

Contents lists available at ScienceDirect

#### **Heliyon**

journal homepage: www.cell.com/heliyon



Research article

## Kid influencers in Spain: understanding the themes they address and preteens' engagement with their YouTube channels



Bárbara Castillo-Abdul <sup>a,b</sup>, Luis M. Romero-Rodríguez <sup>c,d,\*</sup>, Ana Larrea-Ayala <sup>e,f</sup>

- <sup>a</sup> Department of Educational Sciences, University of Huelva, Huelva, Spain
- <sup>b</sup> ESAI Business School, Espíritu Santo University, Guayaquil, Ecuador
- <sup>c</sup> Department of Communication Sciences and Sociology, Rey Juan Carlos University, Madrid, Spain
- <sup>d</sup> Faculty of Communication and Arts, Nebrija University, Madrid, Spain
- e Department of Communication, Universidad Técnica del Norte, Ibarra, Ecuador
- f Department of Communication, University of Cadiz, Jerez de la Frontera, Spain

#### ARTICLE INFO

# Keywords: Social science Childhood Content creation Digital engagement Influencers Online content creators Produsage

#### ABSTRACT

This research analyses the contents of the videos of the ten Spanish children's YouTube channels with the highest number of followers and video plays to identify correlations between the thematic axes of the videos and the increase in digital engagement data. Little is known about the topics that the most popular Spanish-language YouTube influencers share with preteens and young adults' audience. In response, this exploratory study will use content analysis to examine this gap and contrast the themes that its videos reflect against others. For this purpose, interpretive-based content analysis is carried out based on an analysis sheet validated by expert judgment. Among the main results, it is shown that most of the children who are the lead character of the channel are currently between 10 and 12 years old, having created the channels an average of five years ago, which shows how early many YouTubers are starting in this industry. There are also differences in the thematic axes of the channels' videos according to the gender of the children's influencers, with a higher representation of male YouTubers devoted to gameplays, while their female peers have a more significant presence in videos in the lifestyle category. It is concluded that there is a need to supervise the contents accessed by children on this platform since it can deepen not only gender gaps but also become a wrong reference of role models.

#### 1. Introduction

Social networks are platforms or interfaces that allow people to build a public or semi-public profile within a reticular system and thus articulate nodes of connection with other users (Boyd and Ellison, 2007). These have become a media outlet that facilitates the exchange of information, cooperation, and the creation of content. Porter and Donthu (2008) and Cuevas-Molano et al. (2019) points out that maintaining members of virtual communities and providing quality content has a positive effect on engagement with a specific channel or broadcaster (see Figure 1).

Nowadays, social networks have a high reach among Internet applications. There are 3.8 billion active users in social media, with a penetration of 49% of the world population, and a growth of 9.2% annually (2019–2020). Facebook has reached 1.95 billion registered users,

Instagram 928.5 million with 5.7% growth, and Twitter has 339.6 million users (We are Social and Hootsuite, 2020).

In its beginnings, YouTube was known as a video registration and reproduction website. This site evolved to become the most visited audiovisual platform in the world currently, ceasing to be simply a static web page to become a social network, standing out for the interactivity that is generated between content creators and users (*v.gr.* comments, likes, sharing). In recent years, YouTube has grown significantly among the younger audience, which, for the most part, focuses on producing and playing videos about lifestyle, games, music, jokes, sports, fashion, etc.

We are facing new mass phenomena generated by the Internet and Web 2.0, in which the centrality of YouTube as a platform for expression, creation, and maintenance of community has been decisive. This social network, by its style and definition, provides creative spaces where young people can find their empowerment and develop as a real business generator (Hidalgo-Marí and Segarra-Saavedra, 2017).

E-mail address: luis.romero@urjc.es (L.M. Romero-Rodríguez).

<sup>\*</sup> Corresponding author.

This research will study the theoretical basis of the phenomenon of the YouTubers, their characteristics, narrative, and ways of communicating audiovisual content, as well as the use of YouTube in Spain and the growth that the social network has had in this European country, especially in the new generations of users. To this end, a content analysis of the YouTube channels of children and teenagers who create content with more subscribers and reproductions is carried out in order to determine the common narrative elements in each of them and the content that these broadcasters use.

#### 2. Literature review

This theoretical review deals with the origins and concepts of social networks, as well as the digital platform analyzed in this study: YouTube and the YouTubers. It will also contextualize the influencers and their typology, the development of prosumers, produsers, and producers in digital environments, and the impact that these have generated in the habits of use and media consumption of the new generations. Also, recent data on the current situation of YouTube consumption in Spain will be addressed.

#### 2.1. Theories and models of social network analysis

The concept of 'social networks' has been an epistemological development that comes from the theory of networks of the 1930s, which has been gradually fed by different schools and theories of anthropology, sociology, mathematics, computer science, and communication, although -especially in Western countries- it is the functionalist and structuralist school of thought that is most often used to explain its phenomena, social cohesion, and structures of relational equivalence. For the theoretical contextualization of this research, it is especially important to address the perspectives of personal behavior and mass communication.

First, in terms of the personal behavior perspective, there are three theories intrinsically related to the motivations for creating content on the web: Theory of Reasoned Action (TRA) (1980), Theory of Planned Behavior (TPB) (1985), and the Technology Acceptance Model (TAM) (1989).

The Theory of Reasoned Action (TRA), developed by Ajzen and Fishbein (1980), is a predictor of the behavior of individuals based on their attitudes, beliefs, social pressure, and conduct about an object. According to Peslak et al. (2012), the TRA is very useful to understand, and even predict, the use of social networks in a determined society.

The Theory of Planned Behavior (TPB) is a continuation of TRA, proposed by Ajzen (1985). This theory explains that perceived behavior and conduct are used to moderate the effects of attitudes and behavioral norms (Ngai et al., 2015). According to Conner and Armitage (1998),

TPB claims that perceived behavior is a moderator of the effects of subjective attitudes and norms of behavior.

The theoretical bases of personal behavior are complemented by the Technology Acceptance Model (TAM), which, although still a classic model, is kept in force for network analysis. This model was developed by Davis (1989), and its purpose is to explain the causes of the acceptance of technologies by users. It is considered a useful model highly tested in predicting the use of ICT. TAM proposes that an individual's perceptions of the perceived utility and perceived ease of use of an information system are conclusive in determining his or her intent to use a system (Varela, 2004). This means that ICTs are perceived as a valid means as long as the balance of their usefulness - for the estimated purposes - and their ease of use is balanced.

In another direction, the perspective of mass communication offers us two theories that explain the paradigms of media exposure: The Parasocial Interaction Theory (PSI) (1956) and the Uses and Gratifications Theory (UGT) (1973), which although like the previous ones they are classic theoretical foundations, they are still valid in explaining digital media phenomena today.

The Parasocial Interaction Theory (PSI), initially proposed by Horton and Wohl (1956), explains a type of psychological relationship within the audience in their meetings mediated by artists and celebrities, particularly on television. This theory points out that viewers get to feel close friends with media personalities. Of course, PSI is described as an illusory experience so that media audiences interact with people - mediated - as if they were involved in a reciprocal relationship with them (Caro Castaño, 2015). In the digital realm, the first theorists to analyze this area were Eighmey and McCord (1998) who explained in their research that there are variations in the traffic rates of the websites in which the PSI was involved in the contents (Ngai et al., 2015).

For its part, the Uses and Gratifications Theory (UGT), proposed by Katz et al. (1973), explains the reasons why people consume certain audiovisual products. Its objective is the understanding of mass communication, focusing on the question: what effect do people have on the media? One of the main threads in the study of this theory is to identify why people use the media and what they use it for. This theory focuses on how users deliberately choose the media that can meet their needs: to relax, to relate to other people, to have fun, or to escape (García, 2018).

#### 3. Social networks

Social networks are centers of communication and interaction that lead to power relationships, symbolic languages, and cultural transmissions. In recent years, a model capable of formulating interactions of a social, political, and economic nature, through the construction of relationships, has become known, intending to address current problems.

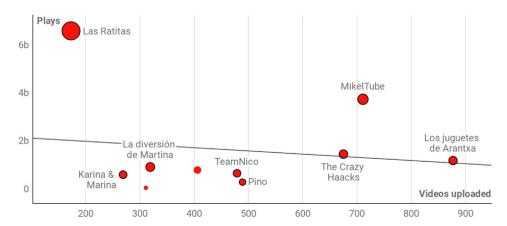


Figure 1. Correlation between videos uploaded (V5), views-plays (V4), and subscribers (V3). \* Note: Data collected on may, 2020. The number of subscribers is represented by the size of the plot.

In short, digital social networks are exposed to a growing way of knowing, thinking, and defining social reality. Consumer behavior theory bases its postulates on self-identity and social identity, mainly in offline behaviors (Pagani et al., 2011). In this regard, Pagani et al. (op. cit.) explains that self-identity expressiveness is about the way Internet users interact with social networks as a mirror of their own identities and value system -both themselves and with others-, while considering social expressiveness as the ability to communicate verbally and skillfully when others are involved in social interaction.

These digital environments generate new ways of thinking and acting. The concept of 'social network' was first used in 1954 by the British anthropologist John Barnes, who conducted a study with a fishermen's community and analyzed the importance of friendship, family ties, and citizenship as a flow of informal and interpersonal relationships. Barnes concluded that social life was considered as a set of points (nodes) that were articulated and organized in relationships (Barnes and Harary, 1983).

However, it is Simmel who has been recognized as the founder of the logics and formulas that support the analysis of social networks, as a process of decoding the structures that arise from social systems. This last starting point is the one that seems more consistent and consensual among the Social Sciences researchers (SanMiguel and Sádaba, 2019). In fact, in Sociology, the analysis of networks is constituted by the influence of diverse currents with a differentiated methodological and epistemological orientation, positions that justify a lack of consensus that favors the strengthening of social networks as a central category in the framework of social theory in general (Fialho, 2015).

Social networks are relevant in current theories regarding the production and distribution of information among the individuals that make up an organization. The level of connectivity with other members that make up the network affects Information Management since it conceives the node to which others are also connected since it concentrates the information that others need to execute specific tasks (Mena, 2012; De-Casas-Moreno et al., 2018).

Several studies currently confirm the significant role of social networks, even as learning spaces, as they provide a scenario for the empowerment of the creator that encourages the progressive transformation of the relations between production and consumption (Arraiga et al., 2016), enhancing the media dynamics and amplifying the voices of the social collective (Rodríguez-Hidalgo et al., 2020).

### 4. YouTube as a social network that generates digital communities

YouTube was launched in February 2005 as a website to share videos made by Internet users themselves, a platform that allowed those who registered to upload videos to the network for no monetary fee and that these could be seen by millions of users who access the Internet (Lavado España, 2010). In October 2006, it was acquired by Google Inc. and currently operates as one of its subsidiaries.

Many users assume that YouTube is a simple website for registration and playback of videos, but the reality is that with the evolution of this platform, new tools and options were created for users to generate more content and interactivity. YouTube is currently one of the most complete social networks since it allows its users to register, create channels, modify their profiles with their personal information, add images, write, comment, or share the videos in other digital environments and social networks.

This communication channel sets a precedent concerning other social networks, deviating from the usual characteristics such as homophilia, recreational bonding, and assortativity (Wattenhofer et al., 2012). However, the study mentioned above has determined that, despite this difference, there is a correlation with respect to user-managed behavior on Twitter, in the sense that the correspondence between the two networks arises from the popularity of a user in the social environment and its contents, unlike what happens in the rest of the digital channels in

which the typical notoriety arises from the published product and not from the individual or personality that disseminates it. In this regard, it is important to mention that YouTube nourishes its visibility in the digital environment by allowing links from its videos to other networks, such as Facebook and Twitter.

With the evolution of this web platform, a new era of online prescribers is born, the so-called « YouTubers». In the past, celebrities were only known through conventional media, being movie stars, television personalities, musicians, or artists in general. YouTube has changed this reality, as YouTubers have emerged as celebrities, having millions of subscribers or followers on their channels and making profits of millions of dollars annually (Tolbert and Drogos, 2019). The term YouTuber refers to a video blogger who regularly posts videos on their personal YouTube channel. People nowadays can easily create their content and participate in social networks like YouTube (Karenina and Luthfia, 2019), making these video bloggers close and accessible, challenging the margins of intimacy and privacy (Regueira et al., 2020).

The contents generated by these influencers are diverse. Some topics, for example, are about their life experiences, and their experiences and opinions about a product or known as product reviews (Westenberg, 2016), while other YouTubers choose to create videos about games, tutorials, challenges, gameplays, technology, music, fashion or their family activities.

As affirmed by Aran-Ramspott et al. (2018), a YouTuber can improvise, change and surprise, moving away enormously from the scripted and airtight programming of traditional media. For Andò and Westenberg (2016), YouTubers are perceived as authentic peers, because their stories and conversations make them seem accessible and trustworthy for this reason their followers believe in their opinions -, they have an age range similar to that of their audience, creating content that fits their frames of reference, thus being able to interact with their target audience with relative ease (cited by Marôpo et al., 2019). The YouTuber is a good example about new kinds of celebrities (Martínez and Olsson, 2019) and, in addition, they are considered as digital influencers, or in many cases, they have recognized personalities who moved their everyday personal or professional life to the online audiovisual sphere.

#### 5. Influencers

An influencer is a professional who, due to his or her knowledge and expertise in the sector, becomes a reliable prescriber of a product or service to the general public. Their opinions are well appreciated because of the reliability and trust they give to their followers (Almeida, 2017, p. 13). They can be classified into three types: «celebrity influencers » who are movie stars, singers, models, TV personalities with an online presence and large communities of followers in social networks; «social media influencers » who make themselves known in social networks and become recognized as experts in some topic, whether it is fashion, sports, technology, etc., and «micro-influencers » who are similar to social media influencers, but with a smaller community, however, have a higher power to influence it (Diaz, 2017).

Individuals as the center of the communication paradigm is not a new phenomenon. The classical theories of Rogers (2003) and Katz and Lazarsfeld (2006), among other authors of the functionalist and structuralist schools, already discussed the role of the individual in the communicational ecosystem, as well as the importance of prescribers and opinion leaders, which the futurist Toffler called « prosumer» (Hidalgo-Marí and Segarra-Saavedra, 2017).

When a YouTuber generates a massive interaction of its followers, even though other accounts in its social networks and takes its life from the digital to the professional, it becomes an influencer, and on many occasions, due to its impact, companies look for them to promote their brands or services. Because of this new digital trend, YouTubers are also considered prosumers as they produce and generate new content. A prosumer will possess a series of skills that will allow him to carry out a set of actions, both as a consumer of media and audiovisual resources,

and as a producer and creator of critical, responsible, and creative messages and content (García-Ruiz et al., 2014; Romero-Rodríguez et al., 2019).

It is also necessary to consider that YouTubers are not only prosumers, but can also be produsages or producers. Produsage is the intersection of the words "production" and "use", the definition of which claims the creation of user-directed content in different digital ecosystems, as well as in other social, cultural and technological environments, a phenomenon that commonly - and increasingly - occurs in the Web 2.0. The content production involves the development of collaborative content focused on improving the quality of interactions. Therefore, for Bruns (2009) the role of producer and consumer of information are not separated in the digital environment, as they are cohesive in the same subject in their interactions.

#### 6. The YouTube phenomenon in Spain

From this phenomenon arises the case of some Spanish YouTubers with many Spanish-speaking followers and a real legion of children's fans. In particular, they highlight how the narrative or « YouTuber style» is built on what Lafkioui (2008) calls a «multimodal orality», which links up with other more canonical sources of rhetoric (Leith, 2012) and with the vivacity of oral narration (Benjamin, 1991; Mascheroni and Ólafsoon, 2014). Moreover, only in the case of Spanish children, puberty and adolescents, YouTube is in second place of use (about 70% of young people between 14 and 17 years old prefer this network) after Facebook (Interactive Advertising Bureau, 2015).

In Spain, 13.5 million people use YouTube every month, which represents 54.25% of the total Internet audience in the country, making it the fourth most visited website and the first among entertainment sites. While only a small part of teenagers and young adults are active users (Gallardo and Jorge, 2010), video viewing is one of the most widespread habits among European teenagers (Holloway et al., 2013).

There are two categories of YouTubers according to the platform. The « standard YouTubers » who are sporadic and spontaneous content creators who upload content with friends and family, while the «special YouTubers » are those who usually monetize the channels and interact with large communities of users, receive feedback and have thousands or millions of subscribers (Ramos-Serrano and Herrero-Diz, 2016). Their channels represent a space to express themselves artistically and creatively, allowing them a social connection with other YouTubers and their followers (Chau, 2010; Ding et al., 2011). In these cases, the audience is active, since they can interact directly with the YouTuber they admire, being the proximity to the user the key to their success (Berzosa, 2017). Their influence levels are usually quantified from the number of subscribers to their channels and the total number of plays of their videos (Burgess and Green, 2009), which is significant in measuring their engagement.

YouTubers are perceived by young people as their equals, but also with attributes of creativity and talent that they frequently appreciate. Furthermore, they are people close to their followers, in the sense that they share similar characteristics (such as age, language, culture, social context, etc.) to the children and teenagers who follow them, which facilitates rapid identification with them, becoming a critical social reference in the construction of adolescent identity (Westenberg, 2016). Another important aspect is the possibility of interaction, as comments made by teenagers often get a response from YouTubers, which makes them perceived as close and friendly (Berzosa, 2017; Chau, 2010).

The brands of products and services increasingly show a greater interest in making agreed commercials with children YouTubers, generating new sales strategies and thus, achieving a connection with the target audience closer and more effectively. When promoting a product, YouTubers use a natural and colloquial language intended for the community of their followers. Studies (e.g., Cai and Zhao, 2010) have found that children's reactions to advertising messages are mostly determined by the representation of the knowledge they have in their short-term

memory. In this sense, it will always be necessary to use audiovisual tools so that children receive, but also remember -from meaningful experiences- the messages.

The influence that the Internet and social networks can have on the construction of adolescent identity, according to Valkenburg and Peter (2009), is based on the fact that online communication promotes the development of positive relationships in early adolescence, fostering social connection and personal well-being. More recent research indicates that children and adolescents, unlike adults, use video platforms as a stage for action, storytelling, and expressing their opinions and identity characteristics (Yarosh et al., 2016).

García, Catalina & López-de-Ayala (2013) find that the sites most frequented by teenagers are social networks and, secondly, video sharing platforms such as YouTube. As for the use that young people make of it, various studies indicate that in addition to entertainment and the search for information, social networks are used as a means of interaction with those they consider their peers (*v. gr.* Barker, 2009; Romero-Rodríguez et al., 2016; De-Casas-Moreno et al., 2018).

In short, YouTube has become an object of research for academics interested in media development and an emerging « participatory culture» (v. gr. Jenkins, 2009; Lovink and Miles, 2011; Snickars and Vonderau, 2009). The type of content published by YouTubers kids' channels are mainly classified as (Ramos-Serrano and Herrero-Diz, 2016):

- Outdoor activities: recording trips with the family, excursions, meetings with fans, or other YouTubers.
- Challenges: related to the realization of a task proposed by him/her self or by the audience, to achievement in an activity that is often a game or video game.
- Video Tutorials: audiovisual productions that explain how to carry out a specific activity.
- Analysis of a product (haul): exposure of an object or product, in most cases, a toy, where its functionalities are explained. These categories also include unboxing.
- Storytelling: development of a real or fictitious story, in the form of a tale.

The objective of this research is to analyze the videos and channels of the ten most influential children in Spain according to scope criteria: number of views, number of followers, and the number of videos uploaded to their YouTube channels. Thus, it aims to answer the following research questions: *RQ1*: Who were the most influential kid YouTubers in Spain between 2019 and 2020?, *RQ2*: what kind of content do they offer?, *RQ3*: how often do they upload videos to the platform?, *RQ4*: what is the scenario they use to record the videos? and, *RQ5*: what kind of language do they use?

#### 7. Materials and method

The present study is proposed with a quantitative-qualitative design and exploratory scope. It is based on the technique of interpretive-based content analysis, allowing the processing of messages, texts, or speeches in order to produce and process relevant data on the conditions under which they were produced and used (Martín, 1995; Piñuel-Raigada, 2002). Specifically, we have analyzed the messages transmitted in 5 videos of each Spanish YouTube channel published from June 7, 2019, to March 15, 2020. To this end, the recommendations for this methodology proposed by Andréu (2000) have been taken into account for the analysis of interpretive-based content, such as the title of the audiovisual production and its number of reproductions, as well as the latent content, under the terms and conditions proposed by Erikson (1971) about identity-building scenarios.

The influence on YouTube will be determined by the number of subscribers and views (Pérez-Torres et al., 2018). It is worth noting that the methodological strategy par excellence followed by various previous analyses on the YouTube platform is content analysis (v. gr. Ros and Rosa,

URL

https://bit.ly/2WU7KZv

https://bit.ly/33YYPr3

https://bit.ly/2w4kHVI

https://bit.ly/2WQZfyt

https://bit.ly/2QXme7k

https://bit.ly/3dGvd6n

https://bit.ly/2JsumZi

https://bit.ly/2w3Frgg

https://bit.ly/2JnTIHC

https://bit.ly/2UtHSC3

Table 1. Sample description.

Description

Spain, and is a singer and actress.

with her channel's stamp.

They lead the ranking of influential children in Spain. They are two sisters (Claudia and Gisele) aged 7 and 8. They usually

participate in the rest of their family to create videos. Due to their great success, they launched a book entitled Las Ratitas

Children's channel presented by Mikel, a 9-year-old boy who collaborates with his brother Leo, 5-year-old, and one more

Martina is a 14-year-old girl who started on the Internet at the age of 10. She uploads videos about the daily life of a

teenage girl. In addition to her social networking activities, she has created her clothing line, written several best-sellers in

They are three siblings: a 9-year-old girl and two boys of 12 and 13 years old, respectively. Daniela, Mateo, and Hugo

record videos of their daily lives, challenging each other to do various activities. They launched their books in which they

Arantxa is a 10-year-old girl who, with the help of her parents, records videos of her world: a terrace of her house where

there is room for castles and all kinds of games and toys, a cafeteria where she meets her friends, etc. Due to her success, she has already managed to create her first book *Sirena por un día* [Mermaid for a day], and she has other items for sale

They are twin sisters of 10 years old who are characterized by their mixture of innocence and wisdom. They record songs

Channel of an 11-year-old girl dedicated mainly to games, slimes, parodies, and challenges. Its creator has even gone one

He reached his popularity during the 2018 World Cup in Russia. Nico, who is currently 11, uploaded videos of possible

It is the name of the YouTube channel of Darwin, a 13-year-old boy. He is perhaps one of the most well-known YouTubers

in Spain, as he is succeeding with the videos he posts doing challenges, slimes, toy unboxing, or explaining video games (gameplay).

This channel features Neno, a 9-year-old boy, and his family. Together they record videos in which they narrate their daily

lives, discover many toys, make challenges, and tell their adventures. After the success of this channel, some product

brands established contacts with them, not only to carry out promotions, but they were also paid for it.

match results, including challenges with his friends, and thus gained popularity on this channel. He also uploads

member of the family. They record videos of family adventures and trips, as well as challenges.

tell their adventures. Also, they have T-shirts and accessories from their channel for sale.

and dance, and after their success, they have managed to launch several books.

step further and has managed to launch a book containing her adventures.

information about fiction series or adventures he has with his parents.

3, 2, 1... SUPERPODERES [The Little Rats 3, 2, 1... SUPERPOWERS].

YouTuber (channel)

La Diversión de Martina

Los juguetes de Arantxa

The Crazy Hacks

Karina & Marina

Jugando con Aby

Neno & Family

TeamNico

Pino

Las Ratitas

MikelTube

Heliyon
6
(2020)
e05056

B. Castillo-Abdul et al. Heliyon 6 (2020) e05056

Table 2. Descriptive variables and statistics.

Variable	Code	$\overline{\mathbf{X}}$
Year the channel was created	V1	3.57
YouTubers age	V2	4.02
Number of subscribers	V3	4.86
Number of channel views	V4	4.86
Number of videos uploaded on YouTube	V5	3.67
Type of contents	V6	4.90

2014; López-Vidales and Gómez-Rubio, 2015; Montes et al., 2018; Tur-Viñes et al., 2018), that will allow the content to be studied and analyzed in an objective, systematic and quantitative manner (Hernández et al., 2010).

#### 7.1. Sample

To select the study population, first, the YouTube channels in Spain with the highest number of subscribers were selected, limiting the search to channels whose lead character of the channel are children and teenagers between 8 and 14 years old, range covering childhood from 0 to 10 years, and the stage of adolescence as determined by the World Health Organization, between 10 and 19 years (WHO, 2008). In order to define the sample to be analyzed, a series of videos have been selected based on the criteria of the number of views and channel subscribers, which, according to Burgess and Green (2009), are decisive for recognizing the keys to a channel's engagement.

The classification of content on YouTube is an arduous task because YouTubers often have more than one type of video on their channels, and the organization they make of them responds to varied and subjective criteria (Codina et al., 2014; Aznar-Díaz et al., 2019).

For the execution of this research, the analytical tool Social Blade has been used, a software that allows generating statistics and analysis of social networks considering the criteria of influence established by Pérez-Torres et al. (2018), in which they set to consider a channel of 'influencers' a record of at least 10,000 visits and more than 100,000 subscribers. A selection was made based on the above described from the results obtained in the Top 100 YouTubers Channels from Spain ranking offered by the referenced application. The visualization of the contents of each selected channel was done manually in order to extract the data under study. The data were collected from June 7, 2019, to March 15, 2020

In this sense, an intentional non-probabilistic sample has been chosen (Otzen and Manterola, 2017, p. 230), in which the sample elements are selected by the personal judgment of the researcher (Namakforoosh, 2005, p. 189) (see Table 1).

It is necessary to emphasize that the present work fulfills all the ethical standards when visualizing and analyzing videos in the platform of YouTube, a social network in which both the influencers and their legal guardians, understanding that they are minors, have given their previous consent and approval for the public exhibition of the aforementioned videos. Based on this principle, the study is of a documentary nature, so it has not required the authorization of the ethics committee of the universities involved in the research.

#### 7.2. Instrument

Once the analysis units were obtained, six variables were defined from the theoretical constructs reviewed above, four of which coincided with those included in the study by Frígola et al. (2015) (see Table 2).

The table of analysis was verified through expert judgment, taking into consideration the criteria of validity and reliability. Expert judgment is an essential statistical inference method for the construction of an analysis model, which is based on asking several experts in the field about the suitability of including dimensions, indicators, and variables in a study (Gelman and Hennig, 2017; Brownstein et al., 2019), as well as a method of validation based on an informed opinion of people with a background in the field, who are recognized by others as qualified experts in the field, and who can provide information, evidence, judgments, and assessments. For this analysis, 12 Spanish experts were consulted, through the Qualtrics software, whose inclusion criteria were the following: i) Ph.D. in communication or education, ii) University professor and researcher with more than five years of experience, iii) Published research on social networks, especially on Youtube.

As for the reliability tests, Cronbach's alpha from the expert judgment gave a result of 0.803, being a coefficient between good and excellent (Tavakol and Dennick, 2011), while Fleiss's kappa (*k*F), like a concordance and calibration statistic, gave a result of 0.69.

#### 8. Results

The data were analyzed through the statistical analysis program IBM SPSS®  $\nu$ . 25, performing an analysis represented in a grouped bar chart, taking into account the «number of subscribers » variable (V3), determining the Pearson correlation index (p) to reconfirm the reliability of the model.

On the other hand, in the analysis of the variable « number of subscribers» (V3), a comparison is made between the number of subscribers of each YouTubers between 2019 and 2020. In addition, the percentage obtained by each influencer concerning the number of videos uploaded to the platform is observed, taking as a reference the total number of videos of all channels. Thus, the relevant information of the channel itself is collected about its owner or lead character of the channel, the «year of opening of the channel» (V1), and the «type of content» of the videos (V5).

Table 3. Subscribers (V3), views-plays (V4), and videos uploaded (V5) variables.

Channel	Suscribers	Plays	Videos uploaded
Las ratitas	19,600,000	6,579,612,132	173
MikelTube	5,870,000	3,725,581,178	711
The crazy Haacks	3,650,000	1,439,896,619	675
Los juguetes de Arantxa	3,440,000	1,173,214,609	877
La diversión de Martina	3,980,000	903,106,062	319
Jugando con Aby	2,670,000	777,217,181	406
TeamNico	2,690,000	640,653,550	479
Karina & Marina	2,800,000	583,282,631	269
Pino	1,720,000	273,705,676	489
Neno & Family	220,000	36,982,237	311

Note: Data collected on may, 2020.

Table 4. Emerging thematic axes.

	Las Ratitas	MikelTube	Diversión de Martina	The Crazy Haacks	Juguetes de Arantxa	Karina & Marina	Jugando con Aby	TeamNico	Pino	Neno & Family
Challenges	X	X		X	X	X	X	X	X	X
Tutorials			X		X	X				X
Unboxing		X	X	X	X		X		X	
Humor	X		X	X			X	X	X	X
Cooking		X	X	X		X				X
Lifestyle			X		X	X				
Crafts		X								
Family Activities	X			X	X	X	X	X	X	X
Parks and outdoor activities		X	X	X	X			X		X
Sports								X		
Gameplays		X		X	X			X	X	

The data shows that the average age of YouTubers is ten years old, there is gender parity (50% boys and 50% girls), and most channels started in 2015 (53%), when most children were only five years old.

The total « number of videos uploaded » by each YouTuber (V5), taking into account all the years that each channel has been open, reflects that the *Las Ratitas* channel, despite being the most followed, does not register many videos on its platform with a total of 173. However, *Los juguetes de Arantxa*, which is in fourth place in the ranking with the most subscribers (V3), is the channel that loads the most content on YouTube, with a total of 877 videos (see Table 3).

On the differences between the number of subscribers reached in 2019 (V3), compared to the number of subscribers achieved in 2020 (V3), it is remarkable that, although only the first half of 2020 has passed by the time of this study, YouTube channels have achieved a growth in the number of followers, a trend that continues to rise, being *Las Ratitas* the channel with higher penetration in this digital platform.

After the content analysis of 5 videos per sample unit, 11 thematic axes emerge, which are usually covered by the channels: challenges, tutorials, unboxing, humor, cooking, lifestyle, crafts, family activities, parks, and outdoor activities, sports, and gameplays (see Table 4).

While the channels *The Crazy Hacks* and *Los juguetes de Arantxa* are the ones that treat more thematic axes (n=7), *Las Ratitas* (n=3), and *Jugando con Aby* (n=4), are the ones that less. Thus, by correlating the thematic axes with the number of reproductions and subscribers, it can be said that there is no proportional relationship.

There are also differences in the type of activities to be shown about the gender of the YouTuber. For example, only one girl (*Los Juguetes de Arantxa*) performs gameplays, while the cooking theme is only performed by a boy (*MikelTube*). In the case of lifestyle, it is only represented in the female YouTubers.

With the data analyzed in V3, V4, and V5, it can be stated that the number of videos posted on each YouTube channel (V5), with the number of subscribers (V3) or views, has no influence (V4). In the specific case of *Las Ratitas*, the YouTubers girls who lead the ranking in Spain, have a lower record of 173 videos (V5) and are currently the most successful channel both in subscribers (V3) and in visualizations (V4).

If we compare the results of *Las Ratitas* with the data reflected in *Nemo and Family*, the channel that is in 10th place in the ranking, the latter has a total of 311 videos published, but the data of its subscribers and views do not register more significant growth, despite the large number of videos uploaded on YouTube. Therefore, the number of videos uploaded to the platform is not a determinant of the number of followers and views.

In this context, the microcelebrities, the successful YouTubers, defined as 'creators' (Bonaga and Turiel, 2016), because they are of enough quality to become influencers, understanding them as capable of affecting the behavior and opinions of others. Jerslev (2016) states that the skills of microcelebrities are related to the exhibition of accessibility, presence, and intimacy online, as reflected in the videos analyzed by the

YouTubers, who expose part of their game routines and the environment with family and friends.

About the frequency of publication, it is verified that YouTubers kids have constant and intense activity in the interactive platform, becoming creators of digital content, since, calculating the average, they usually upload at least one video per week. To create their content, the settings used as spaces to produce the video shoot vary, relying on locations such as their homes, stores, entertainment venues, parks, but one thing these YouTubers have in common is that most choose their rooms to shoot most of their videos.

Furthermore, the use of colloquial language, strongly supported by the use of gestures, is shown in almost all the videos analyzed.

#### 9. Discussion and conclusions

Social networks have revolutionized the communication paradigm in today's communication landscape. The current user is hyperconnected to brands, institutions, influential groups, and celebrities, so it should no longer be seen or studied as a passive subject to persuasive messages (Hidalgo-Marí and Segarra-Saavedra, 2017).

The study of these digital platforms has as its starting point a premise, which characterizes the coercive nature of social phenomena and defines a sociological perspective after Durkeim. It addresses the causes of social facts in the properties of the structural developments in which they are placed. Therefore, the form of the networks can be assumed as a critical element of the studied social phenomena that determine the accessibility of resources as prestige, friendship, and power (Fialho, 2015). Besides, according to the Uses and Gratifications Theory, it is possible to analyze how and why people are always searching for content through different means that allow them to satisfy their needs (Katz et al., 1973).

After the analysis of the study's background, it is evident that there is abundant research that accounts for the massive consumption of these cultural systems and digital platforms, and there is significant interest from the academic community in researching children and the creation and consumption of digital content (*v. gr.* Buckingham and Sefton-Green, 2003; Livingstone, 2008; Dunn et al., 2014; Kampf and Hamo, 2015; Suoninen, 2013).

From this research, it is highlighted that YouTubers tell their experiences from a life stage: a transition phase from childhood to adolescence. This evolutionary period of "emerging adulthood" that they represent is characterized by progressive autonomy, psychological maturity, and productivity, offering a perspective that allows them to make their reflections from a distance (Zacarés et al., 2009). This is in contrast to the view of their followers, which is generally a life stage-as most are in the pre-adolescent stage- and they consider these influencers to be people to follow and admire for what they do, as confirmed by previous studies (v. gr. García et al., 2016; Westenberg, 2016).

One of the evidence found is that the editing of the videos of the ten channels analyzed is characterized by being striking, colorful, noisy, with constant references to the digital culture in which children and adolescents are immersed, using a language that is capable of capturing and keeping the public's attention, persuading it and, finally, winning its loyalty. All these elements facilitate and guarantee the success to become potential influences for their followers. These strategies seem to have been understood by these new content creators, who manage to increase the number of views and the number of followers of their channels every day. This is maybe the key to their high level of popularity.

It is essential to consider that behind the YouTube channels in study is inevitably the figure of parents who exercise supervision and participation in the production and editing of the videos and even in the management of sponsors or supporting brands, as well as the administration of monetary earnings, resulting from the popularity of the materials disseminated. Likewise, in the development of the lifestyle, in reference to the congenital and social aspects of the YouTuber (Tur-Viñes et al., 2018).

The primary socio-educational involvement is the direct influence that YouTubers have on the thinking and acting of children, Verifying the emergence of the postulates of the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), and the Parasocial Interaction Theory (PSI). It is necessary to consider a context of formation and control by the family nucleus on the contents that their children visualize. In this respect, addressing in greater depth and detail the incidences and risks of exposure to the privacy of minors in their respective countries and the analysis of their social development would be of interest for future research.

Focusing on the young public, as the topic of this research, we must mention that youth communication in social networks is given by the perception of their identity and self-esteem, as well as their social environment (Bianchi and Philips, 2005; Valkenburg and Peter, 2009; Hidalgo-Marí and Segarra-Saavedra, 2017).

The younger generation is immersed in an ocean of available information, all within their reach. They have different educational and cognitive needs, since, as Rueda (2012) indicates, their preference for images rather than text and the immediate and random possibilities offered by the digital devices that play a fundamental role in the lives of these early users, meaning that they require a type of educational content that, on many occasions, is not available in the educational institutions themselves.

It can be seen that concerning gender, one population does not stand out over another, but rather the distribution is equal. Likewise, the average age of the selected YouTubers is 10-years-old, which would correspond to their schooling in the fourth or fifth year of Elementary School in Spain, data that coincide with the trend towards greater use of ICT by primary education students (Perez-Escoda etal., 2016). At the same time, in this age range and the influence of YouTube channels is linked to the fact that the profession of YouTuber is considered one of the most desired by children (Adecco, 2016).

On the other hand, the phenomenon of children's YouTubers in Spain is relatively recent, since most of the channels analyzed by this study (80%) started as of 2015 when most of the children featured on these channels were approximately five-years-old.

As for the correlations between V3, V4, and V5, it can be confirmed that the number of «videos uploaded » on each channel (V5), with the «number of subscribers» (V3) or « views» (V4), has no influence. The YouTuber with the most videos on its channel does not always lead the rankings or is the most successful, nor does it get the most subscribers and views on its content. The V3 and V4 results themselves show data with results that correlate; however, they do not influence (V5).

According to the content, all YouTubers have as a common element to perform « outdoor activities» and in most cases, they also perform « unboxing», «challenges», «toys» and «vlogs». The videos of Spanish children YouTubers, in their vast majority, treat subjects based on the story. Therefore, the primary function is informative (López-Villafranca and Olmedo-Salar, 2019). However, significant differences were found for certain activities that are mostly performed by male YouTubers (such as gameplay), while the lifestyle theme is primarily female.

The type of audience that influencers target also affects the content of these channels. On the one hand, those managed by girls between the ages of 9 and 14 present other specific content such as: «recipes», «comedy» and «tutorials», while the profile of children's channels is more gameplays and sport-oriented. These results are similar to the visualization trends by gender highlighted in Linares et al. (2019). Also, the type of toys that each profile presents also varies according to gender. This analysis shows that gender stereotypes at early ages continue to be reproduced and internalized both by the authors of the content themselves and by their child audience, as outlined by De-Casas-Moreno et al. (2018).

This unitary trend in the type of channel content is also reflected in the case study of a popular YouTube channel run by an American child (Ramos-Serrano and Herrero-Diz, 2016) and on the Peruvian YouTubers children's channels (León, 2018), where the type of content is the same. We are therefore faced with a global phenomenon that follows the same patterns, regardless of geographical location.

The nature-based on the content disseminated on YouTube is able to differentiate from other networks in the social media environment from the behavior, the linkage, and interactions generated by users within the platform (Wattenhofer et al., 2012).

It is also necessary to analyze the number of publications: YouTubers are capable of generating surprising amounts of videos in a short time, which leads us to highlight the effort behind an activity that, a priori, can be understood more like leisure than a profession (Hidalgo-Marí and Segarra-Saavedra, 2017).

The success of YouTubers lies in the process of building identity at an early age, seeing a large number of children reflected in that same mirror (Montes et al., 2018). This circumstance is taken advantage of by the brands to insert directly and indirectly advertising on toys or other types of contents to suggest to the minor to his or her purchase (Elorriaga Illera and Monge Benito, 2018). We must not forget the implications and business interests behind the YouTubers channels. It could be understood with this type of actions that a business is being carried out at the expense of the child since they are earning huge amounts of money every month through their public exposure.

Among the limitations of this study was the recording of changing data, including the number of views or followers, which by the dynamics of YouTube change in a matter of minutes.

From this research arises the concern for future work to analyze samples between Spain and other European Union countries, as well as to establish comparisons with the minor YouTubers in Latin America.

#### **Declarations**

#### Author contribution statement

B. Castillo-Abdul: Conceived and designed the experiments; Performed the experiments; Wrote the paper.

A. Larrea-Ayala: Analyzed and interpreted the data; Wrote the paper. L.M. Romero-Rodríguez: Contributed reagents, materials, analysis tools or data; Wrote the paper.

#### Funding statement

This work was supported by the R + D Project "YOUTUBERS AND INSTAGRAMMERS: MEDIA COMPETENCE IN EMERGING PROSUMERS" (RTI 2018-093303-B-I00), the State Research Agency of the Spanish Ministry of Science, Innovation and Universities and the European Regional Development Fund (ERDF) and the University Centre for Scientific and Technological Research CUICYT, Universidad Técnica del Norte, Ibarra-Ecuador.

#### Competing interest statement

The authors declare no conflict of interest.

#### Additional information

No additional information is available for this paper.

#### References

- Adecco, 2016. XIII Encuesta Adecco ¿Qué quieres ser de mayor? Futbolistas y profesoras, las profesiones "del futuro" [XIII Adecco Survey What do you want to be when you grow up? Footballers and teachers, the professions "of the future]. The Adecco Group. https://goo.gl/eCGhjZ.
- Ajzen, I., 1985. From intentions to actions: a theory of planned behavior. In: Kuhl, J., Beckman, J. (Eds.), Action-control: from Cognition to Behavior. Springer, Heidelberg, pp. 11–39.
- Ajzen, I., Fishbein, M., 1980. Understanding Attitudes and Predicting Social Behavior. Prentice-Hall, Inc, Englewood Cliffs.
- Almeida, R., 2017. Influencers, la nueva tendencia del marketing online [Influencers, the new trend in online marketing]. Base, Barcelona.
- Andréu, J., 2000. Las técnicas de análisis de contenido: una revisión actualizada [Content Analysis Techniques: An Updated Review]. Centro de Estudios Andaluces. https://n9 .cl/szgk9.
- Aran-Ramspott, S., Fedele, M., Tarragó, A., 2018. Funciones sociales de los youtubers y su influencia en la preadolescencia [Youtubers' social functions and their influence on pre-adolescence]. Comunicar 26 (57), 71–80.
- Arraiga, A., Marcellán-Baraze, I., Reyes-Gonzalez, M., 2016. Las redes sociales: espacios de participación y aprendizaje para la producción de imágenes digitales de los jóvenes [Social networks: spaces of participation and learning for the production of digital images of young people]. Estud. Sobre Educ. ESE 30, 197–216.
- Aznar-Díaz, I., Trujillo-Torres, J.M., Romero Rodríguez, J.M., Campos-Soto, M.N., 2019. Generación Niños YouTubers: análisis de los canales YouTube de los nuevos fenómenos infantiles [Kids YouTubers generation: analysis of YouTube channels of the new child phenomena]. Pixel-Bit. Revista de Medios y Educación 56, 113–128. Retrieved from. https://bit.ly/2z7Rz1l.
- Barker, V., 2009. Older adolescents motivations for social network site use: the influence of gender, group identity, and collective self-esteem. Cyberpsychol. Behav. 12 (2), 209–213.
- Barnes, J.A., Harary, Frank, 1983. Graph theory in network analysis. Soc. Network. 5 (2), 235–244.
- Benjamin, W., 1991. El Narrador. Para una crítica de la violencia y otros ensayos [For a critique of violence and other essays]. Iluminaciones IV, 111–134. Madrid: Taurus.
- Berzosa, M., 2017. Youtuber y otras especies: El fenómeno que ha cambiado la manera de entender los contenidos audiovisuales [Youtuber and other species: The phenomenon that has changed the way audiovisual content is understood]. Fundación Telefónica. https://goo.gl/iSvn5z.
- Bianchi, A., Philips, J.G., 2005. The impact of the Internet, multimedia and virtual reality on behavior and society. Cyber Psychol Behav 8 (1), 39–51.
- Bonaga, C., Turiel, H., 2016. Mamá, ¡quiero Ser Youtuber! [Mom, I Want to Be Youtuber!]. Planeta, Barcelona.
- Boyd, D.M., Ellison, N.B., 2007. Social network sites: definition, history, andscholarship. J. Computer-Mediated Commun. 13 (1), 210–230.
- Brownstein, N.C., Louis, T.A., O' Hagan, A., Pendergast, J., 2019. The role of expert judgment in statistical inference and evidence-based decision-making. Am. Statistician 73 (1), 56–58.
- Bruns, A., 2009. From prosumer to produser: understanding user-led content creation. In:

  Paper Presented at the Transforming Audiences Conference, London, UK. Retrieved from. http://eprints.qut.edu.au/27370.
- Burgess, J., Green, J., 2009. YouTube: Online video and participatory culture. John Wiley & Sons.
- Buckingham, D., Sefton-Green, J., 2003. Gotta catch'em all: structure, agency and pedagogy in children's media culture. Media Cult. Soc. 25 (3), 379–399.
- Cai, X., Zhao, X., 2010. Click here, kids! Online advertising practices on popular children's websites. J. Child. Media 4 (2), 135–154.
- Caro Castaño, L., 2015. Relationships and parasocial interactions in digital social networks. A conceptual review. Icono 14 (13), 23–47.
- Chau, C., 2010. Youtube as a participatory culture. N. Dir. Youth Dev. 128, 65–74.Codina, E., Carandell, R., Feixas, D., 2014. Cómo triunfar en YouTube [How to succeed on YouTube]. La Galera, Barcelona.
- Conner, M., Armitage, C.J., 1998. Extending the theory of planned behavior: a review and avenues for further research. J. Appl. Soc. Psychol. 28 (15), 1429–1464.
- Cuevas-Molano, E., Sánchez Cid, M., Matosas-López, L., 2019. Análisis bibliométrico de estudios sobre la estrategia de contenidos de marca en los medios sociales [Bibliometric analysis of studies of brand content strategy within social media]. Comunicación Soc. 1–25.
- Davis, F.D., 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Q. 13 (3), 319–340.
- De-Casas-Moreno, P., Tejedor-Calvo, S., Romero-Rodríguez, L.M., 2018. Micro-narratives on Instagram: analysis of the autobiographical storytelling and the projection of identities of the degrees in the field of communication. Prisma Soc. 20, 40–57.
- Diaz, L., 2017. Soy Marca, quiero trabajar con influencers [I'm Brand, I want to work with influencers]. Bacelona: Profit.
- Ding, Y., Du, Y., Hu, Y., Liu, Z., Wang, L., Ross, K., Ghose, A., 2011. Broadcast Yourself: Understanding Youtube Uploaders [Proceedings of the 2011 ACM SIGCOMM Conference on Internet Measurement Conference]. Association for Computing Machinery, New York, USA, pp. 341–370.

- Dunn, J., Niens, U., McMillan, D., 2014. "Cos he's my favourite character!" A children's rights approach to the use of popular culture in teaching literacy. Literacy 48 (1), 23–31.
- Eighmey, J., McCord, L., 1998. Adding value in the information age: Uses and gratifications of sites on the World Wide Web. J. Bus. Res. 41 (3), 187–194.
- Elorriaga Illera, A., Monge Benito, S., 2018. La profesionalización de los youtubers: el caso de Verdeliss y las marcas [The professionalization of YouTubers: the case of Verdeliss and the brands]. Revista Latina de Comunicación Social 73, 37–54.
- Erikson, E., 1971. Identidad, Juventud Y Crisis [Identity, Youth and Crisis]. Paidós, Barcelona.
- Fialho, J., 2015. Pressupostos para a construção de uma sociologia das redes sociais [Assumptions for the construction of a sociology of social networks]. Sociología, Revista da Faculdade de Letras da Universidade do Porto 29, 59–79.
- Frígola, J., Palomo, A.M., Marca, G., 2015. Análisis de los canales videos de las asociaciones médicas españolas [Analysis of the video channels of the Spanish medical associations]. Opción 31 (6), 305–317.
- Gallardo, J., Jorge, A., 2010. La baja interacción del espectador de vídeos en Internet: Caso YouTube España [The low interaction of viewers in Internet videos. Case study: Spanish Youtube]. Revista Latina de Comunicación Social 65, 421–435.
- García, E.A., 2018. Motivational analysis of the use of the smartphone in ecuadorian university students. Approach to the theory of uses and rewards. Revista de Investigación Educativa del Tecnológico de Monterrey 9 (17), 25–35.
- García, A., Catalina, B., López-de-Ayala, M., 2013. Hábitos de uso en Internet y en las redes sociales de los adolescentes españoles [The influence of social networks on the adolescents' online practices]. Comunicar 41, 196–203.
- García, A., Catalina, B., López-de-Ayala, M., 2016. Adolescents and YouTube: creation, participation and comsumption. Prisma Soc. 1, 60–89. Retrieved from. https://bit.lv/2zXhNEh.
- García-Ruiz, R., Ramírez, A., Rodríguez, M.M., 2014. Media literacy education for a new prosumer citizenship. [Educación en alfabetización mediática para una nueva ciudadanía prosumidora]. Comunicar 43, 15–23.
- Gelman, A., Hennig, C., 2017. Beyond subjective and objective in statistics. J. Roy. Stat. Soc. 180, 967–1033.
- Hernández, S., Baptista, R., Fernández-Collado, C., 2010. Metodología de la investigación. In: Research Methodology, fifth ed. McGraw-Hill, Mexico.
- Hidalgo-Marí, T., Segarra-Saavedra, J., 2017. El fenómeno youtuber y su expansión transmedia. Análisis del empoderamiento juvenil en redes sociales [The youtuber phenomenon and its transmedia expansion. Analysis of youth empowerment in social media]. Fonseca J. Commun. 15 (15), 43–56.
- Holloway, D., Green, L., Livingstone, S., 2013. Zero to Eight. Young Children and Their Internet Use. LSE, London. EU Kids Online. https://bit.ly/2XBKe3y.
- Horton, D., Wohl, R., 1956. Mass communication and para-social interaction: observations on intimacy at a distance. Psychiatry 19 (3), 215–229.
- Interactive Advertising Bureau, 2015. VI estudio de redes sociales en España [VI study of social networks in Spain]. Retrieved from, https://goo.gl/STvvXn.
- Jenkins, H., 2009. Confronting the Challenges of Participatory Culture: media Education for the 21st century. The MIT Press, Cambridge, MA.
- Jerslev, A., 2016. In the time of the microcelebrity: celebrification and the youtuber Zoella. Int. J. Commun. (10), 5233–5251.
- Katz, E., Lazarsfeld, P.F., 2006. Personal Influence, The part played by people in the flow of mass communications. Transaction Publishers.
- Karenina, Luthfia, 2019. Youtuber personal branding content analysis. A study on Indonesian youtuber "atta Halilintar". Int. J. Adv. Trends Comput. Sci. Eng. 8 (6), 3074–3080.
- Katz, E., Blumler, J.G., Gurevitch, M., 1973. Uses and gratifications research. Publ. Opin. Q. 3 (4), 509–523.
- Kampf, Z., Hamo, M., 2015. Children talking television: the salience and functions of media content in child peer interactions. Discourse Commun. 9 (4), 465–485.
- Lafkioui, M., 2008. Reconstructing Orality on Amazigh Websites. In: Lafkioui, M., Merolla, D. (Eds.), Oralité et nouvelles dimensions de l'oralité. Intersections théoriques et comparaisons des matériaux dans les études africaines. Publications Langues'O, pp. 111–125. https://n9.cl/aasu.
- Lavado España, A., 2010. El consumo de YouTube en España [YouTube consumption in Spain]. Global Media J. México 7 (14), 76–92.
- Leith, Sam, 2012.  $\xi$ Me hablas a mí? La retórica desde Aristóteles hasta Obama [Are you talking to me? The rhetoric from Aristotle to Obama]. Taurus, Barcelona.
- León, L., 2018. Niños YouTubers y el proceso de creación de videos: evidencia de competencias transmedia en acción [Children YouTubers and the process of video creation: evidence of transmedia competences in action]. Comunicación y Sociedad 33, 115–137.
- Linares, E., Aristegui, I., Beloki, U., 2019. YouTube, una plataforma para la (in)formación, relación, comunicación, diversión, y gestión de identidades (de género) en la natividad digital [YouTube, a platform for (in)formation, relationship, communication, fun, and (gender) identities within the context of digital natives]. Revista Mediterránea de Comunicación 10 (1), 55–70.
- Livingstone, S., 2008. Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. New Media Soc. 10 (3), 393–411.
- López-Villafranca, P., Olmedo-Salar, S., 2019. Menores en YouTube, ¿ocio o negocio? Análisis de casos en España y EUA [Minors on YouTube, entertainment or business? Analysis of cases in Spain and the USA]. El Prof. Inf. 8 (5), e280520.
- López-Vidales, N., Gómez-Rubio, L., 2015. Análisis y proyección de los contenidos audiovisuales sobre jóvenes y drogas en YouTube [Analysis and projection of audiovisual contents about youth and drugs in YouTube]. Estudios sobre el Mensaje Periodístico 21 (2), 863–881.

B. Castillo-Abdul et al. Heliyon 6 (2020) e05056

- Lovink, G., Miles, R., 2011. Video Vortex Reader II: Moving Images beyond YouTube. Institute of Network Cultures, Amsterdam.
- Marôpo, L., Jorge, A., Tomaz, R., 2019. "I felt like I was really talking to you!": intimacy and trust among teen vloggers and followers in Portugal and Brazil. J. Child. Media 14, 22–37.
- Martín, M., 1995. El Análisis de contenido en la investigación sobre comunicación [Content analysis in communication research]. Periodística 8, 67–74. https://bit.ly/3cvHMzK.
- Martínez, C., Olsson, T., 2019. Making sense of YouTubers: how Swedish children construct and negotiate the YouTuber Misslisibell as a girl celebrity. J. Child. Media 13 (1), 36–52.
- Mascheroni, G., Ólafsoon, K., 2014. Net Children Go mobile: Risks and Opportunities. Milán: Educatt. https://goo.gl/QSHWfQ.
- Mena, N., 2012. Redes sociales y Gestión de la Información: un enfoque desde la teoría de grafos [Social Networks and Information Management: an approach from the graph theory]. Cien. Inform. 43 (1), 27–37.
- Montes, M., García, A., Menor, J., 2018. Los videos de los adolescentes en YouTube: características y vulnerabilidades digitales [Teen videos on YouTube: features and digital vulnerabilities]. Comunicar 24 (54), 61–69.
- Namakforoosh, M., 2005. Metodología de la Investigación [Research Methodology]. México, Limusa.
- Ngai, E.W., Tao, S.S., Moon, K.K., 2015. Social media research: theories, constructs, and conceptual frameworks. Int. J. Inf. Manag. 35 (1), 33–44.
- Otzen, T., Manterola, C., 2017. Técnicas de Muestreo sobre una Población a Estudio [Sampling Techniques on a Study Population]. Int. J. Morphol. 35 (1), 227–232.
- Pagani, M., Hofacker, C.F., Goldsmith, R.E., 2011. The influence of personality on active and passive use of social networking sites. Psychol. Market. 28 (5), 441–456.
- Pérez-Torres, V., Pastor-Ruiz, Y., Abarrou-Ben-Boubaker, S., 2018. Youtuber videos and the construction of adolescent identity. Comunicar 24 (55), 61–70.
- Perez-Escoda, A., Castro-Zubizarreta, A., Fandos-Igado, M., 2016. La competencia digital de la Generación Z: claves para su introducción curricular en la Educación Primaria [Digital Skills in the Z Generation: Key Questions for a Curricular Introduction in Primary School]. Comunicar. Media Educ. Res. J. 24 (2).
- Peslak, A., Ceccucci, W., Sendall, P., 2012. An empirical study of social networking behavior using theory of reasoned action. J. Inf. Syst. Appl. Res. 5 (3), 12.
- Piñuel-Raigada, J., 2002. Epistemología, metodología y técnicas del análisis de contenido [Epistemology, methodology and techniques of content analysis]. Estudios de Sociolingüística 3 (1), 1–42.
- Porter, C.E., Donthu, N., 2008. Cultivating trust and harvesting value in virtual communities. Manag. Sci. 54 (1), 113–128.
- Ramos-Serrano, M., Herrero-Diz, P., 2016. Unboxing and brands: youtuber phenomenon through the case study of EvanTubeHD. Prisma Soc. 90–120. Retrieved from. htt ps://bit.lv/2Y3iled.
- Regueira, U., Alonso-Ferreiro, A., Da-Vila, S., 2020. Women on YouTube: representation and participation through the web scraping technique. Comunicar 63, 31–40.
- Rodríguez-Hidalgo, C., Rivera-Rogel, D., Romero-Rodríguez, L.M., 2020. Information quality in Latin American digital native media: analysis based on structured dimensions and indicators. Media Commun. 8 (2), 135–145.

- Rogers, E.M., 2003. Diffusion of innovations. Free Press.
- Romero-Rodríguez, L.M., Torres-Toukoumidis, A., Pérez-Rodríguez, M.A., Aguaded, I., 2016. Analfanauts and fourth screen: lack of infodiets and media and information literacy in Latin American university students. Fonseca J. Commun. 12, 11–25.
- Romero-Rodríguez, L.M., Contreras-Pulido, P., Pérez-Rodríguez, M.A., 2019. Media competencies of university professors and students. Comparison of levels in Spain, Portugal, Brazil and Venezuela. Cult. y Educ. 31 (2), 326–368.
- Ros, A., Rosa, A., 2014. Videos docentes de Microeconomía: análisis de su impacto externo e interno [Microeconomics' teaching videos: analysis of the external and internal impact]. Hist. Comunicación Soc. 18, 75–84.
- Rueda, R., 2012. Educación y cibercultura en clave subjetiva: retos para re(pensar) la escuela hoy [Education and cyberculture in a subjective key: challenges to re(think) school today]. Rev. Educ. Pedagog. 24 (62), 157–171.
- SanMiguel, P., Sádaba, T., 2019. Consumo de información de moda entre los/as millennials [Consumption of fashion information among the millennials]. Revista Prisma Soc. 24, 186–208.
- Snickars, P., Vonderau, P., 2009. The YouTube Reader. National Library of Sweden, Stockholm.
- Suoninen, A., 2013. The role of media in peer group relations. In: Livingstone, Bovill (Eds.), Children and Their Changing Media Environment: A European Comparative Study. Taylor & Francis, pp. 201–219.
- Tavakol, M., Dennick, R., 2011. Making sense of cronbach's alpha. Int. J. Med. Educ. 2, 53–55
- Tolbert, A., Drogos, K., 2019. Tweens' wishful identification and parasocial relationships with YouTubers. Front. Psychol.
- Tur-Viñes, V., Núñez, P., González, M.J., 2018. Menores influyentes en YouTube. Un espacio para la responsabilidad [Kid influencers on YouTube. A space for responsibility]. Revista Latina de Comunicación Soc. 73, 1211–1230.
- Valkenburg, P., Peter, J., 2009. Social consequence of the Internet for adolescents: a decade of research. Curr. Dir. Psychol. Sci. 18 (1), 1–5.
- Varela, L.A.Y., 2004. Technological Acceptance Model (TAM) to determine the effects of the dimensions of national culture on the acceptance of ICT. Revista Internacional de Ciencias Sociales y Humanidades SOCIOTAM 14 (1), 131–171.
- Wattenhofer, M., Wattenhofer, R., Zhu, Z., 2012. The YouTube social network. In: Sixth International AAAI Conference on Weblogs and Social Media. Ireland.
- We Are Social & Hootsuite, 2020. Digital 2020. Global Digital Overview. https://bit.ly/2zSvZxQ.
- Westenberg, W., 2016. The Influence of Youtubers on Teenagers. Master Thesis. University of Twente. https://bit.ly/374k3Fx.
- WHO World Health Organization, 2008. Development in Adolescence. https://bit.lv/30N15AB.
- Yarosh, S., Bonsignore, E., McRoberts, S., Peyton, T., 2016. YouthTube: Youth video authorship on YouTube and Vine. In: Proceedings of the ACM Conference on Computer-Supported Cooperative Work, CSCW, 24. Association for Computing Machinery, pp. 1423–1437.
- Zacarés, J.J., Iborra, A., Tomás, J.M., Serra, E., 2009. Identity development in the adolescence and emergent adulthood: a comparison of global identity versus identity in specific domains. Ann. Psychol. 25 (2), 316–329.