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Teen videos on YouTube: Features and digital vulnerabilities

Los vídeos de los adolescentes en YouTube: Características y vulnerabilidades digitales



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ABSTRACT

As a mechanism for social participation and integration and for the purpose of building their identity, teens make and share videos on platforms such as YouTube of which they are also content consumers. The vulnerability conditions that occur and the risks to which adolescents are exposed, both as creators and consumers of videos, are the focus of this study. The methodology used is content analysis, applied to 400 videos. This research has worked with manifest variables (such as the scene) and latent variables (such as genre or structure). The results show that there are notable differences in style among the videos according to the producer of the message, and indicate that the most consumed videos are located around four thematic axes (sex, bullying, pregnancy and drugs) and that the referents as audiovisual content creators are the YouTubers. Everything points to problems in using the same language, including audiovisual language, as adolescents. This paper provides evidences of the convenience of using their codes so that this sector of the population see risks and conditions of vulnerability that they seem not to perceive according to their audiovisual creations in which they do not protect their identity, among other features.

RESUMEN

Como un mecanismo de participación e integración social y con el propósito de construir su identidad, los adolescentes realizan y comparten vídeos en plataformas como YouTube, de la que también son consumidores de contenido. Las condiciones de vulnerabilidad que tienen lugar y los riesgos a los que se exponen los adolescentes, tanto como creadores como consumidores de vídeos, son el objeto central de este estudio. La metodología utilizada es el análisis de contenido, aplicado a 400 vídeos. Se ha trabajado con variables manifiestas (como el escenario) y latentes (como el género o la estructura). Los resultados muestran unas notables diferencias de estilo entre los vídeos a tenor del productor del mensaje e indican que los vídeos más consumidos se sitúan alrededor de cuatro ejes temáticos (sexo, acoso, embarazo y drogas) y que los referentes como creadores de contenido audiovisual son los «youtubers». Todo apunta a la existencia de problemas a la hora de utilizar el lenguaje, también audiovisual, de los adolescentes. Este trabajo proporciona evidencias de la conveniencia de emplear sus códigos para que este sector de la población se percate de los riesgos y de las condiciones de vulnerabilidad que parecen no percibir según sus creaciones audiovisuales, en las que, entre otras características, no protegen su identidad.

KEYWORDS | PALABRAS CLAVE

Adolescence, YouTube, digital vulnerability, video, risks, sexuality, bullying, drug. Adolescencia, YouTube, vulnerabilidad digital, vídeo, riesgo, sexualidad, acoso, droga.



1. Introduction, current situation, aims, and objectives

The subject matter of this research is audiovisual content directed at teens, made by them themselves or by other agents, through the YouTube platform. To this end, vulnerability (Fuente-Cobo, 2017) and the risks associated with the consumption, preparation, and exposure of this type of content by this sector of the population (O'Keeffe & Clarke-Pearson, 2011) are taken to be key factors.

The electronic environment has affected the traditional problems of adolescence due to the "increase in online communication, the existence of wider peer networks and greater opportunities for self-presentation and exploring identity" (Subrahmanyam, Greenfield, & Michikyan, 2015: 126). When studies continue to warn of an increased percentage of conditions that favour addition to Internet use, especially by young people (Bleakley, Ellithorpe, & Romer, 2016), it becomes essential to know how adolescents interact with the digital environment (Blomfield & Barber, 2014). It is a medium in which phenomenon such as cyber bullying (Edwards, Kontostathis, & Fisher, 2016) develop, with video being one of the tools used (Álvarez-García, Barreiro-Collazo, & Nuñez, 2017).

This research continues the line focusing on the risks and defined by the studies, led by Sonia Livingstone, on EU-Kids Online. It also progresses specifically as regards situations of vulnerability occurring in both the creation and the consumption of audiovisual material by teens.

The risks children are exposed to include viewing inappropriate material. The content broadcast on YouTube is of a very diverse nature and has very varied, not always positive, intentions. According to the study by Livingstone and others (2014), almost one-third of adolescents state they have seen material they did not like, the most frequent incident being exposure to violent or pornographic videos. In the work of Yarosh and others (2016), which records and compares the topics appearing on two platforms like YouTube and Vine, it is observed there is a greater percentage of videos containing sexual, violent or obscene content appearing on the latter. Exposure to certain commercial offerings broadcast on networks such as YouTube, Facebook and Twitter also entails a risk, as studies such as the research by Barry and others (2015) demonstrate that children can be exposed through these media to content that is advertising alcoholic beverages.

Another cause for concern is the level of credibility underage viewers can lend to the content of certain videos, especially if on delicate subjects such as health. Studies on this subject already exist as regards accuracy in videos on anorexia, analysed by Syed-Abdul and others (2013), and the lower visibility achieved by health videos from reliable sources, conducted by Karlsen, Borrás-Morell, and Traver-Salcedo (2017). These make it necessary to reassess the appropriateness of protocols to filter this type of material, so as to prevent certain content from becoming highly circulated and popular. This is all the more relevant when research such as that conducted by López-Vidales and Gómez-Rubio (2015) indicates that institutional videos (in this case dealing with the issue of drugs) are not widely accepted or circulated among teens.

As regards vulnerability, teenagers are a particularly vulnerable group since while they are aware of the risks of the Internet, which they consider a space open to an unknown public, they have a different perception of environments such as social networks. These they deem safer, private and far removed from the dangers linked to the Internet (Martínez-Pastor, Sendín-Gutiérrez, & García-Jiménez, 2013; Sabater, 2014). This perception, according to Blais and others (2008), is underpinned by the fact that applications which enable direct, individualised communication, such as instant messaging, increase trust and the feeling of privacy even though these applications are operating in an online environment. Moreover, there is a dissociation between the negative experiences endured by the adolescents in the social media environment and their assessment of the risk posed by social network usage (De-Frutos & Marcos, 2017).

In order to explore identity construction and social integration and participation, teenagers make videos that they share and spread through social networks or specific platforms such as YouTube, which enable their creations to achieve a wider circulation. The repercussions from the dissemination of these videos involve all types of spheres. As they are experimenting with new forms of communication and audiovisual styles, the spheres range from social (Abisheva & al., 2014) or cultural (Bañuelos, 2009; Chau, 2010) areas (Misoch, 2014) to public health issues (Wartella & al., 2016), political topics (Dias-da-Silva & Garcia, 2012) and economic matters (Ritzer & Jurgenson, 2010), among others.

Jenkins, Ford, and Green (2015) state that whenever a teen creates some Harry Potter fan fiction, the value of the Harry Potter brand rises. Every time a fan shares a Star Wars parody on YouTube, the actions of that narrative world in the kingdom of intangible assets goes up (Jenkins, Ford, & Green, 2015: 10. These actions affect areas as diverse as economics or culture.

YouTube is a platform with content specifically aimed at teens, and accessing this social network is one of the first things individuals do when starting out in the digital domain, regardless of the device they use to connect to it (Protégeles, 2014). Given that adolescents do not only consume audiovisual material they have created, in this study, we will also deal with productions disseminated by other agents such as the media or YouTubers. The latter have a great influence on teenagers, as can be seen from the conclusions of the study by McRoberts and others (2016), as young people imitate the creative guidelines of the professionals, although they do not have video editing or position themselves using meta data as YouTubers do.

Participation levels by YouTube users differ greatly. In some areas, such as politics, huge consumption of materials on this subject does not go hand in hand with mass production of videos. In this case, passive users predominate, and participation frequently involves sharing videos that have already been broadcast on other media such

as the television (Berrocal, Campos, & Redondo, 2014) rather than users creating their own content. More active prosumers who record and share audiovisual messages are found elsewhere, in cultural or social areas, for example. YouTube even becomes an efficient tool for education and, moreover, for dissemination of science, through live transmission of academic events (Franco, 2017), among other possibilities.

The study does not seek to detect extremes such as cyber bullying. However, it does confirm, from the beginning, that situations of vulnerability that occur for adolescents both in creating and consuming audiovisual material fall with four major thematic areas: sex, drugs, bullying, and pregnancy.

In essence, we will analyse the content of the videos targeting teenagers in order to determine the subjects of interest, discover who the authors are, look at the communication styles and thus define the risks they are exposed to. In addition, the vulnerability factors there are, both in the consumption and in the creation and dissemination of these materials by the adolescents themselves, an active sector of the population in all aspects: a creative, participative and consumer population (García-Jiménez, Catalina-García, & López-de-Ayala, 2016). The aims and objectives of this paper are:

- a) To identify the situations of vulnerability and the underlying risks in the videos made and disseminated by the teens themselves.
- b) To analyse the characteristics of the audiovisual creations in terms of focus and their style-genre, as well as other aspects relating to the level of impact based on indicators such as the number of views, "likes" or "dislikes", and comments generated.
- c) To determine what content (subjects) is aimed at teens on YouTube, how it is constructed, based on genre, focus and structure, and what the most consumed content is (number of "likes", views or comments). Given that YouTube videos are accessed through popularity filters, the aim is to analyse the suitability of the content, the risk of consuming material that is not suitable for children or the treatment of certain subjects which may lead to risky situations. In this case, we will take especially into account two types of audiovisual content producers which are held out as being fundamental when defining the communicative reality of teens: YouTubers, given that their productions achieve high levels of popularity, and the media, whose videos are created by audiovisual media professionals but have a lower impact on YouTube.

2. Material and methods

YouTube is a channel that is conducive to spreading messages as it has become a forum of global dimensions (Jiménez & Gaitán, 2013). The aim is to find out through this study what type of audiovisual works, aimed at adolescents, are available on this social network, which we can class as such given that it allows teens and young people to reflect their interests and contact peers who share them (Lenhart & al., 2015). The producers of the videos include the adolescents themselves, who demand their space and part of the limelight (Aguaded & Sánchez, 2013).

2.1. Methodology

In this study, the content analysis technique has been used, which enables comparable and repeatable quantitative data, as well as the subsequent comparison of the data to identify if certain factors or "clusters" link or separate them. As these are audiovisual units, a record has been made, in accordance with the terminology from Igartua (2006), of both manifest variables (such as the setting, whether children appear in the video and whether their identities have been protected) and latent variables (structure, genre or focus, among others).

Although adapted to a certain extent, the protocol and indicators used are based on previous work such as that by Yarosh and others (2016) focusing on the audiovisual content published by adolescents and the study by Halliday (2004) into the modal structure of the videos. The action protocol which has enabled the formal, narrative, thematic or evaluative components of the audiovisual content to be studied has been verified at various stages of the research.

Finally, the variables recorded in this study were: link and address of the video, consultation dates (discovery and viewing of the video by the researchers) and date of the publication of the video, description (whether it contains it or not), category (according to YouTube categories), title, authorship, user (who hosts the video), duration, genre or format (expanded values from Yarosh & al., 2016), appearances by children (and if their identity is protected or not in the cases where they appear), structure (declarative, imperative or interrogative; based on Halliday, 2004), focus (positive, negative, neutral or undetermined), presence of content related to vulnerability and risks, subject, space of the representation (private or public), three variables relating to the interaction it generates (amount of "likes", "dislikes" and comments) and, lastly, number of views (relevance).

2.2. Definition of the sample

The audiovisual content studied was determined through a selection process involving tags. The study aimed to analyse videos created by teens, although it did not want to be limited to these authors. However, to facilitate discovery of the videos produced by them, a search was conducted on the YouTube website, using speech marks, for the expression "teenager videos" (more specific for this purpose than if only the term "teenagers" had been used).

Although platforms like YouTube promote active users, who do not only limit themselves to consuming content but also produce content (Ritzer, Dean, & Jurgeson, 2012), it is no simple matter for teens to gain visibility and achieve an impact for the content they upload to YouTube. Taking into account the objectives of the study, it was decided to arrange the results of the search based on the number of views —even though this made it more difficult for videos created by teens to form part of the selection— and an initial sample of 100 videos were defined. Although studies such as that by Karlsen, Borrás-Morell, and Traver-Salcedo (2017) mention the suitability of implementing other variables in the internal YouTube search mechanism, which makes it easier to arrange in order and discover content through approaches other than number of views or popularity of the video (such as the credibility of the source), it was decided to choose the number of views. It is the clearest current manner to ensure the videos analysed have been disseminated to at least a certain extent.

The language factor also conditioned the sample, as it focused on audiovisual content in Spanish. With the aim of analysing units that were fairly current, the sample comprised videos hosted on YouTube as of 2010. This time margin was left since, in order to reach a relevant number of views, videos tend to need to be present for a certain amount of time on the platform, although among the 100 videos of the initial sample, only two had such an old upload date.

Once the aforementioned conditioning factors had been applied, the variables of the analysis protocol were tested. This made it possible to refine certain values as well as to rule out some variables (whose results would not be material due to the diversity of their authorship) and the subjects present in the 100 videos making up the initial sample were recorded.

After locating four redundant subjects (sex, drugs, bullying, and pregnancy) in this initial group, the sample was increased to 400 videos. However, the 300 new videos incorporated into the study focused exclusively on these recurring subjects based on the tags "teenagers sex", "teenagers drugs", "teenagers pregnancy" and "teenagers bullying". As can be seen in the scientific literature, these subjects are in tune with the lines established by the researchers in the area: sexual relations (sex, pregnancy), consumption of harmful substances (alcohol or drugs, among others) and situations of bullying and violence. Studies such as those of Livingstone and others (2014), Barry and others (2015), López-Vidales and Gómez-Rubio (2015), Edwards, Kontostathis and Fisher (2016), Yarosh and others (2016) and Álvarez-García, & Barreiro-Collazo and Nuñez (2017) corroborate that the aforementioned subjects are of great interest to teenagers.

3. Analysis and results

3.1. Authorship

As has been commented, this study opted to determine the authorship of the video (the original author). This task presents some difficulties, and therefore it is not surprising that the first category should be "unknown" with a score of 25.3%. When the content of the video or the information provided by the user hosting it did not make it possible to specify the authorship, it was opted to record it as "unknown". In the second position were videos uploaded by the media, representing 20.3%, followed by 15.1% of videos where the author is a teenager.

Furthermore, there are two intermediate groups, such as YouTubers (most of whom are young), who represent 8.8% of the total number of videos analysed, and public institutions, which essentially disseminate campaigns to raise society's awareness of any aspect deemed to be of interest. Adults or professionals (10.3%) upload fewer videos than teenagers, that demonstrates that YouTube is a field mostly dominated by young people.

3.2. Conditions of vulnerability

3.2.1. Appearances by children

In this study, an analysis has also been made of how children appear, although it has to be borne in mind that in certain age groups it is difficult to determine the possible year of birth of the people appearing in the audiovisual content. In this case, it can be observed that it is in the videos authored by teenagers where their identities are least protected (68.3%). It also highlights the fact that in both private and public institutions there is a high percentage of documents in which it is possible to see children whose identities have not been protected (60.7% and 56.3%,

respectively). In contrast, videos from the media are those that, to a greater extent (28%), respect protection of the children's identities (that is, a technique is used to prevent them from being recognised, either by using shadow or by distorting or pixelating the images). However, they contain a higher percentage (35.4%) of forbidden for children.

Table 1. Protection of the child's identity				
Authorship	Protected child	Unprotected child	No child appears	
Communication media	28.0%	35.4%	36.6%	
Teenager	6.7%	68.3%	25.0%	
Public institution	0.0%	56.3%	43.7%	
Other	2.4%	39.0%	58.6%	
YouTuber	0.0%	17.1%	82.9%	
Private institution	0.0%	60.7%	39.3%	
Unknown	0.0%	48.0%	52.0%	

3.2.2. Authorship and space

Following the YouTubers, where spaces considered to be private (80%) are shown in their videos, it is teenauthored videos which, to a greater extent, are recorded in private locations (31.7%) as compared to public places (16.7%). This takes into account that in 28.3% of cases there is a mixture of both types. The videos made by the media essentially present public spaces (the category includes television studios) given that they represent 82.9% of the videos belonging to these entities. Besides, the videos made by institutions, there is consistency in those from public institutions (33.3% in public spaces compared to 44.4% in non-detectable spaces), which use private locations rarely. Private institutions mainly record in public places (52.6%).

3.2.3. Authorship and vulnerability

One of the crucial elements has to do with issues linked to vulnerability. In this respect, 26.67% of the teenauthored videos tackle in one way or another the subject of bullying, which features as the issue paid the most attention. The next most important issues for this group are drugs (21.67%) and pregnancy (21.67%). Fourth place is taken by the videos containing sexual content (13.33%). No relevant figures were offered by the remaining aspects. In comparative terms, when the author of the video is a YouTuber, the content is fundamentally of sexual nature (42.86%), followed at some distance by content related to drugs or pregnancies (in both cases, 11.43%). Sexual content (37.80%) is also deemed a more prominent subject in videos from the media. In the second place, the audience can access media-made videos that address the question of bullying (23.17%), followed by those that reflect some aspect of pregnancy (18.29%).

3.3. Characteristics of the audiovisual content

3.3.1. Authorship and genre

Compared to the rest of the groups or institutions analysed, teenagers show great diversity as regards the genre

Table 2. Subjects addressed by the different authors of the videos								
Subjects	Teenager	Unknown	Private institution	Public institution	Communication medium	Other	YouTuber	Total
Bullying	26.67%	18.00%	25.00%	27.78%	23.17%	12.20%	5.71%	20.50%
Drug consumption	1.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%
Sexual content	13.33%	33.00%	42.86%	12.96%	37.80%	41.46%	42.86%	30.75%
Drugs	21.67%	19.00%	21.43%	18.52%	15.85%	24.39%	11.43%	18.75%
Pregnancy	21.67%	19.00%	0.00%	22.22%	18.29%	4.88%	11.43%	16.25%
Family integration	1.67%	2.00%	3.57%	7.41%	1.22%	2.44%	8.57%	3.25%
Social integration	3.33%	3.00%	3.57%	3.70%	1.22%	2.44%	2.86%	2.75%
Other	10.00%	4.00%	0.00%	5.56%	1.22%	4.88%	14.29%	4.75%
Health	0.00%	2.00%	3.57%	0.00%	1.22%	7.32%	2.86%	2.00%
Vulnerability by genre	0.00%	0.00%	0.00%	1.85%	0.00%	0.00%	0.00%	0.25%
General total	100%	100%	100%	100%	100%	100%	100%	100%

of the videos they upload to YouTube. "Choreographies" predominate, representing 38.3% of the total number of their videos, followed by "remixes" (25%). Next, and in a less significant proportion of their videos, are "selfies" and "fun stuff", both with 13.3%. From this data, it is possible to deduce the recreational purpose of the audiovisual offerings from the adolescents. These results were not repeated in the other categories. YouTubers show a fundamental inclination towards selfies, amounting to 54.3%, while the media opt mainly (91.5%) for items of journalism.

3.3.2. Authorship and structure

The majority of the teen-authored videos have a declarative structure (55.7%) followed at some distance by those using the imperative style (27.9%). In the videos from the media, practically all have a declarative structure (89.0%). The same is true with those made by YouTubers, although more than ten percentage points less (77.1%). It could be stated that the predominant style of these three groups is far from an imperative structure (videos that include orders that lead to action) or an interrogative/reflexive structure (videos that pose questions or stir the conscience), as they opt more for an aseptic (or declarative) model offering.

3.3.3. Authorship, focus, and duration

Another aspect addressed has to do with the focus (positive, negative, neutral or indeterminate) of the videos depending on authorship. In this respect, it can be observed that the videos made by public institutions, in the first place, and by teenagers, in second place, are those offering a more significant percentage of positive messages (in which there is an attempt to solve a problem).

There is symmetry between the positive and neutral focus (those videos which just explain the situation) in the videos made by the media or YouTubers. Those with the most negative tone (when solutions to the problem are rejected without any alternative solutions being contributed) of all the videos are those made by YouTubers, even though they constitute a minority (11.4%) of their videos.

Concerning duration, all the authors show their predilection for videos lasting between 1 and 10 minutes (this range accounts for over 74% of the videos). If we subdivide this category into two (videos lasting 1-5 minutes and those lasting 5-10 minutes), while the YouTubers mostly opt for videos between 5-10 minutes long, the remaining authors have a preference for videos lasting 1-5 minutes.

3.4. Popularity of the videos and degree of interaction

3.4.1. Authorship and "likes"

According to the results obtained, videos by teenagers, which represent 15% of the total number of audiovisual items, only account for 10.10% of the "likes" detected. As regards videos made by YouTubers, although these only represent 8.75% of the total number of videos, they have 62.33% of the "likes". By contrast, the videos from the media, which constitute the highest percentage of videos with known authorship (20.50%), only account for 1.78% of "likes". In short, it can be stated that videos by YouTubers generate a very positive reaction, from which it can be deduced there is a greater ability to get a reaction (possibly of forming some community) and, to a certain extent, to click with the tastes and trends of the audience. This would occur to a lesser extent in the case of videos made by teenagers, although there are some noteworthy results.

3.4.2. Authorship and significance

Concerning the data obtained on "likes" and in absolute terms, teen-authored videos are the most viewed: their 60 videos received nearly 13 million views. They are followed by the YouTubers, who obtained, with just 35 videos, 8 million views (representing the highest ratio). Meanwhile, the media, despite having more videos (82),

obtained approximately half of the number of views received by the teenagers' videos (6.6 million). Once again, it is possible to observe the greater significance in percentage terms of the videos made by You-Tubers. However, the total figure obtained by the teenagers' offerings gives clear proof of their ability to create an impact.

Another way of defining their significance comes from analysing the number of views. Those demonstrating the most success are those made by YouTubers, as almost half of their videos are among those

Table 3. Popularity of the video in relation to the authorship				
Author	General Percentage "Likes"	General Percentage Authorship		
Teenager	10.10%	15.00%		
Unknown	11.15%	25.00%		
Private institution	6.83%	7.00%		
Public institution	2.22%	13.50%		
Communication medium	1.78%	20.50%		
Other	5.59%	10.25%		
YouTuber	62.33%	8.75%		
General total	100.00%	100.00%		

with over one million visits. In the case of videos made by one or several teenagers, 45% of the documents analysed had 25,000 views. However, the sum of the remaining categories, that is, videos obtaining more than 25,000 visits, make up the remaining 55% of their videos.

3.4.3. Authorship and comments

The videos causing a greater impact, regarding comments generated, are those made by YouTubers, which stand out from the rest as regards both absolute data (67.66%) and relative data when comparing authorship

Table 4. Significance of the video and its link to authorship					
Author	Sum of Significance	Number of videos			
Teenager	12715730.2	60			
Unknown	6898146.6	100			
Private institution	6722431.8	28			
Public institution	2559365.9	54			
Communication medium	6657482.1	82			
Other	4401154.7	41			
YouTuber	8071367.4	35			
General total	48025678.7	400			

category percentages. This is the only category analysed in which this occurs. In the remaining categories, the percentage of comments is lower, relatively speaking, than the authorship percentage recorded. In the case of teenagers, it accounts for 7.27% of the total number of comments. Also, in absolute terms, they are of the "unknown" authorship category. These data show it is videos by YouTubers which elicit support, debate or also censure from their audience.

4. Discussion, conclusions, and limitations

This study aims to gain more knowledge about the ways teenagers interact in the digital environment. The study does not seek to detect extremes such as cyber bullying. However, it does confirm, from the beginning, that situations of vulnerability that occur for adolescents both in creating and consuming audiovisual material fall with four major thematic areas: sex, drugs, bullying, and pregnancy.

Authorship has been demonstrated to be the variable which most explains the results, with the results obtained by institutional videos (e.g., campaigns to prevent the use of drugs or about anorexia) being totally at odds with the audiovisual content created by teenagers and young people. The studies on the potential factors for risk and anxiety among children and teenagers also indicate the central nature of empathy. Videos made by young people in emotional situations which are familiar and seem authentic trigger the strongest empathy among the young. In contrast, the study has also established that institutional videos are not greatly accepted or circulated among the teenage public. YouTube is a field chiefly dominated by young people with young codes.

The content study conducted not only complements the conclusions of the research into the subject and quantifies its potential impact (videos by adolescents are watched twice as much, and those by YouTubers are those with the greatest impact). It also shows the gaps between codes are profound, which makes audiovisual communication between adolescents, young people, and adults extremely difficult. Evidently, the recreational purpose of the

audiovisual offerings by teenagers (the genres of "choreographies", "remixes", "selfies" and "fun stuff" in general) contrasts with the seriousness of the adults' audiovisual offerings. However, above all, it is lack of perception about the conditions of vulnerability (perhaps only slightly less on the subject of bullying) which shows how the codes of adults and those of teenagers as regards identifying risk differ very widely. Videos created by teenagers offer a greater percentage of items in which it is possible to observe unprotected children and teenagers; the videos by YouTubers and teenagers are those recorded to a greater extent in private settings as opposed to public places.

In all the subjects, the predominating structure is an aseptic, declarative, model structure. It is only in the case of videos on bullying where there is a significant percentage (almost half) of videos that address the audience in an imperative manner or call upon the recipients in a questioning (interrogative) or reflexive fashion. If to this we add a clear predominance of positive or neutral videos, we get a picture of a lack of problematisation, that is, a scenario of normality. The adolescents "take for granted" certain codes which, in circumstances of vulnerability, should perhaps become problematised.

In sum, the outlined research into content shows videos made by young people for young people which are entertaining, normalised, unconcerned with potential situations of vulnerability and present themselves, perhaps dangerously, as simple spaces for asserting their adolescence.

The criticism that can be made of this conclusion is that we do not know to what extent young people can de-codify as having been made as an investment or for "fun" a good part of the material which can be seen as "dangerous" from the perspective of its content. Moreover, much less can we calculate the effect its message, as they de-codify it, may have. From our point of view, future research should look deeper into this issue.

For example, the General Aggression Model (GAM) of Anderson and Bushman (2001) makes it possible to predict, with considerable empirical support, aggressive conduct by children. It accepts that both the personal variables and the situation-related variables (including exposure to violence in the real world, in the media or online) influence the current internal state of an individual (Kirsh, 2010; 2012). In the same vein, a more thorough research should work towards a Model of Adolescent and Youth Vulnerability that includes the viewing of unsuitable material among the risks to which children and adolescents are exposed. What we seek to do is to identify the codes of the interaction of teenagers in the digital environment and the content liable to cause potential vulnerability, although the materialisation of situations of vulnerability is reliant on a complex maze of variables.

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References

Abisheva, A., Kiran-Garimella, V.R., García, D., & Weber, I. (2014). Who watches (and shares) what on YouTube? And when?: Using twitter to understand YouTube viewership. In *Proceedings of the 7th ACM International Conference on Web Search and Data Mining*, 593-602. https://doi.org/10.1145/2556195.2566588

Aguaded, I., & Sánchez, J. (2013). El empoderamiento digital de niños y jóvenes a través de la producción audiovisual. AdComunica, 5, 175-196. https://doi.org/10.6035/2174-0992.2013.5.11

Álvarez-García, D., Barreiro-Collazo, A., & Nuñez, J.C. (2017). Cyberaggression among adolescents: Prevalence and gender differences. [Ciberagresión entre adolescentes: Prevalencia y diferencias de género]. Comunicar, 50(XXV), 89-97. https://doi.org/10.3916/C50-2017-08 Anderson, C.A., & Bushman, B.J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. Psychological Science, 12, 353-359. https://doi.org/10.1111/1467-9280.00366

Bañuelos, J. (2009). YouTube como plataforma de la sociedad del espectáculo. *Razón y Palabra*, 69, 1-68. (https://goo.gl/XJpyrz). Barry, A., Johnson, E., Rabre, A., Darville, G., Donovan, K., & Efunbumi, O. (2015). Underage access to online alcohol marketing content: A YouTube case study. *Alcohol and Alcoholism*, 50(1), 89-94. https://doi.org/10.1093/alcalc/agu078

Berrocal, S., Campos, E., & Redondo, M. (2014). Media prosumers in political communication: Politainment on YouTube. [Prosumidores mediáticos en la comunicación política: El 'politainment' en YouTube]. Comunicar, 43(XXII), 65-72. https://doi.org/10.3916/C43-2014-06 Blais, J., Craig, W., Pepler, D., & Connolly, J. (2008). Adolescents online: The importance of Internet activity choices to salient relationships. Journal of Youth and Adolescence, 37, 522-536. https://doi.org/10.1007/s10964-007-9262-7

Bleakley, A., Ellithorpe, M., & Romer, D. (2016). The role of parents in problematic internet use among US adolescents. *Media and Communication*, 4(3), 24-34. https://doi.org/10.17645/mac.v4i3.523

Blomfield, C.J., & Barber, B.L. (2014). Social networking site use: Linked to adolescents' social self-concept, self-esteem, and depressed mood. *Australian Journal of Psychology*, 66, 56-64. https://doi.org/10.1111/ajpy.12034

Chau, C. (2010). YouTube as a participatory culture. New Directions for Youth Development, 128, 65-74. https://doi.org/10.1002/yd.376 De-Frutos, B., & Marcos, M. (2017). Disociación entre las experiencias negativas y la percepción de riesgo de las redes sociales en adolescentes. El Profesional de la Información, 26(1), 88-96. https://doi.org/10.3145/epi.2017.ene.09

Días-da-Silva, P., & Garcia, J.L. (2012). YouTubers as satirists: Humour and remix in online video. eJournal of eDemocracy and Open Government, 4(1), 89-114. (https://goo.gl/PHM6UI).

Edwards, L., Kontostathis, A., & Fisher, C. (2016). Cyberbullying, race/ethnicity and mental health. *Media and Communication*, 4(3), 71-78. https://doi.org/10.17645/mac.v4i3.525

Franco, E.C. (2017). Redes sociales libres en la universidad pública. Revista Digital Universitaria, 18(1). (https://goo.gl/5ptkf1).

Fuente-Cobo, C. (2017). Públicos vulnerables y empoderamiento digital: El reto de una sociedad e-inclusiva. El Profesional de la Información 26(1), 5-12. https://doi.org/10.3145/epi.2017.ene.01

García-Jiménez, A., Catalina-García, B., & López-de-Ayala-López, M.C. (2016). Adolescents and YouTube: Creation, participation and consumption. *Prisma Social*, n. extra, 60-89. (https://goo.gl/qNifJN).

Halliday, M.A.K. (2004). An Introduction to Functional Grammar. London: Edward Arnold.

Igartua, J.J. (2006). Métodos cuantitativos de investigación en comunicación. Barcelona: Bosch.

Jenkins, J., Ford, S., & Green J. (2015). Cultura transmedia, la creación de contenido y valor en una cultura en red. Barcelona: Gedisa. Jiménez, C., & Gaitán, B.N. (2013). Análisis de los factores que motivan a los estudiantes de la Universidad Autónoma de Occidente a difundir contenidos virales en la Red. Cali (Colombia): Universidad Autónoma de Occidente. (https://goo.gl/0jP6tH).

Karlsen, R., Borrás-Morell, J., & Traver-Salcedo, V. (2017). Are trustworthy health videos reachable on YouTube? - A study of YouTube ranking of diabetes health videos. In *Proceedings of the 10th International Joint Conference on Biomedical Engineering Systems and Technologies* (BIOSTEC 2017) - Volume 5: Healthinf, 17-25. https://doi.org/10.5220/0006114000170025

Kirsh, S.J. (2010). Media and youth: A developmental perspective. Malden (Massachusetts): Wiley-Blackwell.

Kirsh, S.J. (2012). Children, adolescents, and media violence: A critical look at the research. Thousand Oaks, CA: Sage.

Lenhart, A., Smith, A., Anderson, M., Duggan, M., & Perrin, A. (2015). *Teens, technology and friendships*. Pew Research Center. (https://goo.gl/PHq81a).

Livingstone, S., Kirwil, L., Ponte, C., & E. Staksrud, E. (2014). In their own words: What bothers children online? European Journal of Communication, 29(3), 271-288. https://doi.org/10.1177/0267323114521045

López-Vidales, N., & Gómez-Rubio, L. (2015). Análisis y proyección de los contenidos audiovisuales sobre jóvenes y drogas en YouTube. Estudios sobre el Mensaje Periodístico, 21(2), 863-881. https://doi.org/10.5209/rev_ESMP.2015.v21.n2.50889

Martínez-Pastor, E., Sendín-Gutiérrez, J.C., & García-Jiménez, A. (2013). Percepción de los riesgos en la red por los adolescentes en España: Usos problemáticos y formas de control. *Análisi*, 48, 111-130. (https://goo.gl/ao3odb).

McRoberts, S., Bonsignore, E., Peyton, T., & Yarosh, S. (2016). Do It for the viewers!: Audience engagement behaviors of young YouTubers. In *Proceedings of the The 15th IDC International Conference on Interaction Design and Children*, 334-343. https://doi.org/10.1145/2930674.2930676

Misoch, S. (2014). Card Stories on YouTube: A New Frame for Online Self-Disclosure. *Media and Communication*, 2(1), 2-12. (https://goo.gl/W5OsRt).

O'Keeffe, G., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics, 127*, 800-804. https://doi.org/10.1542/peds.2011-0054

Protégeles (Ed.) (2014). Menores de edad y conectividad móvil en España: Tablets y smartphones. (https://goo.gl/pBaMvV).

Ritzer, G., & Jurgenson, N. (2010). Production, Consumption, Prosumption: The nature of capitalism in the age of the digital 'prosumer'. Journal of Consumer Culture, 10(1), 13-36. https://doi.org/10.1177/1469540509354673

Ritzer, G., Dean, P., & Jurgenson, N. (2012). The Coming of Age of the Prosumer. American Behavioral Scientist, 56(4), 379-398. https://doi.org/10.1177/0002764211429368

Sabater, C. (2014). La vida privada en la sociedad digital. La exposición pública de los jóvenes en Internet. *Aposta*, 61, 1-32. (https://goo.gl/0HRnyl).

Subrahmanyam, K., Greenfield, P., & Michikyan, M. (2015). Comunicación electrónica y generaciones adolescentes. *Infoamérica*, 9, 115-130. (https://goo.gl/uvP9R7).

Syed-Abdul, S., Fernandez-Luque, L., Jian, W.S., Li, Y.C., Crain, S.,... Liou, D.M. (2013). Misleading health-related information promoted through video-based social media: Anorexia on YouTube. *Journal of Medical Internet Research*, 15(2), e30. https://doi.org/10.2196/jmir.2237

Wartella, E., Rideout, V., Montague, H., Beaudoin-Ryan, L., & Lauricella, A. (2016). Teens, Health and Technology: A National Survey. Media and Communication, 4(3), 13-23. https://doi.org/10.17645/mac.v4i3.515

Yarosh, S., Bonsignore, E., McRoberts, S., & Peyton, T. (2016). Youth Tube: Youth video authorship on YouTube and Vine. In *Proceedings* of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing, 1423-1437. https://doi.org/10.1145/2818048.2819961