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# Analizing Teens an Analysis from the Perspective of Gamers in Youtube

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Abstract: (1) Gamers are a new social phenomenon on YouTube whose success is based on their humour and social identity. The aim of this research is to deepen the understanding of the behaviour of the 100 gamers with the largest numbers of fans worldwide by studying their channels on YouTube; (2) Methods: This is a longitudinal research study from 20/08/2019 to 20/08/2020. The methodology consists of three techniques: social media analysis, opinion mining or sentiment analysis, and qualitative semantic analysis; (3) Results: The results of regression and KPI analysis confirm that the most popular contents have high levels of humour, positive polarity, irony, and subjectivity. In addition, the jargon of the digital community is used, focusing on group identification; (4) Conclusions: We conclude that teenagers use YouTube to search content that is cheerful, fun, and with high doses of humor and irony, in which gamers narrate their own vision of reality. Understanding these characteristics makes it possible to adapt educational channels to the interests of the adolescent community. At the same time, it allows us to understand how group identity is constructed in the virtual community, being able to establish lines of intervention from the educational and family orientation.

Keywords: gamers; YouTube; social networking sites



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# 1. Introduction

It is well known that the excessive use of social networks can lead to changes in people's behaviour and neural structures [1–3]. Regardless of the risks involved in excessive use, 21st-century society demands competence in critically analyzing the information presented on social networks [4]. The use of screens results in both improvements in certain skills and damage other cognitive ones [5–7]. Some social networks such as Facebook and Twitter can help improve users' communication skills, while YouTube, whose users act more passively, does not imply any clear acquisition of skills [8–11]. YouTube is more than a website; it is a social network. This is because users or virtual communities gather on YouTube to share common interests, actively participating through "likes", "dislikes", and writing comments. That is, the community is not passive, but acquires a prosumer vision, the community consumes videos while generating new content [4,7,8].

However, YouTube has great educational potential, and it is worth asking what we can learn from gamers and their posts to engage students on this social network. The importance given by the adolescent population to remaining on social networks may explain the exponential growth in the time invested in this activity, currently being an average of two hours per day [12]. In this sense, it is necessary to start from the concept of a mobile-centric society [13], and the representation of reality from post-modernism where reality and theatricality are confused [14]. However, as Gonzalez and Esteban [13] point out, the school has not been able to meet the challenge posed by new technologies and is

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characterised by a high degree of impermeability. In the terms of Prensky [15], the new generations of digital natives need more interactivity. However, the 19th century education system, with its sequential logic and exposure system, is no longer valid [15]. Social networks are structured as new relationship ecologies where a participatory digital culture emerges, in the terms of Jekins in Gonzalez and Esteban [13]. Despite the many efforts and resources allocated to the understanding of the many and varied economic, social, legal, and ethical aspects of the recent developments on the Internet, and their consequences for the individual and society at large (i.e., Managing Alternatives for Privacy, Property and Internet Governace Observatory, or The Internet Governace Forum), measuring its progress and success is both challenging and tricky. To date, there are no longitudinal studies that specifically investigate and debate the existing motivation related teenagers in social networks and the changes needed to set up an improved governance structure for the education innovation ecosystem.

In a bedroom culture, based on the individual democratisation of the adolescent vis-à-vis the adult [16], where families lack control over social networks, and knowing the existence of the volatility of the adolescent stage, as well as vulnerable environments [15,17], how can we know what adolescents consume the most? How can we observe and understand them?

The contents presented by YouTubers can be categorized into blogs, video games, 'unboxing' (presenting a product), and others [18]. It is necessary to clarify that gender differences and stereotypes also exist. As far as YouTubers are concerned, few women are considered gamers, instead representing the majority in other types of modalities such as routine videos and make-up tutorials [19-21]. In the specific case of gamers, it is important to explain how they are considered YouTubers, that is, users who present audiovisual content (videoblogs) on YouTube on different topics; in this case, how to overcome different phases of online games or criticisms by other users with high levels of humour [19,20,22]. In other words, the videos that are posted represent a personal narrative on the common theme of video games, although such communication presents certain peculiarities. First of all, a parasocial relationship is established between a gamer and their followers, that is, a bond is generated without requiring physical contact, thereby providing a feeling of intimacy, so that both feed back into social support within the network itself [23–26]. In other words, users feel that they are referents of the digital culture [27]. A sense of belonging and self-disclosure are key processes in development during adolescence and may lead to this type of relationship [28]. In this sense, the generation of digital natives who make up the digital community are born into an environment that generates a prefabricated idea of identity, i.e., they develop according to desirable canons [29]. Similarly, their notion of intimacy pushes them to develop deep relationships through digital applications [29]. Moreover, although the theory of uses and rewards and the theory of self-determination highlight the relevance of controlling relationships, content, presentation, and impressions, they have the etiology of 'fear of missing out' (FoMO) and nomophobia [30]. However, it should not be overlooked that adolescents present a social identity, as indicated by Tajfel's theory [31]. In this way, a series of processes operate to achieve group identification. This generates a digital community of followers of an influencer whose identification reinforces their self-esteem through identification [31–34]. However, this social process of identity construction usually occurs without family or school counselling, so that adolescents are fickle [35]. It is necessary for school guidance to provide families and teachers with the necessary tools to learn how to teach a healthy use of social networks [36,37]. In addition, it is important to be aware of the difficulties in conducting counselling sessions at this stage of development [17]. Likewise, it is necessary to learn what adolescents' conception of social networks is, how they present themselves, and what they value most [38]—in other words, to study their ecosystem from an open vision that allows us to understand their reality, as adolescents seek to connect with others, in the terms of Bauman [39].

The communication the gamers establish is not natural. Several investigations highlight the peculiarity of their form of communication based on informal conversations

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among friends, in which the gamer treats their followers as close and trusted people. In the specific case of the gamer PewDiePie, it is observed how he constantly uses terms to communicate and refer to his followers as "bro", "just", "guy" and "think" [40]. Authors such as Aran-Ramspott et al. [27] state that the most relevant element of a YouTuber is their 'vis comica', that is, their capacity to innovate and surprise rather than the image of a brand they may represent. In other words, the gamers combine technical language with the language of digital culture while using terms of proximity, establishing a communication strategy based on feedback through comments [41–43].

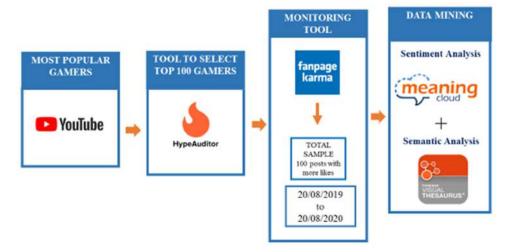
Third, the obvious theatricality of the gamers, their use of humor and the jargon of digital culture lead to uniformity in its contents [23,44,45]. In terms of coherence, it is common to find an idealized vision based on a high degree of positivity and subjectivity in the polarity of feelings [46–48], although Ferchaud [19] suggests, in the case of video games, that the positivity rate is quite balanced between positivity, negativity, and neutrality. Contents with themes such as body image, self-expression, travel, digital culture, and 'startups' (emerging companies) are associated with positivity, those related to depression, loneliness, and real-world relationships have negative polarity, and those with their own identity and anxiety are neutral [49]. Nevertheless, it is important to qualify that these contents can present contradictory discourses due to the significant amounts of humour involved. As for the emotions represented, they are diverse, ranging from surprise to fear or happiness [40,50].

It is, therefore, crucial to understand the ecology of social groups or virtual communities on YouTube, what captures the attention of teenagers, how gamers manage to communicate with their community to generate social ties, and what we can learn and transfer to education from this type of communication. The aim of the study is to analyse the 100 most influential and followed gamers at an international level, studying the communication of their most popular publications, in order to determine which elements that manage to capture the attention of the adolescent virtual community.

#### 2. Materials and Methods

# 2.1. Research Model and Procedure and Data Analysis

The research was developed in three phases (see Figure 1). The first part of the study corresponded to a social media analysis (SNA) methodology based on data mining. The monitoring of accounts was carried out using Fanpage Karma software from 20 August 2019 to 20 August 2020. The data analysis generated a considerable volume of data, materialized as Key Performance Indicators (KPIs): number of likes, number of retweets, commitment, and number of fans [51]. In this way, the 100 publications with the greatest numbers of 'likes' were identified.



**Figure 1.** Research process from longitudinal study from 20 August 2019 to 20 August 2020 of the top 100 influencing gamers.

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The second part was carried out using an opinion mining methodology based on the recognition of linguistic patterns through algorithms. In other words, a sentiment analysis [52] of the 100 publications with the largest numbers of 'likes' was conducted. Sentiment analyses study the emotional character of the messages emitted from natural language, providing a holistic vision of the new ecosystems generated on social networks [53–55]. The data analysis was executed using the MeaningCloud tool and the Emotion Recognition pack, enabling it to be executed in several languages in response to the linguistic diversity encountered.

The third part of the research corresponded to a qualitative methodology, in which a semantic analysis of the 100 most popular videos was carried out, materialized in the number of 'likes'. In other words, a semantic approach to natural language was applied in order to understand the themes dealt with in each video [56,57].

The data analysis consists of studying the frequency of words emitted, and this was studied by means of visual reports (in this case, word cloud graphics) as well as a network that allowed examination of the interactions of the most relevant terms with the ecosystem in question. This section was undertaken by means of the qualitative software Visual Thesaurus.

## 2.2. Research Context and Sample

The data acquisition was done using Fanpage Karma software from 20 August 2019 to 20 August 2020. The corpus was composed of 100 posts extracted from gamer accounts on the social network YouTube according to the index of 'I like' using the tool Fanpage Karma. Gamers were selected based on the index of subscribers available on the HypeAuditor platform. HypeAuditor is a marketing company specialized in creating influencer marketing campaigns. Its goal is to support agencies, brands, and platforms to improve effectiveness on social networks. In this way, it generates a series of rankings with different categories.

The 100 gamers with the most fans were selected. The inclusion criteria were (a) accounts aimed at teenagers or young people and (b) YouTubers deemed to be gamers. The sample is composed of 96% men and a scant 4% women. As for the distribution of nations the sample is composed of: Argentina (2%), Australia (4%), Brazil (15%), Canada (2%), Chile (1%), USA (24%), El Salvador (1%), India (2%), Indonesia (6%), Ireland (2%), Mexico (5%), Russia (7%), Saudi Arabia (2%), Spain (11%), Sweden (1%), Thailand (3%), Turkey (1%), Ukraine (1%), and the United Kingdom (9%). Regarding the majority typology of the videos, we find that 57% are "Let's Play Videos", 26% are "Live Stream Video", 9% are "Gaming Walkthrough", 3% are "Gaming Tutorials", 1% are "Game Analysis", 1% are "Game Reviews", 1% are "Preview an Upcoming Game", and the other 1% are "Secrets of the game". See Table A1.

## 2.3. Instrument Used and Their Validation

This section will explain the tools used to capture and interpret the development of the 100 YouTube channels.

First of all, the data of the different KPIs and main publications were re-analyzed using the Fanpage Karma software. This software allows the capture of key performance indicators or KPIs for each of the 100 accounts. The variables it studies (KPIs) are: (a) Number of comments ('Sum of direct comments (first level) and sub-comments (second level) on posts' by Fanpage Karma Academy), (b) fans ('Number of subscribers to a cannel' by Fanpage Karma Academy), (c) number of publications ('Number of videos published in the selected time period', Fanpage Karma Academy), (d) Number of Likes ('Average number of 'likes' on videos published in the selected period, divided by the number of videos in the selected period' by Fanpage Karma Academy), (e) Sum of the impressions of individual messages ('Number of views of videos published in the selected period' by Fanpage Karma Academy) [51].

Secondly, it is necessary to explain the importance of Meaning Cloud and Emotion Recognition. This software is specialized in analyzing the emotionality of language by Sustainability **2021**, 13, 11391 5 of 21

means of algorithms [52–55]. In other words, a sentiment analysis is performed. Specifically, it analyzes the discourse of videos posted on YouTube by means of a series of variables: (a) polarity (an interpretation of whether the terms used in a message are very negative, negative, neutral, positive, very positive, or lacking emotionality), (b) agreement (messages categorized as neutral have an intermediate position between pleasant and unpleasant feelings; this variable shows whether there is really an absence of emotionality, i.e., the words are mostly neutral. In other words, it measures the agreement within the polarity), (c) irony (this provides classification according to the sarcasm or unintentionality of a message), (d) subjectivity (this establishes whether an opinion is expressed (subjective) or whether it explains or describes a fact (objective)), (e) confidence level (this shows the confidence value associated with the detected polarity), (f) emotion (the emotions included in Robert Plutchik's [58] theory of the 'emotion wheel', comprising joy, confidence, fear, surprise, sadness, aversion, anger, and anticipation), (g) emotion level (recorded intensity of each emotion; the higher the intensity, the higher the score).

Thirdly, it is necessary to specify the function of the Visual Thesaurus. This application is specialized in qualitative research and performs semantic analysis of content by generating word frequency, word clouds, and network graphics. In this way, it allows us to know which are the most influential concepts. This application provides a complementary vision that allows us to exemplify in written form what KPIs and sentiment analysis expose in a mathematical way.

The following research has followed ethical procedures both in the collection and processing of data and its management in accordance with the current regulations at the University of Zaragoza of the RGPD 2016/679 and the LO 3/2018 on the processing of personal data.

#### 3. Results

## 3.1. KPI Analysis

The results of the KPI variables showed an average daily growth of 24.45% of the monitored accounts. In other words, the rate of capture of visualizations was very high. It is also interesting to note that the average value of the number of comments in these accounts was 1,765,839.84; the average number of publications per year was 350.01; the number of 'likes' was 28,811,393.3; and the number of channel views was 473,504,393. Similarly, the gamers studied have an average of 12,848,585.9 fans. The specific data of each channel studied are shown in Figure 2. As a summary, it should be noted that the gamer PewDiePie stood out above all others, followed by Vegetta777 and Fernanfloo. In this sense, it is worth indicating that most of the gamers studied were male, showing a significant gap between genders. On the other hand, the average of the 100 gamers in terms of KPI are: number of comments (mean value = 1,765,839.84); fans (mean value = 12,848,585.85); number of posts (median value = 350.01); number of likes (median value = 28,811,393.28); sum of impressions on individual posts (median value = 473,504,392.72). See Table A2 to see descriptive results of the KPIs of the study sample of the 100 most influential gamers ordered by followers. Regarding the longitudinal development of the KPIs of the most 'liked' publications, an interesting situation can be observed (see Figure 3). In the number of views, a significant peak is found in mid-February 2020. Let us recall that from February 16 to 24 the WHO issued a report establishing the imminent health crisis. On February 22, the number of views plummeted. This situation continued throughout the following months of the pandemic. Similarly, the number of comments plummeted in February. The community did not become active again until June 2020, when the Covid-19 emergency began to improve. Finally, regarding the number of likes, we found that the pre-pandemic months were more active than the months of confinement and social distancing measures. There is a significant difference between the months prior to Covid-19 and the months of the pandemic.

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## 3.2. Sentiment Analysis

The sentiment analysis returned interesting results with a high degree of confidence (77.97%) with regard to polarity. Initially, all messages were categorized as subjective, i.e., expressing an opinion and not describing or announcing a fact. Similarly, the rate of emotionality was 98%, in most cases stating messages with a significant emotional charge. In agreement, 69% of the publications were categorized as ironic, being able to establish how this element is transcendental. Consequently, the polarity of the sample was mostly positive, a not insignificant percentage of the publications were considered neutral and messages with a negative or unpleasant charge represented the minority. As for the emotions expressed, as shown in Figure 4, the majority were positive or pleasant, the most frequent being happiness, followed by trust. Anger and sadness were the only unpleasant emotions represented. In other words, there was an over-representation of the emotion happiness in the speech, which could be associated with high levels of humour or a sweetened vision of reality.

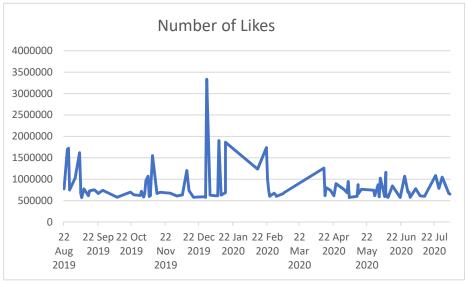
However, the polarity of the publications deserved further analysis. Thus, an analysis of Pearson's correlations was carried out (Table 1), revealing significant relationships among the study variables. With the purpose of understanding in greater measure these relations, those variables with significant results were selected.

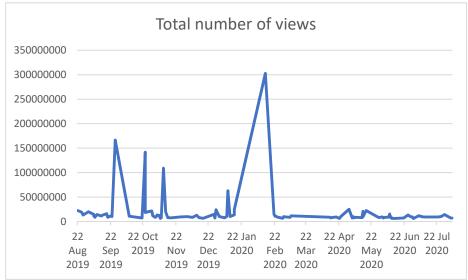
Then, four multiple regression models were made using a forward introduction method (Table 2) that allowed the polarity (dependent variable) to be examined. The choice of forward step method to use was based on the need to determine which factor was the most relevant in polarity of publications. This decision was taken to prevent contamination among the variables and favouring the exclusion of those that were irrelevant.



**Figure 2.** Packed interactive circles of top 100 gamer KPIs from 20 August 2019 to 20 August 2020. Exposed: https://public.flourish.studio/visualisation/4599936/ (accessed on 24 October 2020).

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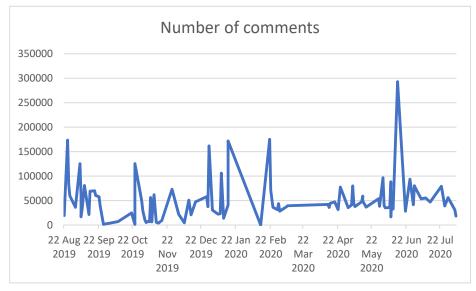
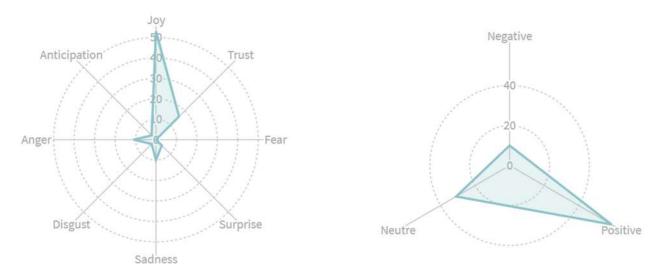


Figure 3. Longitudinal development of KPIs from 20 August 2019 to 20 August 2020.

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**Figure 4.** Polarity and emotions in the 100 publications with the greatest impact from 20 August 2019 to 20 August 2020 of the top 100 influencing gamers.

**Table 1.** Pearson's correlations on the sentiment analysis (emotion, emotion level, polarity, agreement; confidence level, irony) in the 100 publications with the greatest impact.

Variable		Emotion	Emotion Level	Polarity	Agreement	Confidence Level	Irony
1. Emotion <sup>a</sup>	Pearson's r	_					
	<i>p</i> -value	_					
2.Emotion Level <sup>b</sup>	Pearson's r	0.453	_				
	<i>p</i> -value	< 0.001	_				
3. Polarity <sup>c</sup>	Pearson's r	0.750	0.405	_			
·	<i>p</i> -value	< 0.001	< 0.001	_			
4. Agreement <sup>d</sup>	Pearson's r	0.231	0.083	0.317	_		
· ·	<i>p</i> -value	0.021	0.411	0.001	_		
5. Confidence	Pearson's r	-0.077	-0.305	-0.146	-0.373	_	
Level <sup>e</sup>	<i>p</i> -value	0.447	0.002	0.148	< 0.001	_	
6. Irony <sup>f</sup>	Pearson's r	0.075	0.288	0.120	0.218	-0.950	_
,	<i>p</i> -value	0.456	0.004	0.233	0.029	< 0.001	_

<sup>&</sup>lt;sup>a</sup> Emotion: Robert Plutchik's theory of the Emotion Wheel. <sup>b</sup> Emotion Level: intensity of each emotion. <sup>c</sup> Polarity: an interpretation of whether the terms used in a message are very negative, negative, neutral, positive, very positive, or lacking emotionality. <sup>d</sup> Agreement: messages categorized as neutral have an intermediate position between pleasant and unpleasant feelings. <sup>e</sup> Confidence level: associated with the detected polarity. <sup>f</sup> Irony: this provides classification according to the sarcasm or unintentionality of a message.

Multiple regression generated four explanatory models of videos' polarity. The strongest from the statistical point of view is model 4. Model 4 explains how 57% of the polarity ( $R^2 = 0.57$ , p < 0.001) is explained by emotion and agreement significantly (p < 0.001). That is, the polarity of the videos published by gamers is explained by the amount of emotional words they use. In addition, the parameters F (F = 68.27) and t (emotion t = 10.63; agreement t = 2.25) show a positive relationship. That is, the dependent variable of polarity grows together with the emotion and agreement variables.

In other words, gamers' discourse has a high prevalence of terms that convey emotions. That is, it is not a speech that describes a situation. It is a conversation where emotions, especially joy, are expressed and reflected. It is necessary to remember how this is the most prevalent emotion in the publications (see Figure 3).

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Modelo		Unstand ardized	Standard Error	Stand ardized	t	p	$\mathbb{R}^2$	RMSE	F	p
1	(Intercept)	-0.32	2.99		-0.10	0.91	0.59	0.44	27.14	< 0.001
	Emotion	0.19	0.02	0.67	8.69	< 0.001				
	<b>Emotion level</b>	0.00	0.00	0.08	1.04	0.29				
	Agreement	0.72	0.40	0.15	1.78	0.07				
	Confidence level	-0.00	0.03	-0.00	-0.01	0.99				
	Irony	0.01	0.35	0.01	0.04	0.96				
2	(Intercept)	-0.35	0.31		-1.12	0.26	0.59	0.44	34.29	< 0.001
	Emotion	0.19	0.02	0.67	8.91	< 0.001				
	<b>Emotion level</b>	0.00	0.00	0.08	1.07	0.28				
	Agreement	0.72	0.33	0.15	2.18	0.03				
	Irony	0.01	0.10	0.01	0.17	0.86				
3	(Intercept)	-0.35	0.31		-1.13	0.25	0.59	0.43	46.18	< 0.001
	Emotion	0.19	0.02	0.67	9.00	< 0.001				
	<b>Emotion level</b>	0.00	0.00	0.08	1.18	0.23				
	Agreement	0.73	0.32	0.15	2.29	0.02				
4	(Intercept)	-0.30	0.31		-0.97	0.33	0.58	0.43	68.27	< 0.001
	Emotion	0.20	0.01	0.71	10.63	< 0.001				

0.15

Table 2. Regression models through steps forward on polarity (dependent variable).

## 3.3. Semantic Analysis

0.32

0.72

Agreement

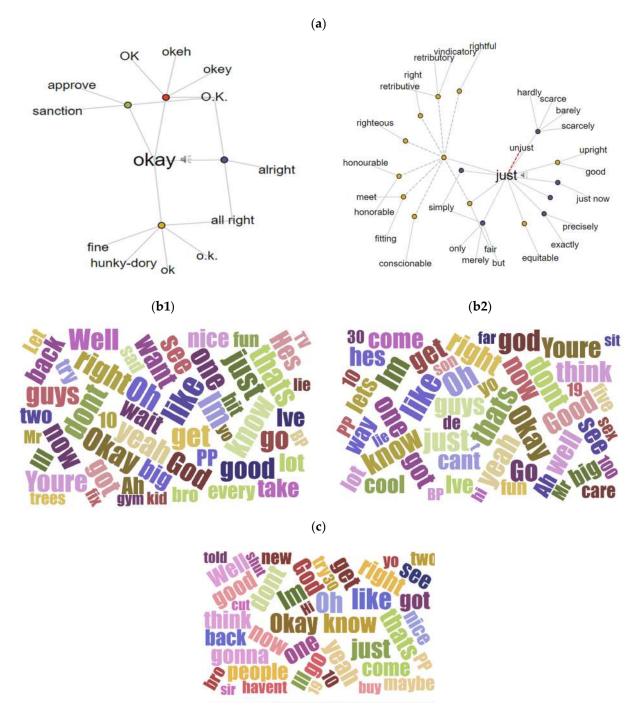
The semantic analysis was composed of 54,321 words, mainly from the English language. The occurrence of words indicated that the most used were 'like' (365), 'get' (335), 'have' (319), 'just' (285), 'but' (265), 'can' (217), 'know' (212), 'all' (203), 'okay' (195), and 'one' (189). In Figures 5a and A1, these words are presented related to others, generating ramifications. As the interrelationship continues, more density graphs were generated (see Figure 5b,c).

0.02

2.25

Their interrelationship shows active communication, directed towards other people, seeking to establish a conversation using expressions typical of digital jargon, such as 'guys' or 'bro' (see Figure 5b,c). In addition, we observe a series of verbs that favor the phatic or expressive function of language, whose purpose is to ensure or maintain communication between the sender (gamers) and the receiver (virtual community). That is why we find digital slang expressions such as 'guys' or 'bro' that favor the feeling of community and group. Two of the most frequent words are 'just' and 'okay'. Both are expressions that seek to maintain and ensure communication between sender (gamer) and receiver (followers). Thus, we find that "okay" is related to other terms with the same function such as "approve", "OK", "okeh", "all right", and "fine", and "just" is related to concepts such as "exactly", "precisely", "good", "up right", and "simply". In turn, we find an important branch that relates "just" and "simply" to terms such as "rightful", "vindicator", "retributory", "honourable", "honorable".

Likewise, adjectives and adverbs whose meanings are related to positive aspects (such as 'honourable', 'right', 'good', 'exactly', 'totally', 'completely', and 'extraordinary') were common, showing agreement or reaffirming an idea (see Figure A1). The distribution of these words according to the word density graphs reveals how the most used terms were action verbs that seek interaction with followers, for instance 'look', 'cool', and 'yeah'; that is to say, these words correspond to a monologue-like narration aimed at a very specific audience. Thus, the visualizations with the highest 'I like' rates were those in which the gamer sought the interaction of their followers using terms that have a positive connotation and show agreement.



**Figure 5.** Semantic analysis of the 100 videos with the largest numbers of likes from 20 August 2019 to 20 August 2020 of the top 100 influencing gamers. (a) Branch graphics. (b1) Density clouds August 2019–February 2020. (b2) March 2020 to August 2020. (c) Density clouds with 500 most frequent words.

This type of conversation is reminiscent of post-modern theater, where fiction is sought to reach reality. In this way, what happens on the screen (in the YouTube video) is not only a content to watch passively, as, for example, television is. The conversation developed by the influencer, through group unit terms 'cool' and 'bro', together with terms such as 'okay' and 'just' that guarantee the open channel of communication, make this content feel real. In other words, the gamer manages to establish a parasocial relationship with his followers, developing a delayed conversation and getting the virtual community to participate actively through the option of 'like', 'dislike', and 'comments'. Finally, no differences are observed in the word clouds of videos made from August 2019 to February

2020 (pre-pandemic period of Covid-19) to videos published between March and August 2020. The communication maintains the same terminology.

### 4. Discussion

The widespread use of the YouTube social network is evident from the results returned from the KPIs. In this sense, this study's findings are congruent with previous research pointing to the extended use of this platform among the adolescent and young population [59,60]. On the other hand, the investigation agrees with Ferchaud et al. [19–21] on the scarcity of female representation among the most influential gamers at the international level.

The results of the polarity show some inherent and typical features of the new digital culture. The high rates of positivity together with the significant levels of subjectivity identified are related to the sweetened vision of the world highlighted in previous research [46–48], especially in content focusing on everyday life, travel, and games [49]. This study's results are consistent with such research. Nevertheless, it is necessary to indicate that the data presented in this study are not completely in agreement with the work of Ferchaud et al. [19], who in the specific case of videos about video games found a negative polarity rate of 20%, above that recorded in the present research. On the other hand, it is necessary to reaffirm the results of previous studies such as that of Ashman et al. [23] carried out with the adolescent population. The contents that this population has been found to like the most are of a humorous type, the predominant emotion being happiness. The data presented in this research follow the same line as these previous authors. By contrast, studies by Beers Fägersten [40] and Dewaele [50] demonstrate greater emotional diversity, ranging from surprise to fear and happiness. These results are consistent with the post-modernist concept of social identity or identity establishment [14], where reality and fantasy intermingle.

In sum, the results of the semantic analysis have exposed the existence of words loaded with positive emotions that seek interaction with followers. We agree with Scheinbaum [45] that these gamers do not present a transgressive image, but follow the fashion of the moment, so that the most used words present a certain uniformity. In the first place, it has been found that they are mostly verbs of action and social interaction, necessary for gamers' humorous narration, in line with previous investigations pointing out how YouTubers oscillate between manifesting expert knowledge of digital culture and using colloquial aspects that remind their audiences of conversations between friends [27,40]. The results of the present study are similar to those found by Beers Fägersten [40] on PewDieDie, highlighting terms such as 'bro', 'just', 'guy', and 'think', which this gamer uses to communicate with his followers. In the same way, the use of such close and direct language appears to be an essential strategy in recruiting followers, with appealing for interaction and referencing one's followers in videos coinciding with the research carried out by Pereira et al. [18]. In this way, we find how the adolescent virtual community positively reaffirms those traits that confer a social identity [31–34].

This type of communication seeks to generate an affective bond and emotional commitment, a parasocial relationship between gamer and follower, in line with previous research [20,23–26,40]. An example of this close and emotional communication is the digital natives' conception of intimacy, which pushes them to develop close relationships through new technologies [29]. Similarly, there is agreement on how this communication strategy is mediated by feedback through 'likes' and commentary [41–43]. In this sense, we agree with Bérail et al. [24] and Hartmann [20] that either current rates of loneliness and social difficulties are stimulating adolescents and young adults to interact face-to-face less and less than in the past, or we are facing a new phenomenon of friendships and relationships, in which users feel encouraged to be part of the digital culture of the Internet [27], as explained by their contemporary sense and self-disclosure [28].

This study is not without its limitations. First, the context of the pandemic in which the research was conducted must be taken into account, i.e., it is a temporary photo. Our

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results show how Covid-19 modified the behavior of the digital community. Since the WHO statement in late February and early March 2020, the digital community stopped paying attention to these channels. This can be seen in Figure 3, which shows a drop in the number of 'likes', number of views and comments. However, gamers continued to make the same type of videos. It is, therefore, necessary to repeat the study in the following years 2021 and 2022 to determine the behavior of the digital community. Second, this study has focused on the particular case of gamers, but research on other profiles of influencers is needed. At this point, it is necessary to clarify how there is an important gender gap and so it is essential to carry out research into the establishment of gender stereotypes among influencers. On the other hand, it has not been possible to find studies with the same methodology that would afford detailed comparison due to the speed with which new social networks are established. It would be interesting to repeat this study after a few years to analyze if there have been any changes in behaviour. Similarly, it would be worth carrying out a study with a survey design to analyze the perceptions of the adolescent and young adult population about the new manifestation of gamers.

### 5. Conclusions

In response to the research question, the teenage digital community prefers those communications in which the influencer uses a popular jargon, typical of the digital community, a relaxed discourse, in which humour and high levels of positivity are dealt with, as well as a subjective and ironic vision of the gamer himself. These traits are what determine the success of a publication among the adolescent digital community. In this sense, a practical application in the educational world is the generation or adaptation of learning channels to these characteristics. In this sense, videos should be short, fun, cheerful, with a high dose of humour and with a relaxed language in line with the digital world where it is developed, recognising its essence and relevance. Perhaps in this way, YouTube would become a learning-friendly platform like Twitter or Facebook [8–11].

Similarly, knowledge of their jargon, and of the type of publications that are most consumed by this generation, makes educational guidance intervention possible. This is due, firstly, to the actual knowledge of the preferred publication typology. Secondly, adaptation to their jargon implies a recognition of their group identity and shows interest and respect for it, essential elements for efficient adolescent–family or adolescent–teacher communication [17,36,37]. Likewise, the strong difference between men and women who have more consuming profiles should be the subject of debate and critical treatment at school

In conclusion, gamers are an established phenomenon in the digital community and the most influential positions are occupied by men, whereas only a relatively minor role is played by women. Moreover, the videos that enjoy the most popularity are those in which the gamer expresses an opinion, loaded with subjectivity and emotion, thereby transmitting a happy and joyful vision accompanied by high levels of humour. Accordingly, it should be specified how gamers' archetypal discourse is constructed by seeking direct interaction with their followers through the use of jargon and a context of closeness similar to a conversation between friends.

It is clear from the above that the motivation of adolescents corresponds to feeling part of the digital community and that digital media underlie as a culture and not merely as a communication tool.

As we mentioned earlier, there are no studies that specifically investigate the motivation related teenagers in social networks and the changes needed to set up an improved educational governance. We strongly believe that initiatives inspire and support the education innovation ecosystem and are also linked to different approaches and visions by scholars, public administrations, practictioners, and why not, companies and social networks are needed. For example, the creation of the International Observatory of Adolescent Use of Social Networks could be key to addressing the future challenges and limiting

the risks of developments on the Internet as a cultural space and a space for creating social value.

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**Informed Consent Statement:** Not applicable for studies not involving humans or animals. The following research has followed ethical procedures both in the collection and processing of data and its management in accordance with the current regulations at the University of Zaragoza of the RGPD 2016/679 and the LO 3/2018 on the processing of personal data. The study was conducted according to the guidelines of the Declaration of Helsinki.

Data Availability Statement: Not applicable.

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## Appendix A

**Table A1.** Description of the study sample of the 100 most influential gamers: gender, country, language, and channel description.

YouTube Profile	Gender of Influencer	Country	Language	Description Channel
PewDiePie	Male	EEUU	English	Let's Play Videos
Fernanfloo	Male	El Salvador	Spanish	Live Stream Video
VEGETTA777	Male	Spain	Spanish	Game Reviews
Markiplier	Male	EEUU	English	Let's Play Videos
VanossGaming	Male	Canada	English	Let's Play Videos
jacksepticeye	Male	Ireland	English	Gaming Walkthrough
Ninja	Male	EEUU	English	Live Stream Video
TheDiamondMinecart// DanTDM	Male	United Kingdom	English	Let's Play Videos
Talking Tom	Male	EEUU	English	Let's Play Videos
AuthenticGames	Male	Brasil	Portuguese	Gaming Tutorials
Jelly	Male	United Kingdom	English	Live Stream Video
TheDonato	Male	Argentina	Spanish	Let's Play Videos
TheWillyrex	Male	Spain	Spanish	Let's Play Videos
Jess No Limit	Male	Indonesia	English	Gaming Tutorials
Mikecrack	Male	Spain	Spanish	Let's Play Videos
Ali-A	Male	United Kingdom	English	Gaming Walkthrough
PopularMMOs	Male	EEUU	English	Let's Play Videos
LazarBeam	Male	Australia	English	Let's Play Videos
Clash of Clans	Male	EEUU	English	Let's Play Videos
W2S	Male	United Kingdom	English	Live Stream Video
SSundee	Male	EEUU	English	Let's Play Videos
TheGrefg	Male	Spain	Spanish	Live Stream Videos
IGN	Male	EEUU	English	Preview an Upcoming Game
Mr. Marmok	Male	Russia	Russian	Gaming Walkthrough
Lachlan	Male	Australia	English	Live Stream Videos
Antrax	Male	Mexico	Spanish	Live Stream Videos

 Table A1. Cont.

YouTube Profile	Gender of Influencer	Country	Language	<b>Description Channel</b>
Frost Diamond	Male	Indonesia	English	Let's Play Videos
Kwebbelkop	Male	EEUU	English	Let's Play Videos
The Game Theorists	Male	EEUU	English	Secrets of the game
League of Legends	Male	EEUU	English	Let's Play Videos
Robin Hood Gamer	Male	Brasil	Portuguese	Let's Play Videos
H <sub>2</sub> ODelirious	Male	EEUU	English	Gaming Walkthrough
iTownGamePlay ★ Terror&Diversión★	Male	Spain	Spanish	Let's Play Videos
RobleisIUTU	Male	Argentina	Spanish	Live Stream Videos
PlayHard	Male	Brasil	Portuguese	Gaming Tutorials
TazerCraft	Male	Brasil	Portuguese	Let's Play Videos
Tfue	Male	EEUU	English	Live Sream Videos
Vete a la Versh	Male	Mexico		Let's Play Videos
	Female	Thailand	Spanish English	
zbing z.			English	Let's Play Videos
theRadBrad	Male	EEUU	English	Gaming Walkthrough
MiawAug	Male	Indonesia	English	Gaming Walkthrough
Sky Does Minecraft	Male	EEUU	English	Let's Play Videos
Total Gaming	Male	India	English	Live Stream Videos
Dyland PROS	Male	Indonesia	English	Let's Play Videos
CaptainSparklez DaniRep   +6 Vídeos	Male	EEUU	English	Let's Play Videos
Diarios De GTA 5 Online!	Male	Spain	Spanish	Live Stream Videos
BCC Trolling	Male	United Kingdom	English	Live Stream Videos
ElTrollino	Male	Spain	Spanish	Let's Play Videos
Jazzghost	Male	Brasil	Portuguese	Let's Play Videos
Typical Gamer	Male	Canada	English	Gaming Walkthrough
Piuzinho	Male	Brasil	Portuguese	Live Stream Videos
NOBRU	Male	Brasil	Portuguese	Let's Play Videos
TheSyndicateProject	Male	United Kingdom	English	Gaming Walkthrough
stampylonghead	Male	United Kingdom	English	Gaming Walkthrough
LipaoGamer	Male	Brasil	Portuguese	Let's Play Videos
Muselk	Male	Australia	English	Live Stream Videos
Kuplinov ► Play	Male	Russia	Russian	Live Stream Video Games
Поззи	Male	Russia	Russian	Let's Play videos Games
JP Plays	Male	Brasil	Portuguese	Let's Play videos Games
LOUD	Male	EE.UU	English	Let's Play videos Games
Denis-Roblox & More!	Male	EE.UU	English	Let's Play videos Games
Hueva	Male	Mexico	Spanish	Live Stream Video Games
aLexBY11	Male	Spain	Spanish	Live Stream Video Games
Slogo	Male	United Kingdom	English	Let's Play videos Games
BRKsEDU	Male	Brasil	Portuguese	Let's Play videos Games
	Male	Russia	Russian	Let's Play videos Games
Аид[VyacheslavOO] Yair17	Male			•
		Mexico	Spanish	Let's Play videos Games
Dynamo Gaming	Male	India	English	Let's Play videos Games
TheBrainDit	Male	Ukraine	Ukrainian	Let's Play videos Games
Games EduUu	Male	Brasil	Portuguese	Let's Play videos Games
elrubius	Male	Spain	Spanish	Live Stream Video Games
FaZe Clan	Male	EE.UU	English	Let's Play videos Games
Unspeakable	Male	EE.UU	English	Live Stream Video Games
UDiEX2	Male	Thailand	Thai	Live Stream Video Games
FrontaL Gaming Rodrigo F Gamer	Male Male	indonesia Brasil	English Portuguese	Live Stream Video Games Let's Play videos Games
Respeita	iviale	DIASII	1 ortuguese	Let 51 lay videos Gaines
Levinho	Male Male	Sweden	Swedish	Let's Play videos Games
اترو/ Atro	Male	Saudi Arabia	Arab	Live Stream Video Games
sTaXxCraft	Male	Spain	Spanish	Let's Play videos Games
CRACKS	Male	Spain	Spanish	Let's Play videos Games

 Table A1. Cont.

YouTube Profile	Gender of Influencer	Country	Language	Description Channel
BoomSniper	Male	Mexico	Spanish	Let's Play videos Games
BanderitaX	Male	Saudi Arabia	Arab	Let's Play videos Games
JoshDub	Male	Australia	English	Let's Play videos Games
Fe4RLess	Female	EE.UU	English	Let's Play videos Games
I AM WILDCAT	Male	EE.UU	English	Live Stream Video Games
GAME OVER مصطفى	Male	Turkey	turkish	Let's Play videos Games
Smosh Games	Male	EE.UU	English	Game Analysis
CGGG	Male	Thailand	Thai	Let's Play videos Games
MrLololoshka (Романфильченков)	Male	Russia	Russian	Let's Play videos Games
YOGSCAST Lewis & Simon	Male	United Kingdom	English	Let's Play videos Games
Coffi Channel	Male	Russia	Russian	Let's Play videos Games
EdisonPts	Male	Russia	Russian	Live Stream Video Games
Daithi De Nogla	Male	Irland	English	Live Stream Video Games
MoonKase	Female	Brasil	Portuguese	Let's Play videos Games
BETO GAMER	Male	Brasil	Portuguese	Let's Play videos Games
Canal Clash War	Male	Brasil	Portuguese	Let's Play videos Games
kemas pake z	Male	Indonesia	English	Live Stream Video Games
DeGoBooM	Male	Chile	Spanish	Let's Play videos Games
iHasCupquake	Female	EE.UU	English	Let's Play videos Games

**Table A2.** Descriptive results of the KPIs of the study sample of the 100 most influential gamers ordered by followers.

YouTube Profile	Number of Comments (Total) <sup>a</sup>	Fans <sup>b</sup>	Number of Publications <sup>c</sup>	Number of Likes <sup>d</sup>	Sum of the Impressions of Individual Messages <sup>e</sup>
PewDiePie	12,034,046	106,000,000	313	163,926,899	2,326,202,351
Fernanfloo	752,957	37,500,000	4	5,910,193	40,932,718
VEGETTA777	1,647,323	30,700,000	667	97,453,430	997,268,571
Markiplier	2,917,568	26,600,000	285	35,456,085	792,006,032
VanossGaming	196,334	25,100,000	182	14,017,478	432,004,572
jacksepticeye	4,193,100	24,600,000	395	41,381,254	788,272,256
Ninja	660,423	24,000,000	254	11,961,429	306,558,138
TheDiamondMinecart// DanTDM	2,982,603	23,600,000	197	15,043,432	563,737,951
Talking Tom	20,412	20,400,000	37	5,182,713	1,323,594,769
AuthenticGames	1,059,443	19,300,000	333	18,652,417	281,341,564
Jelly	2,541,435	19,000,000	699	115,652,114	1,918,231,945
TheDonato	4,754,133	18,900,000	328	114,147,981	1,114,369,195
TheWillyrex	676,915	17,700,000	376	31,571,403	422,420,103
Jess No Limit	21,829,800	17,500,000	570	46,088,980	883,955,761
Mikecrack	2,411,291	17,400,000	138	29,737,381	846,339,479
Ali-A	1,084,709	17,200,000	248	14,763,289	409,162,441
PopularMMOs	1,110,049	17,100,000	135	4,706,184	156,173,234
LazarBeam	2,921,237	16,100,000	127	39,976,290	1,309,433,268
Clash of Clans	149,864	15,700,000	64	3,675,023	326,604,955
W2S	75,589	15,400,000	9	1,893,082	50,531,104
SSundee	3,819,036	14,600,000	321	71,537,986	1,070,835,104
TheGrefg	3,418,441	14,600,000	271	72,950,917	923,059,872
IGN	3,160,339	13,900,000	4625	23,074,786	995,606,769
Mr. Marmok	1,243,972	13,800,000	33	19,593,877	245,807,086
Lachlan	794,288	13,700,000	157	13,772,185	558,834,945
Antrax	1,305,993	13,400,000	75	18,021,754	250,400,504
Frost Diamond	9,519,299	13,400,000	413	46,201,797	802,789,236
Kwebbelkop	438,449	13,400,000	352	19,812,635	687,749,179

 Table A2. Cont.

YouTube Profile	Number of Comments (Total) <sup>a</sup>	Fans <sup>b</sup>	Number of Publications <sup>c</sup>	Number of Likes <sup>d</sup>	Sum of the Impressions of Individual Messages <sup>e</sup>
The Game Theorists	1,256,316	13,000,000	73	10,015,294	231,114,925
League of Legends	685,955	12,600,000	109	12,330,025	516,903,207
Robin Hood Gamer	1,339,743	12,600,000	475	59,633,254	853,764,104
H <sub>2</sub> ODelirious	652,499	12,500,000	337	13,703,823	279,414,625
iTownGamePlay ∗Terror&Diversión∗	780,326	12,500,000	596	6,796,971	97,734,140
RobleisIUTU	2,284,084	12,400,000	292	38,234,922	512,024,360
PlayHard	875,272	12,200,000	286	36,169,691	305,098,805
TazerCraft	378,164	12,100,000	198	10,827,996	145,934,305
Tfue	304,257	12,000,000	97	6,872,164	170,587,819
Vete a la Versh	80,193	11,900,000	28	3,060,509	45,111,876
zbing z.	791,845	11,900,000	366	13,695,613	625,001,678
theRadBrad	793,946	11,800,000	521	9,974,510	293,265,167
MiawAug	4,248,846	11,400,000	423	26,085,893	769,930,306
Sky Does Minecraft	111,734	11,400,000	203	1,071,615	12,795,664
Total Gaming	2,573,235	11,200,000	713	91,165,996	1,156,491,047
Dyland PROS	5,463,883	10,900,000	406	17,260,663	316,178,164
CaptainSparklez	335,183	10,800,000	320	4,202,096	103,174,162
DaniRep   +6 Vídeos	691,338	10,600,000	636	19,390,712	431,549,582
Diarios De GTA 5 Online!					
BCC Trolling	437,524	10,500,000	373	9,481,413	364,709,704
ElTrollino	564,603	10,200,000	65	13,667,484	551,701,559
Jazzghost	2,820,931	10,200,000	631	42,332,135	470,739,796
Typical Gamer	234,974	9,910,000	414	7,399,989	364,029,865
Piuzinho	1,323,554	9,870,000	80	30,047,725	153,661,518
NOBRU	676,469	9,840,000	295	93,901,888	517,102,425
TheSyndicateProject	83,505	9,770,000	130	1,131,839	30,788,584
stampylonghead	232,990	9,580,000	192	1,250,025	40,696,418
LipaoGamer	795,995	9,480,000	1171	29,035,335	349,073,188
Muselk	978,803	9,360,000	249	14,428,208	460,542,677
Kuplinov ► Play	1,475,181	9,150,000	553	26,141,479	414,847,752
Поззи	3,048,233	9,080,000	674	37,150,340	707,215,939
JP Plays	827,188	9,040,000	519	28,803,442	431,843,285
LOUD	3,743,364	9,010,000	370	148,715,306	1,041,223,364
Denis—Roblox & More!	1,321,871	8,770,000	320	6,511,320	291,863,488
Hueva	555,262	8,710,000	165	17,542,253	342,766,579
aLexBY11	333,076	8,610,000	235	12,204,058	105,569,748
Slogo BRKsEDU	1,766,567	8,590,000	734	88,388,909	1,286,072,065
	335,698	8,560,000	426	10,249,397	101,967,294
Аид[VyacheslavOO] Yair17	2,832,833	8,530,000	445 171	39,845,318	592,223,812
	1,862,427	8,350,000	171 317	47,146,001	345,798,627
Dynamo Gaming	269,460	8,330,000	567	30,721,269	341,615,666
TheBrainDit	132,285	8,330,000		2,694,914	44,092,622
Games EduUu	1,047,474	8,300,000 8,260,000	75 157	20,625,081	186,404,936
elrubius FaZe Clan	1,717,383 335,169		157 84	51,355,921 5,232,440	608,099,694 160,424,585
		8,230,000		, ,	, ,
Unspeakable UDiEX2	2,200,326	8,080,000	140 259	26,188,531	1,068,316,293
	831,378	8,050,000		17,466,081	358,366,168
FrontaL Gaming	845,313 590,935	8,000,000	149 65	13,462,363	338,815,543
Rodrigo F Gamer Respeita Levinho	590,935 1.738.040	7,990,000	65 426	20,393,228	120,608,185 785,640,540
	1,738,040	7,900,000	426	41,955,083	785,640,540
Atro أترو/	8,503,731	7,800,000	412	92,912,040	844,352,826
sTaXxCraft	108,447	7,790,000	93	4,096,013	42,479,035
CRACKS	1,034,627	7,710,000	136	20,053,140	299,312,298
BoomSniper	316,036	7,680,000	89	11,971,070	203,567,553
BanderitaX	1,958,206	7,640,000	201	42,709,594	438,281,775
JoshDub	671,786	7,600,000	70	16,357,649	527,984,685

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Table A2. Cont.

YouTube Profile	Number of Comments (Total) <sup>a</sup>	Fans <sup>b</sup>	Number of Publications <sup>c</sup>	Number of Likes <sup>d</sup>	Sum of the Impressions of Individual Messages <sup>e</sup>
Fe4RLess	400,067	7,590,000	2	2,027,461	56,042,889
I AM WILDCAT	277,968	7,510,000	324	9,704,065	310,834,044
GAME OVER مصطفى	1,228,132	7,510,000	89	17,666,936	183,044,904
Smosh Games	99,121	7,430,000	92	1,697,993	41,208,716
CGGG	346,029	7,330,000	252	11,125,872	231,189,496
MrLololoshka (Романфильченков)	1,658,327	7,240,000	496	27,303,590	290,652,894
YOGSCAST Lewis & Simon	189,011	7,200,000	312	3,855,665	89,761,221
Coffi Channel	1,170,609	7,190,000	732	25,398,197	337,203,373
EdisonPts	3,980,809	7,190,000	368	39,847,448	814,252,289
Daithi De Nogla	248,926	7,070,000	308	6,110,740	133,410,463
MoonKase	1,057,066	7,040,000	811	29,981,015	368,686,906
BETO GAMER	313,547	7,030,000	436	19,643,384	312,804,676
Canal Clash War	2,192,117	6,940,000	358	36,374,881	223,099,286
kemas pake z	783,246	6,930,000	286	6,724,187	153,045,168
DeGoBooM	792,026	6,840,000	371	13,263,460	273,500,157
iHasCupquake	163,633	6,770,000	275	1,380,019	35,101,269

<sup>&</sup>lt;sup>a</sup> Number of comments (total): 'Sum of direct comments (first level) and sub-comments (second level) on posts' (Fanpage Karma Academy). <sup>b</sup> Fans: 'Number of subscribers to a cannel' (Fanpage Karma Academy). <sup>c</sup> Number of publications: 'Number of videos published in the selected time period' (Fanpage Karma Academy). <sup>d</sup> Number of Likes: 'Average number of 'likes' on videos published in the selected period, divided by the number of videos in the selected period' (Fanpage Karma Academy). <sup>e</sup> Sum of the impressions of individual messages: 'Number of views of videos published in the selected period' (Fanpage Karma Academy).

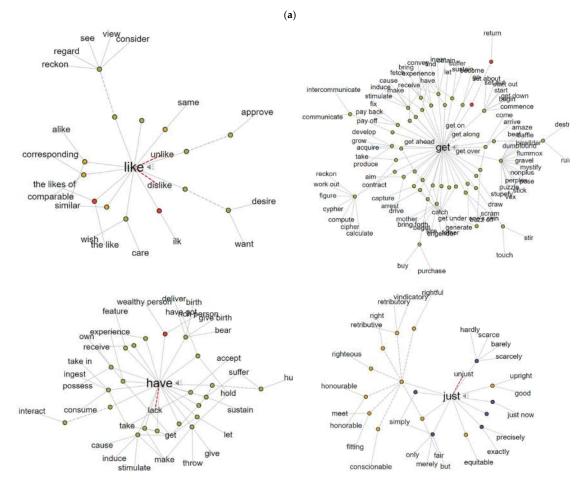
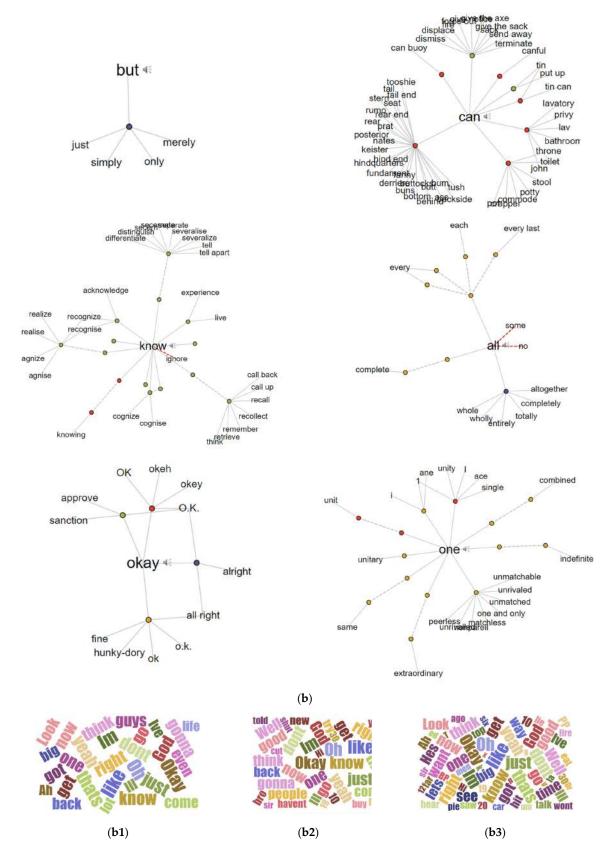


Figure A1. Cont.

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**Figure A1.** Total semantic analysis of the 100 videos with the largest numbers of likes from 20 August 2019 to 20 August 2020 of the top 100 influencing gamers. (a) Branch graphics. (b) Density clouds. (b1) Density clouds with 100 most frequent words. (b2) Density clouds with 500 most frequent words. (b3) Density clouds with 1000 most frequent words.

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