politics and the digital environment builds a new era: “politics 2.0” (Karpf, 2009), and outlines a “politics 3.0” that implies sophistication, use of robots, big data and fake news (Ituassu et al., 2018, p. 18). The Internet, auguring an episode like “El Dorado” or a “Pandora’s Box”, took advantage of the

transition from the “teledemocracies” of the 1950s to a “digital democracy” (Rodota, 2000, p. 55), rewriting democracy and reaching today to the point of asking “will democracy survive the internet?” (Persily, 2017).

Communication is a condition for democracy. In this sense, democratic political life can be characterized as a continuous communication

effort on behalf of politicians [“permanent campaign”] who want to support their actions, being the main way through which political participation can be achieved (Plesca, 2013). Democracy presupposes the existence of a “transmission belt” that sends political messages, another element that contributes to making democracy the most complex human system (Plesca, 2013). The way in which political communication is carried out directly influences the rules of the democratic game, exacerbating or diminishing its imperfections (Plesca, 2013). This research focuses on this approach.

Putnam (1997) clearly formulates some problems that serve as a framework for research: “If we reform institutions, for example digitally, will political practices follow the same path?”; “How does the environment (especially in the territorial, cultural, communicational and digital spheres) influence the performance of democratic institutions?”

It is in the context of digital political communication (and its uses) in a democratic regime that this article is included. It focuses, in particular, on the digital uses in a non-electoral period of the parties that participate in the government and on the opposition of some countries that lead democratic experiences (full democracies versus imperfect democracies) in two groups of countries: Europe and the Community of Portuguese Language Countries (CPLP). The study of party digital communication in non-electoral periods is assumed as an innovative object (for example, Gibson *et al.*, 2003) and the study of government communication has been little investigated, finding itself in a “theoretical terrain type of nobody” (Canel & Sanders, 2012).

The performance to be analyzed refers to on-line social networks (OSN) Facebook and Instagram. Posts by political actors, for example on Facebook, represent “great potential” to increase interaction between citizens and them, to encourage participation (Heiss *et al.*, 2017) and participatory democracy. The cases under study are five democratic states, considering different democratic practices and organized into two groups under the following criteria: a) territorial and political characteristics (Europe-European Union) and b) linguistic characteristics (CPLP - Portuguese-speaking culture). Being these: Portugal (European country and CPLP), the European countries Spain and England (full democracies) and the CPLP countries Brazil and Cape Verde (imperfect democracies).

The article is based on communication theories that offer the theoretical framework, such as: (a) the uses and gratifications theory (UGT) (Rathnayake, 2016) that allows an updated reflection on how the parties (in the government and the opposition) use digital media to their satisfaction, (b) technological determinism: “is the medium still the message?” (McLuhan, 1964). The theory of the permanent campaign (Blumenthal, 1982; Vasko & Trilling, 2019) offers a contribution to political science and symbolic interactionism in a digital context and makes a contribution from the sociological matrix (Chicago school), promoting the interdisciplinarity of the theoretical atrium.

1. LITERATURE REVIEW

1.1. WHEN DEMOCRACY AND DIGITAL CULTURE MEET

Digital culture, which improves the way of being and behaving in the world, is based on three principles: 1) interconnection (the space becomes an interactive channel, humanity is a continuum without borders), 2) creation of virtual communities (based on the interconnection that is independent of geographical proximity and is based on a free, transversal and deterritorialized human relationship ideal that allows exploring new forms of public opinion) and 3) collective intelligence (an approach to the ideal of an intelligent collective more imaginative, faster, more capable of learning and inventing; creator of synergies of knowledge, imagination and spiritual energies of those connected to cyberspace) (Lévy, 2007, pp. 127-132). Digital media stimulate a new political behavior with the aim of experiencing another type of dialogue with the State and with democracy, which provokes a new political culture (Sader, 2015).

The political opportunities provided by digital uses force “a place at the table for civil participation outside of electoral periods” (da Silva et al., 2016, p. 28). However, this “place at the table” remains a guest and not an effective part of the design of institutions.

In the conceptual sphere of democracy and e-democracy, there is the informative and participatory paradigm (da Silva et al., 2016, p. 24). The right to information tends to be used as a synonym for democracy, therefore, it is a tool to strengthen this form of government (Baskota, 2018). It can be said that “information is power” is a democratic maxim. Lack of information can prevent citizens from achieving aspirations, because it deprives them of the basis to participate in any debate on the decision-making

process (Baskota, 2018). Da Silva et al. (2016) explains that the interactive capabilities and the dense informational framework that the Internet fosters allow direct communication in a plural and independent way (p. 23). In the study by the Special Secretariat for Policies to Promote Racial Equality (SEPPIR), Farranha and dos Santos (2016) indicate that the government-citizen relationship is improved more efficiently by digital means, given that “the population receives information, interacts and manifests itself with criticism, praise and suggestions” (p. 359). The authors point out that, in the case of SEPPIR, the OSN is used for informational purposes, to promote events, government events, the minister's agenda and actions of the states and municipalities (p. 359).

The participatory paradigm, assuming that popular sovereignty must be leveraged by ensuring that legitimate political decision-making occurs through citizen control and participation, assesses the weak influence of citizens in decision-making as problematic. Therefore, this paradigm promotes control and participation in decisions about public affairs.

The notion of “politics 2.0”, introduced by Karpf (2009), can be understood as an advantage due to the low costs of using the Internet (as a means of dissemination to the parties) and its condition of abundance of information, with the aim of build more participatory and interactive political institutions (p. 67). Social movements and political agents use it, transforming it into a privileged tool to act, inform, recruit, organize, dominate and contradict (Castells, 2001, p. 167). The Internet is also becoming an attractive medium for younger members of the electorate at a time when the use of traditional media is declining (Gibson & Ward, 2012, p. 62).

The formula for the success of digital political communication is based on: (1) strategy, (2)

mentality, (3) resources (Thejll-Moller, 2013) and (4) risk (Santana, 2012, p. 94). OSNs, as communication tools, offer advantages such as: a) the possibility that politicians ignore traditional media by directly contacting voters (Garrett, 2016, p. 2; Kalsnes, 2016); b) most politicians are willing to get more involved in the OSNs and feel the need to keep up to date on political discussions and reputation (Stieglitz et al., 2012, p. 10); c) it is possible to know the voters (through chats, surveys and biographical information on each user), promoting better segmentation (Zuiderveen Borgesius et al., 2017); d) the increase in the number of users has changed the way of disseminating information, eliminating costs (Stieglitz and Dang-Xuan, 2013, p. 1277); e) they are a powerful tool when used with attractive messages and with the implementation of good practices and the mobilization of the necessary resources (Thejll-Moller, 2013, p. 38) and f) greater political awareness and offline political participation (Ahmad et al., 2019), which makes democracy more dynamic.

As disadvantages in the use of OSNs, we list: a) “the existence of the media does not increase the use and participation of people” (Sebastião, 2015, p. 9); b) the publications do not have as much credibility as the news or a comment in the media, but they reach many unsuspecting people and can intoxicate public opinion (Ribeiro, 2015, p. 182). There is an obvious convergence between fake news and digital propaganda (Ncube, 2019), which is a dysfunction for democracy.

1.2. “USES AND GRATIFICATIONS” AND SYMBOLIC INTERACTION IN THE “PERMANENT CAMPAIGN” IN WHICH THE MEDIUM IS THE MESSAGE

The Uses and Gratifications Theory (UGT) takes activism in the use of the media in response to needs as a starting point (Rathnayake, 2016). This theoretical framework is useful for studies of digital media, since users access the Internet in a more utilitarian way than as a simple habit, compared to classic media (Riezu, 2014, p. 31). Applying the UGT to digital political communication, and from the voters’ point of view, the functionalities of interaction with the party are favored and they appreciate this communicative-participatory form, since they feel more useful in the political system (Rodrigues, 2014, p. 221).

The “permanent campaign” is a combination of image creation and strategic calculation that transforms governance into a perpetual campaign (Blumenthal, 1982, p. 7). In the extra-electoral period, parties and parliamentary groups that use digital media as a complement to traditional media, exploit digital potentials such as interactivity (Santana, 2012). Through interactivity that has been accentuated (Kalsnes et al., 2017), meanings are constructed in this exchange. These meanings apprehended by citizens converge to collect images about the candidates. Therefore, there is the presence of symbolic interactionism (Fernback, 2019)

in which the human worlds are strongly symbolic in the digital context. In this sense, OSNs created opportunities for “strategic innovations where personal political communication is crucial” (Bimber, 2014, p. 131).

“The medium is the message” (McLuhan, 1964) in the sense that “the personal and social consequences of any medium result from the new scale introduced by a new technology” (p. 7). It is argued that online political communication can increase the political participation of citizens, bringing politics closer to citizens through interactivity and personalization. (Kruikemeier et al., 2013). Therefore, the medium that is interactive and personalized, influences the recipient and generates personal and social effects.

The digital communication of the party in non-electoral periods proves to be an innovative object. Gibson et al. (2003) had already detected this trend: little has been written about what happens in the relationship between parties and the digital world outside the electoral period (p. 140). Lorenzo and Carreras (2010) find that politicians communicate online not only during electoral campaigns, but also in the non-electoral period to improve their reputation. Santana (2012) analyzed Portuguese digital political communication during non-electoral periods, noting that parties were not very interactive and showed resistance in following their voters (p. 87). In a comparative study on the digital communication strategies of the Portuguese and Brazilian parties during May and June 2015, Braga et al. (2017) state that in both countries there is a high positive correlation between the size of the parliamentary bank and the degree of engagement on Facebook, a moderate positive correlation between the potential for mobilization and engagement, and a low positive correlation between ideology and engagement. This association is negative for the Portuguese case due to the absence of the

Portuguese Communist Party (PCP) on Facebook (pp. 348-349).

In a qualitative and quantitative study focusing on the use of Instagram by Canadian Prime Minister Justin Trudeau during his first year in office (after his election on October 19, 2015), Lalancette and Raynauld (2017) point out that the photos show Trudeau mainly when he seems to interact, he does it with a person and uniformly with men and women (p. 15). The data reveals that his Instagram performance focuses on his work in the public sphere, creating a professional and political spirit. A positive, promotional and thematic approach tone in government activities is noted as another result, specifically in official announcements on ministerial policies.

2. METHODOLOGY

The research is guided by the initial question: How do Facebook and Instagram are used by government and opposition political parties in democratic countries in Europe and the CPLP in a non-electoral period? The central objective is focused on understanding the digital uses of parties in the government and in the opposition, in an extra-electoral and “permanent campaign” context in democratic European and Portuguese-speaking countries.

Facebook and Instagram are analyzed. Facebook is the largest online social network that brings together 2.45 million active users per month (Clement, 2019a) and almost all social network users are on this network (Influencer Marketing Hub, 2019). Instagram is the network with accounts with the most followers worldwide (Clement, 2019b), with Brazil in third place worldwide with 72 million users and the United Kingdom in eighth place with 22.9 million (Clement, 2019c). Being a strongly visual platform,

Table 1*Type of democracy and internet penetration rate of cases*

| Country | Type of democracy 2015 (The Economist) | Type of democracy 2018 (The Economist) | Internet penetration rate (Internet World Stats, 2018-2019) |
|----------------|--|--|---|
| Brazil | 6,96 (imperfect democracy) | 6.97 (imperfect democracy) | 70,7% |
| Cape Verde | 7,81(imperfect democracy) | 7.88 (imperfect democracy) | 62,8% |
| Spain | 8,30 (full democracy) | 8.08 (full democracy) | 92,5% |
| Portugal | 7,79 (imperfect democracy) | 7.84 (imperfect democracy) | 78,2% |
| United Kingdom | 8,31(full democracy) | 8.53 (full democracy) | 94,6% |

Source: The Economist (2015; 2019); Internet World Stats, 2018-2019 (2019).

it works mainly based on the publication of visual resources. An attempt is made to explore a research gap specifically in form, given that the visual aspects of political communication continue to be one of the least studied points (Schill, 2012, p. 119). More research based on Instagram is needed as it is a “very powerful” tool to shape public opinion, especially among young people (Eldin, 2016, p. 256), which captivates 30% of users aged between 18 and 24 years and 35% of users aged between 25 and 34 years (Clement, 2019d).

It is also relevant to study the OSNs, because “people can express their opinions or emotions about almost everything on forums, blogs and OSNs more than ever” (Stieglitz & Dang-Xuan, 2013, p. 1286). In addition, messages broadcast on Facebook influence political expression, information seeking, and voting behavior in the real world. (Bond et al., 2012, p. 295). “Little is known about the relevance of the OSNs for politics in some countries, as well as what are the success factors”, which constitutes a research

opportunity pointed out by Stieglitz et al. (2012, p. 10).

Adopting the comparative method in which the basic concepts taken are always measured in comparison with other political systems, highlighting their similarities and differences (Espírito Santo, 2010, p. 48), four comparisons will be made: a) government parties vs. opposition parties; b) European countries vs. CPLP countries; c) full democracies vs. imperfect democracies; d) Facebook vs. Instagram.

The Internet penetration rate (ICT) motivates the choice of cases for the study (Table 1). All the countries analyzed have multi-party regimes and are organized, for comparison purposes, in two types of democracy (Table 1).

Digital ethnography or netnography and content analysis are the techniques adopted. In this research, netnography is used to collect data (for content analysis) and to analyze the behavior of the parties on the Internet, scrutinizing the totality and periodicity of publications, interactivity (likes and followers), the form of the messages and uses and tips of the communicators.

The corpus analyzed includes the period from September 15 to 30, 2016. It is the period of political profit and, therefore, the beginning of a new cycle. 2016 was the year chosen for being the most recent that is not contaminated by the general, legislative or presidential elections in the country. In the years 2017, 2018 or 2019, there is always an election close to this participation period. Therefore, there are a total of 249 Facebook posts from the parties: 93 posts from CPLP (Brazil and Cape Verde), 94 from Europe (Spain and England) and 62 from Portugal (which is included in both CPLP and Europe).

The coding matrix results from the articulation between a pre (inspired by the literature) and a post coding (taking into account the specificities of the corpus). The categories used are: political function carried out, type of content, theme, directional value, actors, purpose and form of publication. The “objective” category complies with the precepts of electronic democracy (Table 2): 1. Electronic information (information, preparation of the electoral campaign and present a supporting position), 2. Electronic participation (mobilizing political action), and 3. E-control (constitute a crisis situation and create counterpropaganda) (Table 2).

Table 2

Objectives categorization

| Categories – Precepts of e-democracy | Subcategories |
|---|---|
| e-information: focus on the objective of informing and clarifying citizens, based on the idea that “information is power” | <ul style="list-style-type: none"> . Inform: transmit objective content . Preparing for the election campaign: focus on elections and voting . Present a supporting position: give an opinion |
| e-participation: Electronic participation: focus on the objective of motivating and mobilizing citizens to participate in decisions, participate in political initiatives or be actors in political life. | <ul style="list-style-type: none"> . Mobilize the political action of citizens: appeal to the vote, militancy and political participation. In general, call for participation and action. |
| e-control: focus on the goal of alerting citizens, encouraging them to take more control by examining and monitoring the performance of their representatives. | <ul style="list-style-type: none"> . Constitute a crisis situation: report a suspicious situation . Create counterpropaganda: reveal the inconsistencies of the political opponent, fight against his theses. |

The unit of record is the subject and the item (publication) and the form of enumeration are the frequency. A descriptive and inferential statistical analysis (chi-squared test) was performed on the data.

Table 3

Publications of political parties by country and political function

| Country | Portugal | | Brazil | | Cabo Verde | | Spain | | UK | |
|---|----------|-----|--------|-----|------------|-------|-------|------|------|-----|
| Total number of publications (TNP) | 62 | | 79 | | 14 | | 42 | | 52 | |
| Functions | Gov. | Op. | Gov. | Op. | Gov. | Op. | Gov. | Op. | Gov. | Op. |
| Party | PS | PSD | PMDB | PT | MpD | PAIVC | PP | PSOE | PC | PT |
| TNP | 36 | 26 | 4 | 75 | 5 | 9 | 15 | 27 | 7 | 45 |

3. RESULTS

3.1. CHARACTERIZATION OF THE DIGITAL USES OF PARTIES

Considering the political role played, 182 publications of opposition parties and 67 publications of government parties were analyzed (Table 3).

Parties tend to present their goals with a positive directional value. The objective “present a supporting position” (electronic information) has 45 presences. The objective “create counterpropaganda” (e-control) registers the highest negative value (18 presences). In neutral terms, the “mobilizing political action” (electronic participation) shows 10 records. The publications without the possibility of verification are, above all, to “inform the public” (9 presences).

Party events serve to mobilize political action (electronic participation) with 23 presences and to prepare the electoral campaign (electronic information) with 22 presences. The content type “party positions” with 22 presences aims to “present a supporting position”. When the parties want to “create counterpropaganda” (18 presences) and “constitute crisis situations” with electronic control (1 presence), the type of content used is “counterpropaganda”. The objective of “informing the public” (electronic information) is achieved more with the content of “political speeches” (14 presen-

ces). The “problem identification” content has the highest objective of creating opportunity situations (7 presences).

Chi-squared tests reveal statistically significant relationships between: a) objective and content type, b) objective and actor(s) and c) objective and topic.

3.2. DIGITAL USES OF GOVERNMENT AND OPPOSITION PARTIES: COMPARISON

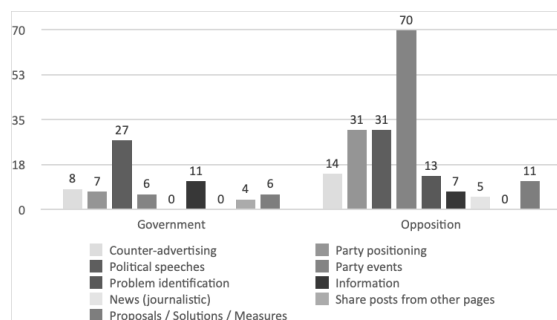
182 of the 249 publications analyzed come from parties that do not perform government functions: opposition parties are the most active in the OSN in contrast to government parties with 67 publications.

The contents most shared by government parties are “political speeches” (27) and “information” from parties (11). On the other hand, the contents preferred by the opposition are “party events” (70) and, in an ex aequo position (31 records each), “party positioning” and “political speeches” (Figure 1).

Government parties do not identify problems or share news from the media (OCS). Opposing parties do not use posts from other pages as content.

Figure 1

Relationship between the political function of the party and the type of content



Government parties publish mainly “without actors” (23). Therefore, they use visual elements such as images or graphics. Opposition parties use posts with “various actors” (64), using images that show party leaders and deputies among anonymous people. There is also a strong presence of the party president / general secretary (37) (Figure 2).

There is a similarity of practice with respect to directional value between the government and opposition parties. Both prioritize publications with a positive directional value (49 and 100 respectively). With a second expressive score, the posts appear with a negative value (8 and 37). Third, neutral publications follow (7 and 15). We highlight the weight of the publications without the possibility of verifying the opposition parties (22).

The preferred theme of the government parties is “national politics” (40), followed by “economy” (11), avoiding in their thematic agenda: “environment”, “culture”, “defense”, “justice” and “health”. Opposition parties published more on “finances” (67) and “national politics” (63) (Figure 3).

Figura 2

Relationship between the political function of the party and the actors of the publications

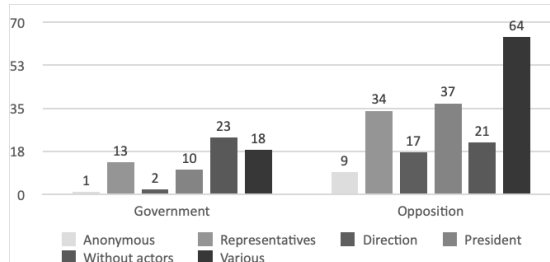
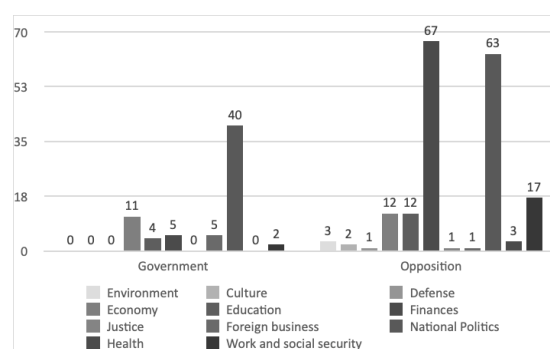


Figure 3

Relationship between the political function of the party and the theme



The main objective of the parties, both government and opposition, is to mobilize political action, electronic participation (49) and present a supporting position and electronic information (47). In the case of government parties, the objective of informing the public is also described (18). The least present objective is “constitute crisis situations” (electronic control), either in the opposition parties (1 presence) or in those of the government (no presence).

Government parties prefer to publish using text with images (42). With a different tactic, opposition parties use video more (100).

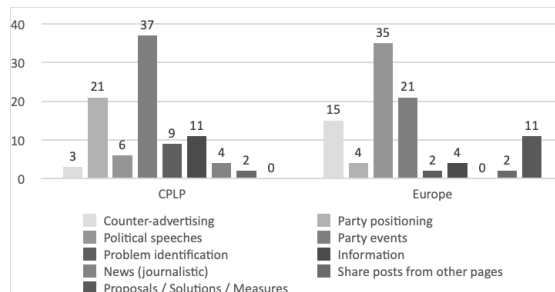
3.3. COMPARISON OF THE DIGITAL USES OF EUROPEAN PARTIES (FULL DEMOCRACIES) AND CPLP (IMPERFECT DEMOCRACIES)

Portugal was not analyzed since its inclusion would imply a double presence. Therefore, we deal with 187 publications: 94 publications from European parties (Spain and England) and 93 publications from CPLP (Brazil and Cape Verde).

In Europe, the preferred content type is “political speeches” (35), followed by “party events” (21 presences). In CPLP, the most published content type is “party events” (37), followed by “present a supporting position” (21). Publications are missing: a) in Europe, whose content is OCS news; and b) in CPLP, on proposals, solutions and measures for problems (Figure 4).

Figure 4

Relationship between geographical location of the party and type of content



The thematic agenda of both groups of countries or types of democracy obeys a similar expression: the most published topics both in Europe and in the CPLP are “finances” and “national politics” (Europe: 20 and 36, respectively; CPLP: 41 and 38, respectively). Two trends are detected: a) in Europe there is a greater thematic plurality in publications; b) 79 of the 93 publications in the CPLP talk about “finances” or “national politics” with all other topics underestimated, without ever gathering more than three publications.

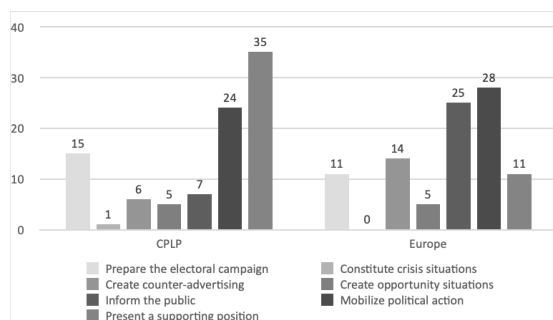
In Europe and the CPLP, the parties choose to use posts with a positive directional value, recording the absence of dual positions in the CPLP.

In the two geographies or cultural groups analyzed, the parties choose to use more publications with several actors simultaneously (24 in Europe and 34 in the CPLP), that is, elements of the party leadership with anonymous people. Second is the use of images of the party president (20 in Europe and 24 in the CPLP).

The main objective of party publications in Europe (Figure 5) is to “mobilize political action” (28), followed by “inform” (25). In the CPLP, “present a supporting position” (35) is the most expressive objective, seconded by “mobilizing political action” (24). Therefore, Europe uses more electronic participation and the participatory paradigm and the CPLP uses electronic information and the informational paradigm. The objective least present in the publications of the parties is “constitute crisis situations” with one presence in CPLP and without presence in Europe.

Figure 5

Relationship between geographic location and objectives



CPLP parties prefer to post using text with images. With a different practice, parties in Europe use video more.

3.4. COMPARISON OF DIGITAL USES OF GOVERNMENT AND OPPOSITION PARTIES IN EUROPE AND THE CPLP

The main trends are highlighted (Table 4) with “political speeches” as the type of content most used by government parties and “party events” by opposition parties in both blocks of countries. The directional value “in favor” is the most recorded in all cases. Regardless of the party’s functions, the main objective in Europe is to “mobilize political action”. In the CPLP, the parties prefer to “create opportunity situations” (government parties) and “present a supporting position” (opposition parties). Regardless of geography, government parties use more text and images and opposition parties use more videos (Table 4).

Table 4

Indicator with the highest absolute value in each category under analysis on the digital uses of government and opposition parties in Europe and the CPLP

| Country | European countries (Portugal, Spain, UK) | | CPLP countries (Portugal, Brazil and Cape Verde) | |
|--|--|--------------------------------|--|------------------------------------|
| Political function of parties / Categories | Government parties (58) | Opposition parties (98) | Government parties (45) | Opposition parties (110) |
| 1. Type of content | Political speeches (27) | Party events (33) | Political speeches (17) | Party events (51) |
| 2. Theme | National Politics (32) | National Politics (33) | National Politics (27) | Finances (52) |
| 3. Directional value | In favor (40) | In favor (47) | In favor (37) | In favor (68) |
| 4. Objective | Mobilize political action (16) | Mobilize political action (27) | Create opportunity situations (11) | Present a supporting position (39) |
| 6. Actor(s) present in the photos | Without actors (19) | Various (33) | Without actors (15) | Various (45) |
| 5. Form of presentation | Text with image (33) | Video (62) | Text with image (30) | Video (50) |
| | (n= 156) | | (n= 155) | |

3.5. COMPARISON OF DIGITAL USES OF FACEBOOK AND INSTAGRAM

The parties are present on Facebook in a more homogeneous way than on Instagram, but in presence (all present on Facebook) or in various publications (Table 5). The total number of posts on Facebook (NTP FB) is 249, while the

total number of posts on Instagram (NTP IG) is 111, in the same period. On Instagram, only four of the ten parties published in the selected period. Within CPLP and Instagram, the strong presence of Brazilian parties and the absence of Cape Verdeans can be noted (Table 5).

Table 5

Total number of posts on Facebook and Instagram

| Country | Portugal | | Brazil | | Cabo Verde | | Spain | | UK | |
|-----------|----------|-----|--------|-----|------------|-------|-------|------|------|-----|
| Functions | Gov. | Op. | Gov. | Op. | Gov. | Op. | Gov. | Op. | Gov. | Op. |
| Party | OS | PSD | PMDB | PT | MpD | PAIVC | PP | PSOE | PC | PT |
| NTP FB | 36 | 26 | 4 | 75 | 5 | 9 | 15 | 27 | 7 | 45 |
| NTP IG | a) | 9 | 31 | 46 | b) | b) | 25 | c) | c) | d) |

a) Created on October 26, 2016

b) Does not have Instagram

c) Not published in the period analyzed

d) Created on May 8, 2017

There is more interaction (likes vs. followers) on Facebook than on Instagram (Tables 6 and 7). The opposition parties are the ones that have

the most “likes” on Facebook, namely those of Brazil, England and Portugal (Table 6).

Table 6

*Facebook interaction of the parties under analysis on 05/25/2017**

| Party | OS | PSD | PMDB | PTB | MpD | PAIVC | PP | PSOE | PC | PT |
|-------|-------|--------|-------|---------|-------|-------|--------|--------|--------|--------|
| Likes | 54274 | 146123 | 69561 | 1230479 | 27029 | 19625 | 174609 | 147911 | 633586 | 992563 |

* It is decided to carry out the mapping in 2017 on this date, as it guarantees the maintenance of the political function of the parties analyzed and taking into account the proximity of the general elections in the United Kingdom on June 8, 2017

Table 7*Instagram interaction of the parties under analysis on 05/25/2017*

| Party | PS | PSD | PMDB | PT | MpD | PAVC | PP | PSOE | PC | PT |
|--------------|------|------|------|-------|-----|------|-------|-------|------|-------|
| Followers | 1362 | 8084 | 9249 | 56200 | - | - | 19200 | 15100 | 6631 | 34200 |
| Publications | 139 | 1223 | 2209 | 719 | - | - | 389 | 589 | 41 | 413 |

Instagram follows the same trend (Table 7): it is the opposition parties that have the most followers and the most publications, mainly in Spain, England and Portugal. It is in Brazil where there are peaks: the PT is the opposition party with the most followers and the PMDB is the government party with the most publications (Table 7).

4. DISCUSSION

In a “permanent campaign” logic, opposition parties primarily use party events as content in order to mobilize political action and adhere to their ideals (electronic participation). They seek to be active and visible since they do not have the “window of visibility” that constitutes the performance of government functions. On the contrary, government parties prefer speeches, using them to explain and clarify their policies (electronic information), a practice consistent with the imperative of the government and corroborating the results of the studies by Farranha and dos Santos (2016) and Lalancette and Raynauld (2017). As Canel and Sanders (2012) explain, governing necessarily implies constant exchanges of information and communication about policies, ideas and decisions between governors and the governed. In summary, it can be said that the opposition uses more the

participatory paradigm and the government the informative one.

Opposition parties are more active and more interactive (on Facebook and Instagram) than government parties. They tend to further devalue interactive communication with followers because they may have to communicate with an entire country, which is a more Herculean challenge. This result differs from that of Braga et al. (2017), which shows a high positive correlation between the size of the parliamentary bench and the degree of engagement on Facebook. Interactivity characterizes the digital medium and offers, under the theoretical framework of symbolic interactionism, conditions for the exchange of meanings and, under technological determinism, clues to confirm the aphorism that the medium is the message. In other words, since OSNs are interactive, they allow the politician to share and build symbolic worlds and meaningful relationships with supporters-voters and function as a structure that promotes the political participation of citizens, bringing politics closer to them (Kruikemeier et al., 2013) and creating political awareness and political participation offline (Ahmad et al., 2019) that also energizes democracy.

In quantitative terms and when it comes to digital uses, there are more differences between government and opposition parties than in the

comparison between European parties and CPLP, suggesting that digital performance is based more on the political role played than on geography, culture or type of democracy.

Similar trends include the use of positivity, the theme of national politics and the visual image. Positivity translates into contagion and enthusiasm, leading to incitement and in line with Trudeau's positive policy practice (Lalancette & Raynauld, 2017). The focus on national politics reveals concern for the internal affairs of the country. The use of the image is in tune with the "image civilization" and the "visual culture" that calls for visibility and reinforces the visual man.

Among the statistically significant relationships is the one between the communication objectives and the content of the message (type of content, topic and actor(s)). Therefore, a clear strategic commitment is observed in the correspondence between the objectives and the content of the message. In this line of action, Steyn (2003) suggests a route to build the communication strategy that requires stronger links between what should be communicated (objective) and how (content).

The use of Instagram is verified in a communication logic with the maximum number of voters, opting for the media orchestration (Rodrigues, 2014, p. 126) and for an integrated communication. Mass communication is consistent with the essence of democracy, which is the government of the people. The Internet offers the potential for electoral conquest for politicians, since it is becoming an attractive medium for the youngest members of the electorate (Eldin, 2016; Gibson & Ward, 2012, p. 62), this being one of the most present on Instagram, for example (Clement, 2019d).

CONCLUSIONS

This research, which attempts to respond to Putnam (1997), offers a contribution on the trends of digital uses of parties in Europe and the CPLP in a democratic framework. Recognizing that communication is a condition for a democracy and that the way in which communication is carried out influences the democratic game, this study seeks to close the research gaps with respect to: a) the study of the digital communication of parties in non-electoral periods, which is an innovative object according to Gibson et al. (2003); b) government communication (Canel & Sanders, 2012); c) visual aspects of political communication that, in the opinion of Schill (2012, p. 119), are rarely addressed, and d) Instagram, a platform little studied (Eldin, 2016, p. 256). The theoretical anchoring, the interdisciplinarity of the theoretical component and the perspectives of comparison also take advantage of the contribution of the study.

In summary, the article shows, in a logic of "permanent campaign", that the opposition parties use the participatory paradigm more and the government ones use the informative one. Between the parties in government functions and the opposition parties, the most significant differences reside in the type of content, actors and programmed topics and, between Europe and the CPLP, the differences lie more in the implicit objectives of the uses. The use of positivity, the theme of national politics and the visual image are common practices.

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Simplicity in the Public Administration and improvement of democracy

Simplicidad en la Administración pública y mejoramiento de la democracia

Simplicidade na administração pública e melhoria da democracia

6

ARTICLE



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Abstract

This article proposes that democracy moves from an exclusively formal model to a substantive one when, among other conditions, there is a reconfiguration of the General State Administration. A congruent condition is that it focuses on providing quality public services, using the technological resources currently available to meet the expectations and needs of citizens. The case being analyzed is the experience of the government of Ecuador with its public policy of simplifying procedures, and how this initiative was able to increase the quality of democracy

and facilitate conditions for the development of a substantive democracy.

KEYWORDS

Substantive democracy, Administrative simplification, Digital public services, Access to the government.

Resumen

Este documento plantea que la democracia transita desde un modelo exclusivamente formal, hacia uno sustantivo cuando se da, entre otras condiciones, una reconfiguración de la Administración General del Estado. Una condición congruente es que esta se enfoque en

proveer servicios públicos de calidad, usando los recursos tecnológicos disponibles actualmente para atender las expectativas y necesidades de la ciudadanía. El caso que se analiza es la experiencia del gobierno del Ecuador con su política pública de simplificación de trámites, y cómo esta iniciativa pudo incrementar la calidad de la democracia y facilitar condiciones para el desarrollo de una democracia sustantiva.

PALABRAS CLAVE

Democracia sustantiva, Simplificación administrativa, Servicios públicos digitales, Acceso a la administración.

Resumo

Este documento propõe que a democracia transita de um modelo exclusivamente formal

para um substantivo quando, entre outras condições, há uma reconfiguração da Administração Geral do Estado. Uma condição consistente é que esta se concentre na prestação de serviços públicos de qualidade, usando os recursos tecnológicos atualmente disponíveis para atender às expectativas e necessidades dos cidadãos. O caso analisado é a experiência do governo do Equador com sua política pública de simplificação de procedimentos e como essa iniciativa foi capaz de aumentar a qualidade da democracia e facilitar as condições para o desenvolvimento de uma democracia substantiva.

PALAVRAS-CHAVE

Democracia substantiva, Simplificação administrativa, Serviços públicos digitais, Acesso à administração.

1. INTRODUCTION

A democracy moves from a formal model to a substantive one when there are social agreements (Quiroga, 2000) sufficient to establish that democracy should not only guarantee individual freedoms, but should also seek what, in the absence of a better way, can be termed as the common good. For the purposes of this document, it is understood as the constant search for structural conditions of real equality among all members of that society.

This search occurs thanks to a set of conditions that include, but are not limited to, institutions, democratic tradition, and the role of the State in shaping these structural bases. Other necessary conditions have to do with the strengthening of civil society that moves the “center of gravity in the relationship between the resources that money, administrative power and solidarity represent” (Habermas, 2005, 8) in such a way that new public spaces for the democratic

formation of opinion and political will be developed, as suggested by the same author, in the social group and not in the private sector or the State. This reaffirms society against money or administrative power.

This study proposes that for democracy to be considered substantive, its quality should improve in a sustained and permanent way. For Jacobs (1994), democracy should not be limited to electoral processes, but should be evident between each process. The concept of substantive is associated, among other variables, with those that relate to how political and public institutions give results in the search for these conditions of real equality in access to the guarantee of fundamental rights (Spiker, 2007) and in the real access to the same opportunities.

This breaks a historical vision of the role and functioning of the traditional Administration, so given to *generate difficulties in order to sell facilities* (Correa R, personal communication, 2015).

A different vision is proposed that focuses on citizens, on how they should operate to meet their needs, how to generate competitive conditions in the business sector or facilitate access to all the procedures that are required for this purpose.

The document raises several reflections on this way of understanding the State and the Administration. At first, a review is made of the notion of the modern State, surpassing the traditional vision that assigns it the ability to monopolize legitimate violence. Subsequently, reflections on democracy and its quality are proposed, and how a democracy can be understood substantively if the State and the Administration function.

The article has been built on the analysis of public information and published by the Government and other related studies on the implementation of the public policy to simplify procedures in the period 2014-2016 in Ecuador. As can be seen, it is stated that from the implementation of said policy, access to the Administration was facilitated for citizens, which in turn could improve the citizens' perception of the functioning of the State and democracy.

In particular, the evidence suggests that the effort to take advantage of electronic resources could contribute to the strengthening of substantive democracy. The information provided by this work shows that the electronic processing and the possibility of participating in the feedback processes and improvement of the quality of the administrative paperwork and procedures carried out by the citizens could feed social conditions that made it possible to configure a more substantive democracy.

2. THE NOTION OF THE MODERN STATE

States are the most complex expression of social agreement in a self-regulating society. The ultimate goal of the democratic process is to decide who should govern the State to direct society towards what the social group considers desirable. It can be suggested that it is not possible to speak of democratic quality if there is no institutionalized State that supports it. The quality of democracy is not possible only as an agreement of individual wills, but it also requires an institutional apparatus to support it. This institutional apparatus is sustained in the State, understood as the sum of the relationships of all the social actors that coexist in it. The State is also and at the same time, the consequence and origin of the political actions carried out by the members of that society (Heller, 1998 [1934]).

This State consolidates its material manifestation in an interdependent set of institutions that bring together the power and resources of a social and political coercion (Oszlak, 2007) necessary for the legitimacy of its actions. The sphere in which human groups dispute control of the state is the sphere of politics. Wherever dialectical, ideological, and programmatic disputes occur that are possible because society has accepted that such disputes are necessary to feed the democratic process (Levi, 2015 [2002]).

It is in the State where ideas such as public goods, a just society or common values are developed and take shape (Bauman, 2002), ideas that are echoed in the concept of substantive democracy. These notions require a support structure that allows coexistence in these complex societies to make possible the search for those purposes that Bauman contributes. Substantive democracy, understood as the

inclusive solution of the most relevant public problems for this social group, which facilitate conditions of real equality of opportunities and are not limited only to economic growth (Giroux, 2005).

In this sense, the role of the State “is not only to ensure the conditions for the accumulation of capital, but also and above all, to improve the lives of its citizens in terms of rights, services and public policies” (Peña & Lillo, 2018, p. 24). Therefore, according to the author, the State should no longer be perceived as a mere reproducer of the mercantile, since its vocation is broader and includes, among other things, the power to regulate and shape life in society to avoid the perpetuation of inequalities and imbalances that persist in societies. This is one of the ways that consolidate democracy. Strong states, generate capable public organizations that provide quality services to citizens.

In a spiral effect, citizens trust the state more by receiving better services and may be willing to participate in more democratic processes. Interestingly, they can decide to participate in the processes that allow them to elect their representatives, and in those in which they can co-construct solutions to the public problems of society, or demand accountability for the actions of said representatives. In this sense, it can be summarized that the State is “the best way to achieve social order, to promote economic growth or to facilitate democratic expression” (Levi, 2015 [2002], p. 28).

In the period studied in this article, the Ecuadorian State was reformed with the intention of expanding its presence and incidence in previous cases in which either there was no state presence or its incidence was relative or secondary. For example, the Government created the Ministry of Mines as a response to the need to give more relevance to the sector, consid-

ering that the mining potential of the national territory could be subject to exploitation for the generation of new productive sectors with the consequent increased income for society. Another example was the emphasis assigned to the professionalization of public management through the strengthening of the National Secretariat of Public Administration (SNAP) as the body responsible for implementing quality management processes, the implementation of electronic government, innovation or transparency in the central Administration.

3. QUALITY OF DEMOCRACY

An organized society generates a State that acts to solve complex public problems that cannot be solved individually. This state is governed by coalitions that participate in democratic processes to win the right to govern. Ultimately, formal democracy has to do with who and how comes to power, and how they exercise it (Duhem, 2006). That is, how he uses power to govern the State and solve the problems that society has commissioned him to solve. From this moment on, democracy ceases, or should cease, to be formal exclusively as the one who arbitrates the process of competition and access to power. Henceforth, democracy should also be substantive, as the one who creates conditions for the construction of societies of equals with equal rights and real equality of access to opportunities.

Democracy can have different relative qualities. The concept of quality of democracy can be associated with 1) the processes of democratic participation, 2) the way in which political institutions facilitate the consolidation of democratic processes, allow the participation of all actors or create conditions of accountability of the elected authorities (Levine & Molina, 2007). Other currents also recognize that the quality

of democracy improves 3) when the State functions (UNDP-OAS, 2010).

Democratic participation is understood as the set of public actions that demonstrate the role that citizens play in public policy decision-making processes. These processes of *corporate deliberation* according to Habermas (1995), validate the decisions of the majority of the participants in the framework of a rational discussion. For this, the participatory process should be based on the plurality of lifestyles of modern societies (Velásquez, 2003) if it is in the interest of society to raise the quality of democracy.

The quality of democracy includes the extent to which public officials are obliged to be accountable to the citizens for their actions and decisions as governors (Levine & Molina, 2007) and, in the same sense, the degree to which the functioning of the Public institutions is also open to public scrutiny (Duhem, 2006). Note that it is not just about the actions of the ruling coalition. It is also that the state apparatus should be subject to scrutiny by society as a whole. Therefore, democracy improves if citizens feel that their rulers report their actions and the reasons that justify them, and if the system of public organizations can be scrutinized so that people feel informed and understand the decisions of public policy taken by both the government and the administration¹.

The State is one of the main executors of democratic, citizen and participatory openness (Piñeiro, 2018). It must have the capacity, among other things, to channel legitimate protests from sectors of society that perceive themselves as affected by political decisions or

by the operation of public organizations. Also, it should guarantee the stable presence of a social order that makes possible the real exercise of the freedom of citizenship. For this, government organizations should operate according to their capacities and responsibilities in the provision of public services, access to common goods or guarantee of rights that allow the effective exercise of said freedom.

In this line of thought, organizations such as the United Nations Development Program [UNDP], in conjunction with the Organization of American States [OAS] (2010) argue that democracies have become impoverished precisely when their states have become impoverished, limited or they have not been at the service of the majority.

Authors such as Morlino (2005) or Duhem (2006) argue that the quality of a democracy depends on a stable institutional structure that is sustained, among other institutions, in the State and its Administration, to the extent that they operate to make possible this freedom and real equality for all citizens. From which we can infer that the quality of democracy increases if the State and its institutions also operate with principles of quality, transparency, orientation towards citizens, etc.

It can also be proposed that the performance of the Administration reinforces the quality of democracy. If the organizations that comprise it are efficient, provide quality services and treat all citizens equally, they can perceive that if the institutions work, democracy works. Therefore, citizens will be more likely to participate in democratic processes. In fact, if state organizations

¹ The Government is understood as the coalition that participated in elections and came to power to lead the State. The Administration is understood as the network of public organizations that materialize the State and that carry out the decisions of the Government.

4. QUALITY PUBLIC ADMINISTRATION

The State materializes in a complex network of public organizations that operate the different functions of that State. The justice system is administered² from public organizations such as the Councils of the Judiciary that operate in some countries. The National Assembly or the Congress of Deputies is also administered through a clearly delimited organization with legal status and relative financial autonomy. The Executive function, as the governing body of the broad spectrum of public policies that are implemented at any given time, acts through a set of government organizations (the ministries when they only exercise governing capacity and do not provide direct services) and instrumental administration organizations (that provide public services, guarantee access to rights or comply with state powers).

Organizations in general arise from human action (Ayala Espino, 2001; Pérez, 1993), in response to the need for coordination to achieve common goals or solve complex problems. They can be considered as a set of available possibilities for solving problems for which they could be the answer (Cohen et al., 2009, [1972]). Additionally, Ayala Espino (2001) states that public organizations provide a structure on which certain social interactions are based, such as educational processes, access to justice or the exchange of goods and services between members of society. The same author suggests that public organizations can help minimize the costs derived from this exchange, with which societies can become more efficient.

Mulas-Granados (2010) proposes that the Welfare State should evolve towards a different type of State that suggests calling it Dynamizer. This new type of State should generate permanent changes in societies at two different levels, both in the means and procedures, as well as in the objectives and ends of its own existence. In this sense, the Administration should be dynamic in its administrative operation and expedite in its relationship with the rest of the economic and social agents. In relation to the purposes, public entities should create conditions to guarantee real equality of access to opportunities for all members of society and allow them the full exercise of their individual freedoms, as emphasized by Mulas-Granados (2010).

This demands a change in the State and the Administration. For example, it should be able to anticipate new risks, social demands, or individual demands and act preventively (Mulas-Granados, 2010). All the opposite of reactive action that characterizes the public Administration in general when the risks are already materialized. The Korean government named this approach Government 3.0. and explains it as an innovative paradigm “for the operation of the government, which seeks to provide individualized services for citizens and support the creation of employment in the creative sector of the economy through the opening and sharing of public information, as well as the elimination of access barriers within the Administration” (Ministry of Security and Public Administration of Korea, 2013, p.1)

This exercise involves important changes in the traditional approach to public management (Massal & Sandoval, 2009). It is not just about managing to change a procedure itself, but

about the entire public organization being able to understand the way in which technology transforms its internal relations and the rela-

² Administration in this context is understood as the commissioning and management of the material, human, technological and financial resources required for its routine operation.

tions with citizens. A change of this type requires relevant efforts in the political, programmatic and instrumental aspects of any political project. The evidence suggests that technology and the quality of democracy have a direct impact on the results of government action (Oriol, 2005), with which the strengthening of organizational capacities for the incorporation of technological processes becomes an institutional imperative that is translated into the improvement of quality in the delivery of public services and in the performance of administrative procedures.

In 2014, the government of Ecuador launched two national plans aimed at reforming the Administration's approach through SNAP (2015). These plans were: The National Plan of Excellence (PROEXCE) as an initiative to standardize quality management projects within the central Administration; and the National Plan for Electronic Government (PNGE), as an initiative to promote the electronic processing of the largest number of procedures.

PROEXCE was established on the basis of the European Foundation for Quality Management (EFQM) model applied to public administrations, called the Common Assessment Framework (CAF) (Proaño, 2017; García Mejía et al., 2018) and served as a methodological guide for all orientation activities of public organizations towards quality. The plan has had subsequent versions, the latest being that issued in 2018 by the Ministerio del Trabajo of Ecuador (MDT) (2018,6) and in which the following objectives are indicated: 1) Increase the quality of public services; 2) Increase the effectiveness of the management of plans, programs, projects, services and processes; and 3) Increase the level of maturity of institutional management based on the criteria of the Ecuadorian Model of Quality and Excellence.

The PNGE (SNAP, 2014) for its part, consolidated all the initiatives related to architecture, software development and applications of the Administration to improve their efficiency, increase the number of electronic procedures and move towards an integration of databases, operating systems and other activities required for a better provision of services on the part of public organizations. It had the objective of improving the experience of citizens in the use and access to electronic platforms to carry out administrative procedures of various types.

Both initiatives were the starting point of the public Administration reconfiguration efforts at administrative national level. This allowed public organizations to implement various initiatives to improve the quality of management in each of their areas of action and to promote the development of digital solutions that bring citizens closer to the Administration.

5. FACILITATE ACCESS TO THE ADMINISTRATION

Facilitating access to the Administration involves the generation of stable and permanent conditions that make it possible for all members of a society to petition the authorities for access to certain rights or public services, or to fulfill their obligations to the State, given the powers established in the legal frameworks, without having as the only way to go to a physical window located in a single geographical area or having to do so under conditions that affect them.

According to the Organisation for Economic Co-operation and Development [OECD] (2006), citizens have experienced changes in recent years with more education, better access to information, and greater critical capacity that make them demand better quality public ser-

vices or simpler and more efficient administrative procedures. As companies become more complex, the transaction costs of having to interact with the Administration become higher, not only in financial terms (fee costs), but also in economic terms (loss of profit due to not being able to operate if there is no state authorization for an economic activity) or social (time allocated to the Administration that prevents, for example, the care of the family).

This new reality poses new challenges for public organizations, as the OECD itself points out “the challenge [...] will be to respond to the growing demands for more efficient transactions, tailored services and ubiquitous access by citizens and businesses” (2006, p. 56).

When public organizations decide to modify the framework with which they operate to meet these changing and increasingly complex demands, it may happen that society reinforces the construction of a responsible citizenship. At the same time, better access and democratization of the Administration can lead to an increase in its efficiency (Cunill, 2005). This may include a form of state engagement more geared towards meeting the needs and expectations of the people. That is, more accessible (OECD, 2006) and able to generate more and better channels of attention to user requirements, simpler attention processes, elimination of unnecessary requirements or procedures, among other actions that improve access opportunities of citizens to the Administration and make it more efficient in providing the services or procedures that it is obliged to offer. Presumably, actions like these reinforce the confidence of the inhabitants in the State and the Government, and in turn, reinforces the quality of democracy.

Facilitating access to the Administration can be beneficial in two ways (Brugué & Gallego, 2001; OECD, 2006). On the one hand, the State obtains better levels of acceptance and legitimacy, which, in turn, improves the quality of democracy as it validates it as a form of government thanks to the legitimacy and credibility that is obtained by this improvement. On the other hand, and instrumentally speaking, better access improves the performance of public organizations and can help achieve other important public policy goals of the governing coalition such as economic growth and social cohesion. In both cases, easier access to public administration should feed the quality of democracy.

As the complexity of societies increases, Administrations have to stop acting alone (Brugué & Gallego, 2001). The monopolistic idea of the traditional Administration is gone and in its place is the increasingly strong intention to consolidate the stable and permanent interaction between the contemporary Administration and the citizens, which includes the possibility of sharing activities and diversifying the way in which these happen.

In 2013, the President of Ecuador signed Executive Decree 149 (Correa, 2013) with which he issues mandatory provisions for all public Administration at the central government level in relation to a homogeneous framework that facilitates the implementation of electronic processing initiatives, as well as directing their attention to citizens with an administrative simplification approach.

This decree establishes that public organizations must, in a mandatory manner, facilitate the interaction of citizens, private organizations or civil society with the Administration. This involves facilitating access both in the reduction

of barriers, as in the increase of service channels, the intensive use of technology and the interoperability between public databases, which should reduce the administrative burdens associated with carrying out all these procedures.

6. SIMPLICITY AS AN EXPRESSION OF SUBSTANTIVE DEMOCRACY

Setting up a public Administration at the service of the citizens forces to reframe the traditional form of relationship that has been characterized as slow, bureaucratic and not at all collaborative. The most notorious expression of this characterization has, historically, been the completion of procedures. The procedure is “what connects the citizen with the service, obligation or public law: there is no education service without registration; there is no health service without the appointment; and there is no tax payment without submitting the form” (García Mejía et al., 2018, p. 12). In short, there is no possible relationship between the State and citizens if there is no formality involved.

To attend to this new citizenship suggested by the OECD, it is pertinent to ensure that the Administration reinvents itself in all its forms, including the way of solving the procedures. When it comes to paperwork (Guzmán, 1999), it may be necessary to make the process become a matter of public policy as was done in the Ecuadorian case. This policy was prioritized at the highest political level, with an Advisor of President Correa at the head of the implementation of the simplification strategies in the Administration at the central government level. President Correa (2015) himself suggested some important principles for this public policy: 1) the best procedure is the one that is not done, 2) the State should tend to reduce hea-

daches for citizens, 3) the best Administration is the one that does not bother the citizens.

Based on these assumptions, a strategy for the relationship between public organizations and citizens was consolidated through digital channels, so that the inhabitants of the country could reduce or eliminate the number of times they went to a public office to carry out an administrative procedure, the amount of time dedicated to carrying out the procedure or the reduction of requirements to carry them out or, on occasions, all of the above. This strategy had its peak in 2015 and 2016, with a total of 446 procedures simplified in 2015 and 410 in 2016 (García Mejía et al., 2018).

The results obtained in both years have been documented in publications such as that of García Mejía et al. (2018), and in public reports such as those made by the President of the Republic in the routine accountability space called the Citizen Link³.

As an example, it can be indicated that, in 2015, the number of requirements per procedure was reduced from 9 to 3, on average 8 million people were prevented from going to a physical service window, 40% of the simplified procedures took less 4 hours to be resolved and citizens achieved savings of USD 20 million due to the reduction of unnecessary administrative burdens (Castillo, 2016). For 2016, the number of requirements dropped from 6 to 3, on average, officials allocated 57% less time to carry out administrative procedures due to automation, and citizens reduced their interactions with the Administration by 45% due to the completion of procedures (García Mejía et al., 2018). In both years, a total of 856 procedures were

³ This space was a weekly television program in which Correa informed the public about different matters of his government action, and on some occasions he referred to the advances in administrative simplification.

simplified, of which 302 were simplified through full automation. This means that, as of that year, these procedures were carried out by digital means without the need to go to a public agency or have to present physical documentation of any kind.

This technological mediation is a space for carrying out transactions of various kinds. It is also a means of direct communication between citizens and the Administration, since in the process to access electronic processing, public organizations were able to disseminate relevant messages about their sector and obtain feedback from citizens on aspects of sectoral interest.

An example of this was the search for information that would make it possible to identify those procedures that could represent the greatest problems for citizens, either due to the difficulty in accessing them, due to the number of requirements or steps, or because they were not necessary. For this, the government implemented the public communication initiative called *Tramiton.to* (www.tramiton.to) (García Mejía et al., 2018), which consisted of a digital platform in which users could identify the procedures that caused them problems and their proposed solutions. The initiative was presented to the public in June 2014 in one of the Citizen Links.

To motivate participation, the platform awarded prizes to the best simplification proposals made by citizens, a work that also served to improve the effectiveness of the plan by providing feedback from citizens on more appropriate ways to simplify administrative procedures and empowering the inhabitants to participate in the quality improvements of the services to which they have access.

The initiative of *Tramiton.to* turned out to be a mechanism of communication and citizen participation (Brugué & Gallego, 2001) that managed to reach the social actors interested and/or affected by the problem of the paperwork. Additionally, it served as a source of information to identify the procedures that needed to be simplified with more urgency in each of the years in which the initiative was in operation. The initiative received 6000 suggestions from citizens to build the National Plan for the Simplification of Procedures 2016 (Barreiro, 2016). This improved the efficiency of the public policy tools by focusing resources and efforts on those procedures that were most felt by the participating citizens.

When the relationship with the Administration becomes simple, the public tends to trust the State more. To keep it simple, it is essential that two fundamental actions are articulated, among others.

In the first place, the simplicity of the procedures should include procedure guides in plain language, avoiding technicalities that may make sense for the officials who are responsible for the service, but not necessarily for the citizens.

Second, any administrative simplification process must be accompanied by digital literacy processes for the inhabitants of the territory. Otherwise, a true democratization of the State is not generated. In the present case, together with the simplification processes carried out by the public policy sector of the public administration, initiatives were implemented from the public policy sector of the information society that turned the Wi-Fi networks of public schools in various areas of the country free and of free access. It also implemented a network

of 849 *infocentres*, which are public offices to which the inhabitants of rural areas could go to have internet access (in a model similar to that of an internet café) and in which a public official provided help and facilitated electronic processing when required by the public (Ministerio de Telecomunicaciones y de la Sociedad de la Información, 2018).

Simplicity can make citizens more interested in participating in other problem-solving initiatives that can reconfigure social conditions and make them less inequitable. From this it can be inferred that democracy is reinforced in the sense that participation is not only access to suffrage, but also the relationship with the State, especially when seeking what at the beginning we called the common good.

7. CONCLUSIONS

The construction of a democratic society that transcends the logic of formal democracy and agrees to consolidate a model of substantive democracy in which inequities are reduced and opportunities for real equality are built for everyone, should reform its institutions in general to make them inclusive and within everyone's reach. In particular, throughout this article we have suggested that one of those institutions to reform is the State.

The reform of the State must tend to overcome the exclusive logic of the protection of individual rights, such as property rights, and should migrate its gaze towards the solution of those problems that are called public because of their complexity and how they affect society. Those problems that cannot be solved individually due to their dimension, but require to be addressed by the State, both as an expres-

sion of society in action as expressed by Heller (1998 [1934]).

It is important to reconfigure the public administration so that it leaves behind the traditional vision of public organizations as spaces for generating problems for citizens and, instead, commits to a proactive vision of public action that anticipates the needs of citizens of that State and operate with criteria of efficiency and effectiveness, which should be understood as the generation of conditions for the reduction of social inequities and the consolidation of models of substantive democracy.

One way to bring the Administration closer to those desirable objectives is through conditions that facilitate access for all users under equal conditions, where those who live in cities, those with more resources or those with more contacts are not privileged. On the contrary, channels are expanded, barriers are eliminated and direct access without intermediation is promoted to carry out the procedures that allow inhabitants to access public services, guarantee rights or fulfill citizen responsibilities.

It is recommended that the procedures are subjected to simplification processes that prioritize the use of digital channels that universalize the access of citizens to the Administration. Not only that, the government can propose citizen feedback and participation initiatives such as the *Tramitón.to* in Ecuador that allowed interested parties to propose and provide information on what the administrative procedures that require more attention should be to make them simpler.

The implementation of various public policies for the management of public issues coincides in time with the results of improving citizen sa-

tisfaction with the quality of democracy. This may suggest that if the citizens verify that the General Administration of the State works better, broadens its service channels, promotes simplicity in the provision of public services, simplifies procedures by taking advantage of available digital channels and creating new ones, it may create a greater interest of citizens to propose improvements to management systems and administration of public organizations, especially those that reduce the conditions of structural inequality that persist in societies such as those in Latin America.

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ESTUDIOS E INVESTIGACIONES

Netflix as an audiovisual producer: a snapshot of the serial fiction co-productions

Netflix como productor audiovisual: Una radiografía de la coproducción de ficciones seriadas

Netflix como produtor audiovisual: um raio-x da coprodução de ficções em série

7

ARTICLE



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Abstract

Knowing the audiovisual products distributed by Netflix supposes a determining study scenario, since it allows us to obtain information on the strategy applied to satisfy the supply-demand process between the audiovisual giant and its global audiences. The objective of this article is to offer a snapshot of the original production of the VOD Netflix platform, specifically, breaking down and analyzing forms and trends in one of the recognized own production formulas: co-production, in

order to contribute to the development of specific knowledge about Netflix's own product portfolio.

KEYWORDS

Co-production, Fiction, Netflix, Series, Television.

Resumen

Conocer los productos audiovisuales distribuidos por Netflix supone un escenario de estudio determinante, puesto que nos permite arrojar información sobre la estrategia aplicada para satisfacer el proceso de oferta-demanda entre

el gigante audiovisual y sus públicos globales. El objetivo del presente artículo reside en ofrecer una radiografía sobre la producción propia de la plataforma de VOD Netflix, en concreto, desglosando y analizando formas y tendencias en una de las fórmulas de producción propia reconocida: la coproducción, con la finalidad de contribuir al desarrollo de un conocimiento específico sobre la cartera de productos propios de Netflix.

PALABRAS CLAVE:

Coproducción, Ficción, Netflix, Series, Televisión.

Resumo

Conhecer os produtos audiovisuais distribuídos pela Netflix supõe um cenário de estudo determi-

nante, pois permite lançar informação sobre a estratégia aplicada para satisfazer o processo de oferta e demanda entre o gigante do audiovisual e seu público global. O objetivo deste artigo é oferecer um raio-x da produção própria da plataforma VOD Netflix, especificamente, dividindo e analisando formas e tendências em uma das fórmulas de produção próprias reconhecidas: a coprodução, a fim de contribuir para o desenvolvimento de conhecimento específico sobre o portfólio de produtos próprios da Netflix.

Palavras-chave

Coprodução, Ficção, Netflix, Séries, Televisão.

1. INTRODUCTION

When talking about Netflix, reference is made to an unprecedented audiovisual production and consumption phenomenon. Netflix, as Lobato (2019) notes, is not only a content producer or distributor, nor is it a digital platform, but rather a technology-based producer, receiver and distributor conglomerate. In the words of this author, Netflix fulfills a number of specific roles such as video platform, audiovisual distributor, technology company, television network, software system, global media corporation, cultural industry, lifestyle, big-data business, mode of media consumption and even a ritual (Lobato, 2009).

A business that started as a home delivery DVD video club in 2007 was transformed into a production and consumption system that currently has more than 158 million users in more than 190 countries (Netflix, 2019). The formula for its successful career is still unknown, but recent works confirm that part of this success

lies in the system of recommendations, the simultaneous releases of movies and series, the availability of content and, above all, the commitment to in-house production (Tuñón & Gambari, 2019).

The company's turning point was found in 2011 when it began to acquire original content to distribute in streaming. The acquisition of this original content marked the starting point for the giant, which, until now had worked as a VOD platform offering content previously transferred by third parties. The premiere of the *House of Cards* series (USA, 2013) was the trigger for a new production industry that would make Netflix what it is today: "The global Internet TV network" (Netflix, 2019, s.p).

It is necessary to mention that the supervening media convergence of the phenomenon itself in streaming does not suppose a purely technological phenomenon, but is sustained by a significant cultural dimension (Jenkins, 2008). This statement refers to altering the user's way

of consuming and the planning of content flows in order to satisfy an increasingly demanding and empowered audience (Izquierdo-Castillo, 2015, p.819), diverting the power of the large production companies and audiovisual studios that have ceased to have a hegemonic position in the audiovisual business (Iordanova, 2012).

In order to respond to this new scenario of convergence of media, formats and cultural content, the company is betting on the distribution of original content as a resource that feeds audience demand. The power that consumption data gives on the Netflix platform itself is understood as the necessary wildcard to know what to produce, how to produce it and how to distribute it to the public. For this reason, the knowledge of audiovisual products distributed by Netflix supposes a determining study scenario, since it allows presenting information on the strategy applied to satisfy the supply-demand process between the audiovisual giant and its global audiences.

2. THEORETICAL FRAMEWORK

The Netflix phenomenon is taking on an important dimension in academic research. However, few studies have had a diachronic-historical approach that allows to offer a snapshot of the evolution of the platform's content, with the exception of the investigations by Antin-Goldenberg (2018) or Urbano and Araujo (2018) that focused on television dramas in the Brazilian market. The state of the research around Netflix seems to focus on the study of the platform's business model (Ojer & Capapé, 2012; Izquierdo-Castillo, 2015; Neira, 2015; Evens, 2014 Pérez, 2017; Heredia-Ruiz, 2018) and in its advertising aspect (Del Pino & Aguado, 2012; Pérez & Cornelio, 2018; Mayorga-Escalada,

2019), as well as data and information management (Fernandez et al., 2016).

A trend can be seen in the study of the convergence of streaming television with consumer media (David, 2010; Uribe, 2016; Uman, 2018); although after an extensive bibliographic review it was found that the focus that has generated the most interest around fiction on Netflix is the study of audiences and reception (Simmons, 2013; Costas-Nicolas, 2014; Dhoest & Simons, 2016; Montero, 2015) as well as the most recent cultural studies on the audiovisual discourse of the products offered (Raya et al., 2018; Margarita, 2020).

Although it is true that the concept of media convergence of Jenkins (2008) would be the starting point for the study of serial fiction production in new digital and multimedia contexts, other theoretical considerations allow addressing the impact and phenomenon of such productions in the global television market. We refer, for example, to the concept of "indigenization" (Buonanno, 1999), which defends the necessary adaptation of audiovisual production to national and/or local demands and contexts to guarantee acceptance by audiences. Also, the concept of "cultural proximity" (Straubhaar, 2003) acquires importance in this sense, implying a necessary determination when establishing a value strategy in the audiovisual market. The author himself understands this cultural proximity as:

Cultural capital, identity, and language tend to foster an audience desire for cultural proximity, which leads audiences to prefer local and national productions to those that are globalized and/or Americanized. (Straubhaar, 2003, p. 76)

These concepts make it possible to focus on the social impact of co-production and to understand that the determining factor when producing for a localized market implies a series of social dimensions that condition the format, content and the way of distribution itself. In other words, and in line with the statements of the aforementioned authors, it is necessary to know the sociocultural context in which an audiovisual product will be distributed to guarantee reception among local audiences.

2.1. UNA ACLARACIÓN TERMINOLÓGICA SOBRE LA PRODUCCIÓN DE FICCIÓN SERIADA DE NETFLIX.

When analyzing the strategy of co-production on Netflix, we must bear in mind that its own production has been developed at different formal levels (cinema, serial fiction, programs and other derivatives such as documentaries or documentary series of different genres and themes). In addition, it is necessary to make a terminological clarification of the different formats that acquire the name of "Netflix original" in the context of television fiction, since the label can cause confusion. Despite the fact that the platform generically labels using the tag "original content" or "original series", different versions of this generalized content have been detected, which are:

- Original production in English: Refers to content in which the company is the original producer of the product, normally through a strategic alliance with private producers. Serial fiction products of great global success have emerged from this type of alliance, such as *Stranger Things* (USA, 2016) or *Narcos* (USA, 2017).
- Original foreign language production (non-English): These shows are created by Netflix and are spoken completely or almost completely in a language other than English. Some have the option to watch English dubbing and others are subtitled. In any case, they follow the dynamics of the previous ones and products such as *Club de Cuervos* (Mexico, 2015) or *Marseille* (France, 2016).
- Continuations: The company, within its own production catalog, takes up programs that were originally broadcast on another television channel and creates new seasons in search of the expansion of a previously tested success. Examples of this category are found in seasons 3, 4 and 5 of *Black Mirror* (United Kingdom, 2011) or the phenomenon generated by the second season of *Money Heist* (Spain, 2017).
- Co-productions: Netflix joins forces with television networks from different countries and become partners when it comes to producing content, seeking the commitment to the local product that will later be distributed globally.
- Acquired Rights: These programs, despite being labeled as original by Netflix, are programs that have been broadcast in different territories and exclusive distribution rights have been purchased for broadcast in other countries. They may be available in the territory of origin and in other countries where Netflix does not have the first broadcast license, without the "Netflix original" label, long after it was broadcast on the original network.

This clarification allows us to understand that the study of co-productions focuses on the company's alliances with television networks in the territories in which it operates, thus ca-

rying out a commitment to the local product. Despite the fact that we are referring to a company with a global focus, the truth is that it has been involved with the national products of each place since its inception through strategic alliances with television networks in each territory¹. It is an investment that can be called geo-cultural and that responds to the natural demand of audiences. In addition, it has opted for audiovisual production in the local language and with trending actors from different countries, in order to strengthen local ties through products that, later, could be exported to other global catalogs of the company itself.

Co-production is understood to be a successful strategy that allows the proliferation of serial fiction products. As of 2008 and derived from the global economic crisis, the audiovisual sector experienced a paralysis of projects. Some countries like Japan used this format to revive their market and it was a model copied by other countries to revive their national television fiction. Thus, co-productions involve alliances with television networks in each region that allow the development of new audiovisual products, repeating success in the region itself and allowing the transnationalization of the fictional product to an interconnected hegemonic market.

3. OBJECTIVES AND METHODOLOGY

The objective of this article is to offer a snapshot of the own production of the Netflix VOD platform, specifically, breaking down and analyzing forms and trends in one of the recognized formulas of own production: co-production. Based on this global objective, the following specific objectives emerge:

- a) Analyze the way in which co-productions are established according to the language and the countries with which the productive alliances are generated.
- b) Offer classified information on genres, formats and characteristics of serial fiction programmes co-produced by Netflix.
- c) Provide a taxonomy of the different fictions co-produced by Netflix that allows glimpses of preferences and strategic trends.

All these objectives are intended to contribute to the development of specific knowledge about Netflix's own product portfolio, an incipient study but one with great socio-cultural impact that is worth reviewing. In addition, the current state of the matter, as well as the difficulties (both geographic and operational) to access totalizing information and data on the co-production of the platform justify the purpose of this work. The aim is to provide an encyclopedic descriptive contribution to Netflix's own production (specifically to serial fiction co-productions) that may serve for future related research.

In order to achieve the objective, we have worked with a mixed methodology, with an exploratory approach based on obtaining data and its qualitative interpretation, although it is true that the descriptive needs of the work have led

¹ In Latin America, for example, relations with Telemundo, Telefe, RCN and others, allowed Netflix to offer a wide content of soap operas to its audiences, something necessary to position itself territorially.

to the results being supported by quantitative data.

The sample selection has been compiled by going to the global Netflix catalog and with specific support from press references, corporate content and external resources. The following have been excluded from the sample selection: cartoon series (although the animation-themed series have been taken into account), those tagged as documentaries in both fiction and non-fiction and documentary-style miniseries, a booming sub-genre in self-production in non-English language. Three serially labeled and structured educational programs have also been eliminated since the content does not correspond to the object of study. Once the established criteria were applied, a total sample of 53 study cases was obtained.

When collecting the information to be able to offer the snapshot about the Netflix co-productions, an ad hoc variable collection table has been created that recorded the following variables: series name, country of origin, co-producer network, original language, number of seasons, number of chapters and average duration of chapters. In addition, the dominant genre of each series and the thematic particularities have been coded in order to detect booming genres and themes if possible.

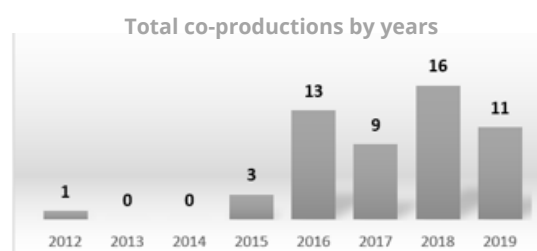
It should be noted that the sample selection has been made based on the definition and scope of the co-production formula explained in the theoretical framework, which excludes co-productions based on business strategies with private producers and alludes to alliances with television networks in an attempt to revive the production of the networks and feed the Netflix catalog with a more national fiction offer, even though it is subsequently distributed globally.

4. RESULTS: THE PHENOMENON OF CO-PRODUCTION ON NETFLIX.

Among the original production formats, the increasing presence of co-productions in which Netflix acts as a participant in the production process of the series is detected. Within this category, 53 co-productions have been located in the entire Netflix catalog. Despite the fact that the first series co-production was recorded in 2012, there are two years of absence in this matter and it is not until 2015 when the productive formula is resumed. The year with the highest number of co-productions is 2018, with little significant variations in the rest of the years (see Figure 1).

Figure 1

Total co-productions by years



In general terms we can say that English, as expected, is the language par excellence of co-productions. The productions in Japanese (8 cases) or, in an incipient way, the co-productions in Spanish also acquire importance in the count. Meritorious features are not detected in the rest of the languages, a rather specific relationship between years and co-productions is noted. As can be seen in Table 1, there is a trend towards co-production in languages other than English, specifically, a commitment to languages from minority territories but with a strong track record in serial fiction production. Although they are understood as specific features, we could speak of a possible predisposition that, undoubtedly, must be contrasted with the evolution of subsequent years (Table 1).

Table 1

Total of Netflix co-produced series by language and by year

| | 2012 | 2015 | 2016 | 2017 | 2018 | 2019 | TO-TAL |
|----------|------|------|------|------|------|------|--------|
| English | 1 | 2 | 9 | 4 | 14 | 7 | 37 |
| Japanese | | 1 | 2 | 4 | 1 | | 8 |
| Spanish | | | 1 | | 1 | 1 | 3 |
| German | | | 1 | 1 | | | 2 |
| French | | | | | | 1 | 1 |
| Korean | | | | | | 1 | 1 |
| Dutch | | | | | | 1 | 1 |
| TOTAL | 1 | 3 | 13 | 9 | 16 | 11 | 53 |

The first recorded television fiction co-production corresponds to the series *Lilyhammer* (2012) in English but also presented in the Norwegian language. This series of three seasons and 24 chapters is the starting signal for what will be the formula of Netflix's programming distribution strategies. It is the first case in which the platform collaborated with NRK (Norway) in the production of a comedy series. Despite the fact that 2012 marked the start of the co-production in fiction, it took three years to find similar examples again that came in 2015 from co-productions such as *Between* (2015, City; Canada), the animated series *H2O: Mermaid Adventures* (2015, in collaboration with ZDF/Germany & France Télévisions/France) or *Atelier* (2015) the first Japanese-language co-production in collaboration with Fuji Television. These are exploratory co-productions ranging between 2 or 3 seasons with an average duration of 25 minutes per episode.

2016 was an exponential leap in Netflix co-productions, registering a total of 13 series (see Table 2). Despite the fact that this year the English language is still the most relevant with examples such as the youth dramas *Degrassi: Next Class* or *Lost & Found Music Studios* (both co-produced with the Family Channel network in Canada), it continues with the relationship with Fuji Television for the production of *Good Morning Call* and new strategic alliances are opened in Japan for the creation of the drama *Hibana: Spark*, co-produced with Yoshimoto Kōgyō. Also, relations with RTVE began for the production of *Four Seasons in Havana*, this being the first co-production of Netflix in Spanish (Table 2).

Table 2

Co-productions of 2016

| | SERIES | LAN-GUAGE | Nº SEA- SONS | Nº CHAPT. | DURA- TION | NETWORK | COUN- TRY |
|----|--|-----------|-----------------|-----------|---------------|-----------------|----------------|
| 1 | Degrassi: Next Class | English | 4 | 40 | 30—45 | Family Channel | Canada |
| 2 | Lost & Found Music Studios | English | 2 | 27 | 30—45 | Family Channel | Canada |
| 3 | Good Morning Call | Japanese | 2 | 27 | 30—45 | Fuji Television | Japan |
| 4 | Hibana: Spark | Japanese | 1 | 10 | 30—45 | Yoshimoto Kōgyō | Japan |
| 5 | Beat Bugs | English | 3 | 52 | 30—45 | 7TWO | Austra- lia |
| 6 | Cuba Libre | German | 1 | 8 | 30—45 | ZDF | Ger- many |
| 7 | Bottersnikes & Gumbles | English | 2 | 52 | 30—45 | 7TWO | Austra- lia |
| 8 | ¡Kazoops! | English | 3 | 26 | 30—45 | ABC | Austra- lia |
| 9 | Cuatro estaciones en La Habana | Spanish | 1 | 4 | 80—90 | RTVE | Spain |
| 10 | Paranoid | English | 1 | 8 | 30—45 | ITV | UK |
| 11 | Dirk Gently: Agencia investi- gaciones holísticas | English | 2 | 18 | 30—45 | BBC America | USA |
| 12 | Crazyhead | English | 1 | 6 | 30—45 | E4 | UK |
| 13 | Viajeros | English | 2 | 24 | 30—45 | Showcase | Canada |

This year's series are characterized by not being excessively long, with a maximum of one or two seasons in 76% of cases (10 fictions) compared to 24% of longer series. *Degrassi: Next Class* with four seasons and 40 chapters in total and *Beat Bugs* with three seasons and 52 chapters stood out. The duration of the chapters responds to the standard of production extended in the television fiction industry, with chapters ranging from 30 to 45 minutes in length, somewhat consolidated in traditional television fiction. Only one example stands out for the duration of the chapters and this is the case of the Spanish series *Four Seasons in Havana*, which has chapters with a duration of around 90 minutes despite having a season of four episodes (close to the miniseries format).

The thematic bet is based on the dramatic genre, with the exception of the British co-production of *Crazyhead*, and subgenres close to science fiction are introduced. For example, *Dirk Gently: Holistic Detective Agency* (BBC America) or animation fictions as seen in products derived from co-production with 7TWO (Australia) such as *Beat Bugs* or *Bottersnikes & Gumbles*.

With the arrival of 2017, the number of co-productions is significantly reduced, registering 9 series in total (see Table 3). It is curious how this year the number of co-productions in English and Japanese coincide, four for each case (88.8% of the total co-productions for the year). It is noted how the platform strengthens its relationships with Japanese networks such

Table 3

Co-productions of 2017

| | SERIES | LAN- GUAGE | Nº SEA- SONS | Nº CHAPT. | DURA- TION | NETWORK | COUN- TRY |
|---|---|---------------|--------------------|--------------|---------------|------------------|--------------|
| 1 | <i>Frontier</i> | English | 3 | 18 | 30—45 | Discovery | Canada |
| 2 | <i>Samurai Gourmet</i> | Japanese | 1 | 12 | 15—20. | Kyodo Television | Japan |
| 3 | <i>Anne with an E</i> | English | 2 | 17 | 30—45 | CBC | Canada |
| 4 | <i>El Chapo</i> | Spanish | 3 | 34 | 50—60. | Univision | USA |
| 5 | <i>Kantaro: The Sweet Tooth Salaryman</i> | Japanese | 1 | 12 | 30—45 | TV Tokyo | Japan |
| 6 | <i>The Worst Witch</i> | English | 3 | 38 | 30—45 | CBBC & ZDF (Cop) | Germany |
| 7 | <i>Million Yen Women</i> | Japanese | 1 | 12 | 30—45 | TV Tokyo | Japan |
| 8 | <i>Alias Grace</i> | English | 1 | 6 | 30—45 | CBC | Canada |
| 9 | <i>Erased</i> | Japanese | 1 | 12 | 30—45 | Kansai TV | Japan |

as Kyodo Television for the launch of *Samurai Gourmet*, TV Tokyo for *Kantaro: The Sweet Tooth Salaryman* and *Million Yen Women* or Kansai TV for *Erased*. The English language co-productions this year stand out for their Canadian origin, derived from alliances with the CBC with results such as *Anne with an E*, *Alias Grace* or the historical drama *Frontier*, co-produced with Discovery Canada. In Spanish, the year 2017 left us the television drama *El Chapo*, assuming the first collaboration between Netflix and the production company Univision of USA, this would open a repeated trend in recent fiction that is similar to serial fiction and close to the biopic (Table 3)

All the series co-produced in 2017 generally belong to the dramatic genre, with the exception of the production made with CBBC (United Kingdom) and ZDF (Germany) entitled *The Worst Witch*, a youth-style series belonging to the fantastic genre that featured three seasons and 38 chapters in total, and the comedy *Kantaro: The*

Sweet Tooth Salaryman (TV Tokyo). Innovative subtopics are introduced, such as supernatural dramas (*Erased*, Kansai TV) or historical dramas (*Frontier*, Discovery or *Anne with an E*, CBC) but always under the title of the dramatic genre, highlighting little involvement in the co-production of comedies.

This year's series are still short-lived, if we consider that more than half of the co-productions (5 cases) hardly have a season and coincide in number of chapters (12), establishing a possible new standard. However, it is detected that among the series with more than one season (*Frontier*, 3 seasons; *El Chapo*, 3 seasons; *The Worst Witch*, 3 seasons and *Anne with an E*, 2 seasons), there is not a large volume of chapters that range from 17 to 38 chapters throughout the series. Regarding the duration of the chapters, the standard of 30-45 minutes is maintained, only exceeded in the case of *El Chapo* (50 minutes of average duration) and

Table 4

Co-productions of 2018

| | SERIES | LAN- GUAGE | Nº SEA- SONS. | Nº CHAPT. | DURA- TION | NETWORK | COUN- TRY |
|----|------------------------------------|---------------|------------------|--------------|---------------|----------------------------|----------------|
| 1 | The End of the F***ing World | English | 1 | 8 | 20-30 | Channel 4 | UK |
| 2 | <i>Mob Psycho 100</i> | Japane- se | 1 | 12 | 20-30 | TV Tokyo | Japan |
| 3 | <i>Damnation</i> | English | 1 | 10 | 50-60 | USA Network | USA |
| 4 | <i>Collateral</i> | English | 1 | 4 | 50-60 | BBC Two | R.Unido |
| 5 | <i>Requiem</i> | English | 1 | 6 | 50-60 | BBC One | R.Unido |
| 6 | Troya: La caída de una ciudad | English | 1 | 8 | 50-60 | BBC One | R.Unido |
| 7 | <i>The Letdown</i> | English | 2 | 13 | 50-60 | ABC | Austra- lia |
| 8 | <i>Las nuevas leyendas de Mono</i> | English | 1 | 10 | 20-30 | ABC/Austra- lia & TVNZ | Austra- lia |
| 9 | <i>Safe</i> | English | 1 | 8 | 50-60 | C8 | Francia |
| 10 | <i>Bésame primero</i> | English | 1 | 6 | 50-60 | Channel 4 | R.Unido |
| 11 | Soy un asesino | English | 1 | 10 | 50-60 | Crime + Investi- gation | R.Unido |
| 12 | <i>Wanderlust</i> | English | 1 | 6 | 50-60 | BBC One | R.Unido |
| 13 | <i>Robozuna</i> | English | 2 | 20 | 50-60 | CITV | R.Unido |
| 14 | <i>Pine Gap</i> | English | 1 | 6 | 50-60 | ABC | Austra- lia |
| 15 | <i>El perfume</i> | German | 1 | 6 | 50-60 | ZDFneo | Alema- nia |
| 16 | La colina de Watership | English | 1 | 4 | 50-60 | BBC One | R.Unido |

again, detecting a possible influence of the Latin American fiction market that is committed to longer chapters. A case with a shorter duration is glimpsed in *Samurai Gourmet* with chapters of around 20 minutes.

It could be said that, with the arrival of the year 2018, the co-productions reached their moment of splendor with a total of 16 programs on the global Netflix network, being the year with the highest volume recorded (see Table 4). English is again the prevailing language in the co-productions of the year, appearing in

14 of the 16 recorded series. In addition to English, the series originally produced in German entitled *Perfume* stands out, it was carried out in collaboration with the ZDFneo network (Germany). The remaining non-English language series corresponds to a Japanese anime titled *Mob Psycho 100*, in collaboration with TV Tokyo, which is characterized by being a drama adaptation of a successful webcomic in Japan (Table 4).

Table 5

Co-productions of 2019

| | SERIES | LAN- GUAGE | Nº SEA- SONS | Nº CHAPT. | DURA- TION | NETWORK | COUN- TRY |
|----|------------------------------|---------------|--------------------|--------------|---------------|-----------------|----------------|
| 1 | Black Earth Rising | English | 1 | 8 | 45-60 | BBC Two | UK |
| 2 | Nightflyers | English | 1 | 10 | 45-60 | Syfy | UK |
| 3 | Northern Rescue | English | 1 | 10 | 45-60 | CBC | Canada |
| 4 | Traitors | English | 1 | 6 | 45-60 | Channel 4 | UK |
| 5 | Tijuana | English | 1 | 11 | 45-60 | Univision | USA |
| 6 | Undercover | Dutch | 1 | 10 | 45-60 | Eén | Belgium |
| 7 | Designated Survivor: 60 days | Korean | 1 | 16 | 45-60 | TVN | South Korea |
| 8 | The Spy | English | 1 | 6 | 45-60 | Canal+ | France |
| 9 | Interior Design Masters | English | 1 | 8 | 45-60 | BBC Two | UK |
| 10 | Drug Squad: Costa del Sol | Spanish | 1 | 13 | 45-60 | Mediaset España | Spain |
| 11 | The Bonfire of Destiny | French | 1 | 8 | 45-60 | TF1 | France |

(ABC, Australia) and *Robozuna* (CITV, United Kingdom) present a structure in two seasons in the current year. In addition, it is worth noting that the duration in chapters of the seasons is less than in previous years, maintaining an average frequency of duration of between 6 and 10 chapters. A trend is detected to fewer episodes per season but of longer duration, registering an increase in the average duration of the individual episode that is around 50 minutes for 2018, much higher than the co-productions of previous years. Only three series (*The New Legends of Monkey* from ABC Australia, *Mob Psycho 100* from TV Tokyo and *The End of the F***ing World* from Channel 4, United Kingdom) have a shorter duration of around 20 minutes, a significant difference if we consider that this duration is below the standard detected in previous years.

While in the previous years the dramatic genre had characterized the globality of Netflix co-productions, as of 2018 we found a timid commitment to television comedy with cases such as *The End of the F***ing World* (Channel 4, United Kingdom) or *The Letdown* (ABC, Australia). In addition, the commitment to fantasy genre fiction series deserves to be noted. These follow the example of *The Worst Witch* (2016) and begin to have a place on the Netflix co-production snapshot with titles like: *The New Legends of Monkey* (ABC Australia), *Robozuna* (CITV, United Kingdom) or *Watership Down* (BBC, United Kingdom). Historical dramas continue to have a presence, although there is no significant increase in their production despite having examples such as *Damnation* (USA Network, USA) or *Troy: Fall of a City* (BBC One, UK).

The supernatural drama co-produced with TV Tokyo, *Mob Psycho 100*, is noted and it is something that had already been glimpsed in 2017 through collaboration with another Japanese network (Kansai TV) with the release of *Erased*.

The year 2019 reduces the number of global Netflix co-productions in its catalog to 11, despite the introduction of significant issues and features (see Table 5). Firstly, co-productions are beginning to be broadcast in languages other than the usual ones (English, Japanese and some isolated cases in Spanish or German), as evidenced by examples such as *Undercover* in Dutch, co-produced with Eén (Belgium), *Designated Survivor: 60 days* in Korean (TVN, South Korea) or *The Bonfire of Destiny* in French (TF1, France). Production in Spanish is limited to the case of *Drug Squad: Costa del Sol* with the collaboration of Mediaset (Spain). It is committed to innovative genres that have been little exploited in previous years (except for the example of *Dirk Gently: Holistic Detective Agency* in 2016), such as science fiction with examples like *Nightflyers* (in collaboration with Syfy from the USA) or television fiction series based on reality TV with the example of *Interior Design Masters* with BBC Two (United Kingdom). Beyond new thematic additions, the core genre in global terms remains to be drama, significantly leaving out comedy co-productions (Table 5).

It is curious how all the series co-produced in 2019 only have one season and an average of 8 or 10 episodes per season, with a duration close to the standard of 45-60 minutes. Due to the recent nature of the data, it is likely that these series have new seasons to premiere in the coming years, since we only have evidence of the cancelation of *Nightflyers* and *The Spy* (Canal +, France), while others such as *Undercover* have already announced their renewal.

5. CONCLUSIONS

It has become clear that the co-production of serial television fiction products is a strategy present in the creation of own production on the Netflix platform. Through this formula, they not only manage to participate in the creative process and the production of the fictions that they will later broadcast, they also lower costs and work side by side with professionals in the audiovisual sector, promoting local fictional development.

As stated in the results presentation, Netflix has opted for co-production in the English language, which is logical considering that it is the majority language globally. However, it is curious how other languages, such as Spanish, are not a representative alliance in Netflix's co-production strategy. Seen from a different perspective, the Japanese co-production offers the most data. There is an interest on the part of the company in strengthening alliances with the Japanese networks to be participants in production processes that are more external to the creative knowledge of the company.

A commitment to co-production in non-majority languages is detected, especially, through alliances with European countries. This fact, despite the fact that at the moment it is still an incipient phenomenon, responds to the importance that the company is giving to minority markets.

On the other hand, we highlight the contribution of a standard that is progressively consolidating as the years of the company's history progress: while the first co-productions were

committed to the longevity of the series (both in number of seasons and chapters), the most recent years reflect a change of course with increasingly shorter series and with fewer seasons and chapters. To the detriment of the serialized character, something intrinsic to the series themselves, they bet on a greater quantity compared to their longevity. This causes distributive possibilities to multiply and in turn adds an important handicap to the transmedia narratives of each fiction.

At the content level, a commitment to drama is evident, although comedy begins to have a timid place in the global co-productions of the company. The reason stems from the global nature of the drama compared to the humorous peculiarity of comedy, which is more difficult to understand in a globalized market with significant cultural differences between countries. In addition, co-productions echo thematic innovation if we take into account the emergence of specific themes such as science fiction, fantasy or specific dramas (see historical dramas or youth dramas), although a strong innovative commitment is not perceived in the co-productions themes.

All these conclusions allow us to detect that production for the global market of Netflix is based on local parameters and standards that, without a doubt, are directly related to the concepts of "cultural proximity" (Straubhaar, 2003) and "indigenization" (Buonanno, 1999). Globalization and the global functioning of audiovisual content promoters does not stop, but new digital audiences continue to demand aspects of

traditional television audiences, such as close, identifiable and understandable content, as well as the cultural proximity that guarantees an adequate connection between content, perception and reception in audiences.

In short, this work provides a snapshot of what has been and is currently the co-production on Netflix series and provides taxonomic data on the commitment to shared production made by the network. However, these results raise new questions that open future lines of monitoring and research, including the need to compare co-productions with other original Netflix distribution formulas, which allow for a significant expansion of the platform's map of interests, in what to original distribution refers.

This work is framed in an Emerging Project of the Vice-Rector's Office for Research and Knowledge Transfer at the University of Alicante "Fiction online à la carte: Production, content and interaction in the Spanish series of the TV platforms in streaming (2016-2019)". Reference: GRE19-20.

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Participatory learning contexts in secondary school: from presential education to virtuality

Contextos de aprendizaje participativos en secundaria: de la presencialidad a la virtualidad

Contextos de aprendizagem participativa no ensino médio: do presencial ao virtual



ARTICLE



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Abstract

The article aims to conceptualize the participation of secondary school students and to highlight which elements may condition such participation and how they should be reconsidered in a non-attendance learning model. This article is part of a Doctoral Thesis that analyses, from a collaborative approach, the participation of young people for the purpose of implementing more democratic, inclusive and participatory educational practices. The results confirm the benefits of placing students as co-responsible agents in participatory learning contexts and

the challenges that the centre must face to promote the active participation of secondary school students.

KEY WORDS

School participation, Democracy, Students' voices, Inclusive education, Virtual education.

Resumen:

El artículo pretende conceptualizar la participación del alumnado de secundaria y poner de manifiesto qué elementos pueden condicionar dicha participación y como se deberían recon-

siderar en un modelo de aprendizaje no presencial. Este artículo se enmarca en una tesis doctoral que analiza, desde una aproximación colaborativa, la capacidad de participación de los jóvenes con el objetivo de implementar acciones educativas más democráticas, inclusivas y participativas. Los resultados constatan los beneficios de situar a los estudiantes como agentes corresponsables en los contextos de aprendizaje participativos y los desafíos que debe afrontar el centro para promover la participación activa del alumnado de secundaria.

PALABRAS CLAVE:

Participación escolar, Democracia, Voces del alumnado, Educación inclusiva, Educación virtual.

Resumo

O artigo tem como objetivo conceituar a participação de alunos do ensino médio e mos-

trar quais elementos podem condicionar sua participação e como devem ser reconsiderados em um modelo de aprendizado não presencial. Este artigo está enquadrado em uma Tese de Doutorado que analisa, a partir de uma abordagem colaborativa, a capacidade de participação dos jovens com o objetivo de implementar ações educativas mais democráticas, inclusivas e participativas. Os resultados confirmam os benefícios de colocar os alunos como agentes co-rresponsáveis em contextos participativos de aprendizagem e os desafios que a instituição deve enfrentar para promover a participação ativa dos alunos do ensino médio.

Palavras-chave

Participação escolar, Democracia, Vozes dos estudantes, Educação inclusiva, Educação virtual.

1. INTRODUCTION

The results presented are based on an ongoing doctoral thesis: *"The recognition of the voices of students for reflection on teaching practice."* A case study carried out in a secondary school with the aim of recognizing the voices of the students to understand their participation in classroom contexts and reflect on the teaching and learning processes.

The article highlights several elements that are key to promoting the active participation of students in presential learning contexts in order to offer new lines of thought around the challenges that the current educational system must face. The purpose is to reflect on the importance of promoting the involvement, commitment and co-responsibility of secondary school students in educational action and guarantee

the participation of students in virtual learning environments.

2. THE DEMOCRATIC PARTICIPATION OF STUDENTS

We are currently in a complex and changing society, which has led to the need to jointly build new spaces for citizenship. One of the main challenges of 21st century societies, as well as of current educational systems, is to facilitate the presence of students in the life of the centers and advance in equal rights and opportunities, favoring the commitment to educational activities and the development of habits of democratic coexistence.

Democratization and the participatory capacity of students are not a debate outside the cu-

urrent educational system, and like most pedagogical discussions, they are conditioned by the existing political and social situation. Since “we tend to focus on teachers’ working conditions, cultures and contexts, but we tend to forget that school is also the workplace for students” (Stoll & Fink, 1999, p. 220), in this process is essential to reconsider more than ever the voices of students in order to achieve teaching and learning contexts where they can assume roles of greater commitment and co-responsibility with educational action.

Different authors have reflected on processes, conditions and proposals to improve the democratic quality of educational centers, involving all community agents (Apple & Beane; 1997; Feito, 2009; Feu et al., 2016). Democratic centers become spaces for the preparation of critical and autonomous citizens so that they can live in a democracy, and the best way to do this is by guaranteeing their capacity for participation (Lawy & Biesta, 2006). In this way, children will be able to feel as an active part of a community where new ways of living and learning are developed and will allow them to strengthen relationships of solidarity, collaboration and cooperation (Fielding, 2012). This, in turn, will favor the development of an active and critical citizenship (Gur-Ze’ev, 2007; Trilla & Novella, 2011).

However, this is not an easy task since children and young people are not considered as active citizens in today’s society (Bolívar, 2007; Edelstein, 2011) but as future citizens. Since the Convention on the Rights of the Child (1989), their ability to participate as social actors has been recognized so that they can become involved in matters that correspond to them in the society where they live (Bolívar, 2007; Hart, 1992). Thus, the research conceives young

people as citizens of the present, that is, subjects with full rights who, in collaboration with other people, can assume a critical and reflective role to face the new economic, educational, social and technological challenges imposed by the spirit of capitalism (Gur-Ze’ev, 2007).

The purpose of the school is not only to transmit and achieve curricular content, but it also becomes a socializing and transforming institution of society (Mannion, 2007). For this reason, educational centers are responsible for promoting experiences that facilitate participation and the experience of democracy for all members of the community and in all possible spaces (Edelstein, 2011). Students must have opportunities to live their first participatory experiences in school and develop the attitudes and skills necessary to successfully join today’s society (Rudduck & Flutter, 2007).

In this context, the participation of students in schools means recognizing boys and girls as subjects with full rights to be consulted and make decisions about the teaching and learning processes (Mannion, 2007; Novella & Trilla, 2014). Therefore, such participation should not be reduced only to more or less formalized institutional channels or to delegated participation through representatives, but the purpose is that young people can become active agents in the processes of knowledge construction and co-responsible for educational action together with teachers.

2.1 PARTICIPATORY LEARNING CONTEXTS

The educational system is immersed in a society in constant change and transformation that pressures it to adapt to new realities and demands, so the school cannot be far from what

is happening around it (Stoll & Fink, 1999). This idea is especially relevant in an uncertain and doubtful school context due to the current health, social and economic reality, given that the school, more than ever, must provide pedagogical and emotional support to the children and young people who have seen how this reality has changed their everyday life.

In this context, it is not only essential to guarantee access to inclusive and quality education for all, how learning is accessed is also of vital importance. Thus, schools face the challenge of moving towards participatory learning contexts where students can be involved in decision-making, exercise their responsibility and assume the consequences derived from these decisions. The school must ensure that there are adequate channels and spaces, based on formulas for active participation, where different opinions are respected and common and shared objectives are formulated (Jurado, 2009).

In these participatory contexts, the role assumed by students and teachers allows modeling new ways of working together and collaboratively. As for students, they have the opportunity to participate more actively in making decisions about elements that affect their learning (Susinos & Rodríguez-Hoyos, 2011), so they can develop a sense of responsibility, commitment and empowerment. It is essential to provide them with a pedagogical voice so that they can dialogue about different moments of educational action (Baroutsis et al., 2016; Susinos & Ceballos, 2012). In this way, students have the possibility to question curricular aspects such as what, when and how to learn and assume a proactive and transformative attitude towards their learning (Bragg & Fielding, 2005; Sandoval, 2011).

Committing to this change in the role of students also entails rethinking the role of teachers and reflecting on their educational practice. This means that the teaching task no longer only falls on the idea of teaching and transmitting content, adults become facilitators of learning and provide strategies that adapt to the rhythm of each one. That is why, in the face of participatory classroom contexts, it is necessary to reformulate what it means to be a student and what it means to be a teacher in order to move towards more collaborative and egalitarian relationships, rethinking the existing hierarchy towards an authentic participation of the students in the life of the center (Fielding, 2012; Messiou, 2013; Nieto & Portela, 2008; Rudduck & Flutter, 2007). This requires betting on a pedagogy and a curriculum that is built as a facilitator of learning and student progress (Rudduck & Flutter, 2007). The school must promote classroom

management that does not pose barriers, with the use of organizational methodologies and strategies that facilitate participation and learning where adults and young people assume the commitment to rebuild knowledge together (Fielding, 2012).

However, the debate on creating opportunities for students to actively participate in their learning is even more pressing in today's digital society or network society (García-Gutiérrez & Ruiz-Corbella, 2020), since it presents new challenges beyond the use of technology (Boada & Rómulo, 2019; Guilherme et al., 2018; Sotelo et al., 2017). As Castells (2011) argues, the term network not only refers to technology, but also refers to the means of interaction and communication that configures the organization of our

societies. Therefore, technology cannot be understood without also talking about the human being, since it has transformed our way of thinking, acting and seeing the world (García-Gutiérrez & Ruiz-Corbella, 2020).

This reality has also generated important changes in the educational world, while the use of new technologies in virtual learning environments has provided a different approach to the ways of working, relating and accessing education (Sotelo et al., 2017):

[...] since it is not a matter of agreeing which new subjects and/or contents should be taught in schools [...], but rather of proposing a new way of achieving it, by addressing both radically different needs and learning processes. (García-Gutiérrez & Ruiz-Corbella, 2020, p. 35)

Virtual learning environments enable relationships beyond time and space, since they provide access to information from other parameters and facilitate interconnection between various people (Guilherme et al., 2018; Ruiz-Bolívar & Dávila, 2016). Thus, virtual resources not only promote the transmission of information, but also allow it to be transformed into knowledge (García-Peñalvo, 2020).

In the same way that occurs in the face-to-face modality, the role occupied by teachers and students in the virtual modality is also repositioned, while “[...] control also slides towards the apprentice, since it is he who accesses the information, selects it and requests the one that interests him the most [...]” (García-Gutiérrez & Ruiz-Corbella, 2020, p. 34). This enables students to be actively involved in the processes of knowledge construction. Likewise, teachers

face the challenge of developing new competencies and skills not only in the management of technological tools, but also in the planning of sessions and activities, that is, the design of the learning process (González, Costanza & Mortigo, 2017). For this reason, it is important that the teacher in the virtual modality be a motivating agent that promotes communication and facilitates activities that arouse the active involvement of students.

Taking into account that the basic principles of participation are student-student interaction and interaction with the teacher, they can also be achieved in virtual learning environments through synchronous and asynchronous communication formulas based on oral and written language (Boada & Rómulo, 2019), since they allow the exchange of information and group interaction through different tools such as videoconferences, discussion forums or email. The teachers, therefore, are in charge of facilitating educational practices that allow greater individual participation of the students and greater interaction and collaboration between equals to achieve the learning objectives (García-Peñalvo, 2020; Ruiz-Bolívar & Dávila, 2016). Therefore, “[...] it would be expected that the pedagogical and technological domains would be present in the profile of the teacher in the virtual modality” (Sotelo et al., 2017, p. 82).

To face the challenges of this digital society or network society, the centers are responsible for rethinking the learning conditions, that is, the structures and organizational relationships of the school in order to start the process of transformation of the school grammar (Tyack & Tobin, 1994), as Guilherme et al. (2018, p. 46) argue “digital culture [...] implies readjustments in the basic principles on which traditional for-

mal education is based [...]". Rethinking school practices for a virtual environment not only means including new resources, but also transforming and redesigning learning processes according to this new virtual reality. Therefore, the didactic use of new technologies changes, that is, the pedagogical approach that guides the training process is fundamental (García-Peñalvo, 2020; González et al., 2017).

3. METHODOLOGY: COLLABORATIVE INVESTIGATION

The thesis starts from a collaborative methodological approach (Christianakis, 2010; Meyer, 2001) with the aim of guaranteeing the participation of the different agents involved in the study. This approach has been built around the idea that both teachers and students are in a unique position to reflect on their own practice and, in this way, implement changes that allow reinventing and improving teaching and learning processes (Denzin & Lincoln, 2000). Collaborative research has facilitated the creation of more horizontal and democratic relationships as well as the interpretation and understanding of an educational reality through the meanings constructed by the participating subjects (Devís-Devís, 2006; Gergen & Gergen, 2000).

Although the thesis aims to address three specific objectives in order to respond to the purpose of this article, it has focused on the analysis of the participatory processes that are carried out in learning activities to identify elements that can facilitate or limit the active participation of students in presential classroom contexts.

The total number of participants in the research was 80 students divided into four class groups, three groups from 2nd year of Compulsory

Table 1

List of the curricular subject, the researched course and the teachers participating in the research

| CURRICULAR SUBJECT | CLASS | TEACHERS |
|--------------------|-------------------|-----------|
| Spanish Language | 2nd CSE (Group A) | Teacher 1 |
| Spanish Language | 4th CSE (Group B) | Teacher 2 |
| Elective 1 | 2nd CSE (Group C) | Teacher 3 |
| Elective 2 | 2nd CSE (Group D) | Teacher 4 |

Secondary Education (CSE) and one from 4th year of CSE, to analyze the curricular subjects of Spanish Language and Electives. It sought to compare and see similarities and differences in student participation in both contexts and between both educational stages (Table 1).

The research was carried out during a school year, specifically, during the 2016-2017 academic year with the development of four phases:

- a) Observations in the four groups to collect information on the possibilities and limitations of student participation.
- b) Collection of the voices of the students linked to the concepts of participation and learning.
- c) Analysis of the voices of the students to identify possible educational actions that increase their active participation.
- d) Implementation of educational actions in each subject in order to place students as co-responsible agents of educational action.

Throughout these four phases, different data collection instruments were used, such as document analysis and interviews with teachers and students to collect their voices around the teaching and learning processes. Observations were used to understand and analyze classroom contexts and three participatory dynamics were used to collect the voices of the students.

Regarding the analysis, a classification of eight categories was developed to interpret the evidence obtained and look for similarities, differences, and/or complementarities between each group. Specifically, the ATLAS.ti computer program was used to reorganize the information and search for relationships and interpretations to respond to the research objectives. However, for this article the results have been structured around the information collected in the *Participation* category.

The method used has been the case study (Denzin & Lincoln, 2000; Stake, 1998), so the thesis has analyzed the participation of students in a public Catalan secondary school, which welcomes more than 300 CSE students from several nearby municipalities. It is located in a population of about 2,600 inhabitants and can be considered a center with an innovative pedagogical trajectory. Its main objective is to achieve, on the one hand, the improvement of the academic results of the students and, on the other, a high degree of social cohesion in contexts of equity. For this reason, it has articulated its educational project with the aim of promoting the democratic participation of students in the teaching and learning processes. Thus, it promotes channels of student participation through various educational experiences such as group and individual tutoring, Com-

munity Service through the Service-Learning methodology, Teacher Support Teams, Class Assemblies or Cooperative Work as the main focus in all curricular subjects.

4. THE ACTIVE PARTICIPATION OF STUDENTS IN THE CLASSROOM: ANALYSIS OF RESULTS

Despite the fact that the center tries to guarantee the participation of the students, the research has revealed different elements that can become challenges to promote the active participation of students in presential learning contexts.

4.1. WORK IN COOPERATIVE GROUPS

A first element that favors the active participation of students is the work in cooperative groups and, by extension, the debate and exchange that arises as a result of this approach. In fact, cooperative work groups are the main methodological strategy of the center. Adults are in charge of training them following the criteria of heterogeneity, but always taking into account the affinities, capacities and abilities of the students.

Most students recognize the benefits of working in cooperative groups to achieve the learning objectives, such as a particular case that believes that “in a group we finish the assignments earlier and they come out better” (Student group A). There are also students who claim that through cooperative groups mutual help is favored and higher levels of participation are achieved, since they can resolve doubts and

reach more shared and consensual solutions among all members. According to them, the group becomes on a basic support to lean on: “if you are not good at something, with the cooperative group you are more welcomed, and if you are alone you get more nervous” (Student group C).

However, they also recognize that there is always someone who does not work and takes advantage of the effort that their colleagues do. Even so, they prioritize this approach over individual tasks since they affirm that “if it is your turn with a person who does nothing, there will always be someone in the group who will also get to work” (Student group B).

The teachers state that the richness of working in cooperative groups lies in the debate, the exchange of opinions and the shared agreements among their members (Bragg & Fielding, 2005; Jurado, 2009). They also recognize that not all groups work cooperatively, that is, debating each idea among their members and reaching shared and consensual agreements, but there are groups that work collaboratively. Consequently, these groups, instead of constructing a common content, divide the tasks among the various members so that the richness of the debate and dialogue is not produced or very little is produced. As one teacher points out, “the fact that they are in groups of four does not assure you anything. They can sit like this and be completely independent of each other” (Teacher 1).

In addition, the internal organization of each group can also consolidate roles and/or leadership. In other words, the groups that distribute the tasks do not do it without any criteria, but in most cases they are based on the strengths or weaknesses of each member. This leads to

the emergence of leadership or roles that can condition participation under equal conditions. Teachers share the idea that the most important thing is to be aware of the existence of these leaderships in order to group students according to their abilities, since “leadership is good if you combine it with students who can fight against this leadership. If the leadership is positive, that is fantastic, but if a leadership is negative or destructive, you cannot assign it according to the student” (Teacher 2).

The research has also shown the existence of different work rhythms; this is an aspect that conditions the active participation of its members. The real processes of debate and decision-making do not usually appear since there are students who are in a position of inferiority where they simply copy the responses of their classmates due to the fact that they go at a slower pace.

4.2. TYPOLOGY OF EDUCATIONAL PROPOSALS

The students of the four groups believe that the debates and oral presentations help them to participate actively, and they affirm that through this exchange they can learn about the tasks that the rest of the groups are developing, an aspect that favors their learning. In addition, they demand dynamic, practical and interactive activities to increase their attention and motivation, since as one boy affirms “it is necessary that they motivate us because we are a group of unmotivated” (Student group D). Teachers also share this same idea and argue that “they have built-in laziness” (Teacher 4), a useful strategy is to implement activities based on the surprise factor, such as leaving the classroom and looking for other educational spaces or suggest interactive software.

The students consider that it is the teacher's task to look for educational proposals that capture their attention and challenge them to assume increasingly active roles through practical and fun activities, which would increase their motivation and involvement. In addition, they claim that the activities become individual and collective challenges to put into practice the concepts acquired, as articulated by a student when he says "I think that the teachers should propose classes that pose some kind of challenge, to make them more attractive and competitive" (Student group B). However, and although most of the contributions of the students share this approach, cases have also been collected that give value to learning based on more traditional methodologies, which shows that depending on how each individual is, they demand different learning scenarios and others.

The teachers are aware of the importance of looking for varied strategies and techniques throughout the courses that increase the motivation and attention of the students. Some of the proposals that have been developed have used computer resources or self-evaluations and peer evaluations. On the one hand, having access to the web gives them the possibility to search for the answers directly without having to depend on the adult, so they have more autonomy in the execution of learning activities. On the other hand, and in terms of evaluation processes, students can assume a more critical and reflective role not only with the work they are developing at an individual level (self-evaluation), but also towards the work that their colleagues are doing (co-evaluation). Thus, teachers seek to find learning activities that facilitate learning for all students (Rudduck & Flutter, 2007), taking into account individual and group interests, needs and abilities (Fielding, 2012).

4.3. RETHINKING THE ROLE OF STUDENTS AND TEACHERS

At the beginning of any session, teachers take an active role in which they contextualize the objectives, activities and resources that students must use. At this time, they address the group in one direction and the students simply keep waiting to receive the instructions in order to carry them out. However, their role changes when they get to work in cooperative groups, while teachers become facilitators of learning and only go through the groups to solve problems, help those cases that need it most or redirect scattered students. Thus, teachers become guides who ask questions about the decisions that students make in order for them to assume a critical, active and reflective role (Mannion, 2007; Rudduck & Flutter, 2007; Susinos & Ceballos, 2012).

The change in the role of these agents also means rethinking pre-existing power relations with the purpose of moving from verticality to more horizontal and egalitarian relations. The teacher is no longer the person in charge of transmitting knowledge, but his main task is to promote the autonomy and participation of the students (Novella & Trilla, 2014; Susinos & Rodríguez-Hoyos, 2011). This paradigm shift towards competency learning is not possible without weaving a relationship based on dialogue and mutual trust, as one teacher argues:

You have to trust them because they notice it, if you trust them when you ask them for something they will answer you, [...] it is the 'quid pro quo'. [...] You should always keep a little distance between teacher and student, but I understand that it is a relationship of people and that they are people. (Teacher 3)

In these participatory learning contexts, students progressively assume roles of greater involvement, attention and commitment (Bragg & Fielding, 2005; Messiou, 2013), thus providing them with a pedagogical voice so that they can dialogue about their learning processes (Baroutsis et al. al., 2016; Nieto & Portela, 2008; Sandoval, 2011). Therefore, teachers are responsible for promoting the active involvement of students through activities, methodological strategies and concrete actions.

4.4. CLIMATE AND WORK ENVIRONMENT

In general, students value the importance of a good work environment to be able to participate actively, since they consider that the noise in the classroom makes it difficult for them to share individual opinions with others, as one student affirms: “I would like to be able to participate more, but my class is too noisy and I can’t” (Student group A). Thus, they emphasize the value of order to build a calm and positive climate. According to a teacher:

The students who have undergone noisy classes complain about this work environment because [...] they realize that it is not good for them. At first it is a lot of fun, but when it lasts over time they demand a change. (Teacher 2)

Although most teachers share the idea that classes should have a lot of control, they also recognize that maintaining order in the classroom not only facilitates group management, but also favors the subsequent implementation of activities that promote debate, dialogue and the exchange of opinions among students. In this sense, they try to use a calm, serene and close tone of voice. As one teacher affirms, “I

don’t like being yelled at, therefore I will not do it as long as I can avoid it” (Teacher 3).

Research has shown that a calm and well-being work environment naturally facilitates dialogue between students and towards the teacher and creates a scenario in which everyone feels more secure, confident and not pressured to participate. In fact, a cause-effect relationship has been evidenced between students’ tone of voice and the possibility of actively participating in learning activities. When the tone of voice is calm and pleasant, debate and exchange situations occur, while when there is shouting in the classroom, some students move to a secondary plane and find it more difficult to participate. Therefore, the climate and the work environment are two key elements when: a) promoting contexts of tranquility, security and trust; and b) ensure that everyone can express their opinions and points of view without external pressure or interference (Bragg & Fielding, 2005; Jurado, 2009).

4.5. THE RIGHT TO NON-PARTICIPATION

Finally, the research has also shown that participation is an individual option, so it is very important to guarantee spaces and moments that promote participation in equal conditions, respecting the cases that decide not to participate voluntarily.

A first factor related to the decision not to participate, as some students have stated, is because of embarrassment or shyness: “I find it difficult to explain things in front of the class because I get nervous and I go blank” (Student group A). These students are aware that these emotions often relegate them to the back-

ground. However, they also recognize that it is important to learn to combat them in order to minimize the effects they may cause and gain more confidence and security.

There are also cases that show that insecurity and nervousness due to the fear of making mistakes condition their ability to participate actively. Thus, it is they who demand scenarios of greater respect and fellowship. Linked to this, and according to a teacher:

[To participate] you have to be comfortable. If you go to a place where you are not comfortable you will not do anything, but if you are comfortable you may even participate. Sometimes the fact that a person participates three times can be a total and absolute success. (Teacher 4)

Teachers recognize that to minimize the effects that embarrassment and shyness or fear of error can cause, a possible strategy is to promote successful situations for all (Nieto & Portela, 2008; Rudduck & Flutter, 2007; Susinos & Rodríguez-Hoyos, 2011). That is, to know the strengths of each one in order to offer them opportunities where they can be successful when responding positively to a task, question or activity: "I ask a student when I know that he will give me a positive answer, I do not want to put him in a commitment" (Teacher 1). They also admit that participation is an individual option that entails, on the one hand, that all students have the freedom to decide whether to participate or not and, on the other, that these decisions are recognized and respected.

5. CONCLUSIONS: FROM PRESENTIAL TO VIRTUAL LEARNING

As has been argued throughout the article, and although the center is considered democratic and participatory, it still presents challenges to guarantee the active participation of the students. These elements can not only condition the classroom presential contexts, but also virtual learning environments. Reconsidering the learning conditions both in the presential and virtual modalities to achieve greater co-responsibility of the students affects not only the processes of knowledge construction, but also the construction of active, responsible and critical citizenship (Guilherme et al., 2018; Gur-Ze'ev, 2007; Lawy & Biesta, 2006). Therefore, is it possible to maintain the active participation of secondary school students in virtual learning contexts?

The analysis has shown the benefits of working in cooperative groups in terms of the students' ability to debate, dialogue and decision-making (Jurado, 2009). The fact of not having shared physical spaces can influence this capacity for interaction, so it is important to find new participatory channels where students can share the teaching and learning processes. According to Boada and Rómulo (2019, p. 418), "the interaction generated with the participation in forums and debates through digital platforms constitutes an ideal means for the conceptual construction of knowledge". The use of these virtual resources can stimulate collaboration, promote debates and promote shared learning contexts (García-Peñalvo, 2020; Ruiz-Bolívar & Dávila, 2016).

A second factor that affects student participation refers to the typology of educational proposals, so it is important to reconsider what activities are proposed in virtual models that act as facilitators of student learning (Rudduck & Flutter, 2007; González et al., 2017). In this sense, the adaptation of virtual tools to the objectives set to enhance the synchronous and asynchronous interaction of students, among themselves and with the teacher, is essential (Boada & Rómulo, 2019; Guilherme et al., 2018). In addition, the interest and desire that an activity arouses determines the subsequent involvement and participation of the students, so the teachers are in charge of promoting not only didactic but also motivating materials in virtual learning contexts (Sotelo et al., 2017). Either in presential or virtual models, the activities should facilitate the exchange and constant interaction of the students to favor contexts of greater commitment and collaboration in the knowledge construction processes (Susinos & Rodríguez Hoyos, 2011; González et al., 2017).

Given that participatory classroom contexts alter the traditional duties of students and teachers, the roles that each one plays are more accentuated in virtual contexts. Therefore, it should be based on a more horizontal and egalitarian relationship between adults and young people (Bragg & Fielding, 2005; Messiou, 2013; Nieto & Portela, 2008), since the teacher is no longer responsible for transmitting the curricular content. According to Boada and Rómulo (2019, p. 424), “keeping the virtual student active and interested in the novel aspects of the nucleus is one of the fundamental variables of achievement in virtual education”. Therefore, the individual commitment of the students, the acceptance of their responsibilities and the leadership with their own learning is essential in learning in a virtual modality (García-Gutiérrez & Ruiz-Corbella, 2020).

Teachers are responsible for ensuring different virtual resources so that students can share the responsibility of educational action with the teacher, thus rethinking the pre-existing power relations and giving them a pedagogical voice (Baroutsis et al., 2016; Susinos & Ceballos, 2012; Sandoval, 2011). In addition, it is also their task to develop personalized materials to be able to attend, from a distance, to the individualities and needs of each student. However, this process will not be possible without generating pleasant and respectful spaces for interaction that promote the well-being of all students and avoid possible misinterpretations of the different contributions (Ruiz-Bolívar & Dávila, 2016). In this sense, the virtual world opens up new spaces for opinion, dialogue and negotiation, so the school and, specifically, teachers are responsible for guaranteeing these spaces from a critical and reflective perspective (Gur-Ze'ev, 2007) that enable the active participation of all students. Finally, “education in the virtual modality maintains the same guiding principles as in the presential modality: instruct, train and educate individuals in order to contribute to society” (Boada & Rómulo, 2019, p. 419). What determines the active participation of students in classroom contexts is not the modality itself, but precisely the presence of a solid pedagogical model (García-Gutiérrez & Ruiz-Corbella, 2020; García-Peñalvo, 2020) that guarantees the use of educational techniques, resources and proposals that ensure quality and place students at the center of their learning as long as they are allowed to be co-responsible of educational action.

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Complementarity of Strategic Assets: A Symbiotic Evolutionary Model for Open Innovation

***Complementariedad de activos estratégicos: un modelo evolutivo
simbiótico para la innovación abierta***

***Complementariedade de Ativos Estratégicos: Um Modelo Evolutivo
Simbiótico para Inovação Aberta***

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ARTICLE



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Abstract

This article proposes a theoretical model that simulates the propensity to establish mutualistic symbiotic relationships between corporations and startups on open innovation programs. Inspired by the concept of symbiosis, the Evolutionary Model of Symbiotic Relationships for Innovation identifies the pairs with the major complementarity of strategic assets necessary for the generation and capture of the value of innovation projects and determine if this relationship promotes gains for both parties. The model has been applied in a single case study, subunits of analysis incorporated. The results show a correlation between the propensity indicated by the model and the selection actually performed.

KEY WORDS

Open Innovation, Corporate Engagement with Startups, Strategic Assets, Complementarity, Symbiosis.

Resumen:

Este artículo propone un modelo teórico que simula la propensión a establecer relaciones

simbióticas mutualistas entre corporaciones y startups en programas de innovación abierta. Inspirado en el concepto de simbiosis, el Modelo Evolutivo de Relaciones Simbióticas para la Innovación identifica los pares con la mayor complementariedad de los activos estratégicos necesarios para la generación y captura del valor de los proyectos de innovación y determina si esta relación promueve ganancias para ambas partes. El modelo se aplicó en un solo estudio de caso. Los resultados muestran una correlación entre la propensión indicada por el modelo y la selección realmente realizada.

PALABRAS CLAVE:

Innovación abierta, Compromiso corporativo con nuevas empresas, Activos estratégicos, Complementariedad, Simbiosis.

Resumo

Este artigo propõe um modelo teórico que simula a propensão a estabelecer relações simbióticas mutualísticas entre corporações e startups em programas de inovação aberta. Inspirado no conceito de simbiose, o Modelo Evolucionário de Relações Simbióticas para Inovação identifica os pares com maior com-

plementaridade de ativos estratégicos necessários para a geração e captura do valor dos projetos de inovação e determina se esse relacionamento promove ganhos para ambas as partes. O modelo foi aplicado em um único estudo de caso, com subunidades de análise incorporadas. Os resultados mostram uma

correlação entre os resultados do modelo e a seleção efetivamente realizada.

Palavras-chave

Inovação Aberta, Engajamento Corporativo com Startups, Ativos Estratégico, Complementariedade, Simbiose.

1. INTRODUCTION

The intense process of technological disruptions, globalization, among other changes, has generated greater market complexity, growing competitiveness (Bennet & Bennet, 2004), structural changes in the economy and the emergence of new trade spaces and types of products (Teece, 1998). In this scenario, the role of innovation is an increasingly important topic in the debate on economic growth, competitiveness and sustainability (Tidd, 2006).

In this new scenario, startups have proven to be powerful engines of knowledge creation and come to play a key role in innovation processes (Spender et al., 2017). To achieve a desirable innovative performance, corporations have sought to establish forms of engagement with startups as part of their open innovation efforts.

Startups have a huge competitive advantage over large corporations in terms of agility. On the other hand, large corporations have resources that startups can only dream about. The combination of entrepreneurial activity with corporate capacity seems to be a perfect combination, but that can be difficult to achieve (Weiblen & Chesbrough, 2015).

To better understand the dynamics of these cooperative relationships between startups

and corporations, the 'Resource-Based Theory of Competitive Advantage' (Grant, 1991) offers a rich field for the understanding of strategic assets for innovation, defined by Teece (2004) as the set of resources that can generate competitive advantage for the company in its innovative process.

In the search for inspirations that help understand the establishment of cooperative relationships between such different actors and given the complexity of a wide range of attributes that describe their natures, it is observed that computational models inspired by biology offer a wide range of opportunities for representation, analysis and simulation of various problems (Watson & Pollack, 1999), such as the relationship of organizations in open innovation programs.

This article proposes an Evolutionary Model of Symbiotic Relationships for Innovation. It simulates the propensity to establish mutualistic symbiotic relationships between corporations and startups on open innovation programs. Inspired by the concept of symbiosis, the goal is to identify the pairs with the major complementarity of strategic assets necessary for the generation and capture of the value of innovation projects and determine if this relationship promotes gains for both parties.

2. THEORETICAL FOUNDATION

The theoretical foundation that sustains the present article was built based on correlated studies that discuss the corporate engagement with startups on open innovation programs, strategic assets for innovation, evolutionary algorithms, and symbiotic relationships. Therefore, the following topics are the most relevant aspects that are necessary to understand the proposed model.

2.1. CORPORATE ENGAGEMENT WITH STARTUPS IN OPEN INNOVATION

Corporations are defined as large and formal organizations controlled by a technostructure of professionals (Hillman, 1970), considered in this study as private companies, with more than 5 years of existence, of large size, operating in traditional economic sectors and with mature business models. These organizations are characterized by conditions that slow or hinder innovation (Freeman & Engel, 2007; Leonard-Barton, 1998; Spender et al., 2017; Thieme, 2017; Weiblen & Chesbrough, 2015) this study aims at deepening our understanding of the theme and at providing directions for future research. Design/methodology/approach – By using an explicit method for the review (Pittaway et al., 2004, often arising from their own trajectory and, paradoxically, due to factors that were at the origin of their competitive advantages in the past (Leonard-Barton, 1998).

In contrast to the constraints faced by corporations to innovate, startups are organizations created to conceive and develop new business models in a typical process of creative destruction. These are organizations with dynamic capabilities related to agility in developing new

value offerings for the market, with reduced cost, networking and greater dynamism. The intrinsic capabilities of startups allow them to play an important role in innovation processes. Although there is no universal definition, startups are temporary organizations that aim to find a new business model that can generate value for its clients and enable this value to be captured in a reproducible, scalable and profitable manner (Blank & Dorf, 2012), in extremely uncertain environments (Ries, 2011).

Spender et al. (2017) observe that open innovation is an important way for large corporations to achieve greater agility in the development of new value offers for the market, with lower costs and greater dynamism in the face of an intense ongoing technological revolution. On the other hand, the existence of relationships with external partners is a priority for the success of startups, given the lack of tangible and intangible resources for the development of innovation processes (Spender et al., 2017).

Corporate engagement with startups is a concept that emerges from the field of Open Innovation and is seen as its subset and a form of its implementation (Thieme, 2017).

Throughout this uncertain and dynamic process of open innovation, which begins at the conception of new knowledge, ideas, products, business models, and ends with its introduction into the market, the complementarities present themselves and can generate mutual gains (Spender et al., 2017; Thieme, 2017; Weiblen & Chesbrough, 2015).

2.2. STRATEGIC ASSETS FOR INNOVATION

Understanding a company as a broad set of strategic resources available for the formulation of competitive strategies is a way to understand the factors that can influence the motivation

and barriers observed for the establishment of strategic alliances between startups and corporations with a view to innovation. The 'Resource-Based Theory of Competitive Advantage' is a perspective that has grown considerably in recent years as a result of the understanding of the balance between the dimensions internal and external to the companies in the formulation of competitive strategies (Grant, 1991). The company is understood as a broad set of resources (tangible and intangible), i.e., assets, which are available for the formulation of strategies for facing the market in search of competitive advantages that allow them to achieve economic income or above-normal rates of return (Das & Teng, 2000). Therefore, a resource is considered valuable if it helps the company to create strategies that capitalize on opportunities and ward off threats.

According to Teece (1998), companies are repositories of knowledge that are embedded in processes and routines that support the assets and specific competencies of these companies. However, superior technology alone is rarely sufficient for competition in the current day. The competitive advantage can be attributed not only to ownership of (1) Knowledge Assets but also to the combination of these with others; (2) Complementary Assets, necessary to create and capture the value of knowledge; and (3) Dynamic Capabilities, characterized by enabling the identification of opportunities to obtain competitive advantages and by organizing resources to exploit their potential in the face of these opportunities (Teece, 1998).

2.3. EVOLUTIONARY ALGORITHMS

Assembling the taxonomy tree of the research algorithms, the genetic algorithms, and the algorithms based on symbiotic processes – 'compositional evolution' - are in the branch called

Evolutionary Algorithms. These are methods that simulate, through algorithms, natural (biological) evolution processes, mainly aiming to solve optimization problems (Barcellos, 2000).

An evolutionary algorithm is a procedure that interacts over a set (population) of data (individuals) for a number of times (generations). Additional biological concepts apply, such as the evaluation of the fitness of the individual and its genes, as the defining element of the attributes of these individuals. The set of genes of an individual is called the chromosome (Sampaio et al., 2018; Lacerda, 2018).

Genetic algorithms form a class of research algorithms based on natural evolution (Barcellos, 2000). However, a key aspect that is not captured by a model based on genetic algorithms is the processes that occur above the species level, that is, between different 'species'. The variation offered by symbiosis is qualitatively different from the sexual crossing, as it offers the possibility of joining two sets of genetic materials (Mills & Watson, 2007; Watson & Pollack, 1999).

2.4. SYMBIOTIC RELATIONSHIPS

Symbiosis, in its general definition, is the collaboration between different organisms. Frequently, the term is used to refer to the special case of mutualism, where symbionts (organisms in symbiotic relationships) mutually benefit from the established relationship (Watson & Pollack, 1999).

The present study considers that all organisms in an ecosystem interact with each other, establishing relationships, regardless of whether they are genetically close or distant. The interactions may be short, medium or long term, and the relationships may involve distant or close individuals. They may be intraspecific,

within the same species, and interspecific, between different species. These relationships, in turn, can lead to co-evolutionary processes or result in little or no apparent consequence to the adaptive process (Asima & Rajat Kumar, 2018).

Additionally, relationships may or may not result in mutual gains for those involved. In this sense, the representation of these interactions can be expressed by mathematical symbols, representing the impact on the involved parts; for example, the expression '+/+' represents a situation when both parties gain from the interactions (Asima & Rajat Kumar, 2018).

In addition to Mutualism [+/+], other categories of relationships can be observed in the field of symbiosis, such as Commensalism [0/+], Parasitism [-/+], Amensalism [-/0] and Neutralism [0/0] (Asima & Rajat Kumar, 2018; Martin & Schwab, 2012).

Symbiosis can be recognized as a key source in the evolutionary process. In its strongest form, symbiosis can lead to symbiogenesis: the genesis of new species through the genetic integration of symbionts. For example, eukaryotic cells, from which all plants and animals descend, have a symbiotic origin (Watson & Pollack, 1999).

In these eukaryotic cells, the relationship with the mitochondria offers a rich example of the symbiotic relationships that resulted in adaptive evolutionary processes and that inspire the present study. Mitochondria are cellular organelles present in most eukaryotic cells (that have their own genetic structure) and are responsible for processing and generating energy for the host cell (Embley et al., 2003).

3. EVOLUTIONARY MODEL OF SYMBIOTIC RELATIONSHIPS FOR INNOVATION

The Evolutionary Model of Symbiotic Relationships for Innovation (EMSRI) aims to evaluate the propensity to achieve mutualistic symbiotic relationships between a corporation and startups, considering evidence of the complementarity of strategic assets for innovation of these organizations.

It is a heuristic model of symbiotic evolution that aims to describe the behavior of the factors that influence the formation of symbiotic relationships between startups and the corporation and therefore does not intend to have a deterministic character. Its conception provides a method to support decision-making that corporate managers involved in open innovation programs, or even entrepreneurs of startups, can consider when evaluating potential partners with whom they can cooperate in open innovation programs.

The starting point was inspired by the Monteiro et al., (2015) model, based on his PhD thesis (Monteiro, 2012) on the impact of failing to disseminate knowledge and, consequently, increase the competitiveness of companies in the APL. For this, were: (i, in addition to other related works (Sampaio et al., 2018; Lacerda, 2018; Carneiro, 2014; Monteiro et al., 2014).

All of these works studied the impact of affinity on the relationships of cooperation and diffusion of knowledge. Monteiro (2012) has mature companies as its object of study and application from the same sector. Carneiro (2014) studies the dissemination of knowledge, based on the technological profile of students. Lacerda (2018) and Sampaio et al., (2018) investigate the process of creating and disseminating

knowledge of a certain organizational competence among employees of the same company.

In the same way, previous studies have addressed the formation of networks by entities of the similar nature and consider the similarity between them a condition for their affinity.

However, none of them discussed the propensity to establish relationships between individuals of different natures. EMSRI was distinguished, throughout the development, for its application in a new context formed by different entities, such as startups and corporations, characterized by distinct and complementary attributes.

In this context, the understanding of the formation of symbiotic relations between entities of different natures emerges with the complementarity of attributes as a primordial condition for the formation of cooperative relations, differently from the similarity understood in the other studies addressed.

To assess the propensity to form mutualistic symbiotic relationships between startups and corporations in open innovation programs, the complementarity of strategic assets for innovation of the studied actors is considered (Teece, 1998; 2004). The goal is to identify pairs of organizations that have complementary strategic resources necessary for the generation and capture of the value of innovation projects and for this relationship to generate gains for both parties.

The main contribution of the model is the creation of an environment conducive to the study of the establishment of mutualistic symbiotic relationships between corporation and startups, i.e., the formation of cooperative relationships involving actors of different natures, an unprecedented factor in the cases cited above. In addition, it studies an application field that,

for economic, technological and demographic reasons, has developed a lot in recent years, namely, the importance of the cooperation process of corporations with startups as a way to promote innovation.

3.1. GENERAL CHARACTERISTICS OF THE MODEL

This model shares some of the characteristics of evolutionary algorithms. The model uses a population of entities, represented by chromosomes, genes and alleles, and a fitness function to indicate the propensity to establish symbiotic relationships. However, there are important differences. In evolutionary algorithms, entities are usually interpreted as belonging to the same species, but in EMSRI, the set of entities represents an ecosystem of species of different nature.

It is considered that complementary characteristics of the actors, i.e., chromosomes and their genes, determine the propensity to establish cooperative relationships in open innovation programs. Thus, the actors will establish symbiotic relationships if they identify attributes in the other party that motivate them to do so. Therefore, an actor will establish a cooperative relationship for innovation due to the characteristics of the other parties that represent a potential for complementarity with their attributes, thus seeking an optimization of their innovative capacity.

The fitness function is a mapping of the combination of a set of resource values that represents the complementarity between ecosystem components. It is assumed that the establishment of symbiotic relationships tends to form combinations more adapted to the context insofar as they meet the interests declared by them. It is also assumed that the relationships

between entities are unstable and complementary, i.e., fitness can vary over time.

The EMSRI adopts the representation of an ecosystem, formed by entities that comprise two subsets of different species: 'corporation species' and 'startup species'.

3.1.1. CHROMOSOMES AND GENES

To characterize the individual components of the studied ecosystem, the model adopts the concept proposed by Teece (1998, 2004) and proposes the representation of 3 Chromosomes: (1) Knowledge Assets; (2) Complementary Assets; and (3) Dynamic Capabilities.

These Chromosomes are encoded using the Genes that compose them. The following assumptions guide the characterization of Genes:

- 1.- The actors have **Mastery** of a set of Assets;
- 2.- The actors show **Willingness** to share their set of Assets;
- 3.- The actors show **Interest** in obtaining new Assets;
- 4.- The actors show **Ease** of assimilating new Assets;
- 5.- The Mastery, the Willingness to share, the Interest in obtaining, and the Ease of assimilation can be measured.

From these assumptions, it is defined, therefore, that each actor is represented by a set of chromosomes and that these are encoded based on the sequence of genes and their alleles. Thus, the coding of chromosomes is given from 4 genes, namely:

- 1.- **Mastery (MAS)** of the chromosome;
- 2.- **Willingness (WIL)** to share the chromosome;

- 3.- **Interest (INT)** in obtaining additional resources related to that chromosome;

- 4.- **Ease (EAS)** of assimilating additional resources related to that chromosome.

Thus, one has a set of 3 Chromosomes (Knowledge Assets, Complementary Assets and Dynamic Capabilities) coded by 4 Genes (Mastery, Willingness, Interest and Ease), as explained in Figure 1.

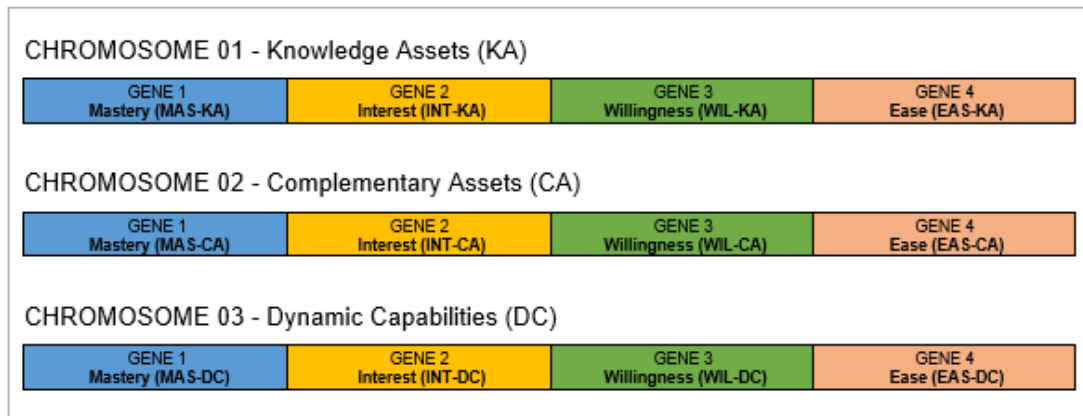
3.1.2. CHROMOSOME ALLELES

Attributes that characterize individuals and that influence the propensity to establish symbiotic relationships are established. The alleles, therefore, are the specific variations of these Genes that determine how the trait is expressed in an individual.

For the specification of the Chromosome alleles, a set of possible attributes is adopted for the implementation of the model, but the number of attributes and their specification can be flexible in alternative implementations.

In this study, attributes that can be measured and expressed in relation to Genes (Mastery, Interest, Willingness and Ease) were chosen, as described in Table 1.

The alleles of the chromosomes are represented by positive real numbers with three decimal places in a range from 1 (one) to 5 (five). The use real numbers rather than integers is because of the choice to obtain the values of Alleles from simple means of the values observed in the Representative Attributes.

Figure 1*Representation of the Proposed Genetic Structure***Table 1***Representation of Chromosomes, Genes and Alleles*

| CHROMO-SOME | ATTRIBUTES | GENES | | | |
|--------------------------------|--|--------------|---------------|-----------------------|-------|
| | | Mas- tery | Inter- est | Will- ing- ness | Ease |
| Knowledge Assets (KA) | KA1. Technological knowledge in potential fields of interest | 4,500 | 3,523 | 3,098 | 4,000 |
| | KA2. Market knowledge (customers, suppliers, competition etc.) | 1,287 | 1,743 | 2,176 | 2,798 |
| | KA3. Knowledge of Emerging Business Models | 2,587 | 2,254 | 1,954 | 3,076 |
| Complementa- ry Assets (CA) | CA1. Available productive capacity | 4,008 | 1,565 | 1,023 | 3,054 |
| | CA2. Market Reputation | 3,176 | 4,276 | 1,212 | 2,576 |
| | CA3. Access to distribution channels | 2,565 | 3,287 | 2,212 | 3,577 |
| | CA4. Bargaining power (with suppliers, distributors or re-tailers) | 3,554 | 4,090 | 2,034 | 3,021 |
| | CA5. Management Domain (tools, process maturity, gover-nance) | 3,537 | 4,078 | 4,523 | 4,712 |
| Dynamic Capa- bilities (DC) | DC1. Creativity | 3,583 | 4,021 | 4,534 | 4,798 |
| | DC2. Agility, Flexibility and Dynamism on Organizational Action | 3,578 | 4,033 | 4,556 | 4,776 |
| | DC3. Networking | 3,098 | 2,754 | 1,578 | 2,046 |
| | DC4. External Sensing | 1,501 | 4,250 | 4,340 | 3,120 |

3.2. PROPENSITY TO ESTABLISH THE SYMBIOTIC RELATIONSHIP (PESIR)

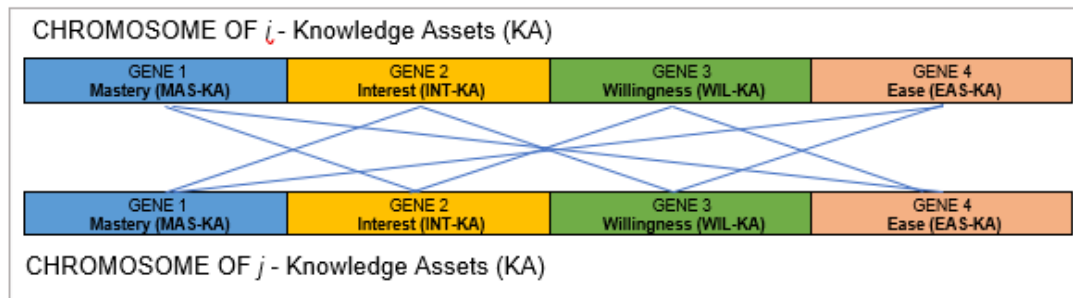
One of the model's premises is the understanding that the formation of symbiotic relationships depends on the complementarity of their characteristics. For that, it is proposed that the Propensity to Establish the Symbiotic Rela-

tionship (PESIR) will take place considering the following rules:

- 1.- If the Interest (INT) and Ease (EAS) genes on one individual's chromosome is similar to the Mastery (MAS) and Willingness (WIL) genes on the same chromosome from another individual;

Figure 2

Representation of the genetic complementarity relationships between two different individuals - i and j - according to the EMSRI



- 2.- There is reciprocity, i.e., that the Interest (INT) and Ease (EAS) gene on the second party chromosome also have similarity with the Mastery and Willingness gene on the first party on the same chromosome;
- 3.- These conditions will be analyzed on the 3 chromosomes of the individuals.

Figure 2 illustrates the observable complementarity relationships between the genes on chromosomes from two different individuals - i and j . In this case, the chromosome "Knowledge assets" is illustrated, as an example.

Thus, considering the existence of two actors i and j , the Propensity to Establish the Symbiotic Relationship (PESIR) will be evaluated for each chromosome of i in relation to j (PESIR ij), represented by Equation 1:

(1)

The PESIR is obtained from each chromosome and, from the calculation of the simple average of the observed values, there is an Overall Propensity.

The "MAX" variable represents the highest value that an attribute can be assigned. The de-

nominator '2 *' is used to normalize the results, thus obtaining PESIR values ranging from 0.00 to 1.00. The MAX variable is raised to the fourth power, since the factors present in the two terms of the numerator are multiplied and, therefore, the product of the four attributes is equivalent to the maximum value raised to the fourth power.

3.3. REPRESENTATIVE ALGORITHM OF THE MODEL

STEP 1: Start the ecosystem with all entities, i.e., the corporation and the set of available startups and the context that describes the existing rules;

STEP 2: Increase the number of the context ($c = n + 1$);

STEP 3: Establish the sequencing of chromosomes by obtaining the mean value of the observed traits, available in the Data Sheet;

STEP 4: Select a pair of corporation and startup and simulate the Propensity to Establish the Symbiotic Relationship (PESIR), using Equation 1 for each chromosome - Knowledge Assets (PESIR KA), Complementary Assets (PESIR CA) and Dynamic Capabilities (PESIR DC);

STEP 5: Obtain the mean of the values of PESIR KA , PESIR CA , PESIR DC ;

STEP 6: Repeat the operation between all pairs until completing all possible combinations;

STEP 7: Select the pairs with higher mean PESIR values, which meet the premises of context (c) and establish the Associations;

STEP 8: Remove unselected startups from the ecosystem;

STEP 9: Establish the Association between the pairs with the highest mean PESIR values;

STEP 10: Go back to STEP 1;

STEP 11: If there are no symbiotic relationships between pairs, end the algorithm.

4. RESULTS

The EMSRI was used to simulate the propensities to establish symbiotic relationships between a corporation and 10 startup candidates to participate in an open innovation program.

The data were obtained through a descriptive case study (Yin, 2001), whose main unit of analysis is focused on a Corporate Open Innovation Program and incorporates in its scope of analysis, in addition to the corporation that promotes the initiative, the startups that are candidates for the selection and development of innovation projects.

Access to the data was obtained with an authorization from the corporation, the identity of the organizations involved were not disclosed. The case study was conducted between November 2019 and January 2020.

The data analyzed comes from the interactions between the entrepreneurs of the startups, the managers of the corporation and a professional of a business accelerator responsible for coordinating the initiative. The data are contained in disclosure materials, internet, contracts,

terms of cooperation, management reports, e-mails, authorized records of the interviews and quantitative and qualitative assessment spreadsheets carried out by the involved managers. Therefore, it is a documentary research.

Those information served as input for the Evaluation of the Strategic Innovation Assets of the analyzed actors. For this purpose, a data spreadsheet was adopted to fill in the values corresponding to the analyzed attributes, which are broken down into Performance Indicators and Descriptors that seek to parameterize evaluated aspects that are essentially qualitative. Additionally, interviews were conducted with the managers involved in the activities using a semi-structured script and aiming to validate the understanding about the information collected in the documentary research.

The corporation and startups identity will be kept confidential, hereinafter called the OG and startup proponents of innovative technological solutions.

The OG demands innovative technological solutions that meet the demands of the oil and gas exploration process. The intended solutions aim not only to meet the demands of the production process of the company itself but also of its supply chain and distributors. Thus, the corporation expects to establish strategic partnerships that allow it to have competitive advantages in the operation of its business as well as financial gains from the commercial exploitation of the solutions derived from these cooperation. Intellectual property and partnership agreements are therefore signed between OG and startups that provide the terms of financial gain for the parties. There are no terms in this relationship stage that provide the Corporation with equity interest in the startups. This, however, is seen as a potential unfolding

of the relationship between them, in case there are opportunities that justify these new terms.

It is observed that the methodological design of the Program is similar to what is known as Client Venture or Procurement from startups, i.e., when corporations invest in the development of startups that can become suppliers to have access to cutting-edge technologies and new business models and quickly find new approaches to unresolved problems (Schättgen & Mur, 2016; Mocker et al., 2015).

Solutions involving Artificial Intelligence, Robotics, Computational Modeling or Digitalization are needed to improve operational efficiency and issues related to health, safety and environment, in addition to solutions related to geology, geophysics and engineering.

The program received 57 proposals submitted by Brazilian startups that met the requirements of the public call. From these, based on the description of the proposed solutions, 28 candidate startups were selected and underwent remote interviews. 10 were selected to participate in an in-person process of discussions, deepening of projects and cooperation agreements, aiming to advance with up to 5 of these companies to a later stage that would then involve financial investments, technological development and, therefore, intellectual property and commercial exploitation agreements.

Considering the interviews and documents developed by the startups to detail the proposed partnership, the corporation evaluated the 10 startups, adopting 15 criteria, using a scale from 1 to 4, and obtained a mean score that was used to prioritize the 5 chosen candidates.

4.1. PRESENTATION AND INTERPRETATION OF RESULTS

The empirical method adopted by the corporation in the selection of startups and the model systematized by the study, EMSRI, were compared. The 10 startups analyzed in depth by the corporation were also evaluated by the model. The PESIR obtained and the classification order established by the corporation are presented comparatively in Table 2.

The results obtained in the PESIR score are relatively similar to the ranking order obtained by the method employed by the corporation. It is observed that among the 10 startups analyzed, the ranking order of PESIR OVERALL coincides with the classification of the assessment made by the company in 5 startups. ST4 and ST5 have a difference of 0.001, inverting their positions. Likewise, ST7, ST8 and ST9 have differences in OVERALL PESIR punctuation in the third decimal place, with dispersion less than 0.007.

Among the 10 startups evaluated, those ranked first and last by the corporation are analyzed comparatively, below. Therefore, the corporation (CORP), the first-ranked startup (ST1) and the worst-ranked startup (ST10) were evaluated. The following mean values of the attributes analyzed were obtained for the three entities, CORP, ST1 and ST10, and, therefore, the coding of their chromosomes and genes was performed (Figure 3).

Based on these observed attributes, the PESIR rates between the two sets of organizations, related to Knowledge Assets, Complementary Assets, Dynamic Capabilities and the overall value given by the mean of those three values, are obtained, as shown in Figure 4.

Table 2

Plots of the Values of Propensity to Establish the Symbiotic Relationship between the Corporation and the Startups studied

| | PESIR-KA Knowledge Assets | PESIR-CA Comple- mentary Assets (CA) | PESIR-DC Dynamic Ca- pabilities | OVERALL PESIR | SORT ORDER BY CORP. |
|-----------|---------------------------------|---|---------------------------------------|---------------|------------------------|
| ST1+CORP | 0.59 | 0.61 | 0.51 | 0.570 | 1 |
| ST2+CORP | 0.57 | 0.56 | 0.56 | 0.566 | 2 |
| ST3+CORP | 0.53 | 0.57 | 0.44 | 0.514 | 3 |
| ST5+CORP | 0.45 | 0.53 | 0.46 | 0.482 | 4 |
| ST4+CORP | 0.42 | 0.48 | 0.54 | 0.483 | 5 |
| ST6+CORP | 0.47 | 0.45 | 0.49 | 0.469 | 6 |
| ST8+CORP | 0.41 | 0.56 | 0.27 | 0.413 | 7 |
| ST9+CORP | 0.35 | 0.55 | 0.35 | 0.412 | 8 |
| ST7+CORP | 0.41 | 0.46 | 0.39 | 0.419 | 9 |
| ST10+CORP | 0.33 | 0.24 | 0.33 | 0.299 | 10 |

Figure 3

Plots of the mean values of the attributes observed



EMSRI, therefore, indicates a propensity of ST1 to establish a symbiotic mutualistic relationship with CORP approximately 90.8% greater than that observed between ST10 and CORP. This difference is present in the 3 chromosomes and is more accentuated, especially when considering the Complementary Assets, where the propensity of the ST1 + CORP pair is 157.4% higher than the ST10 + CORP.

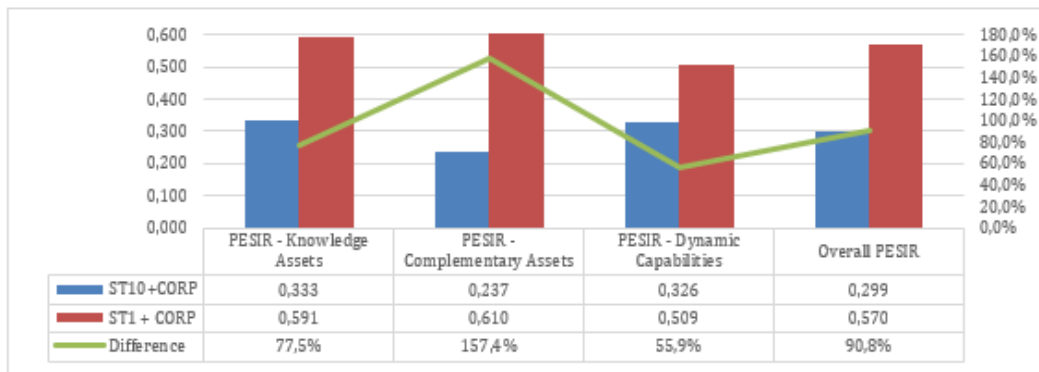
It can therefore be inferred that the main difference is in relation to attributes that are relevant to the creation and capture of value of the

intended business. Complementary Assets, for example, are resources related to productive capability, distribution and supply chain, market access, among others.

In this way, it is possible to understand that the group of 10 startups selected from a larger group of 57 candidates in total, already had a bias that portrays more evident aspects regarding the complementarity of the Knowledge Assets (technological domain, field of application etc.) and possess Dynamic Capabilities common to most startups nowadays, such as crea-

Figure 4

Plots of the Values of Propensity to Establish the Symbiotic Relationship between the Corporation and the Startups



tivity, agility, networking, among other aspects. Therefore, the deviation between the values observed in these attributes was smaller.

5. CONCLUSIONS AND FUTURE PROSPECTS

The proposed model intends to be suitable for the simulation of the formation of mutualistic symbiotic relationships between corporation and startup because it seeks to identify pairs with a higher degree of complementarity of strategic assets for innovation. In other words, it seeks to identify the compositions of organizations that complement each other in terms of the attributes necessary for the innovative process.

For this, the model considers not only the Mastery of attributes related to Strategic Assets for Innovation suggested by the bibliography studied but also the Willingness to share its set of Assets, the Interest in obtaining new Assets, and the Ease of assimilating these new Assets. Thus, the Interest and the Ease of one party are complemented by the Mastery and the Willingness of the other, and vice versa.

It is important to stress that the model evaluates the propensity to establish symbiotic relationships between these organizations from a strategic perspective. That is, tactical and operational aspects that may influence decisions for the formation of these relationships are not considered in its conception.

Future studies may consider broader perspectives of open innovation processes and other decision-making aspects, such as the analysis of financial, legal, cultural, technological and marketing issues, as well as other aspects that influence the effectiveness of projects derived from the establishment of these symbiotic relationships.

Another thing to keep in mind is the characterization of the type of symbiotic relationship considered in this model, mutualism. Such type of association assumes that, for the formation of relationships between startups and large corporations, the perspectives of the two parties need to be considered to the same extent.

In the future, it is possible to evaluate, as in nature, the propensity to form commensalism and parasitism relationships, among other symbiotic relationships.

As in symbiogenesis, when the symbiotic relationship results in the creation of new species resulting from the genetic integration of the symbionts, it is possible to envision the expansion of the model to evaluate the propensities of these sets of organizations to become new entities, i.e., of mergers that result in the combination of their characteristics, as observed in joint ventures, acquisitions and corporate mergers.

The simulations performed in this article used data from a specific open innovation program with a restricted set of entities in an oil and gas sector, with startups that operated in specific technological fields. It is not possible, therefore, to conclude that they are applicable to other contexts. It is recommended to analyze in subsequent studies the suitability of the model under other circumstances, company profiles, economic sectors, and designs of open innovation programs, among other possible aspects.

It is important to note that EMSRI is flexible, allowing future studies to adopt other attributes of the analyzed actors, new evaluation scales, and most likely the expansion of its use for other types of organization, in addition to corporations and startups, such as universities and technological centers.

Therefore, the model represents a contribution to studies on the formation of mutualistic symbiotic relationships in open innovation programs, and due to its broad conception, its application can be studied in other contexts.

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