

CREATORS AS OPERATORS:
AN EXAMINATION OF THE EFFECTS OF THE COPPA RULE APPLICATION ON THE
YOUTUBE KID'S CONTENT ECOSYSTEM

by

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Abstract

YouTube is a video-sharing website and application consisting of user-generated content (UGC), formally restricted to people 13 and older. However, its popularity with a younger audience has been knowingly growing, and in September 2019, the Federal Trade Commission (FTC) claimed that YouTube illegally collected personal information from children without their parents' consent, violating the Children's Online Privacy Protection Act (COPPA). To settle the allegations, Google and YouTube were required to pay a \$170 million fine and implement a system to obligate channel owners to identify if their content is child-directed.

This study is comprised of an extensive literature review and a detailed content analysis of comments, videos, official communications, and documents related to the settlement, aiming to identify the potential impacts on the various actors and uncover opportunities to improve this policy implementation in the future. The results demonstrate that both creators and parents expect that children's content creators will suffer a significant reduction in their ability to generate revenue and, consequently, be discouraged from starting or continuing to create

children content, either abandoning their channels or switching their content strategies toward an older audience. The results also indicate that female creators are at higher risk of being affected.

Overall, these findings support the notion that the COPPA rule's implementation will harm children's content creators' abilities to build a career, contributing to the return of the *status quo ante*, where big companies dominate children content's production, and will also potentialize gender inequality on media. Furthermore, by reducing the availability of appropriate content on YouTube, it will undermine parents' ability to make choices, and their children will either lose access to online content or be exposed to more mature videos and ads. Thus, there is a need to find a balance between protecting children's online privacy and preserving the platforms' sustainability, to contribute to the universal access to diverse and high-quality digital resources for children.

Keywords: YouTube; COPPA Rule; critical political economy; children's online privacy; platform governance.

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Dedication

*Para Vovó Luzia e Tio Marcos,
por todo o amor e alegria que nos deram*

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1. Introduction

YouTube is a video-sharing website and application consisting of user-generated content (UGC), which has approximately two billion monthly active users (YouTube, 2019a). The platform is formally restricted to people 13 and older, but its popularity with younger children is knowingly growing (Common Sense Media, 2017; Rideout & Robb, 2019). According to the statistics website Social Blade, 7 of the 20 most viewed channels on YouTube are aimed at kids. CoComelon, an entertaining and educational channel for preschoolers, is the most-viewed YouTube channel based in the United States, accumulating over 65 billion views and 84.7 million subscribers since it joined YouTube in 2006 (CoComelon, 2014; Social Blade, 2020).

Given this fact, the concern over children's safety on YouTube is also increasing, and advocates are demanding protective measures against excessive marketing practices and personal data collection (Chester, 2011; Livingstone & Third, 2017; Campbell, 2017). To address the issues, in February 2015, Google LLC launched the YouTube Kids app, a filtered version of YouTube that offers more parental control, reduced data collection and no target ads (YouTube, 2015).

Despite the now existence of this platform for children, the concerns over their safety and privacy online have not lessened (Stanton, 2018). Conversely, advocates encouraged the Federal Trade Commission (FTC), a United States government's independent agency responsible for enforcing antitrust and consumer protection laws, to investigate YouTube practices (CCFC, 2017; CCFC, 2018). In September 2019, the FTC claimed that YouTube illegally collected personal information from children without their parents' consent, violating the Children's Online Privacy Protection Act (COPPA) rule.

To settle the allegations, Google and YouTube were required to pay a \$170 million fine and implement a system to allow channel owners to identify if their content is child-directed, along with other measures (Federal Trade Commission, 2019d). The FTC also declared that COPPA Rule applies to YouTube channel owners in the same way it would if they had a website or app and, therefore, they may face civil penalties of up to \$42,530 per violation (Cohen, 2019).

Since then, YouTube has completely restructured their system and creators were required to inform if their videos are children-directed or not. Indicating the content as "made for kids" causes a number of restrictions both on the video and channels levels and reduce their revenue. The directive provided by the FTC, however, lacks clarity about what is to be considered as "made for kids" (Perez, 2019b), and YouTube declared that failing to set the audience accurately may cause compliance issues and that they cannot provide legal advice (Google, 2019a). Even with this being the case, YouTube went forward and put in place an automated system to identify kids-content and override a creator designation if abuse or error is detected (Google, 2019b).

The event caused a big commotion in the YouTube community and became a subject of lively discussion amongst users and channel owners that are worried about their future on the platform (Kelly & Alexander, 2019). Many creators published videos questioning, explaining, criticizing, or sharing their concerns about the topic. The YouTube creator Jeremy Johnston also created an online petition called "SAVE Family-Friendly Contents on YouTube," which gathered more than 900,000 signatures to date (Johnston, 2019).

Alongside, the FTC conducted a workshop on the "Future of the COPPA Rule" and requested public comment on the implementation of the policy. The open forum received massive public participation, with submissions totalizing more than 176.000 comments from

YouTube creators, YouTube users, children's rights advocates, parents, kids, and others (Federal Trade Commission, 2019c).

The way the COPPA Rule is currently being implemented will set the parameters for future application of that and other online privacy policies. Therefore, it is crucial to identify potential impacts and understand the outcomes from the perspectives of the various actors interested in the matter. This research is the first study to examine the potential consequences of a new application of the COPPA Rule under a new interpretation, in which thousands of creators will be considered the operators, while the platform will take the role of overseeing compliance.

1.1. Research Objectives and Questions

The present major research paper consisted of an extensive literature review and a detailed qualitative analysis of comments, videos, official communications, and documents related to the recent FTC and Google LLC, YouTube settlement under the COPPA Rule. The research goal is to identify the potential impacts on the various actors and uncover opportunities to improve that policy's implementation in the future. It also looks into the political economy of YouTube, participatory culture, platform governance, digital labour, and children's privacy issues aiming to understand the implications of the recent COPPA Rule implementation on the children's content ecosystem on YouTube and to identify risks and opportunities for improvement of the policy mechanisms.

More specifically, the study intends to answer the following questions:

RQ1: Who are the actors with a vested interest in the COPPA Rule application on YouTube, what are their positions, and what are the perceived risks, challenges and opportunities to them?

RQ2: How did the COPPA Rule's implementation process impact creators, and how can it affect the future of the children's content ecosystem on YouTube?

RQ3: How can the COPPA Rule and its implementation mechanisms on online platforms like YouTube be improved to minimize the risks and potentialize the opportunities perceived by the various actors?

2. Theoretical Framework

Political economy is broadly defined by as the study of control and survival in social life, in which control refers specifically to the internal organization of relationships within a society – political processes – and survival means how people produce what is needed to reproduce themselves and maintain their society going – economic processes (Groenewegen, 1991; O’Hara, 1999; Mosco, 2009). In a narrower approach, Mosco (2009) describes the political economy as the study of the social relations – especially the power relations – that comprise the production, distribution, and consumption of resources, including communication resources such as newspapers, books, videos, films and audiences.

The political economy of communication examines how media and communication systems relates to the broader structure of society and how they are shaped by ownership, support mechanisms, and government policies (McChesney, 2000). This approach accepts both abstract ideas and concrete observations as real and recognizes that neither economics nor culture alone is enough for the understanding of communication. Its conceptual framework is built on three processes that guide political economy research: commodification, spatialization, and structuration (Mosco, 2009).

Commodification is the process of transforming goods and services' use value into exchange value that can be taken to the marketplace. The process begins with the capitalist purchase of the commodities "labour power" and "the means of production" to produce an output that is sold for more than originally invested. In nature, this relation is exploitative of forces labours, but the degree of exploitation depends on the state of the class struggle (Mosco, 2009).

Spatialization is the transformation of space with communication. Markets, systems and relationships are continually being transformed across time and space by communications

technologies, requiring constant adjustments in the structures and regulations. Finally, *structuration* is the process of building structures with social agency. Social class, race and gender are structural characteristics that both enable and constrain human agency and power, engaging with the processes of production, distribution and consumption of resources. Structuration joins the processes of commodification and spatialization to balance the political economy of communication analysis (Mosco, 2009).

In a yet more delimited conception, critical political economy (CPE) goes beyond the political and economic dimensions of communication to tackle social justice and emancipation questions (Golding & Murdock, 1991; Wasko et al., 2014). CPE is the tradition of analysis in media and communication studies, in which emphasis is placed on asymmetrical relations of power, aiming to understand how inequalities are sustained and reproduced. It acknowledges that different ways of organizing and financing communication affect the production and consumption of media; thus, understanding production is taken as crucial to understanding media content and audiences thoroughly. As a method, CPE considers all kinds of communication processes while investigating how people, ideas and values are represented in media discourses, whose voices and concerns get to be heard, how resources are allocated and distributed, and to whom information and media get to be available (Hardy, 2014, pp. 3-9).

In the present study, the theoretical tradition of CPE, with a particular interest in aspects of commodification and structuration, will be used as the framework to examine the reorganization and power relations of YouTube and creators, especially under the circumstances of the COPPA Rule application. The discussion is informed by concepts of digital labour, participatory culture, network effects, and governance to identify and understand concerns, impacts, and outcomes from the perspectives of creators and other actors impacted by the matter.

3. Literature Review

3.1. The Political Economy of YouTube

YouTube was launched in 2005 to rapidly be the "world's most popular online video community". In its initial conception, the founders decided not to adopt a revenue model based on advertisement, primarily relying on investment funds from Sequoia Capital, a venture capital firm (Wasko & Erickson, 2009). In 2006, Google Inc. acquired YouTube, although the platform remained as an independent subsidiary (Dickey, 2013).

Since its foundation, YouTube has promised to democratize media production and consumption. In fact, the platform has allowed ordinary people to share content and profoundly altered the way audiences engage with media. However, its owner's underlying motives cannot be ignored (Wasko & Erickson, 2009). Shortly after being acquired by Google, YouTube rearranged its revenue model. In 2007, creators were converted into partners, and the online audience was translated into advertising revenue – or monetization, as YouTube and Google rather say – constituting a multisided platform (Dickey, 2013).

Multisided platforms are defined as markets that create value by enabling interdependent interactions between three or more parties. YouTube is a user-generated content platform where three distinct groups are connected: users (i.e. viewers), content/service providers (i.e. creators), and advertisers (brands and companies). The platform acts as an independent intermediary, while the different sides are interdependent in a way that their actions interfere in each other, directly or indirectly, causing cross-platform network effects that can be positive or negative (Shelanski et al., 2018).

Over the years, YouTube diversified its revenue model to add other streams, including memberships, merchandise, and subscriptions beside the advertisements. In 2020, Google

disclosed YouTube's ad revenue for the first time, making public the information that YouTube generated \$15 billion in the previous year, contributing to roughly 10 percent of all Google revenue (Statt, 2020).

Meanwhile, YouTube evolved from being an amateur UGC platform to embrace, and even stimulate, professionally generated content (PGC) (J. Kim, 2012; Hou, 2018). Initiatives like the YouTube Spaces, the YouTube Partner Managers program, and the YouTube NextUp contest are examples of tools that YouTube utilized to encourage further professionalization of content creators (YouTube, n.d.-a). At the same time, creators started producing content with entrepreneurial calculation to sometimes succeed to build solid businesses and careers (Arthurs et al., 2018; Hou, 2018).

Multichannel networks (MCNs) emerged to link non-professional creators to technical, marketing, advertising, and production services and opportunities (Cunningham et al., 2016; Lobato, 2016). Also, as online video services were getting more popular, the media industry recognized the potential of YouTube as a new distribution window and source of advertisement revenue. While PGC and UGC videos can co-exist on YouTube, the dominance of PGC videos potentially outweighs and marginalizes UGC content (J. Kim, 2010; Stern & Lamont, 2017).

Clearly, the initial enthusiasm and beliefs that YouTube would be an open, democratic and uncommercialized public space did not materialize. Instead, a complex algorithmic system for content selection, exclusion and distribution were adopted to enhance advertising. According to Laidlaw (2015), social networking and high-traffic sites – like YouTube – are “authority gatekeepers”, which play a significant role in democratic culture. When YouTube ranks, promotes, restricts, and deletes videos, the viewers' perceptions are influenced, shaping the democratic discourse in the community.

The commodification of labour also surfaced as a troublesome issue as the user may unequally and inadequately be compensated by their work, being exploited for profit (Wasko & Erickson, 2009). Users producing content are part of the "digital labour architecture" of YouTube, and part of them receive revenue from the platform advertisement system (Postigo, 2014). In 2010, the "Broadcast Yourself" tagline was removed from the YouTube's logo. The platform started positioning producers as "content creators" and incentivizing them to "create and share great videos", "connect with fans", and "build a business and get help to grow", denoting the possibility of achieving economic gains (Hou, 2018).

Postigo (2014) demonstrates YouTube's enduring business strategy of generating profit through advertising and revenue sharing with producers. While some of them thrive and get high sums, others get little or no payment at all. In a statistical analysis over the first ten years on YouTube, Bärthl (2018) found that an average 85% of all views goes to a small minority of 3% of all channels. However, no matter the scenario, YouTube always wins as they receive 45% of the gross advertisement revenue regardless of which channels earned it. Additionally, according to Fuchs (2013), their business model is based on the transformation of users' data into a commodity that is sold to advertising clients, and the process of creating this data is considered value-generating labour, which is equivalent to housework.

The capability to impose limits and bans, change terms unilaterally, control access, categorize content, allocate revenue, and create incentives puts YouTube in a position of considerable power. The platform-dependent users, workers and entrepreneurs face the risk of being penalized or excluded at any moment and also have to continually adjust their behaviours to satisfy the platform guidelines and algorithms, renouncing to a great part of their autonomy (Lohmann, 2009; Robertson, 2016; Alexander, 2019a; Cutolo & Kenney, 2020).

Some of them are able to diversify their income and minimize the dependency on such revenue (Cutolo & Kenney, 2019). However, this strategy is notably harder for children-directed channels, as they cannot use the alternatives YouTube monetization features (e.g. the merchandise shelf, channel memberships, or SuperChat) and might be subject to specific regulations that restrict the use of external sources. Also, not all creators engage in producing YouTube content for monetary motives, as many seek creative autonomy, liberation from social, spatial, and institutional constraints, connection with niche audiences, self-realization, or future work (Kuehn & Corrigan, 2013; Zboralska, 2017).

While many studies focus on the macrolevel aspects of the political economy and platform governance of YouTube (Wasko & Erickson, 2009; J. Kim, 2010; Frau-Meigs, 2013; DeNardis & Kackl, 2015), there has been little consideration of the more specific impacts on creators and users. Cutolo and Kenney (2020) state that, although recognition of the power asymmetry is growing, the power dynamics faced by platform-dependent entrepreneurs was not comprehensively explored yet and also recommend further research about how creators cope with the uncertainty and consequent stress, anxiety and precarity in their work.

Participatory Culture and CPE

The theory of participatory culture was developed by Henry Jenkins and proposed that media consumers migrated from being mere spectators to also being producers, actively participating in the making of culture (Jenkins, 2006). According to Jenkins (2009, pp. 5-6), the participatory culture framework is defined by five characteristics:

- 1) Low barriers to artistic expression and civic engagement;
- 2) Strong support for creating and sharing creations with others;
- 3) Informal mentorship whereby the most experienced passes information along to novices;

- 4) Believe that their contributions matter, and
- 5) Feel some degree of social connection with one another.

In this culture, not every community member must contribute, but they believe that they are free to do so if they want and that their contributions will be appropriately valued.

The audiences may not produce media content, but still do an important work evaluating, critiquing, recirculating material, and contributing to broader conversations about the content they consume (Jenkins et al., 2018, pp. 153–193).

Some of the benefits for the community include the establishment of social connections, the diversification of cultural expression, and the creation of affinity spaces and opportunities for sharing knowledge. On the other hand, participants may face unequal access to digital media (the *participation gap*), the lack of awareness of how media shape perceptions of the world (the *transparency problem*), and the lack of skills to cope with complex and diverse online environments (the *ethics challenge*) which suggest the need for policy and pedagogical interventions (Jenkins, 2009, pp. 5-15).

YouTube's conception is grounded in the participatory culture concept. The platform combines media production and social tools that make it an ideal place for creating, connecting, collaborating and learning. However, Fuchs (2014) argues that Jenkins approach misses a theoretically grounded understanding of participation. His model focus on cultural aspects of participation – online collectives creating and sharing content – but ignores the notion of participatory democracy that comprehends political, political-economic, and cultural dimensions.

In practice, there are economic, political and cultural aspects of participation that are disruptive and determine who gets to speak and who is heard, what are the compensations for creativity and work, and other uncertainties around expertise and authority. The platform

exercises its role in curating and distributing content in ways that control the conditions of participation and experiences while serving its business logic (Burgess & Green, 2018).

Müller (2009) points the "participation dilemma" as an issue that arises from the democratization of the media culture. If on the one hand, untrained non-professionals can now access the formerly highly professionalized media ecosystem and start redefining its tacit norms and standards, on the other hand, this is identified as a problem, since the same "uneducated" participants may neglect professional standards of craftsmanship, aesthetic quality or ethic norms. Because of that, the new participants must be trained in order to guarantee the "state of the art" and to prevent them from being exploited, abused or mocked. Therefore, the dilemma is that whenever a cultural elite starts to train and professionalize the new participants, those traditional cultural barriers and hierarchies that have been questioned by the emerging participatory cultures are rebuilt.

Zboralska (2018) introduces the concept of the "participatory culture paradox", whereas although the democratization of media platforms enables creators' activities in the online space, it also leads to a saturation of online content. With platforms centralizing viewing, it becomes easy for the audience to substitute instead of paying for content, and the expectation for free-content unevenly constrains the capacity of professional creators to find audiences and monetize their work.

Finally, Porlezza (2019) discusses how accountability risks, participation inequality, and challenging phenomena such as trolls, incivility, or hate-speech are leading to "participatory fatigue" and, in consequence, the shutting down of user comments and newsroom blogs.

3.2.YouTube Technical Aspects

YouTube is an online video-sharing platform where users can upload, watch, share, rate and comment on videos, navigate and subscribe on channels, and interact with other users. The service can be used on Desktop, mobile phone, tablet or TV, both by registered and non-registered visitors, although access to some features requires logging in. Viewers can navigate YouTube in a total of 76 different languages (YouTube Creator Academy, n.d.-b). Besides the main website and app, YouTube offers some other products that offer particular tools or segment-specific features (namely, YouTube Go, YouTube Kids, YouTube Music, YouTube Originals, YouTube Premium, YouTube Studio, and YouTube TV).

The premise of the system is that anyone can organize channels and upload videos for others to watch. The videos are available to viewers on the channels' homepage, but also in six different sections on YouTube: home, search, suggested videos, trending, subscriptions, and notifications, as described in Table 1 (YouTube Creator Academy, n.d.-a).

Table 1

Sections of YouTube's Search and Discovery System

Section	Description	Content
Home	The page that viewers see first when they open the YouTube app or website.	Videos that are selected by performance (i.e., engagement and satisfaction among similar viewers) and viewer's watch and search history.
Search	Search bar available at the top of the navigation pages for queries.	Videos based on a variety of factors, including how well the title, description, and content match the viewer's query. By default, they are ranked based on relevance, but the user may also use filters and sort the results by upload date, view count or rating.

Section	Description	Content
Suggested videos	The videos that are shown to viewers on the right side of the watch page, below the video on the mobile app, and as the next video in autoplay.	Personalized collection of videos that an individual viewer may be interested in watching next, based on the current video's topic and the viewer's prior activity.
Trending	Categorized lists of what videos are new and popular on YouTube in a viewer's country.	The selection aims to combine popularity with novelty and considers view count (especially the rate of growth in views), where views are coming from, and other signals.
Subscriptions	A tab that shows a collection of videos from channels a viewer is subscribed to.	This feed includes highlighted videos and a list of all the most recent uploads. Subscription content may also be displayed on Home and in Suggested Videos.
Notifications	Notifications are alerts sent via mobile push alerts or emails when a new video is made public.	By default, YouTube only sends occasional notifications from channels that the viewers frequently watch or are subscribed to. Viewers can choose the frequency of notifications they receive (none, some, or all notifications).

Channels can be customized with profile and banner pictures, a unique URL, links to other websites and applications, and other features that are specific to each tab in the channel. A channel may have all or some of the following tabs:

- Home, which is the first seen by the audience when they visit a channel. It can show a feed of activities or sections of a customized layout. The sections may contain videos, a single playlist, or a group of playlists. Some creators assemble them around topics, while others create unique sections for formats such as episodic content.
- Videos, which shows a list of all uploads publicly available and/or all the videos publicly liked by the channel owner;

- Playlists, which displays a list of playlists created by the channel owner;
- Community, which is available to channels with over 1,000 subscribers. It is a community feed where the channel owner can interact with viewers using rich media. Community posts can include polls, GIFs, text, images, and video. They appear on the Community tab and may also appear in other YouTube feeds;
- Store, which is available to channels live with the merch shelf and with at least 1 item eligible to be displayed on the shelf. This tab showcases all items currently displayed on the channel owner's merch shelf.
- Channels, which shows featured channels and channels to which the channel owner is subscribed; and
- About, which has a channel's description, location, contact information, and custom links.

Videos can also be customized by the content creator with explanatory details like title, description, thumbnail, and other metadata (e.g. tags, language, category, and subtitles). That information is used to communicate both the viewers and YouTube's search engine about the video content.

Besides the possibility of uploading videos, YouTube offers several tools and features to help creators to improve retention and engagement such as the subscribe, like and dislike buttons; the comment section, the branding watermark (i.e. logo automatically displayed over the videos which allows the viewer to directly visit or subscribe to the channel); cards and end screens (i.e. direct link to videos, channels and external links selected by the creator to be displayed on each video); live videos with live chat; stories; playlists; the notification bell; the auto-mode; and the mini-player to playback video.

Algorithmic Governance

The democratization of producing and publishing content online has many advantages; however, it generates a sheer volume of information that makes the task of sorting relevant content virtually impossible to the consumers (Anand & Mobasher, 2005). If users are not able to find interesting videos as soon as they open the YouTube website or app, chances are they will not spend much time navigating on the platform. Hence, a mechanism that automatically identifies and presents the most relevant content for each one of the viewers is crucial for the platform's success.

The mechanism that sorts content based on the users' interests is called "personalization". The personalization system collects and analyses information about the user's previous and current activities to infer their interests and necessities (Anand & Mobasher, 2005). As a result, every single video that shows up on the user's screen is programmatically sorted to satisfy their individual expectations, and two different users will never have the same experience while navigating on YouTube.

Websites and apps' personalization process is automated by constantly-updated algorithms, which are logical functions designed to perform a sequence of instructions and operations to solve a specific problem. On YouTube, the algorithm is programmed to improve users' discovery experience by predicting their preferences and behaviours. The system is so effective that more than 70 percent of the time spent on YouTube is dedicated to watching the videos that the algorithm recommends (Solsman, 2018).

Initially, the parameter considered by the algorithm for deciding the most relevant videos on YouTube was views count (i.e. popularity). However, this approach was favourable to sensationalist, controversial, and misleading content instead of rewarding high-quality videos.

Consequently, after 2012, YouTube improved the algorithm to benefit videos that improved view duration and session time of the user on the platform (i.e. retention time). Although that system helped to increase quality, it is still not perfect, and YouTube keeps continuously refining it, especially through artificial intelligence.

In 2016, Google researchers published an article describing how deep neural networks and machine learning command the YouTube recommendation system (Covington et al., 2016). “Machine learning” is the use of algorithms and modelling techniques for automating solutions to complex problems. The goal of the process is to train the algorithm to recognize a model or a set of rules from a labelled dataset so that it can discover patterns and correctly predict outcomes and behaviours related to data points that are not in the dataset (Rebala et al., 2019). Currently, the algorithm decision process uses a multi-task ranking system and considers several factors to predict two categories of user behaviours (i.e. engagement and satisfaction) (Zhao et al., 2019).

YouTube continuously monitors the algorithms' performance and works on improving the system, inputting data to improve content quality, benefit ad-friendly videos, and inhibits the spread of controversial material. While this mechanism is very beneficial for organizing the users' interface, personalizing their experience, and optimizing their navigation on the platform, it also has many disadvantages, for instance:

- The necessity of data collection for feeding the system raises concerns related to privacy (Wang et al., 2018);
- Excessive personalization can create filter bubbles (Jankowski, 2014; Borgesius et al., 2016);
- The reproduction of power structures and discrimination can perpetuate unfairness and inequity (Glasner, 2018; Haskins, 2019);

- Changes and errors can cause anxiety and a sense of injustice on creators (Plaugic, 2017; Gerken, 2019); and
- The machine learning process can create rabbit holes of controversial content or accidentally lead the audience to inappropriate videos (Brodkin, 2019; Graham, 2019; Tufekci, 2019).

Finally, some studies endeavoured to understand how algorithms are used to control creator behaviours. Kumar (2019) studied how this practice affected content production on YouTube after the “Adpocalypse” in 2017, noting that it induced a long-lasting sense of precarity among creators and incentivized them to stay away from particular topics, genres and categories of content. Another study about the same event analyzed Reddit comments and found that algorithms are perceived as being able to autonomously watch, flag, and delete content, ultimately having more agency over creators than the YouTube platform itself (Tuijl, 2018).

Partnership and Monetization

The YouTube Partner Program (YPP) is a system that allows content creators to receive part of the revenue produced on YouTube. Firstly, the platform only had partnership deals with traditional media companies like NBC and BBC to make programming and cross-promotional advertising (Sandoval, 2006; BBC, 2007). YouTube treated the content provided by those professional partners differently from the content created by the general public by offering revenue share and other benefits to them.

In May 2007, YouTube extended the partnership program to selected creators. The most popular and prolific original content creators were added to the YPP and began to participate in the same revenue sharing and promotions opportunities that were available to professional content partners. Other creators were then invited to express interest in being part of the program

if they met the qualifying criteria (YouTube, 2007). The minimum requirements to be accepted in the program were:

- To create original videos suitable for online streaming;
- To own the copyrights and distribution rights for all audio and video content uploaded;
- To regularly upload videos that are viewed by thousands of YouTube users, or to publish popular or commercially successful videos in other ways (such as DVDs sold online);
- To be located in the US, Canada, or the UK.

The benefits of becoming a YouTube Partner included earning money, gaining access to demographic and other data about the content, joining rankings of top content providers, and streaming videos in higher quality. There were three forms of monetization: allowing relevant advertisements to be displayed with the videos, participating in co-marketing and branded entertainment opportunities, or making them available for rental via streaming (YouTube, 2009). In 2008, about one year after the program was extended, the most successful creators were earning up to six-figure incomes solely from YouTube (Stelter, 2008).

In 2012, the YPP was expanded even further to virtually enable anyone located in countries where it was available to participate. YouTube uploaders in these countries could become YouTube partners by simply enabling their YouTube accounts and successfully monetizing at least one of their videos (YouTube, 2012). In order to be monetized, the videos had to be advertiser-friendly and comply with YouTube's Terms of Service, Content Policy Guidelines and Community Guidelines (YouTube, 2013).

The YPP new system allowed many creators to make a living on YouTube, but its growth also caused an increase in cases of abuse, especially by users re-uploading original content to try to earn revenue. Because of that, in early 2017, YouTube updated the thresholds required to join the program. With the new rules, channels would only be admitted to YPP when they reached 10,000 lifetime views. The new threshold objective was to give YouTube enough information to determine the validity of a channel and to confirm if it is following the community guidelines and advertiser policies (YouTube, 2017b).

Despite the changes in the admission criteria for the program, 2017 was a year marked by scandals and outrage after videos containing hate speech, violence, extremism and child abuse were found to be monetized. Big companies like Coca-Cola, Amazon, Adidas, Mars and others withdrew their ads from the platform and pushed YouTube to take action (Alexander, 2017; Mostrous, 2017). In response, YouTube tightened its policy on what content can appear on the platform and toughened its enforcement, automatically removing and demonetizing thousands of videos and channels (Plausic, 2017; YouTube, 2017a). The event caused great anxiety in the YouTube community, and became known as the “YouTube Adpocalypse” (Caplan & Gillespie, 2020; Dunphy, 2017; Weiss, 2017; Maloney, 2018).

In 2018, YouTube announced additional changes to the YPP to prevent bad actors from harming the YouTube ecosystem. The eligibility requirement for monetization was updated to 4,000 hours of watch time within the past 12 months and 1,000 subscribers. Channels that reach the threshold need to apply and are evaluated under strict criteria to ensure they comply with all YouTube policies and guidelines (YouTube, 2018). Currently, the general benefits of being a YouTube Partner are:

- Access to Creator Support teams

- Access to the Copyright Match Tool
- Access to monetization features

Other benefits are available depending on the level of the channel. Besides being part of the YPP, creators may qualify to receive awards or gain access to special events, production hubs, specific monetization features, and other YouTube programs, as summarized in Table 2 (YouTube, n.d.-a).

Table 2

YouTube Creator's Benefit Levels

Level	Threshold (subscribers)	Benefits
Graphite	1 to 1,000	<ul style="list-style-type: none"> • None
Opal	1,000 to 10,000	<ul style="list-style-type: none"> • May be eligible to apply to YPP
Bronze	10,000 to 100,000	<ul style="list-style-type: none"> • May be eligible to apply to YPP • Production Access (YouTube Spaces) • May be eligible to enter the YouTube NextUp Contest • May be eligible to specific monetization features
Silver and up	More than 100,000	<ul style="list-style-type: none"> • May be eligible to apply to YPP • Maximum Production Access (YouTube Spaces) • May be eligible to receive awards (Silver, Golden, Diamond, Custom, and Red Diamond Creator Awards) • May qualify for the Partner Manager Program • May receive exclusive invites

Once the creator is accepted to the YPP, they can start monetizing their content in different ways, but still having to meet additional criteria. The most known monetization

resources on YouTube are the ads that appear beside the video (display ads), over the video (overlay ads), or during the video playback (skippable, non-skippable, and bumper video ads). These ads are served through Google's advertisement systems (i.e. AdSense, Ad Manager, and other YouTube-sold sources) and are automatically chosen based on context or the viewer's interest (YouTube, n.d.-b).

Ads based on context are known as “non-personalized ads”. They are targeted using contextual information such as rough geolocation (i.e. city-level), content on the current site or current query terms. “Personalized ads”, on the other hand, are based on the viewer's past behaviour. The automated system relies on previously collected or historical data to make inferences about the user and serve ads that are tailored to their interests. Personalized advertising improves the relevance of the ads for users and increases the Return on Investment (ROI) for advertisers (Google, n.d.-a). This type of ad is usually more expensive for advertisers and, thus, generates higher revenue for YouTube and creators.

Due to the complex nature of personalized ads, Google adopts policy standards for data collection and use in personalized advertising in all of its products, including YouTube. These standards set principles to prohibit the use of legally or culturally sensitive interest categories to target ads to users, including personal hardships, identity and belief and sexual interests (Google, n.d.-b).

Lastly, in addition to ads revenue, YouTube creators can use other monetization resources offered by YouTube, such as memberships, merchandise selling, and others. The list of YouTube monetization options is detailed in Table 3 (YouTube Creator Academy, 2020). Some creators also make revenue from external sources like fan-funding websites (i.e. Patreon),

sponsorships, product placement and brand deals, affiliate links, or services such as coaching and consulting (Becker, 2020).

Table 3

YouTube Monetization Options

Feature	Description	Eligibility
Ad revenue	Advertisement revenue from display, overlay, and video ads. The ads may be personalized or contextual.	Video content meets the advertiser-friendly content guidelines.
Channel memberships	Channel members make recurring monthly payments in exchange for badges, emojis, and access to custom perks that the creator offers and delivers.	Must have more than 30,000 subscribers.
Merchandise shelf	Fans can browse and buy official branded merchandise that's showcased on the creator's watch pages.	Must have more than 10,000 subscribers.
Super Chat and Super Stickers	Fans pay to get their messages highlighted in chat streams, standing out from the rest.	Must be located in a country/region where Super Chat is available.
YouTube Premium Revenue	The creator gets part of a YouTube Premium subscriber's subscription fee when they watch their content.	Must have content watched by a viewer who is a YouTube Premium subscriber.
Ticketing (Artists only)	Fans can learn about upcoming concert listings and purchase tickets directly from one of YouTube's ticketing partners.	Must be a music artist on YouTube in a country where it is available.

3.3.Children Online

It has been estimated that one child in three is an internet user at the global level, and most of them have their own devices. On average, children eight and under spend over 2 hours a day with screen media, while older children (8 to 12 years old) spend almost 4 hours a day

(Common Sense Media, 2017; Rideout & Robb, 2019). Thus, millions of children worldwide have access to a realm of entertainment and information that allows them to learn in new and engaging ways, opens up endless opportunities for participation, and increases the range of skills they develop (Stalker et al., 2019).

Digital connectivity's benefits include formal and informal learning opportunities related to health and wellbeing, literacy, activism and participation, recreation and play, identity, belonging and interpersonal relationships, resilience, consumer practices, and future employability (Livingstone & Third, 2017; Unicef, 2017). However, the digital world is also filled with unique risks that can lead to harm such as access to inappropriate content, cyberbullying, excessive use, consumerism, sexual abuse and exploitation, ideological persuasion and radicalization, and personal data misuse and violation (Unicef, 2017; Stalker et al., 2019).

Online Privacy and Digital Marketing

Privacy is difficult to delimit as it has different meanings to different cultures and aspects of human life, but in a general approach, the concept is outlined as the boundaries between the self and the others, the private and the public, and how much knowledge and control the individual has over sharing their own data (Acquisti et al., 2016).

Among the risks faced by children online, privacy violation and data collection represent one of the parents' top concerns. According to a study conducted by the Pew Research Center in 2012, 81% of parents of online teens say they are concerned about how much information advertisers can learn about their child's online behaviour; and 46% are "very" concerned about the issue (Madden et al., 2012).

Data collection and online surveillance are conducted both by the public and the private sector. Mass surveillance is part of many national security programs and, although it is not clear how the data is processed and stored, governments may be able to build and maintain records of children's entire digital existence (Nyst, 2017). Collecting personal data is also critical for businesses, and children are important targets, as they can influence their friends' and families' buying decisions and are also significant consumers themselves now and, crucially, in the future (Nyst, 2019). In that case, the children's data is collected, processed and shared with companies for analytics, personalization, and advertising purposes.

Children are particularly vulnerable to personalized advertisements and, at the same time, can be less aware of the importance of safeguarding personal information. It may be a problem as the surveillance and data use can transform the children's digital world in a marketing machine, which will not only watch, record, and exploit what they are doing but also alter the online social environment where they are navigating, impacting their sense of self and security (Unicef, 2007). On the other hand, that datafication may provide benefits for children, such as pleasure, enjoyment, information, education and opportunities of participation, self-improvement and self-presentation (Lupton & Williamson, 2017).

The United Nations Convention on the Rights of the Child (UNCRC) states that children have a specific right to privacy (United Nations, 1989); thus, the collection, analysis and profiling of children's data – both online and offline – can damage that fundamental right. However, respecting children's privacy is not as simple as prohibiting the collection of personal information. Opportunities and risks are positively related, and excessive protection may undermine provision and participation, other core principles of the UNCRC (Livingstone & O'Neill, 2014).

Many online services, websites and applications depend on data collection to function or even exist; thus, the arbitrary ban of data collection could potentially deprive children of other rights established by the UNCRC, especially the right to freedom of expression and the right to access to information. Therefore, various mechanisms of regulation, adaptation, and control are put in place to attempt to reach a balance between all children's rights online.

Children's Online Privacy Protection Act (COPPA)

The Federal Trade Commission (FTC) is a US government bipartisan agency with the concurrent missions of protecting consumers and promoting competition. The agency develops and enforces policies to preventing anticompetitive, deceptive, and unfair business practices while still encouraging innovation and legitimate competition in the marketplace (Federal Trade Commission, 2014).

In 1998, the FTC proposed legislation intending to protect children's online privacy rights. The Children's Online Privacy Protection Act of 1998 (COPPA) was passed by Congress in the same year and required the FTC to establish rules governing the practices of collecting personal information from children. In April 1999, the FTC presented the rules for public comment, and in October of the same year, the Children's Online Privacy Protection Rule was published (Federal Trade Commission, 1999). The primary purpose of COPPA and its rule is to protect the privacy of children using the Internet, and starting on April 21, 2000, certain Web sites and online services were required to:

- Post a clear and prominent link to a notice of their information practices on their home page and at each area where personal information is collected from children;

- Obtain parental consent before collecting, using, or disclosing personal information from children under 13; and
- Give the parent the option to consent to the collection and use of the child's personal information without consenting to the disclosure of his or her personal information to third parties.

The statute determines that a violation of these requirements shall be treated as an unfair or deceptive act or practice and authorizes the FTC to enforce actions and impose civil penalties. The liability is placed on the operators of websites and online services that directly collect or maintain personal information from or about children, or on whose behalf such information is collected or maintained. Personal information is collected or maintained on behalf of an operator when it is collected or maintained by an agent or service provider of the operator, or when the operator benefits by allowing another person to collect personal information directly from users (Federal Trade Commission, 1999). The law exempts platforms that function as a conduit to someone else's child-directed content. These platforms may still be responsible for complying with COPPA if they themselves collect personal information directly from children (Federal Trade Commission, 2013).

When the COPPA Rule was created, personal information was defined as any identifiable data about an individual collected online such as a first and last name; a physical address; an email address; a telephone number; a Social Security number; or any other data that permitted the physical or online contacting of a specific individual.

However, the FTC revised the rule in 2012 and amended the personal information definition to include also geolocation information, a screen or user name that functions as online contact information; a photograph, video, or audio file that contains a child's image or voice; and

persistent identifiers that can be used to recognize a user over time and across different websites or online services (Federal Trade Commission, 2012).

Websites and other online services that knowingly collect personal information from or about children under 13 must post a privacy policy that complies with COPPA. A link to the privacy policy has to be included on the homepage, and anywhere information from children is collected. The content must be clear, easy to read, and include information about all operators collecting data, which type of data is collected and how it is used, and what are the parental rights when consenting for their child's data collection and use (Federal Trade Commission, 2018).

Consent is a key aspect of the COPPA effort to put parents in control. Thus, websites and services collecting personal information from children must get their parent's verifiable consent in advance. The COPPA Rule does not determine how operators should get parental consent, allowing them to choose a method reasonably designed in light of available technology to ensure that the person giving the consent is the actual child's parent. Having the parent sign a consent form and send it back via fax or email, call a toll-free number, use of online payment systems that provide notification of each separate transaction to the account holder, or answer a series of knowledge-based challenge questions are some examples of acceptable methods of verifiable consent (Federal Trade Commission, 2018).

The FTC considers various factors when determining if a site or service is directed to children under 13, including the subject matter, visual and audio content, the use of animated characters or other child-oriented activities and incentives, the age of models, the presence of child celebrities or celebrities who appeal to kids, language, the presence of ads on the site or

service that are directed to children, and other reliable evidence about the age of the actual or intended audience (Federal Trade Commission, 1999).

In some cases, the websites or services are designed to general audiences, but they can still be accessed by children. The operators of such websites or services are only covered by COPPA, where they have actual knowledge that a child under age 13 is the person providing personal information. In other cases, the operator targets children as one of its audiences, constituting a mixed audience website or service and being considered as “directed to children” (Federal Trade Commission, 2019a).

In circumstances where children are not the primary audience of a child-directed service or website, an age screen may be employed in order to provide COPPA’s protections to only those visitors who indicate they are under age 13. For that, the operator must use an age-gating mechanism that is neutral and does not collect personal information before age information is collected. If the visitor is found to be a child, the operator may choose to either collect parent’s online contact to get verifiable parental consent or direct child visitors to content that does not involve the collection of personal information (Federal Trade Commission, 2019a).

The FTC typically reviews its Rules every ten years to ensure that they are not obsolete in relation to changes in the marketplace, technology, and business models. The COPPA Rule became effective in 2000 and was updated for the first time in 2013; thus, it was expected to be reviewed again in 2023. Nevertheless, the FTC decided to start the revision process earlier because of questions that have emerged with the rapid advances in the online space, including those related to general audience platforms that host third-party child-directed content.

In July 2019, the FTC requested comment on a wide range of issues related to the COPPA Rule. Members of the public were invited to submit written data, views, facts,

arguments, or any concerns they believed to be relevant to the rule’s review (Federal Trade Commission, 2019c). The FTC prompted the discussion with dozens of questions about general and specifics issues, such as:

- The effectiveness of the rule and its amendments;
- The costs, benefits, and implications of the rule on children, parents, consumers, businesses, operators, and others;
- The overlap or conflicts of the rule with other laws and regulations;
- The application of the Rule to the educational technology sector, voice-enabled connected devices, and general audience platforms that host child-directed third-party content; and
- The need for modification, exclusion, or maintenance of sections, definitions, requirements, exceptions, and provisions of the rule.

Interested parties could file a comment online or on paper, before October 23, 2019. That date was extended two times, first to December 9, 2019, and finally to December 11, 2019. The FTC also hosted a public workshop to examine COPPA on October 7, 2019. The event, called “The Future of the COPPA Rule: An FTC Workshop”, featured remarks by FTC commissioners and also consumer advocates, academics, industry representatives, producers, and others (Federal Trade Commission, 2019b). The COPPA Rule’s revision process was not concluded until the date this major research paper was submitted.

Children on YouTube

Since its beginning, YouTube is formally restricted to people 13 and older. Nevertheless, it is the most popular site for children to view video content. Watching online videos is the media activity youths enjoy the most. Children age eight and under used to spend an average of 4

minutes a day watching online videos in 2011, but the time spent in that activity has gone up to 25 minutes in 2017 (Common Sense Media, 2017). Similarly, the amount of time that older children spend watching online videos has gone from about 24 minutes a day in 2015 to 56 minutes a day in 2019 (Rideout & Robb, 2019).

According to the statistics website Social Blade, 7 of the 20 most viewed channels on YouTube are aimed at kids. CoComelon, an entertaining and educational channel for preschoolers, is currently the most-viewed YouTube channel based in the United States, accumulating more than 65 billion views and 84.7 million subscribers since it joined YouTube in 2006 (CoComelon, 2014; Social Blade, 2020).

Children were also two of the top three highest-paid YouTube stars of 2019, with 8-year-old Ryan Kaji in first place for having earned 26 million dollars between June 1, 2018, and June 1, 2019, and 5-year-old Anastasia Radzinskaya in third place for making approximately 18 million dollars in the same period (Berg, 2019).

A variety of entertaining and educational videos are available on the website, including themes such as science, music, humour, animation, gameplays, vlogs, sports, trailers, films, unboxing, and how-to videos (Knorr, 2014; Bird, 2020; Bowen, 2020). Cartoons and animations are very popular among younger children (3 to 7-year-old), while funny videos, pranks and music videos are more popular among older children (8 to 15-year-old). Other contents that are popular with children on the platform include (Ofcom, 2020).

With the growth of children's participation and subsequent demands for protective measures against privacy violation and excessive marketing practices on the platform, in February 2015, Google launched the YouTube Kids app, a filtered version of YouTube that offers more parental control, reduced data collection and no target ads (Chester, 2011; YouTube,

2015). The application was also made available on smart TVs in 2017 and as a desktop website in 2019 (YouTube, 2017c; Perez, 2019a).

The application is designed with a brighter and bigger interface to make it easier for children to use. The system relies on a mix of automated filters, human reviewers, and feedback from parents to narrow down the content to videos that are appropriate for children and organized in four categories: Shows, Music, Learning, and Explore. Parents can set up multiple children profiles customized by age and control screen time and access to videos and channels.

Despite the efforts to create a safe space for children, the past years were marked by a sequence of episodes that affected YouTube's children content ecosystem:

- A trend of videos where someone – generally a child or a pair of hands – unpack several toys without a plot or narrative, raising concerns about consumerism and children's commercial exploitation (Craig & Cunningham, 2017; Lieber, 2019; Jaakkola, 2020);
- Videos featuring disturbing subject matter – but disguised as classic child animation – made their way into the YouTube Kids platform (BBC, 2017; Maheshwari, 2017; Orphanides, 2018; Chen, 2019);
- Heroes, princesses, and other characters that are popular with children are depicted doing violent, sexual, and other inappropriate acts while getting millions of subscribers and views in a controversially trendy phenomenon known as “Elsagate” (Di Placido, 2017; Popper, 2017);
- Parents and producers were accused of exposing, exploiting and abusing their kids in front of and behind the camera (Luscombe, 2017; Ohlheiser, 2017; Warzel, 2017; Levenson & Alonso, 2019; Hale, 2019); and

- A network of pedophiles being aided by YouTube's recommendation system and leaving sexually suggestive comments in children's videos (Tait, 2016; Lecher, 2017; Fisher & Taub, 2019; Orphanides, 2019).

The difficulty in identifying the creators of children-directed channels results in a lack of accountability; thus, YouTube focuses on monitoring content instead. YouTube has been continuously working on expanding its enforcement policies and inhibiting abusive content from being uploaded on the platform. Their actions include removing ads from videos that do not comply with their advertiser-friendly guidelines, blocking comments on videos featuring minors, and deleting videos and channels that endanger children (Ong, 2017; YouTube, 2017d; YouTube, 2017e; YouTube, 2019b; Fox, 2019).

Even though all these episodes affected YouTube's business, with many advertisers withdrawing from the platform (Handley, 2017; Dimitrioski, 2019), it does not seem to have sent children away. The popularity of the platform with children kept growing, and the main website remained the default destination for most of them. Because of that, a coalition of consumer advocacy groups complained that YouTube had actual knowledge that children aged 12 and younger were accessing the general site (instead of YouTube Kids) and accused them of violating COPPA (Campbell & Laughlin, 2018; Stanton, 2018).

The group, which includes 23 organizations, alleged that despite YouTube claiming their terms of service restrict the platform to users aged 13 and above, they knew that children under that age were significantly using the site. There were no mechanisms in place to effectively identify nor prevent children from navigating in the platform. Thus, the group pointed out that YouTube collected personal information from children under the age of 13, and used it to target

advertisements, without providing notice or obtaining prior verifiable parental consent as required by COPPA.

3.4. FTC vs Google/YouTube

On September 4, 2019, the FTC and the New York State Attorney General claimed that YouTube knowingly collected data from children without their parents' consent (Google LLC and YouTube LLC, 2019). They alleged that YouTube violated three key COPPA provisions:

- I. The obligation to give clear notice on its site of what information it collects from children, how it uses such information, and its disclosure practices for such information;
- II. The obligation to provide direct notice to parents of their practices with regard to the collection, use, or disclosure of personal information from children; and
- III. The obligation to get verifiable parental consent before collecting any personal information from children.

To settle the allegations, Google and YouTube were required to pay a 170 million dollar fine (136 million dollars to the FTC and 34 million dollars to the New York State Attorney General). The 136-million-dollar penalty is the largest amount the FTC has ever obtained in a COPPA case since Congress enacted the law in 1998. In addition to the monetary judgement, the settlement required Google and YouTube to:

- Notify channel owners that their child-directed content may be subject to the COPPA Rule and that they are obligated to designate such content as directed to children;

- Develop, implement and maintain a system that permits channel owners to identify content as child-directed so YouTube can ensure it is complying with COPPA; and
- Provide annual COPPA compliance training for employees responsible for managing relationships with channel owners.

They clarified that content is not considered “child-directed” just because it has some characteristics that may appeal to children or because some children may see it. Nonetheless, the content is deemed as directed to children if its intended or actual audience is children under 13, or if it meets additional factors the FTC considers in determining the audience, as such:

- The subject matter;
- Visual content;
- The use of animated characters or child-oriented activities and incentives;
- The kind of music or other audio content;
- The age of models;
- The presence of child celebrities or celebrities who appeal to children;
- Language or other characteristics of the site;
- Whether advertising that promotes or appears on it is directed to children; and
- Competent and reliable empirical evidence about the age of the audience.

The FTC also declared that the COPPA Rule applies to YouTube channel owners in the same way it would if they had a website or app and, therefore, they might face civil penalties of up to \$42,530 per violation (Cohen, 2019). Thereby, the services provided by YouTube were separated from the services provided by content creators, with each channel owner being

considered an independent operator to be held liable for violations of COPPA within their individual channel.

YouTube System Changes

As a consequence of the settlement with the FTC, YouTube completely restructured its system in regard to how children's content is treated on the platform. On September 4, 2019, they announced that starting in about four months all the data from anyone watching children's content on YouTube would be presumed to be coming from a child, resulting in the following:

- Limitation of data collection on child-directed content only to what is needed to support the operation of the service;
- Elimination of personalized ads from child-directed videos entirely;
- Removal of some features like comments and notifications from child-directed videos and channels.

They introduced new, mandatory annual training for YouTube teams about COPPA compliance and also declared that they would increase the investments in improving the YouTube Kids platform and promoting it to parents. Additionally, they established a 100 million dollars fund to be disbursed over three years, financing the creation of high-quality original children's content on YouTube and YouTube Kids globally (YouTube, 2019c)

On November 12, 2019, YouTube launched a new audience setting to allow creators to identify whether their content is made for kids or not, either at the channel level or the video level. They recommended that creators follow the FTC's guidelines to indicate their audiences correctly. However, the directive provided by the FTC lacks clarity about what is to be considered as "made for kids" (Perez, 2019b). At the same time, YouTube declared that they are unable to confirm whether or not a content is "made for kids" and warned creators that failing to

set the audience accurately may cause compliance issues and that they cannot provide legal advice (Google, 2019a).

Still, a machine learning system was implemented to identify kids-content and override a creator designation if abuse or error is detected. Channel owners who disagree with an automated designation have the option to appeal by using the feedback button. Nonetheless, YouTube declared that creators abusing the system and intentionally mismarking their content may face the consequences on their channels or videos (YouTube Creators, 2019).

YouTube started applying the changes globally on January 6, 2020. Limiting data collection on child-directed content caused several restrictions, both on the video and channels levels, such as removing personalized ads and disabling comments, live chat, notification bell, stories, save to playlist, channel memberships, merchandise, ticketing, community posts, and others (YouTube, 2020). The features that are restricted at the channel level and the video level when content is identified as “made for kids” are presented in Table 4.

The announcement and implementation of the new COPPA-compliant system caused a big commotion in the YouTube community and became a subject of lively discussion amongst viewers and channel owners that are worried about their future on the platform (Kelly & Alexander, 2019). Many creators published videos questioning, explaining, criticizing, or sharing their opinions and concerns about the topic. Some contacted the FTC directly or attended meetings with FTC representatives (Fy Nyth, 2019; KreekCraft, 2019; TechFreedom, 2020). The lawyer and YouTube creator Jeremy Johnston also created an online petition called "SAVE Family-Friendly Contents on YouTube," which gathered more than 900,000 signatures to date (Johnston, 2019). Alongside, he invited creators and viewers to write a comment to the FTC and provided suggested talking points and templates (J House Law, 2019).

Table 4

Features restricted or disabled on content that identifies as “made for kids”.

At the channel level	At the video level
Channel Memberships	Personalized advertising
Notifications	Monetization features
Community Tab	Playlist options
Stories	Comments
	Autoplay on home
	Cards or end screens
	Channel branding watermark
	Live chat
	Notification bell
	Playback in the mini-player
	Likes and dislikes on YouTube Music

The FTC’s forum for public comments on the COPPA Rule revision process received massive public participation, with submissions totalizing more than 176,000 comments in the period from July 25, 2019, to December 11, 2019 (Federal Trade Commission, 2019c).

YouTube, creators, viewers, children’s rights advocates, parents, children, industry representatives, and other parties contributed to the discussion. Understanding the different opinions and concerns about the issue is crucial for determining the future of the COPPA Rule and its effects on children’s online protection, provision, and participation.

3.5. Events Timeline

Table 5

Key dates and events for the current research

Date	Event
April 21, 2000	Children’s Online Privacy Protection Rule (COPPA Rule) is effective.
April 23, 2005	The first video was posted on YouTube.
October 9, 2006	Google acquired YouTube.
May 3, 2007	YouTube launched its YouTube Partner Program (YPP).
July 1, 2013	The amended COPPA Rule is effective.
February 23, 2015	YouTube launched the YouTube Kids app.
July 25, 2019	FTC requests comment about the new COPPA Rule’s revision.
September 4, 2019	FTC and YouTube settlement for COPPA compliance.
October 7, 2019	FTC’s workshop about the Future of the COPPA Rule.
November 12, 2019	YouTube adds a new audience setting for channels and videos.
November 22, 2019	FTC releases guidelines for determining if a content is child-directed.
December 17, 2019	YouTube publishes a video answering questions about COPPA.
December 11, 2019	FTC closes the open forum for comments.
January 6, 2020	YouTube rolls out changes to “made for kids” content.

4. Methodology

As explained in the first section of this paper, this is the first study to examine the potential consequences of the application of the COPPA Rule under a new interpretation, in which the relationships of creators with the platform and governmental agencies are completely transformed. Because of the novelty of the issue, an exploratory investigation looking for patterns, ideas, or hypotheses was considered to be the best approach for addressing this work's research questions. Through this kind of investigation, new concepts and theories are inductively created from the observation and analysis of the data in order to explain the studied phenomenon (Kennedy, 2018).

According to Given (2008/2012, p. 430), "inductive reasoning is of particular relevance in qualitative approaches that are used to extend existing theory into a new setting or develop understanding and theory where none currently exists". The data is collected and closely examined, firstly, to discover common properties, behaviours and patterns and, secondly, to blend these findings into concepts and generalizations about the social relationships under study. When exceptions are identified in existing or new data, the researcher refines the emerging patterns to include these exceptions or explains their presence (Pascale, 2012, pp. 39–76).

Analytic induction provides better results when multiple instances of the phenomenon are analyzed, taking various contexts and empirical evidence into consideration (Pascale, 2012, pp. 39–76). Although qualitative data is predominant in most exploratory studies, the use of descriptive statistics as indexes, percentages, and frequency distributions optimizes the results (Stebbins, 2011, pp. 5–10). Thus, the methodology employed in this study combines different methods and data sources in order to investigate the research phenomena from multiple perspectives and in different contexts.

Given (2012, p. 892) explains that this type of approach is named triangulation and is used as a strategy that allows the researcher to "identify, explore, and understand different dimensions of the study units, thereby strengthening their findings and enriching their interpretations". This approach should produce a surplus of knowledge, going beyond the allowances of a single method, reducing biases, and therefore contributing to higher quality in research (Flick, 2019, pp. 12–24).

Sampling in qualitative research must be designed to collect information that enhances the understanding of the problem under study. Daniel (2012, pp. 66–81) indicates that nonprobability sampling is the better choice for qualitative researches that have an exploratory purpose, has limited resources, and does not require a representative sample or statistical inferences from the sample. Also, giving all elements in the population a chance to be part of the sample may waste resources and provide data that is inconsistent with the study's purposes. In that case, it is more productive for the researcher to purposely select the elements based on specific inclusion and exclusion criteria. Thus, purposive sampling, a nonprobability sampling procedure, was adopted for all methods used in the current research.

The mental process of categorizing data into conceptual categories to identify patterns and relationships between themes is called content analysis. It is commonly used to analyze a wide range of textual data, including transcripts, policies, interviews, and other texts (Julien, 2012), but has also been applied to analyzing and coding non-text documents, such as videos and photographs (Pennington, 2016).

Content analysis is a method that may be applied to either qualitative or quantitative data. The qualitative content analysis approach is typically inductive, aiming to uncover the less obvious contextual or latent content in the text, while the quantitative approach is usually

deductive, producing frequencies of preselected categories or values associated with particular variables. It is important to note that these approaches may be combined within a single research study depending on its goals (Given, 2012, pp. 120-121).

The present research was conducted using three different methods for sampling and content analysis:

- Study 1, which focused on identifying which creators are being heard on YouTube regarding the COPPA rule's implementation, how they perceive the existence of impacts of that implementation on the community and which strategies they utilized to get the attention and share their message;
- Study 2, which focused on identifying the perceived impacts and solutions from the point of view of creators that eventually had some or all of their videos affected by the new YouTube system for complying with COPPA; and
- Study 3, which focused on identifying opinions, perceived impacts and potential solutions from the point of view of parents by examining comments written on the FTC's open forum docket.

4.1. Study 1: Which creators are getting the attention?

Sampling

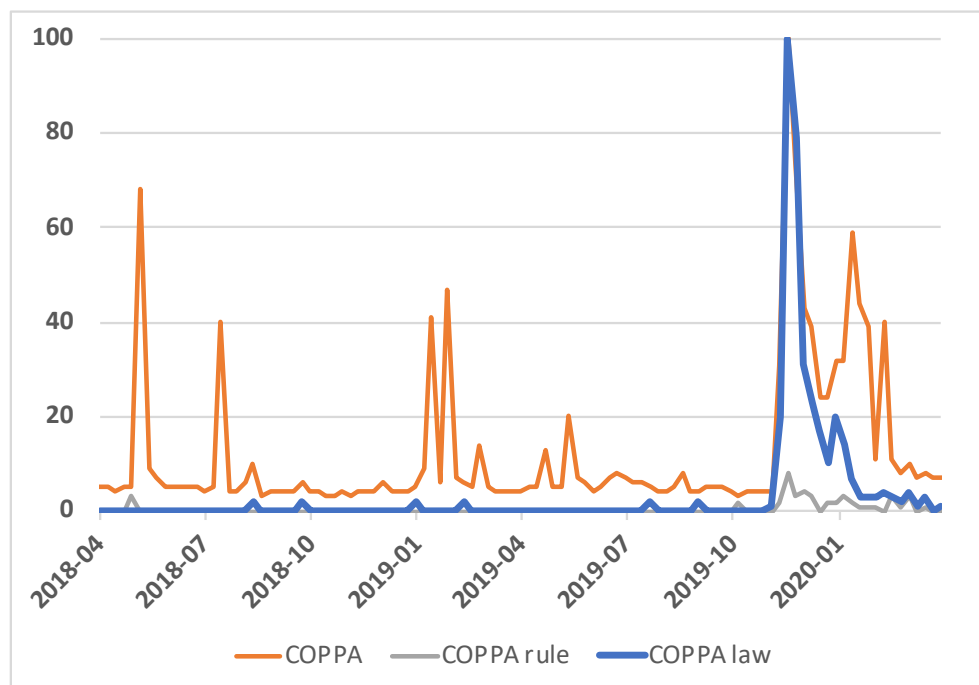
The selection of appropriate search keywords is an essential aspect of online sampling; thus, initial tests were conducted on the Google Trends website (<http://trends.google.com>) to identify search keywords that would return videos that most closely related to the topic. The researcher tested the following terms and phrases: "COPPA", "COPPA Rule", "COPPA Law", and "FTC COPPA", to decide which one was more relevant and unique to the event under study.

All terms and phrases were tested for YouTube Search, worldwide, for the timeframe from April 01, 2018, to March 31, 2020. Although the COPPA Rule changes were announced in September 2019, the year of 2018 was included in the query to allow the identification of seasonal nuances. Additionally, the interest by region was observed to detect the popularity of the term in other languages. For example, the search term “COPPA” was very popular in January and February of 2019 and 2020, especially in Italy, which permitted its association with the final stage of Coppa Italia (Italy Cup), the Italian soccer annual competition. Therefore, this term was deemed not suitable for the purpose of this research.

After testing and comparing all the terms, “COPPA law” was identified as the most used phrase for searches related to the topic on YouTube. Therefore, this term was selected as the search keyword for the YouTube queries conducted on the present work (Figure 1).

Figure 1

Search terms' popularity on YouTube



Note. Data obtained from <http://trends.google.com>, on May 04, 2020.

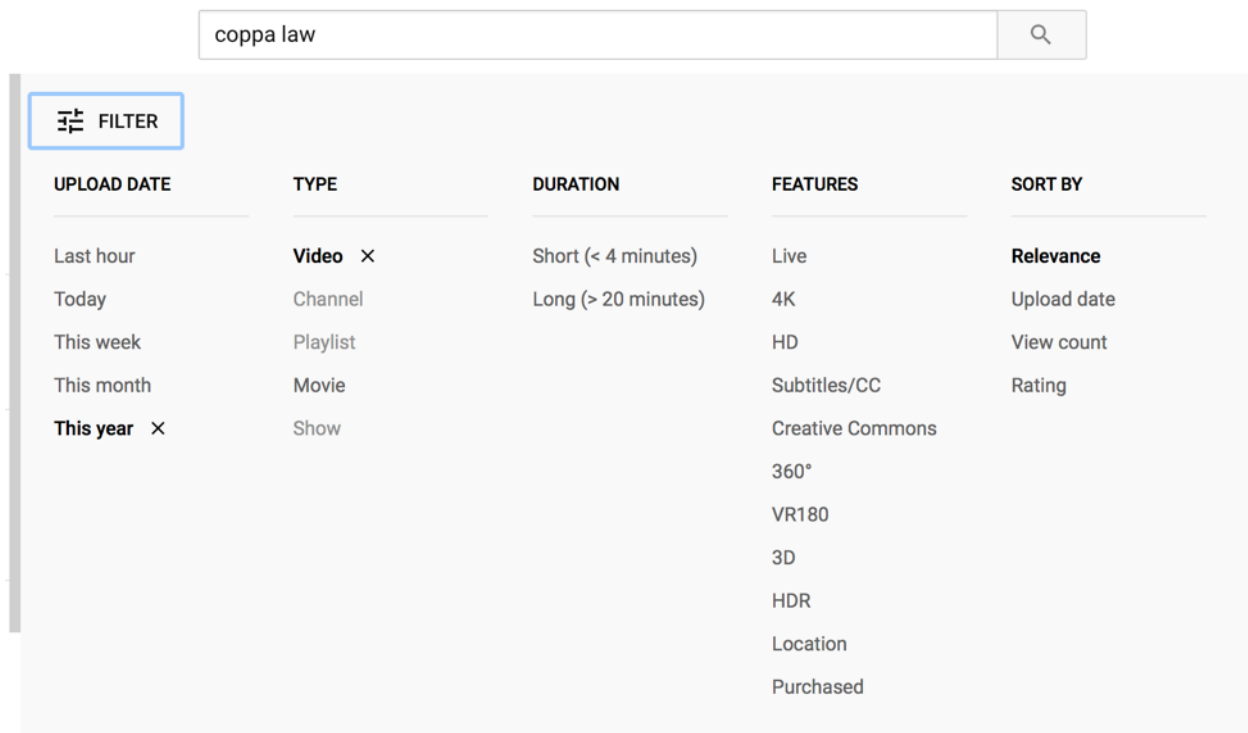
The researcher typed “COPPA law” in the YouTube search engine on May 03, 2020, at 5 p.m. The query was conducted on an unlogged YouTube page loaded in the private mode of the internet browser, Safari. Private mode allows the user to browse the Internet without cookies, avoiding bias from previous navigation history. The following filters were applied to the query:

- Upload Date: This year;
- Type: Video;
- Sort by: Relevance.

The results were sorted by "Relevance" instead of "View Count" because the second option would disproportionately benefit older videos as they would have had more time to accumulate views. The filter settings used on the search are shown in Figure 2.

Figure 2

Keywords and filters used on YouTube's Search for study 1.



Deciding how many videos to sample was challenging. On the one hand, Internet sampling is affordable, flexible, and easy enough to allow the researcher to collect large amounts of data (Allen, /2018, pp. 1529–1531). On the other hand, this project’s temporal constraints limit the number of samples that may be thoroughly analyzed.

According to Daniel (2012, pp. 236–253), sample sizes in research depend on several factors related to the nature and objectives of the study, ethical and legal considerations, nature of the population, and availability of resources. In exploratory studies, the researcher is not making conclusive analyses; thus, small sample sizes may be sufficient and are typically in the range of 20 to 150 participants.

Snelson (2013) described other studies on the YouTube platform as having sample sizes that varied between 8 and 74 videos and decided to collect a larger sample than would be expected for an exploratory study. They retrieved a total of 120 vlogs but observed that as their sampling progressed, redundancy began to surface in the vlogs' content, possibly indicating that saturation threshold had been sufficiently met, and the sample was large enough to respond to the research questions. In another example, Keskin (2018) retrieved a total of 60 videos and conducted a content analysis to identify how public education is portrayed on YouTube.

For the purpose of this part of the research, the first 100 videos returned for the “COPPA law” search query were evaluated for inclusion or exclusion in the study. The criteria for inclusion were:

1. Be recorded in English;
2. Be related to the recent application of the COPPA rule on YouTube; and
3. Not be produced or posted by Google LLC/YouTube corporation.

After deduplication (n = 01) and exclusion of those that were not in English (n = 14), were not related to the topic (n = 02) or were made by Google/YouTube (n=03), a final sample of 80 videos was obtained and analyzed. The sampling process is illustrated in Figure 3(a).

Basic information including the ranking of the video on the search result, video title, video thumbnail, video length, posting date, channel name, the number of views, the number of comments, and the number of likes and dislikes were systematically collected on the same day of sampling. The data was coded using the method described below.

Coding

Fixed coding was utilized to classify the content in this first part of the study. According to Sun (2017), this method is often used to assess frequencies of appearance of a topic, frame, and character to answer questions such as what message is given priority or whether minorities are underrepresented in mass communication environments.

The coding categories were predetermined to allow the quantification of the multiple characteristics and provide a general overview of the videos about COPPA that get most of the attention on YouTube, as follows:

- Host characteristics: type of presentation, gender, and race;
- Channel characteristics: category, size, and presence of “made for kids” content; and
- Message characteristics: thumbnail valence, content valence, message appeal, impacts valence, and call-to-action.

Fixed coding requires that the predefined categories are collectively exhaustive and mutually exclusive. The complete list of coding categories and their specific definitions is presented in Appendix 1.

4.2. Study 2: Which creators are being affected, and how?

Sampling

Purposeful sampling with a combination of criterion and maximum variation approaches was also used in this second part of the study. The same search term (i.e. “COPPA law”) was used along with other terms related to the FTC’s guidelines to determine if a content is directed to children (“kids”, “children”, “games”, “animation”, “cartoon”, “toys”, “music”, “pets”, “educational”, “pretend play”, “stories”).

A set of criteria was used to ensure that the sampled videos were appropriate for the central focus of the study. Videos were eligible for inclusion if they:

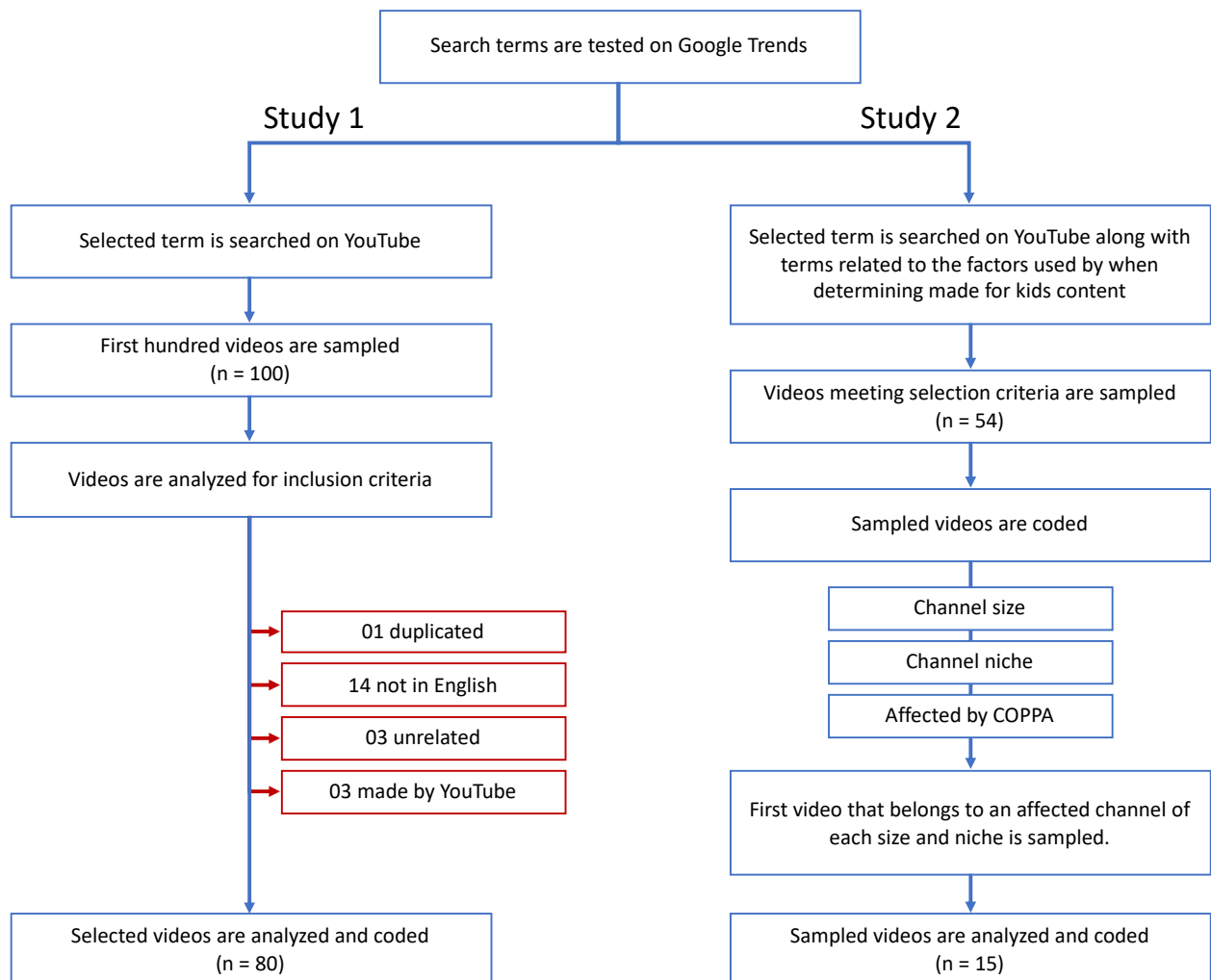
- Were recorded in English;
- Shared a personal opinion or experience related to the application of the COPPA Rule on YouTube;
- Were non-institutional or entrepreneurial (not selling something); and
- Were related to at least one of the FTC's factors to determine if a video is “made for kids”.

All the videos meeting these inclusion criteria were sampled ($n = 54$) and coded for: channel category, channel niche, channel size, and presence of “made for kids” videos. Videos belonging to channels that had at least one of their 50 most recent videos marked as “made for kids” were selected to be further analyzed. In order to maximize the data variability and avoid overrepresentation, only one video was selected for each type of channel (considering niche and size). A systematic top-down purposeful sampling procedure was used to ensure that the first video meeting all specified criteria were selected during each round of sampling for each type of channel. The sampling process is illustrated in Figure 3(b).

In total, 15 videos were selected using that methodology. Basic information including video title, video length, posting date, channel name, the number of views, the number of comments, and the number of likes and dislikes were systematically collected on the same day of sampling (June 8, 2020). These videos were then classified using the same coding categories from the first part of the study for host characteristics (type of presentation, gender, and race).

Figure 3

Sampling process of the studies 1 and 2.



Then, the selected videos were transcribed using Trint, an automated transcription system. Trint's speech-to-text technology yields 95-98% accuracy for reasonably quality audio (Trint, n.d.). Therefore, all transcripts were manually reviewed to correct errors. The data was coded, as described below.

Coding

Flexible coding was utilized to analyze content in this second part of the study. According to Sun (2017), this method consists of a dynamic and nonlinear process that allows categories to emerge from data. This process is exploratory and aims to identify themes and commonalities to inductively formulate coding categories, which can be reconceptualized, merged, partitioned, reorganized, and reconstructed throughout the coding process. The codes may be derived at different levels of the analyzed document (words, sentences, paragraphs, or the whole narrative). Also, in contrast to the "exhaustive and exclusive" categorization in fixed coding, data in flexible coding can be classified in multiple codes.

An inductive approach to coding begins with the researcher comprehensively studying the documents in order to identify the themes that seem meaningful to the producers of each message (Lewins & Silver, 2011, pp. 81–89). Therefore, the coding process started with the researcher thoroughly reading all of the transcripts to gain a general understanding of their content. Two cycles of analysis were then conducted using a content analysis software (NVivo 12 for Windows) to code paragraphs and sentences into categories and themes, which were refined during the whole process. A pattern coding approach was used to congregate similar categories into separated groups (intended and actual audience; perceived impacts; potential solutions; and calls-to-action).

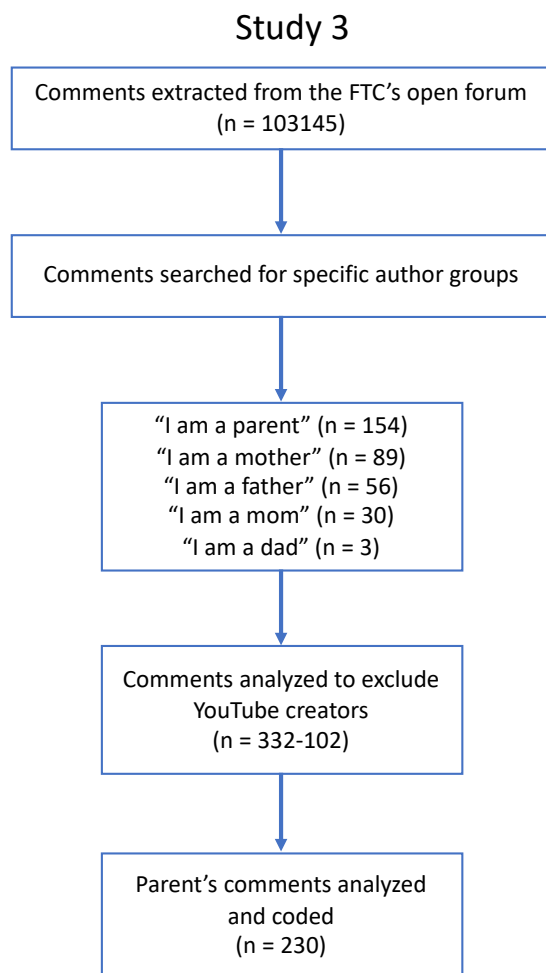
4.3. Study 3: What are the parents' opinions?

Sampling

Comments were retrieved from the FTC open forum docket folder website (<https://www.regulations.gov/docket?D=FTC-2019-0054>) by utilizing an automated shell script on Linux. In total, 103,145 comments were collected during the period from January 8, 2020, to June 23, 2020. Those comments' files were then saved to a computer and searched for specific terms to select the study subjects. The sampling process is illustrated in Figure 4.

Figure 4

Sampling process of the study 3.



Because parents were the target group in this third part of the research, the following terms were used to select participants:

- "I am a parent."
- "I am a mother" and "I am a mom."
- "I am a father" and "I am a dad."

All the files containing the mentioned terms were aggregated to totalize 332 comments which belonged to self-declared parents. The comments were analyzed using the method described below.

Coding

Flexible coding was used to analyze content in this third part of the study, similarly to the method utilized in part 2. The coding process started with the researcher thoroughly reading all of the comments to gain a general understanding of their content and exclude comments that belonged to parents that were also creators to avoid bias.

Two cycles of analysis were conducted in the remaining comments ($n = 230$) to systematically code paragraphs and sentences into categories and themes, which were refined during the coding process. A pattern coding approach was used to gather similar categories into separated groups (perceived impacts, opinions, and potential solutions). Additionally, the parents' gender was coded as a father or as a mother by considering their self-identification in the comments under analysis.

4.4. Additional notes and findings

During the study's execution, the researcher took notes of any additional observations that could help inform the examination of the data. Although some of the information may not

directly answer the research questions, they might yield an opportunity to analyze the data further and better understand the research findings.

4.5. Subjectivity of the Researcher

The subjectivity of the researcher is recognized as an inherent characteristic of qualitative research. According to Peshkin (1988), subjectivity operates during the entire research process and researchers should be attentive and acknowledge their own subjectivity. Moreover, social scientists understand and accept that subjectivity as fundamental to making sense of social behaviour, and the researcher is encouraged to reflect on their objectives and values and how they help shape the research process (Davis, 2017).

This study's researcher is a female creator who has been producing child-directed content on YouTube since 2014. She started her YouTube channel with no other aspirations than fulfilling her daughter's desire to act, sing, and make videos. The channel was conducted as a hobby while she worked her full-time job as a research analyst. Nevertheless, the videos they produced started reaching a vast audience, and they received the YouTube Silver Creator Award for reaching 100,000 subscribers in 2016. After that, the channel gradually transitioned to be her full-time job when they received the YouTube Gold Creator Award for reaching 1,000,000 subscribers in 2017.

With the channel's audience expanding, the researcher had the opportunity to participate in events and courses at YouTube Space Sao Paulo and to interact with many other creators, social media specialists, and YouTube partnership managers. Her journey was also marked by many challenges imposed by the constant transformation of the YouTube platform, including algorithms, community guidelines and policy changes.

Because she was in charge of a channel that had children as the primary audience in such a volatile platform, she became more and more interested in understanding aspects of ethics, education, cultural change, and the political economy of YouTube with the primary objective of contributing to a positive impact on society through her social media channels. Hence, the researcher developed a deep understanding of the platform and its constant transformation throughout her journey.

Furthermore, the researcher's academic background includes a Bachelor of Science degree and a certificate in Public Administration, and she worked as a research analyst for several years, frequently dealing with impact assessment, policy-making and compliance issues. She is also a mom that have concerns about her child's safety online. Thus, while the research processes undertaken in the present work are objective, the researcher's own subjectivity provided by her past experiences were valuable for understanding the research findings under various perspectives.

5. Results

The purposes of this research were to identify the parties that are most affected by the COPPA rule implementation on YouTube, understand the potential impacts on them, and uncover opportunities to improve children's online privacy policy elaboration and implementation in the future. The main results found in each of part of the study are presented within the following three sections.

5.1. Which creators are getting the attention?

The first part of the study focused on identifying which creators are being heard on YouTube regarding the COPPA rule implementation on that platform, how they perceive the impacts on the community and which strategies these creators used to get the attention and share their message.

Video characteristics

The characteristics of the videos are shown in Table 6. Some information about YouTube videos are static, like the duration and upload date, but others may change due to viewers interacting with the content, like the number of views, likes, dislikes, and comments. All information regarding those variables is related to the time of sampling (May 3, 2020). From the gathered data, it can be observed that the videos' characteristics varied greatly both in duration and in the amount of exposure and engagement.

The dates on which the videos were published on YouTube, along with the dates of major events regarding the issue, are presented in Figure 5. Most videos were posted between November 12, 2019 and November 21, 2019 ($n = 21$; average of 2.10 videos/day) and between November 22, 2019 and December 16, 2019 ($n = 38$; average of 1.52 videos/day). November 12, 2019, was the date on which YouTube added the new audience setting to allow creators to

inform if their content is “made for kids”, along with a 6-minutes explainer video about the new system, while November 22, 2019, is the date when the FTC released guidelines for determining if the content is child-directed. December 17, 2019 is the date on which YouTube published a video answering questions about COPPA.

Table 6

Video characteristics at the time of sampling (May 3, 2020)

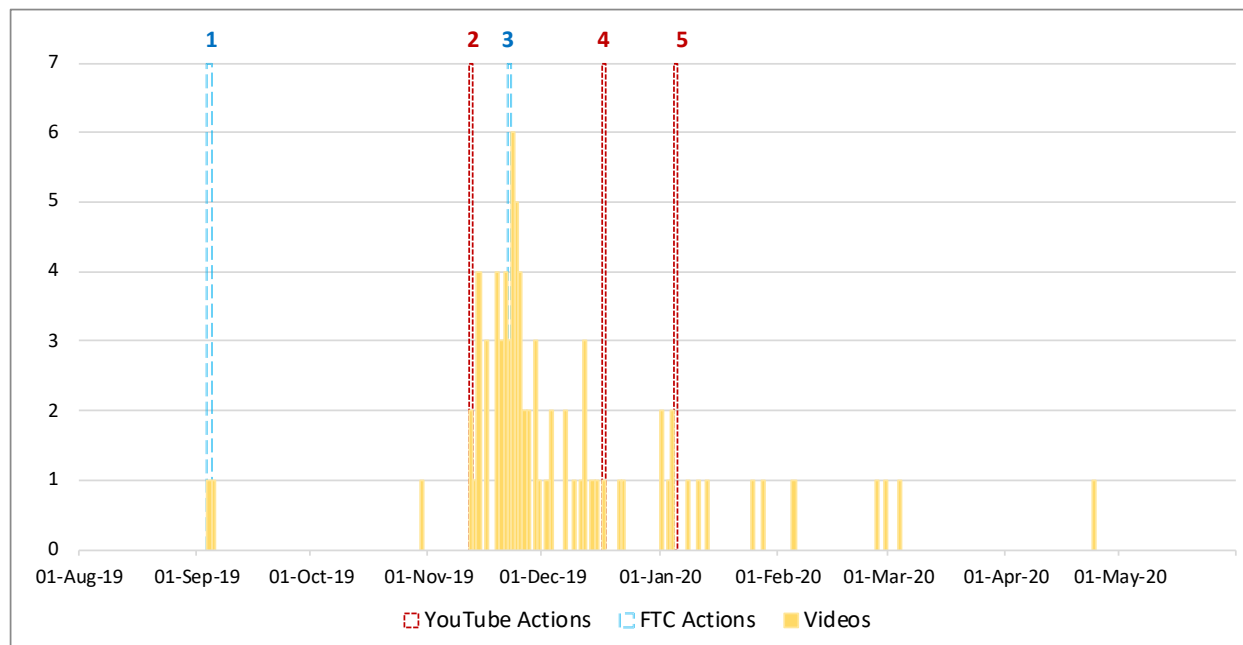
	Minimum	Maximum	Mean	SD
Duration	0:00:08	00:54:59	00:13:00	00:10:42
Days online	9	242	149	34
Views	80	4,339,016	176,641	604,246
Comments	0	89,350	3,192	11,114
Likes	2	326,000	11,078	43,242
Dislikes	0	4,900	211	619
Rating	42%	100%	95%	8%

Note. Video duration is shown in hour:minute:second (hh:mm:ss) notation. Rating is calculated as the proportion of likes ($R = \text{likes}/(\text{likes}+\text{dislikes})$).

Only three videos were posted in the interval from September 4, 2019, which is the date when FTC and YouTube settled the agreement for COPPA compliance, to November 12, 2019 ($n = 3$; an average of 0.04 videos/day). Seven videos were published between December 17, 2019 and January 5, 2020 ($n = 8$; average of 0.40 videos/day). On January 6, 2020, YouTube rolled out the changes to “made for kids” content. After that and until the sampling date, 11 videos were published ($n = 10$; 0.09 videos/day).

Figure 5

Number of videos by date of publication and date of main events related to the COPPA rule implementation on YouTube (n = 80).



Note. The events are numbered chronologically as follows: 1) FTC and YouTube settlement for COPPA compliance. 2) YouTube adds a new audience setting for channels and videos. 3) FTC releases guidelines for determining if the content is child-directed. 4) YouTube publishes a video answering questions about COPPA. 5) YouTube rolls out changes to “made for kids” content.

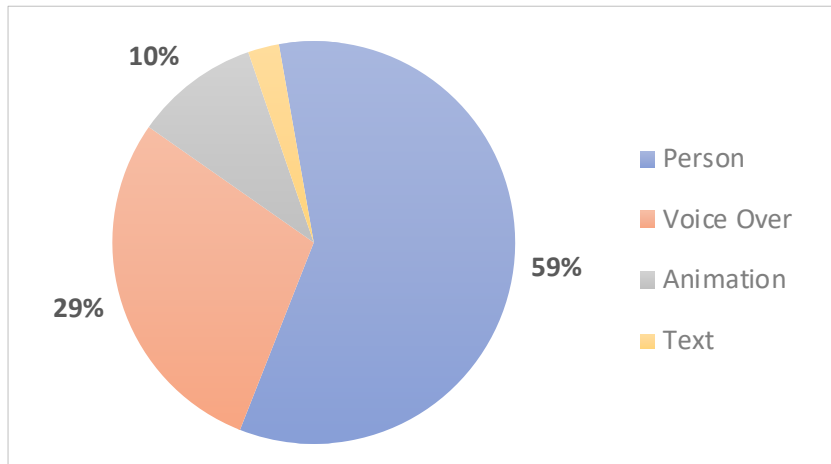
Host characteristics

The videos' hosts were characterized by the type of presentation (person, voice-over, animation, or text), gender, and race. Gender and race were obtained by investigating creators' public information on their channels, videos, or webpages. When information was not available, gender or race were subjectively assessed as the creators' visible identity.

The distribution of the types of presentation is shown in Figure 6. More than half of the videos were presented by one or more hosts speaking in front of the camera, at least in part of the video (59%). The remainder was presented mostly by voice-overs (29%) and animation (10%). Only two videos had their content presented by text.

Figure 6

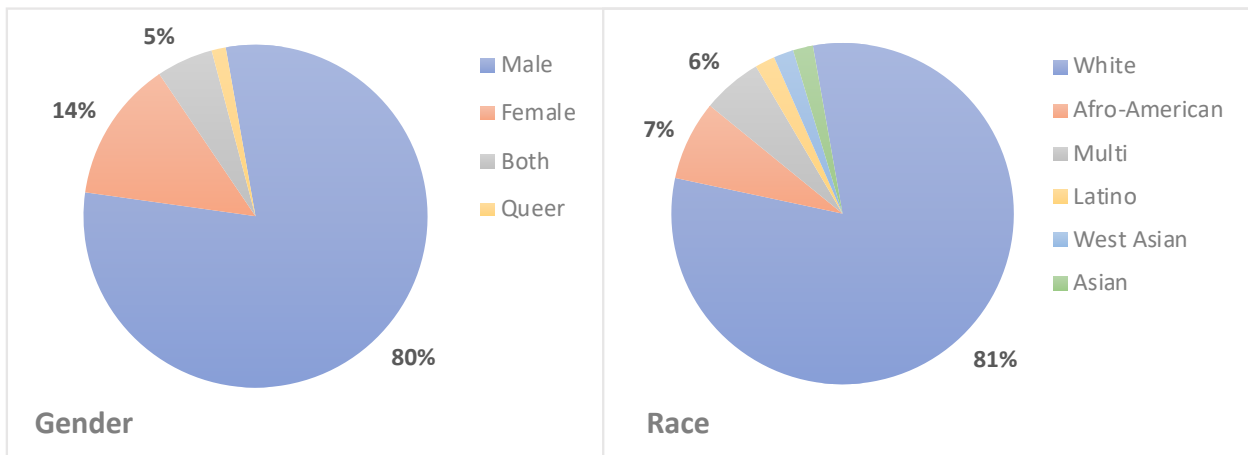
Type of presentation of the sampled videos (n = 80).



It was not possible to identify race in 27 videos and gender in five videos of the 80 videos analyzed. The charts in Figure 7 show that the hosts were mostly white (81%) and male (80%), depicting a significant underrepresentation of other groups within the sample. Six videos had two people as hosts. One of them was presented by two white men, while the others were included in the “both” (both genders, n = 3) and “multi” (multi-racial representation, n = 3) categories in the charts.

Figure 7

Gender (n = 75) and race (n = 53) representation in the analyzed sample.

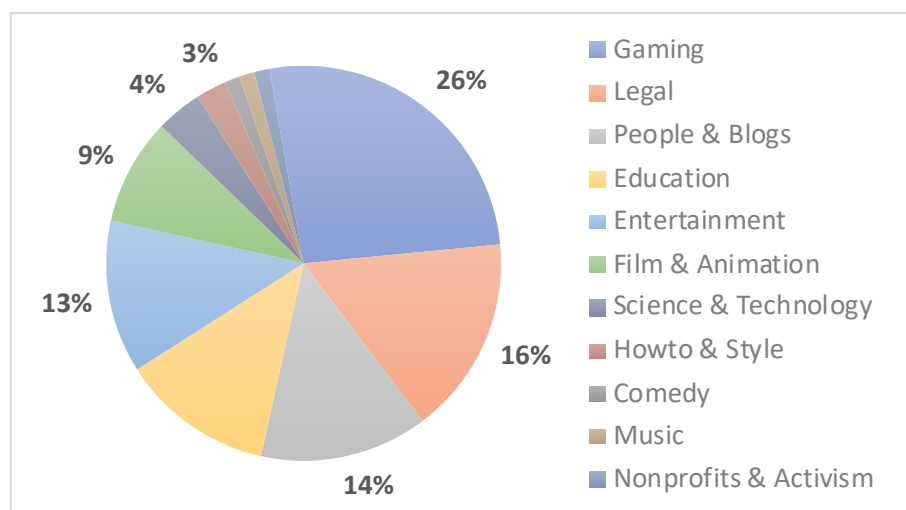


Channel's characteristics

The channels to which each of the videos belongs were characterized by category, size, and the presence of content defined as “made for kids”. Some creators had more than one video in the sample, so the 80 videos actually belonged to 63 channels. A total of 21 videos published by 15 creators were categorized as belonging to gaming channels. Videos belonging to channels that discuss law were the second more frequent with 13 videos from 6 creators. Figure 8 presents the distribution of all the sampled videos (n = 80) in 11 categories.

Figure 8

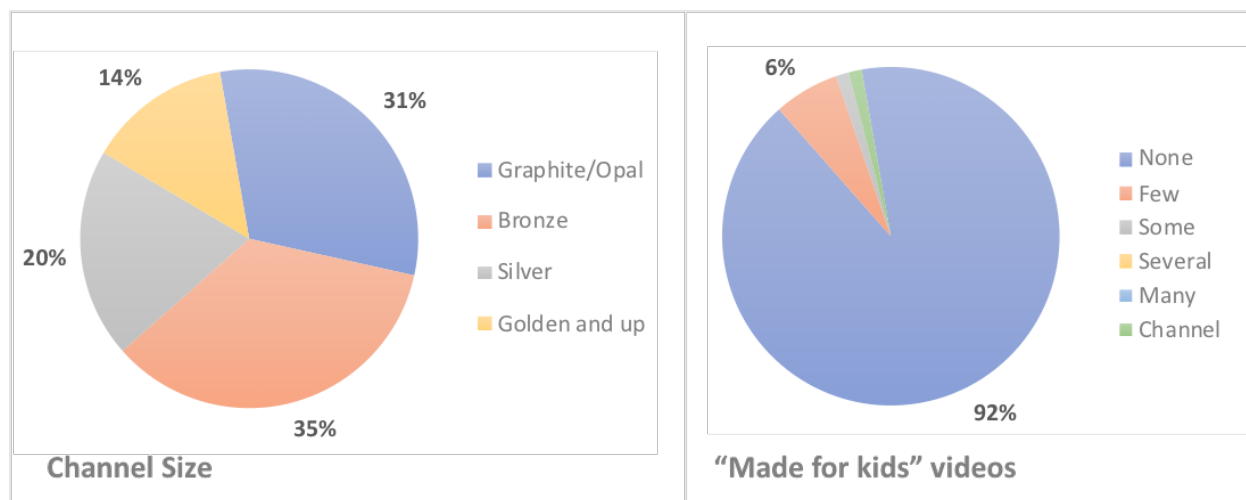
Videos distribution by channel category (n = 80)



More than half of the videos belonged to channels that had less than 100,000 subscribers at the moment of sampling, where 31% were classified as Graphite/Opal (0 to 9,999 subscribers; n = 25), and 35% were classified as Bronze (10,000 to 99,999 subscribers, n = 28). Silver channels (100,000 to 999,999 subscribers) owned 20% of the videos (n = 16), while channels classified as Golden and up (more than 1,000,000 subscribers) owned 14% of the videos (n = 11) in the sample. The video distribution by channel size and the presence of “made for kids” videos are shown in Figure 9.

Figure 9

Videos distribution by channel size (n = 80) and by presence of “made for kids” videos (n = 80)

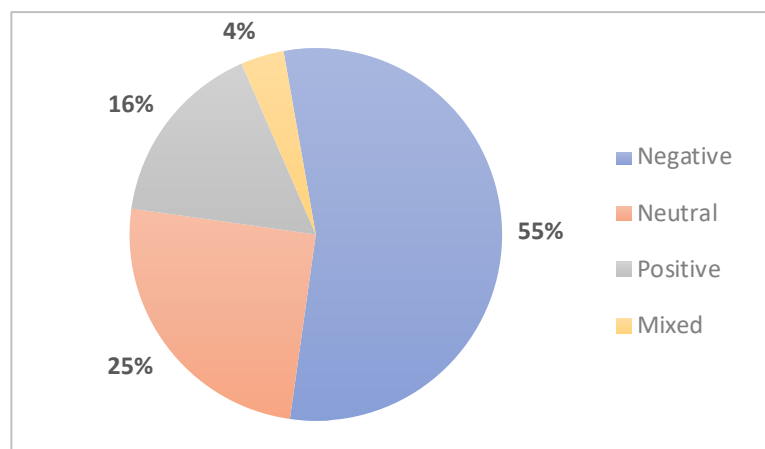


Message characteristics

Just over half of the sampled videos had thumbnails constituted of elements that evoke negative feelings (55%, n = 44), while 25% had a thumbnail with a neutral composition (n = 19), 16% had thumbnails comprised of positive elements (n = 13), and 4% had thumbnails constituted of a mix of positive and negative elements (n = 3). The coding result for the videos’ thumbnails is presented in Figure 10.

Figure 10

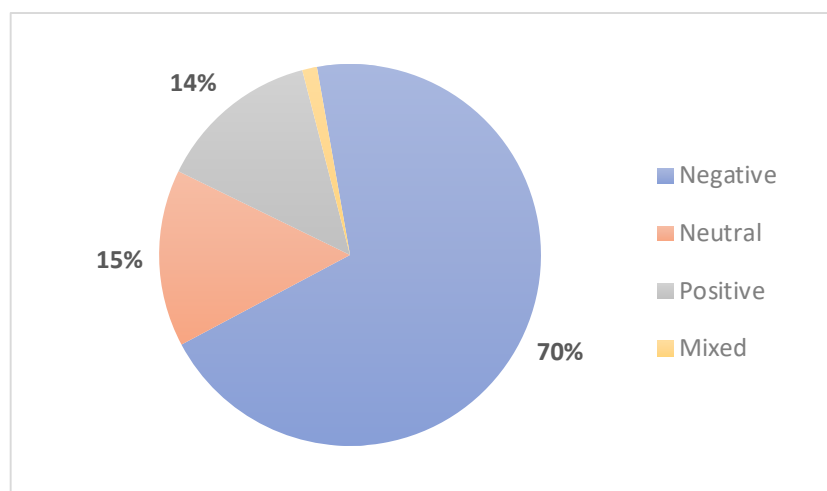
Thumbnail valence of the sampled videos (n = 80)



The presence of negative elements was even more frequent in regard to content, with 70% of the videos ($n = 56$) portraying COPPA as negative or having a pessimistic view about its potential impacts on YouTube or a specific community. Other 15% of the sampled videos discussed COPPA neutrally ($n = 12$), 14% portrayed it as positive or used an optimistic tone to discuss potential impacts ($n = 11$), and 1% considered it as positive and negative depending on the characteristics of different groups ($n = 1$). Figure 11 illustrates the content valence distribution for the sampled videos.

Figure 11

Content valence of the sampled videos ($n = 80$)



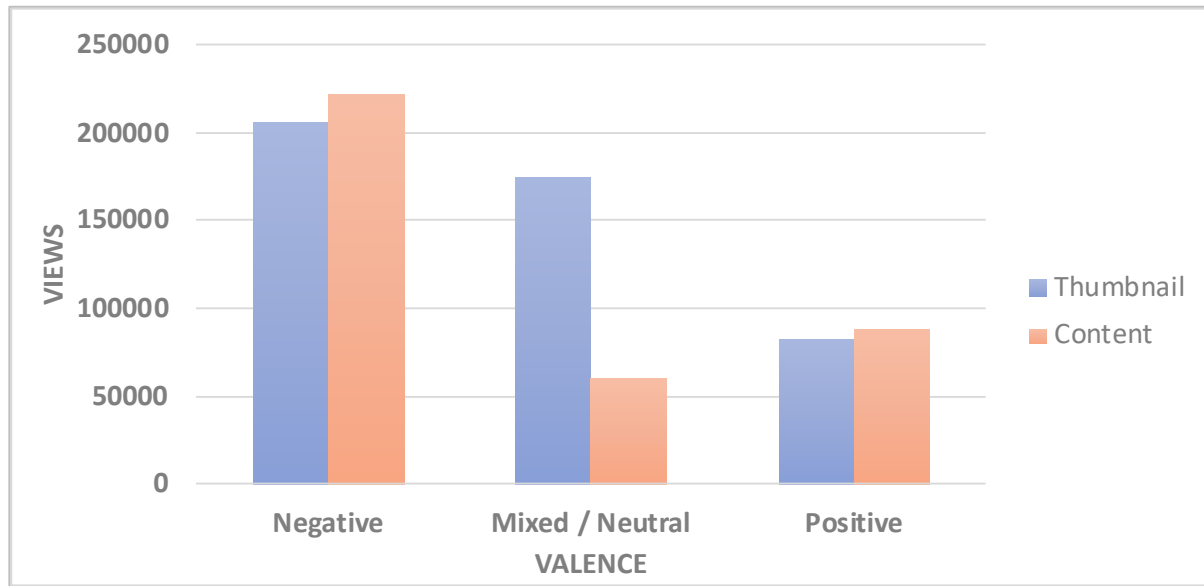
Videos presented with negative valence had comparatively more views in average than videos with positive valence. Videos that had negative elements in their thumbnail had 205,467 views in average, while videos with neutral or mixed valence elements had 174,818 and videos with positive valence had 82,298 views in average.

Similarly, videos portraying COPPA negatively had an average of 221,316 views, while videos with neutral or mixed content had 59,472 and videos portraying COPPA positively had

87,673 average views. Figure 12 illustrates the average views by videos' content valence and thumbnail valence.

Figure 12

Average views by the valence of the video thumbnail and content (n = 80)



The distribution of the message appeal of the sampled videos is presented in Figure 13. The minority of these videos employed a rational discourse to convey their message (n = 20). The videos that were characterized by an emotional appeal (n = 60) were further analyzed and classified to identify the specific type of strategy used in the message. The types of emotional appeal more frequently identified were those based on sharing or triggering sentiments of “fear” (n = 28), “anger” (n = 9), “humour” (n = 9), “empathy” (n = 6), and “relief” (n = 4).

Videos employing a rational discourse (n = 20) had 190,209 average views, which is slightly more than the 172,118 average views obtained by videos that used an emotional appeal (n = 60). Among the videos that employed emotional discourses, those using high-arousal emotions (n = 47) had 213,142 average views, while those using low-arousal emotions (n = 13)

had 23,800 average views. The average views by message appeal of the sampled videos are presented in Figure 14.

Figure 13

Message appeal of the sampled videos (n = 80)

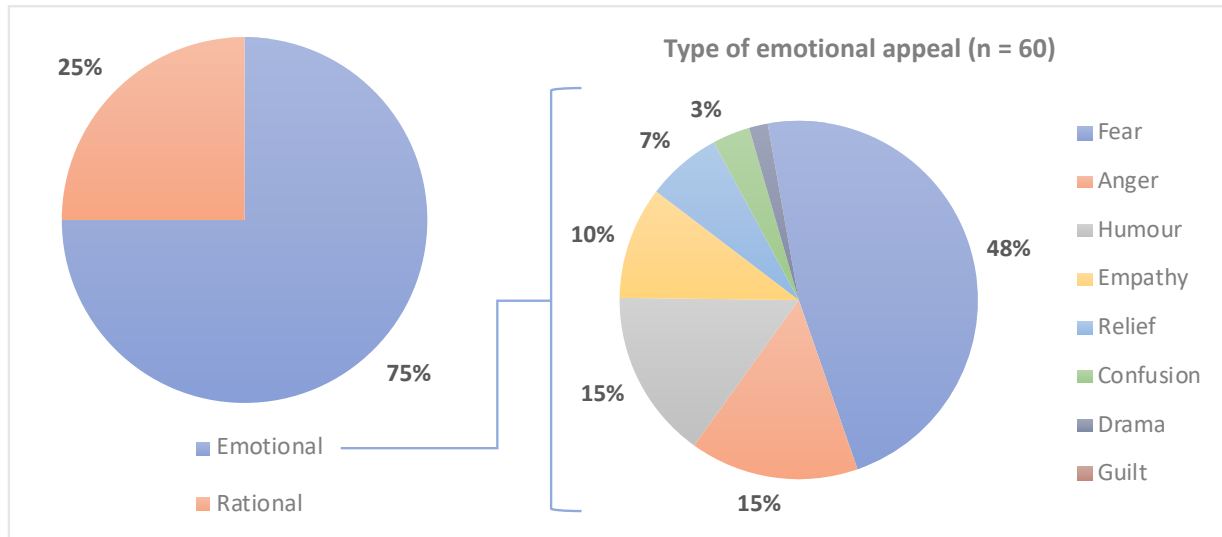
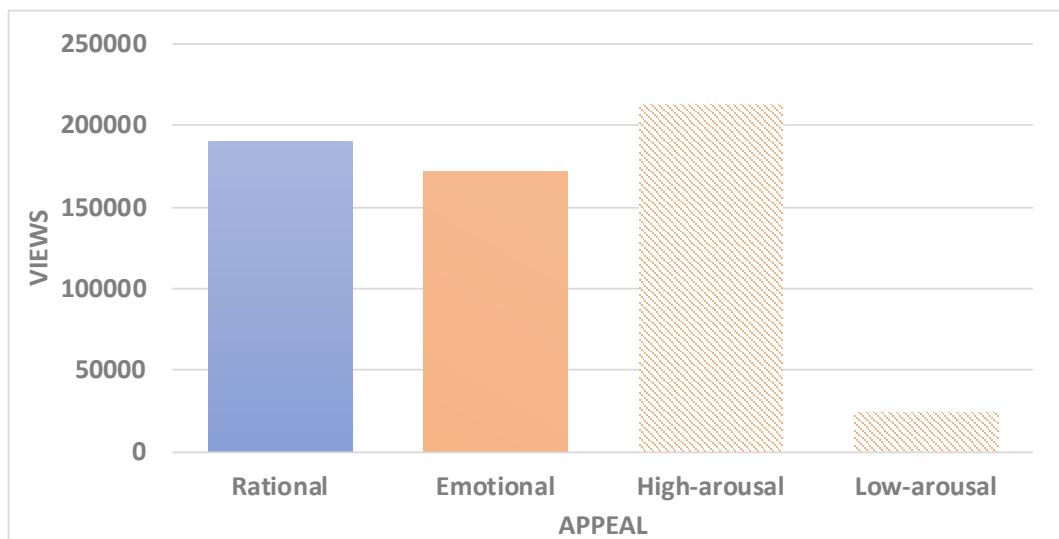


Figure 14

Average views by message appeal of the sampled videos (n = 80)



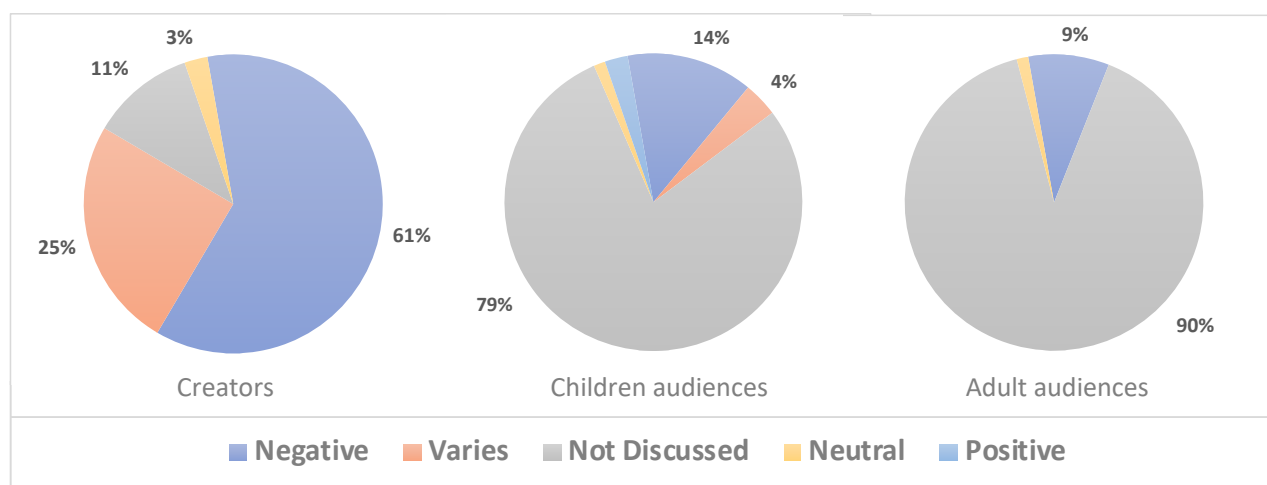
Note. Message appeal is divided into rational (n = 20) and emotional (n = 60). Emotional appeal is subdivided in high-arousal emotions (fear, anger, humour, and drama; n = 47) and low-arousal emotion (empathy, relief, confusion, guilt, n = 13).

More than half of the videos pointed out that creators will be negatively impacted by the COPPA rule changes ($n = 44$), while only 14% ($n = 11$) indicated that negative impacts would affect children audiences and 9% ($n = 7$) indicated that negative impacts would affect adult audiences. Positive impacts resulting from the COPPA rule implementation on YouTube were barely considered within the sample, being mentioned in only two of the videos, in association with children's audiences.

Impacts on children and adult audiences were not discussed in the majority of the videos ($n = 63$ and $n = 72$, respectively). The valence of the impacts discussed for each of the potentially affected groups – creators, children audiences, and adult audiences – is presented in Figure 15.

Figure 15

Distribution of the valence of expected impacts on each of the groups: content creators ($n = 80$), children audiences ($n = 80$), and adult audiences ($n = 80$), as perceived by creators.

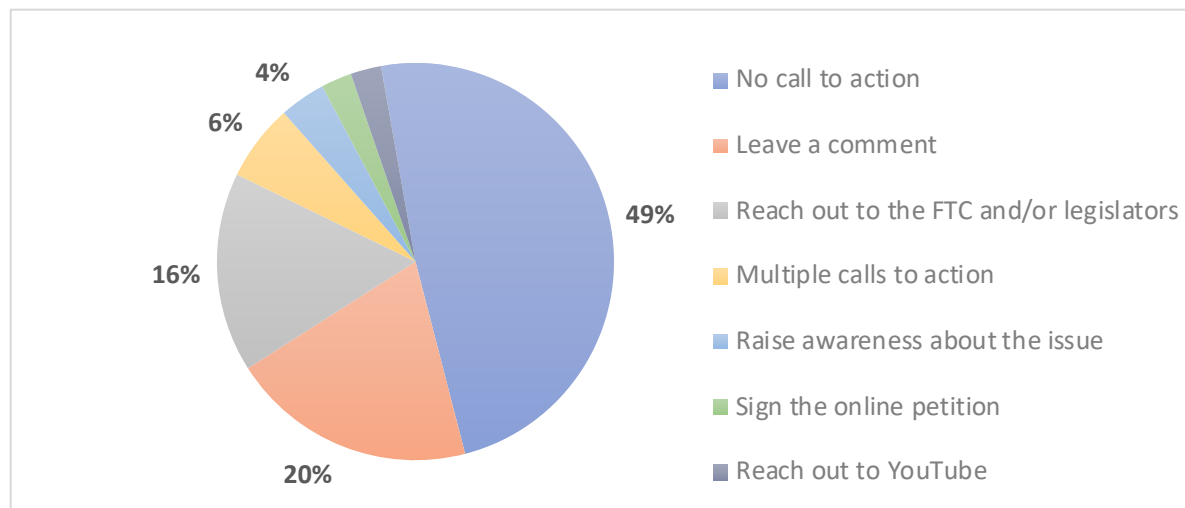


The most frequent call-to-action messages were asking viewers to leave a comment in the video-sharing opinions and experiences ($n = 16$), followed by messages asking to reach out to the FTC or legislators regarding the issue ($n = 13$). Roughly half of the videos finished with no call-

to-action in relation to the COPPA rule implementation ($n = 39$). The frequency of the use of call-to-action discourses to encourage the viewers to act in order to interfere with the COPPA rule implementation is shown in Figure 16.

Figure 16

Call-to-action of the sampled videos ($n = 80$)



5.2. Which creators are being affected, and how?

The second part of the study focused on identifying the perceived impacts and solutions from the creators' point of view that eventually had some or all of their videos affected by the new YouTube system for complying with COPPA.

Video characteristics

Similarly to Study 1, information about the videos' duration, days online, views, comments, likes, and dislikes were collected on the same date of sampling (June 8, 2020) and summarized the minimum, maximum, mean, and standard deviation value were calculated. From the gathered data, it can be observed that the videos' characteristics varied greatly in duration and amount of exposure and engagement.

The characteristics of the videos are shown in Table 7.

Table 7*Video characteristics at the time of sampling (June 8, 2020)*

	Minimum	Maximum	Mean	SD
Duration	0:02:15	00:53:01	00:12:04	00:12:07
Days online	171	279	204	26
Views	268	323,056	71,384	99,486
Comments	15	4,617	861	1313
Likes	14	16,000	2,502	4,246
Dislikes	0	317	100	110
Rating	76%	100%	95%	6%

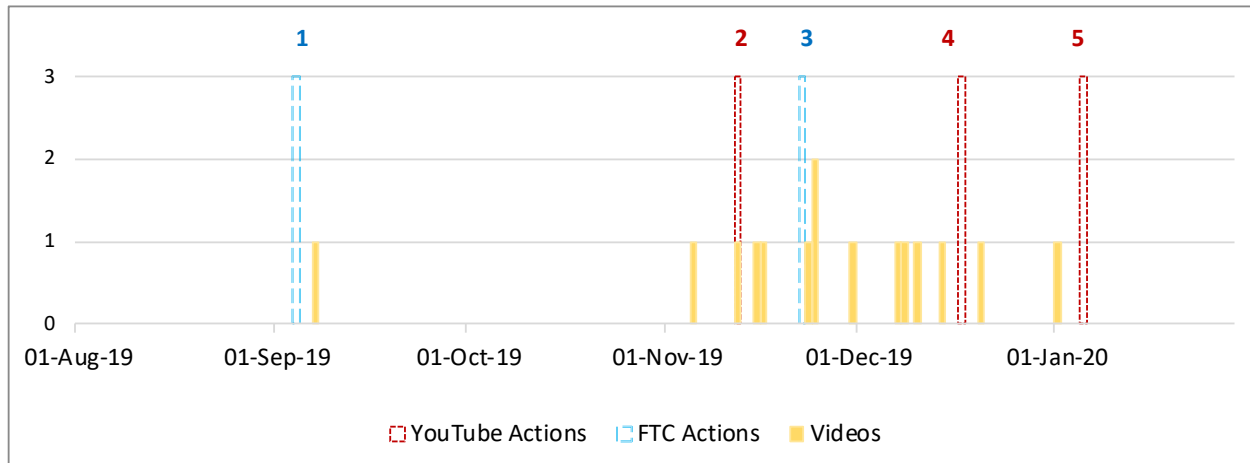
Note. Video duration is shown in hour:minute:second (hh:mm:ss) notation. Rating is calculated as the proportion of likes ($R = \text{likes}/(\text{likes} + \text{dislikes})$).

Most videos were posted from November 12, 2019 to November 21, 2019 ($n = 3$; average of 0.30 videos/day) and from November 22, 2019 to December 16, 2019 ($n = 8$; average of 0.32 videos/day), the dates when YouTube added the new audience setting, the FTC released guidelines for determining if a video is child-directed, and YouTube published a video sharing further information, respectively. Two videos were posted in the interval from September 4, 2019, to November 12, 2019 (average of 0.03 videos/day) and two more videos were published between December 17, 2019, and January 5, 2020 (average of 0.10 videos/day).

None of the videos was published after January 6, 2020, the date when YouTube rolled out the changes to “made for kids” content. The dates on which the selected videos were published on YouTube, along with the dates of major events regarding the issue, are presented in Figure 17.

Figure 17

Number of videos by date of publication and date of main events related to the COPPA rule implementation on YouTube (n = 15).



Note. The events are numbered chronologically as follows: 1) FTC and YouTube settlement for COPPA compliance. 2) YouTube adds a new audience setting for channels and videos. 3) FTC releases guidelines for determining if the content is child-directed. 4) YouTube publishes a video answering questions about COPPA. 5) YouTube rolls out changes to “made for kids” content.

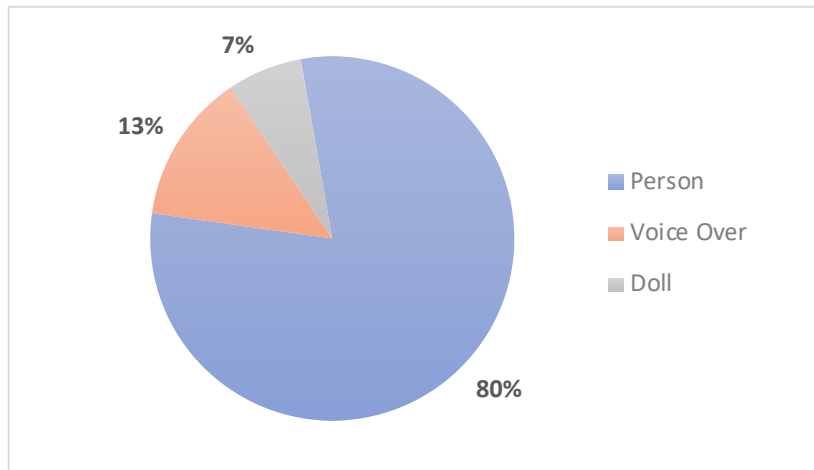
Host characteristics

As in Study 1, the selected videos' hosts were characterized by the type of presentation (e.g. person, voice-over), gender, and race. Inferences about gender and race were obtained by investigating creators' public information on their channels, videos, or webpages. When such information was not available, gender or race was subjectively assessed as the creator's visible identity.

Most of the videos were presented by one or more people speaking in front of the camera, at least in part of the video (80%, n = 12). Only two videos (13%) were presented using a voice-over, and one video (7%) was presented by a doll dubbed by the creator. The distribution of the types of presentation is illustrated in Figure 18.

Figure 18

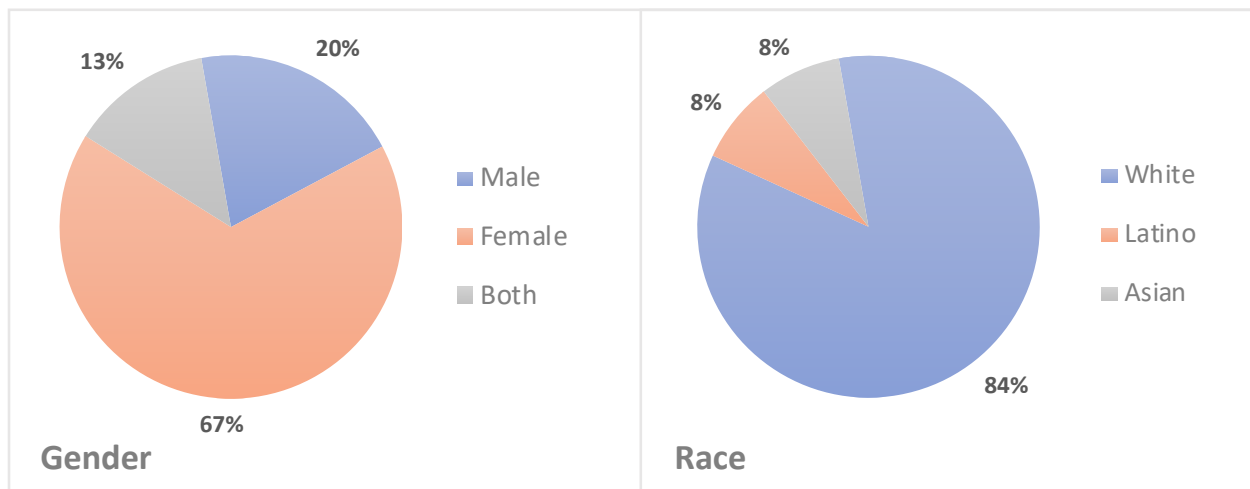
Type of presentation of the sampled videos (n = 15).



The charts in Figure 19 present the gender and race of the hosts in the selected videos. The majority of the hosts were white (84%) and female (67%). Two videos had two people as hosts, which were a white couple in both cases. Also, only two videos had non-white hosts, one having a female Asian (Filipino) host and the other having a male host of Latino (Mexican-Salvadoran) ancestry.

Figure 19

Gender (n = 15) and race (n = 15) representation in the analyzed sample.

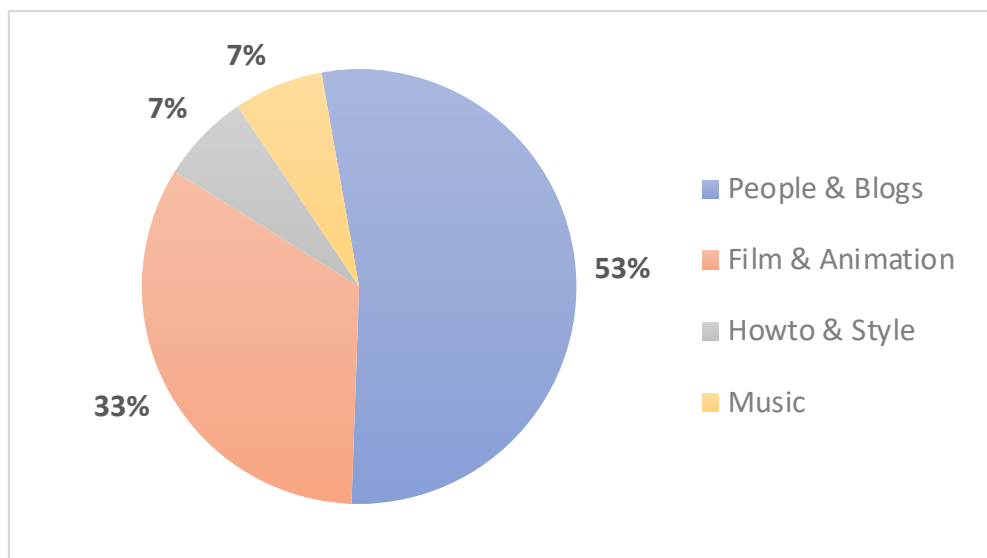


Channel's characteristics

Each one of the selected videos belonged to a different channel. The channels were characterized by category, size, and the amount of content defined as “made for kids”. Just over half of the channels ($n = 8$) were categorized as “People & Blogs” (i.e., vlogs, product reviews, and toy collectors). The other channels were classified as “Film & Animation” ($n = 5$), “Howto & Style” ($n = 1$), and “Music” ($n = 1$). Figure 20 presents the distribution of the selected videos in the four categories.

Figure 20

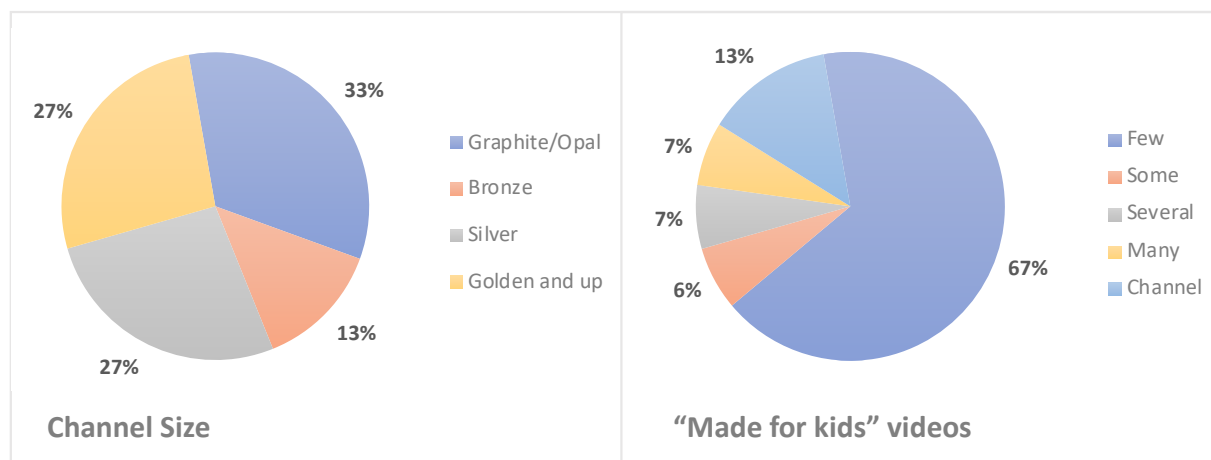
Video distribution by channel category ($n = 15$)



About a half of the videos belonged to channels had less than 100,000 subscribers at the moment of sampling, of which 33% were classified as Graphite/Opal (0 to 9,999 subscribers; $n = 7$), and 13% were classified as Bronze (10,000 to 99,999 subscribers, $n = 2$). Silver channels (100,000 to 999,999 subscribers) and channels classified as Golden and up (more than 1,000,000 subscribers) owned 27% ($n = 4$) of the videos each. Figure 21 presents the distribution of the selected videos by channel size and the amount of “made for kids” videos.

Figure 21

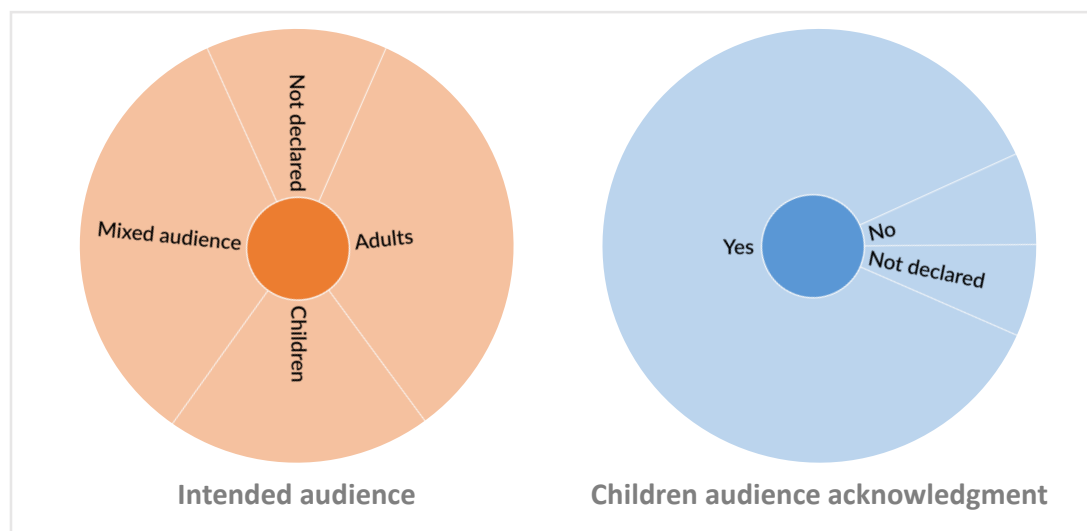
Videos distribution by channel size (n = 15) and by amount of “made for kids” videos (n = 15)



The channels' intended audience and actual acknowledgement of children's audiences are shown in Figure 22. The majority of the creators declared that they direct their content to either adult (33%, n = 5) or a mixed audience (33%, n = 5). Only three of 15 creators (20%) affirmed that they had children as their main targeted audience while creating content, and two channels (14%) did not declare which are their specific audiences.

Figure 22

Creators' intended audiences (n = 15) and acknowledgment of children audiences (n = 15)



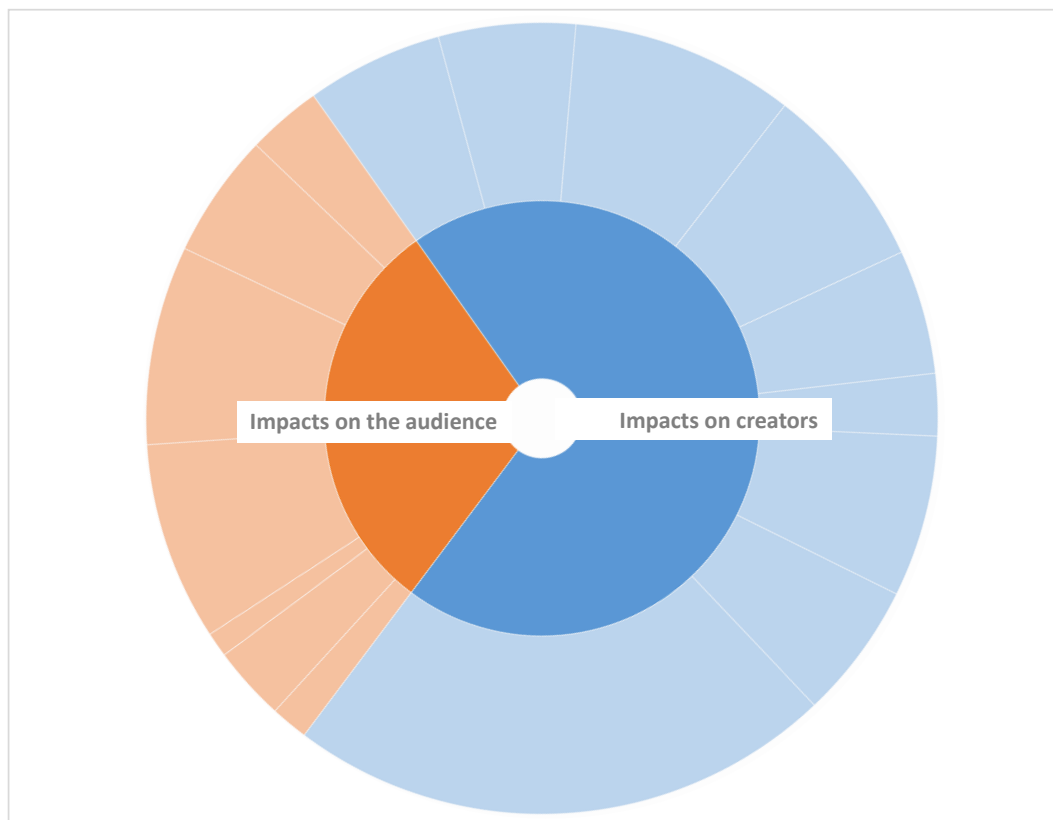
However, most of the creators acknowledged that children watch their channels indeed (87%, $n = 13$). One creator stated that children are not an actual audience of their channel, and one did not mention anything regarding the topic.

Perceived impacts

A total of 197 references to the potential impacts of the COPPA rule implementation were identified within the 15 videos. Roughly 70% ($n = 138$) of these impacts were perceived as potentially affecting creators, while 30% ($n = 59$) were associated with the audiences' experience on YouTube. The distribution of the number of mentions (coding references) of the impacts on creators and on the audience as perceived by creators is presented in Figure 23.

Figure 23

Distribution of the number of coding references related to impacts on creators ($n = 138$) and impacts on the audience ($n = 59$), as perceived by creators.



The references to impacts that might potentially affect creators were distributed in nine codes. Impacts related to uncertainty, anxiety and fear were the most mentioned in the videos (32%), followed by loss of revenue (13%) and the necessity of changing their content in response to the new rules (11%). The list of all identified impacts on creators, along with the number of code references and examples, is presented in Table 8.

Table 8

Potential impacts of the COPPA rule implementation on creators, as perceived by creators.

Impact	Coding References	Examples of reference
Uncertainty, anxiety, and fear	44	<ul style="list-style-type: none"> • “I wish I could tell you what's going to happen to my YouTube channel. It's really unclear.” • “But in fear, I took those videos down. So, you know, it's really had quite an effect on me.”
Loss of revenue	18	<ul style="list-style-type: none"> • “And now, I won't even get that opportunity to maybe make a little bit of extra money again for them on that end.” • “They're being forced to turn off personalized ads, which is the way that YouTube creators make money through doing YouTube.”
Need to change their content	15	<ul style="list-style-type: none"> • “It isn't just me. Others I know will go to much more extreme measures to make certain that their videos cannot be misconstrued as for kids.” • “We're just going to have to redirect our focus. I stepped away from being toy review videos a while ago when we first heard about this.”
Loss of exposure and reach	13	<ul style="list-style-type: none"> • “You're making kids content for people to actually see your videos. It's just going to be harder to discover you.” • “These videos, which will have zero engagement, will not be available for people to find.”
Less feedback and engagement	11	<ul style="list-style-type: none"> • “Videos marked made for kids will also lose any involvement with comments, info, cards and screen stories.”

Impact	Coding References	Examples of reference
An effort to cope with the changes	11	<ul style="list-style-type: none"> • “We will also lose the community tab. Like that's the only place that we can still talk to you.” • “I had to go through every single one of my videos. I have 500 videos.” • “We've been busy trying to figure out what to do about the regulation rather than making more great content.”
Loss of their jobs or business	11	<ul style="list-style-type: none"> • “If it kind of changes something, especially in my career and I cannot afford it, I may have a hard time, you know, looking for a job.” • “Again, this is their business. This is their job. And they aren't going to be able to pay the people that work for them.”
Risk of getting fined by the FTC	10	<ul style="list-style-type: none"> • “I just left it blank because if I hit the wrong button, then they're going to charge me or fine me forty-five thousand dollars.” • “I guess the American government can sue you for forty-three thousand dollars per video that you incorrectly label.”
Risk of getting flagged by YouTube	5	<ul style="list-style-type: none"> • “I don't want to [...] get a copyright strike or some kind of strike on my account.” • “They've even put artificial intelligence in place to automatically detect themes and the content in videos that are aimed or might appeal to young children, and your videos automatically get flagged.”

The references to impacts that might affect audiences were categorized into seven codes. The most frequent impacts were related to a loss of content quantity, variety and quality (27%), to a lower ability for the audience to communicate and engage when consuming kids content (27%) and to the heightened risk of children getting exposed to more mature and inappropriate content (17%). The list of all identified impacts to affect audiences, along with the number of code references and examples, is presented in Table 9.

Table 9

Potential impacts of the COPPA rule implementation on audiences, as perceived by creators.

Impact	Coding References	Examples of reference
Loss of content quantity, variety and quality	16	<ul style="list-style-type: none"> • “Some channels will completely stop doing kids' content at all.” • “There won't be as much kids content on YouTube and the quality of some of the kid's content won't be as good.”
Lower ability to communicate and engage	16	<ul style="list-style-type: none"> • “You will not get notified when we upload a new video. You will not be able to like our videos, comment, to get I-cards. You will not be able to add our videos into a playlist, share the videos, and you will not see the videos in recommended.” • “You won't be able to make any comments anymore.”
Exposure to more mature and inappropriate content	10	<ul style="list-style-type: none"> • “Creators will start making less family-friendly content because family-friendly content won't get views and it won't make money.” • “If you can prove that your content is not made for kids because of language, violence or other mature content, then you don't have to turn off monetization.”
Uncertainty, anxiety and fear	6	<ul style="list-style-type: none"> • “We know that you're frustrated and you're angry and you're sad and you're confused.” • “And a lot of my favorite YouTubers are making videos saying that they're not going to make videos for children anymore. They're only going to make videos for teenagers, and I don't understand what's going on.”
Getting irrelevant or inappropriate ads	6	<ul style="list-style-type: none"> • “Instead of using the data gathered on you personally to deliver to an ad the algorithm thinks you're interested in. You'll get a generic ad tailored to the video itself.” • “They are not going to show you personalized ads that are specifically what you're interested in. Yes, it will be vaping, politics.”

Impact	Coding References	Examples of reference
Adults being treated like children	3	<ul style="list-style-type: none"> • “Nostalgia runs our country and full-grown adults proudly embrace their inner child.” • “So, I make these videos for adult dorks like me because most people these days seem to be dorks who love this stuff.”
Getting less advertisement	2	<ul style="list-style-type: none"> • “There's going to be way less ads showing up on videos that are made for children.” • “You're probably going to see less ads in the beginning because the only way that they can serve ads is now contextual.”

Adopted and suggested solutions

A total of 18 references to solutions being implemented or suggested to overcome the impacts were identified and divided into five codes (Table 10). Most of the creators decided to adopt other platforms to either share their content or provide the audience with alternative means of communication. Creators also asked their audiences to search for new videos actively and suggested that parents should decide which content their kids' access, creators should find another sources of revenue, and YouTube should updated their Terms of Service to request parents' consent for data collection.

Table 10

Solutions for the issues caused by the new system, as adopted or suggested by creators.

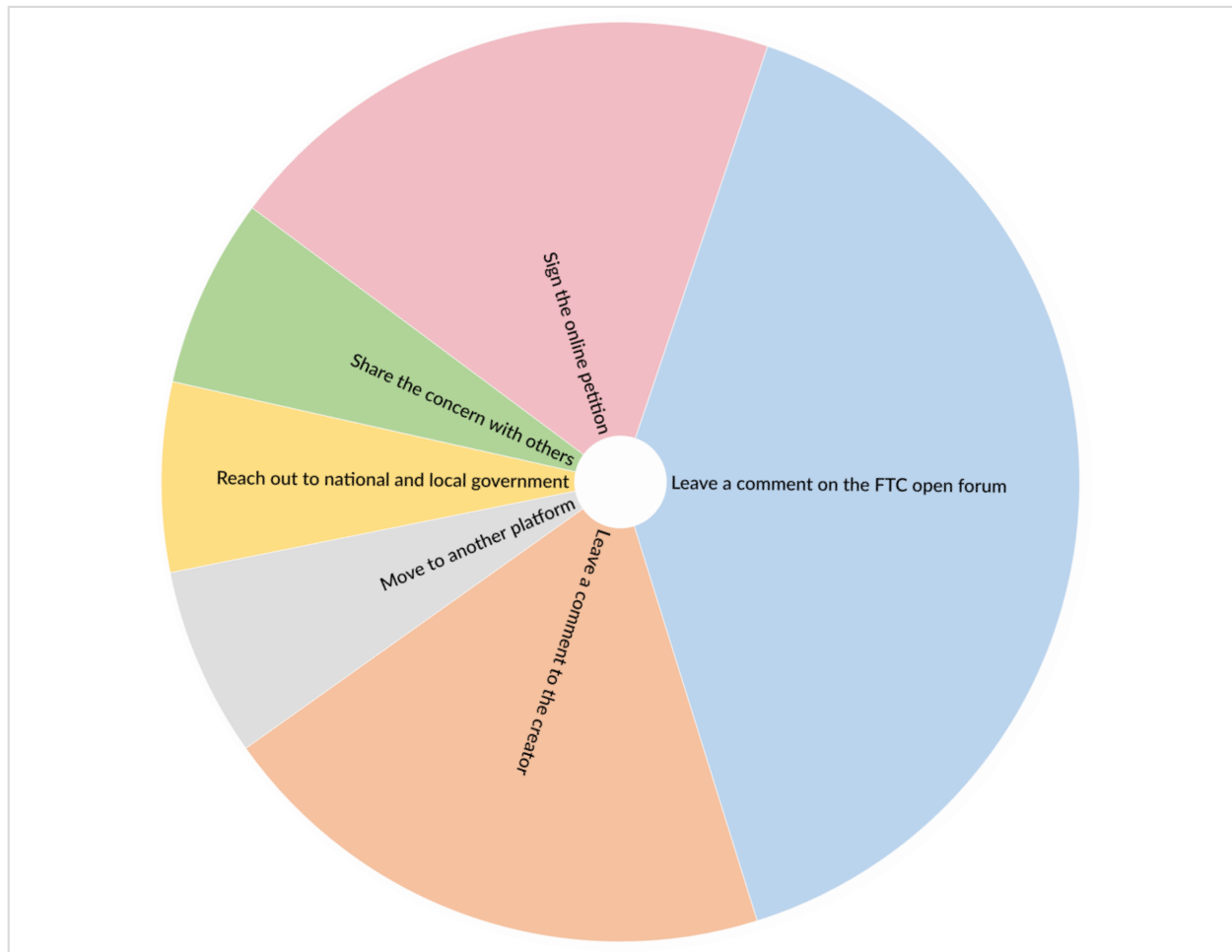
Solution	Coding References	Examples of reference
Adoption of other online platforms	12	<ul style="list-style-type: none"> • “Basically, it will be switching to Instagram. Instagram has a feature called IG TV. This feature allows you to post videos, stop motions, tutorials, whatever.” • "I will be creating a discord server."

Solution	Coding References	Examples of reference
Users to actively search for new videos or visit channels	3	<ul style="list-style-type: none"> • “I do encourage you to just keep on checking my channel time to time just in case.” • “You will only get to see your videos when you search for our channel.”
Let parents decide what their kids will access	1	<ul style="list-style-type: none"> • “There is no way to know or to police what kids of exactly 12 years of age and younger are watching. The best you can do is make things absolutely clear and let parents decide from there.”
Find other sources of revenue	1	<ul style="list-style-type: none"> • “Get another platform. Start a brand. Start a business. Use your audience. Have your audience love you. Grow an authentic organic audience is the only way to be successful is to help people love you. And then you sell them a book or do something amazing. So, stop relying on YouTube to give you your money.”
Review YouTube’s terms of service	1	<ul style="list-style-type: none"> • “I think the best solution is a revamp of YouTube's terms of service. Would you have to agree to use the site with or without an account where parents are explicitly giving consent for their child to have their data collected.”

Figure 24 depicts the distribution of call-to-action pleas used to encourage the video viewers to act in order to interfere with the COPPA rule implementation. The most frequent pleas were those asking viewers to leave a comment on the FTC open forum (n = 8) and to sign the online petition created by Jeremy Johnston (n = 5). Creators also invited the viewers to leave a comment regarding the issue (n = 3), share their concern with other people (n = 2), migrate to another platform (n = 1), and reach out to the national and local government to change the law (n = 1). Note that some creators may use more than one call-to-action in their videos. Seven videos did not have any call-to-action plea in relation to the COPPA rule implementation.

Figure 24

Calls-to-action identified in the selected videos (n = 15)



Note. Some videos may have more than one call-to-action, while others may have none.

5.3. What are the parents' opinions?

The third part of the study focused on identifying the opinions, the perceived impacts and the potential solutions from the point of view of parents that left a comment about the COPPA rule on the FTC's open forum docket.

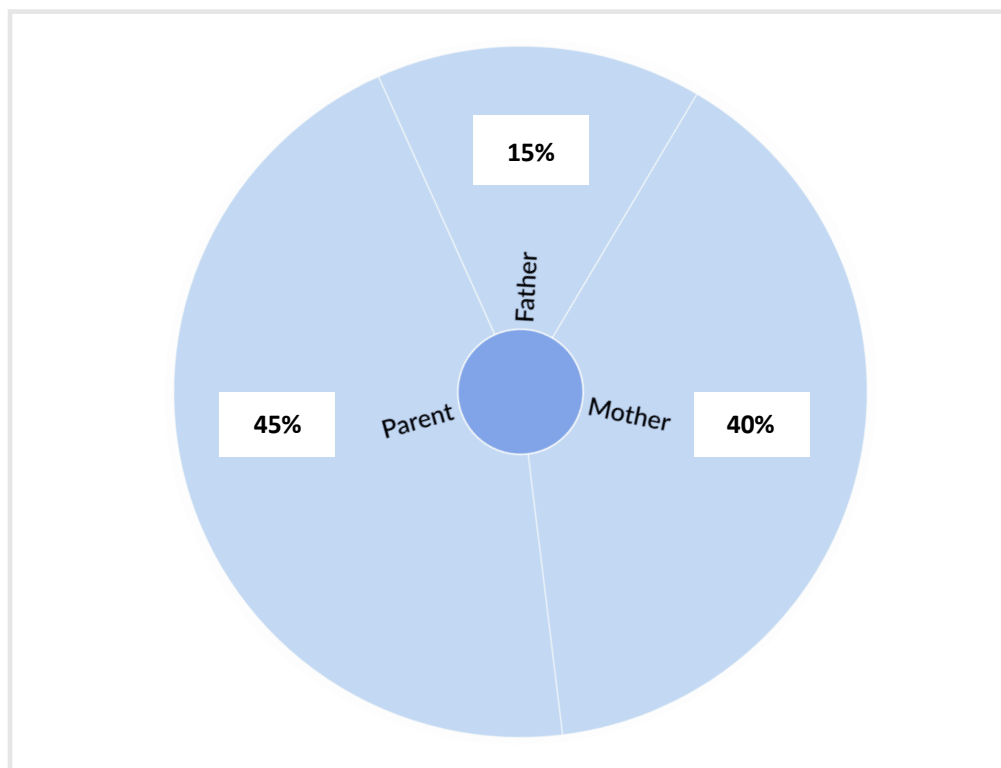
Parents' gender

Parents' gender was determined as a father or as a mother by considering their self-identification within the comments under analysis. A total of 91 parents were self-identified as

mothers (female, 40%) and 35 were self-identified as fathers (male, 15%). The authors of 104 comments did not specifically identify themselves as a mother nor as a father (unknown gender, 45%), being just assigned as “parents”. The distribution of the parents’ gender by self-identification is shown in Figure 25.

Figure 25

Distribution of the comment’s author’s gender (n = 230).

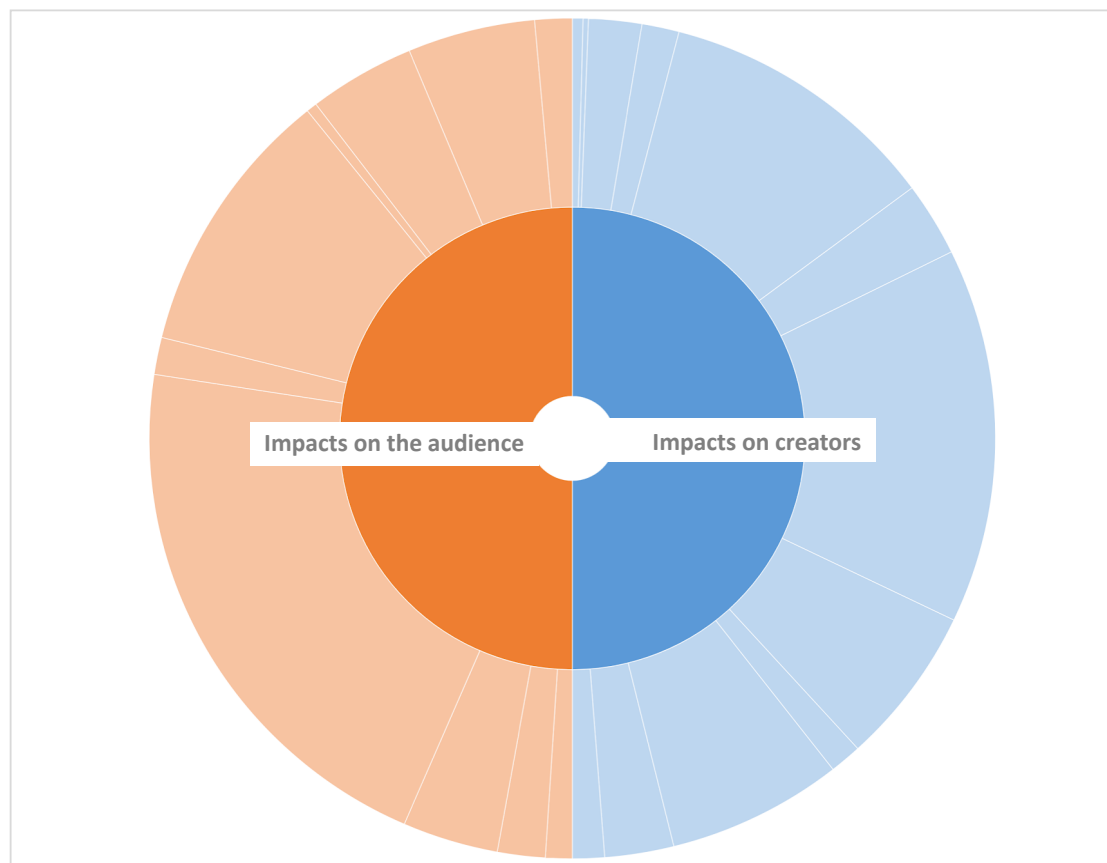


Perceived impacts

A total of 492 references to potential impacts related to the COPPA rule implementation were identified within the 230 comments. Exactly a half (n = 246) of these references perceived impacts to potentially affect creators, while the other half (n = 246) of the mentions were associated with the audiences' experience on YouTube. The distribution of the number of mentions (coding references) of impacts on creators and on the audience as perceived by parents is presented in Figure 26.

Figure 26

Distribution of the number of coding references related to impacts on creators (n = 246) and impacts on the audience (n = 246) as perceived by parents.



The references to impacts indicated as potentially affecting creators were distributed in 12 codes. The code with most references was related to the risk of the COPPA rule affecting channels that are not aimed at children (n = 71, 29%), followed by loss of revenue (53, 22%) and the risk of creators losing their jobs or businesses (n = 33, 13%). Parents also identified impacts related to the risk of creators getting fined by the FTC (n = 30, 12%), female creators being disproportionately affected because their content may be considered more childish (n = 14, 6%), among others impacts. The list of all potential impacts on creators, along with the number of code references and examples, as perceived by parents, is presented in Table 11.

Table 11

Potential impacts of the COPPA rule implementation on creators, as perceived by parents.

Impact	Coding References	Examples of reference
Risk of affecting channels that are not aimed at kids	71	<ul style="list-style-type: none"> • “Yet, in a recent video, she discusses Walt Disney and his views on death. I suspect that simply because this video features Disney characters, it might be considered child-targeted by the YouTube algorithm.” • “Crafters that make soap, cards, fashion, and pop-culture sculptures could be affected due to use of bright colors or recognizable characters.”
Loss of revenue	53	<ul style="list-style-type: none"> • “Personalized advertisements generate 80-90% of ad revenue for YouTube creators and this would definitely hurt them very much financially.” • “If the content creators have to mark their videos as "Made for Kids", their income will be greatly impacted.”
	33	<ul style="list-style-type: none"> • “Thousands of people on YouTube make a living off their videos and so implementing COPPA would put them out of a job.” • “See what you don't understand is those videos that people make is their family income. So they will stop making those videos as they will need to find a other job.”
Risk of getting fined by the FTC	30	<ul style="list-style-type: none"> • “Threatening a creator with a \$43,000 per video is so ridiculous that its hard to even take it seriously.” • “If they do not mark a video as child content but the algorithm or someone at the FTC decides otherwise then they can be fined over \$42,000.”
Risk of unevenly affect female creators	14	<ul style="list-style-type: none"> • “Since many of my hobbies can appeal to traditionally feminine interests, I can't help but feel like they are being unfairly targeted and dismissed as "childish" when they bring a lot of value to the world.” • “It will also introduce gender bias as channels that focus on things like crafting, art or decor ..e.g. more "feminine" content completely dry up.”

Impact	Coding References	Examples of reference
Need to change their content	13	<ul style="list-style-type: none"> • “Creators are being drawn to create more adult themes - so they can still get a paycheck.” • “May cause them to shift their work entirely to comply with the arbitrary idea of what is ‘children’.”
Less feedback and engagement	10	<ul style="list-style-type: none"> • “And to make choose the option of kid friendly the comments will be turned off. Comments are encouraging and make the creators feel like they are doing a great job.” • “If they are also not allowed to communicate with us via their comment section they will have great difficulty tailoring their content to our needs, a practice that has kept this online community strong and growing.”
Less freedom of speech	7	<ul style="list-style-type: none"> • “We really shouldn't rely on content makers to filter their content because it truly takes away their freedom of expression.” • “The extent to which the COPPA regulations go is extreme and likely a violation of the 1st amendment to not have the government interfere in free speech.”
Uncertainty, anxiety and fear	6	<ul style="list-style-type: none"> • “Please provide clearer guidelines for the rules that you are making. Creators or so-called operators seem to be confused about them.” • “Many of my favorite channels will be affected, and many of those are also parents like me, and they are uncertain of their futures right now.”
Risk of losing exposure and reach	6	<ul style="list-style-type: none"> • “With these new guidelines, many kids would not be able to watch YouTube and you will see a dramatic decline in views all around.” • “these content creators mark their content as for children, YouTube will not promote, recommend OR place targeted advertising dollars on those channels.”
Discouragement to start family-friendly channels	2	<ul style="list-style-type: none"> • “We dont want to see the door slammed in the face of future creators who may be considered too family friendly. Future creators will likely have to

Impact	Coding References	Examples of reference
An effort to cope with the changes	1	<ul style="list-style-type: none"> make their content too mature in order to be safe from the new regulations.” “Those who are just starting will give up.” “But this is damaging channels for profits, when others are spending time into their own channels to give information to the followers.”

The references to impacts that might affect audiences were separated into ten codes. The most frequent coding references were related to a possible loss of content quantity, variety and quality (42%), the heightened risk of children getting exposed to more mature and inappropriate content (21%), and a higher risk of getting more irrelevant or inappropriate content. The list of all identified impacts that may affect audiences, along with the number of code references and examples, is presented in Table 12.

Table 12

Potential impacts of the COPPA rule implementation on audiences, as perceived by parents.

Impact	Coding References	Examples of reference
Loss of content quantity, variety and quality	103	<ul style="list-style-type: none"> “I believe that if people creating child content were unable to make profit off of it, it would result in far less amazing content, therefore actually negatively effecting children.” “If you prevent personalized ads on youtube videos, that just limits the quality content available for my child to watch.”
Exposure to more mature and inappropriate content	51	<ul style="list-style-type: none"> “Please don't make these changes that I know will most certainly cause YouTube to lose family friendly content only to be replaced by more adult and/ or violent content.” “This will make it harder for me to protect them. Creators will start to ‘age up’ and age appropriate

Impact	Coding References	Examples of reference
		videos will disappear. It's already started to happen."
Getting irrelevant or inappropriate ads	24	<ul style="list-style-type: none"> • "If there aren't targeted ads, it means my toddler could see ads that are for alcohol, or scary movies." • "With context ads it will now be more likely that they see ads for violent video games or something else inappropriate."
Parents will have less control	20	<ul style="list-style-type: none"> • "As COPPA is set up now, it is actually harder for me to control data collection, because in many cases, it is either don't use a site at all, or lie and say my child is over 13." • "Your laws will inadvertently remove the control and rights of parents to make these decisions for our children."
Less access and opportunities for participation	18	<ul style="list-style-type: none"> • "Now we do plan on making a channel for our child, and crafting and anime characters is something she is passionate about.[...] This is her creative outlet please do not take this opportunity away." • "I am not able to pay for streaming services or cable, so YouTube is one of the only ways I can allow my kids nice quality content."
Lower ability to communicate and engage	9	<ul style="list-style-type: none"> • "This law punishes the viewers as well, when we can no longer interact with our favorite YouTubers on the platform we found them on." • "If I don't like something, I can tell that creator in the comments section. I have direct access to those people to give feedback and over time."
Harm to freedom of speech and other rights	7	<ul style="list-style-type: none"> • "I feel like this is infringing on my rights as an American to view content of my liking." • "This is not only taking away parents' right to consent, but our rights as the consumers and hobbyists."
Uncertainty, anxiety and fear	7	<ul style="list-style-type: none"> • "I told my daughter that one of her favorite YouTube channels might not make any more videos and it crushed her." • "My 3 little ones would actually be completely devastated, baffled and absolutely torn to one day

Impact	Coding References	Examples of reference
		wake up and find out that the content they once enjoyed is no longer available.”
Adults being treated like children	5	<ul style="list-style-type: none"> • “But because these are categorized as child appealing or child-directed I will no longer be considered an adult on YouTube if this is put into effect.” • “Being that Im 30 I do not want to have to go to YouTube kids to watch content clearly made for adult viewers but because there are themes in the videos children like it has been deemed child content.”
More sponsored content	2	<ul style="list-style-type: none"> • “And my biggest concern is that content creators we currently enjoy will either not be able to make content as often because they can no longer rely on an income from it, [...] or will embrace large amounts of sponsorships making their content virtual advertisements.” • “So instead there will be [...] more brand deals.”

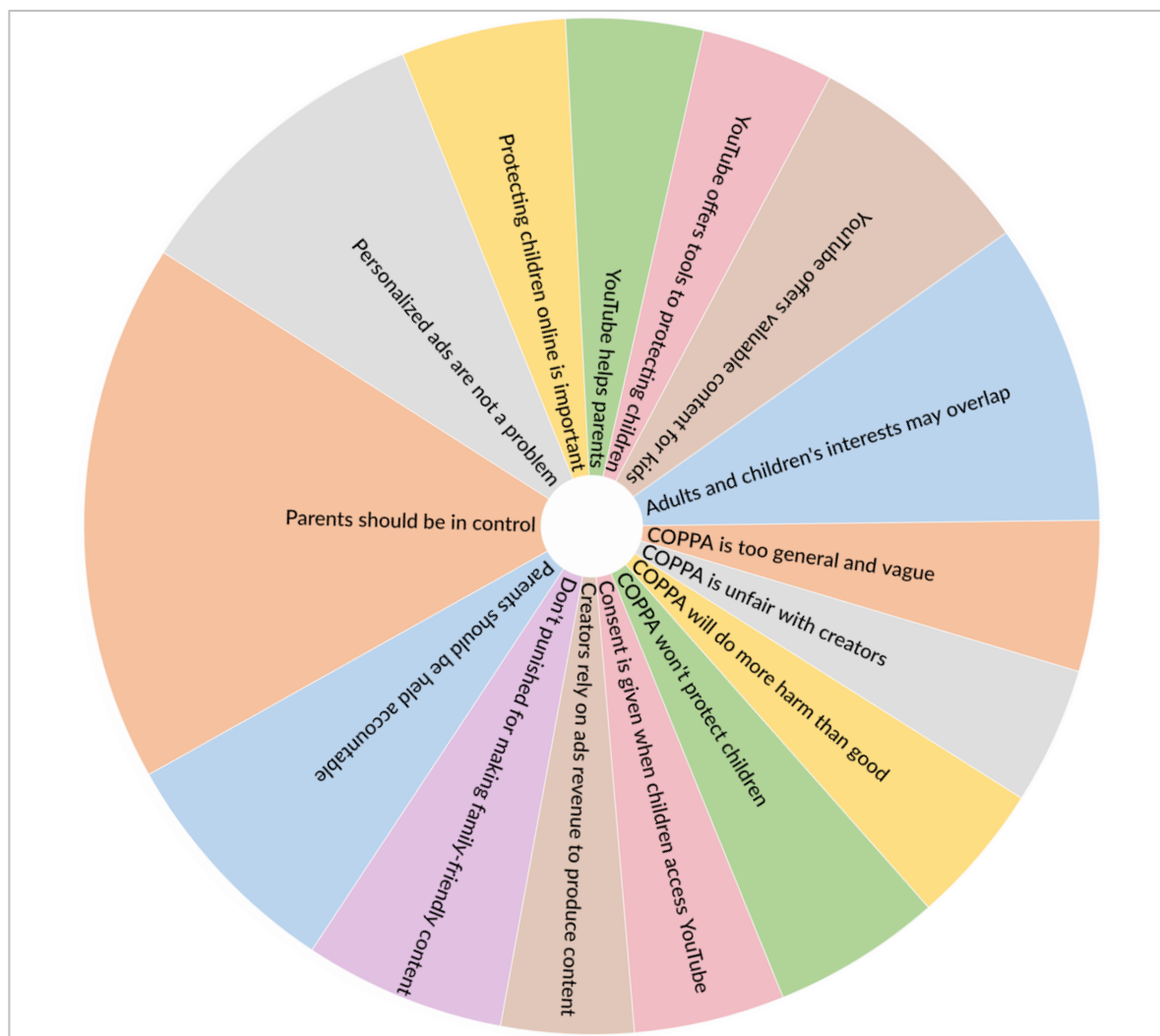
Parents’ opinions

A total of 987 references to parent’s opinions were identified and distributed to 80 codes. The code with more references was the one related to the opinion that parent should be in control of what their children access on the Internet (n = 118, 12% of the references), followed by the opinion that personalized ads are not a problem (n = 68, 6.9%), and that adults and children’s interests may overlap (n = 66, 6.7%). Many references were also made to the perception that parents should be held accountable for what their kids access online (n = 52, 5.3%), that YouTube offers valuable content for children (n = 51, 5.2%), that the creators should not be punished for creating family-friendly content (n = 44, 4.5%), that COPPA will not protect children (n = 37, 3.7%), that protecting children online is important (n = 36, 3.6%), that consent for data collection is given when parents allow their children to use YouTube (n = 33, 3.4%), that

the COPPA rule is excessively vague ($n = 33$, 3.4%), among others. Note that the number of references does not reflect the number of parents with each opinion, as one comment may have more than one reference to be included in a single code. The fifteen most recurrent opinions mentioned by parents in the analyzed comments are shown in Figure 27.

Figure 27

Fifteen most frequent opinions mentioned by parents



Suggested solutions

A total of 86 references to possible solutions to overcome the impacts of the implementation of the COPPA rule on YouTube were identified and divided into eight codes

(Table 13). Most of the references suggest that the guidelines for complying with COPPA should be clarified (n = 28, 33%), followed by the suggestion that parents should be considered responsible for what their kids access online (n = 18, 21%) and that an age-gating system should be used on YouTube (n = 9, 10%).

Table 13

Solutions for the issues caused by the COPPA rule implementation, as suggested by parents.

Solution	Coding References	Examples of reference
Clearer guidelines for complying with COPPA	28	<ul style="list-style-type: none"> • “Please make the guidelines more clear and not as broad as the current term "child-attractive".” • “I would urge you to consider making regulations that are clear and concise.”
Consider parents responsible	18	<ul style="list-style-type: none"> • “I want to suggest that if children are viewing YouTube videos from their parents account then the parent should be consider as giving their permission to view the video.” • “You can't regulate for basic parenting, instead spend that money on educating parents about what basic parenting looks like in this new age of online living.”
Use of an age-gate system	9	<ul style="list-style-type: none"> • “Or maybe a win/win would be that anyone could open an account but if the child is 12 or younger they are only allowed access to YouTube Kids. And if they are over the age of 13 then they can have access to either one.” • “Try maybe creating a way for adults that want to view the content we want to view by having the viewer verify they are old enough the view the content.”
Find solutions that do not harm creators	8	<ul style="list-style-type: none"> • “I would like to ask the FTC to evaluate the regulation to look for, perhaps a middle ground where children's privacy can be protected, and yet content creators will not be affected as much.” • “Try to communicate with YouTube on how they can change their platform in ways other than

Solution	Coding References	Examples of reference
		destroying the channels and livelihoods of its creators.”
Use of rating systems to classify content	7	<ul style="list-style-type: none"> • “If anything should be imposed, there should be a rating system such as the rating system for cinema movies and television content.” • “The targeted ads should be closely monitors instead. How about a rating system for the ads as well? Fine them a huge sum for posting rated-R ads in family friendly channels.”
Revise COPPA considering today's reality	6	<ul style="list-style-type: none"> • “I would ask that you reconsider the regulations that were written over 20 years ago to fit today's culture requirements.” • “The laws need updated to fit in with todays society.”
Separate children content from adult content	5	<ul style="list-style-type: none"> • “Toy unboxings and reviews should be able to be transferred over to YouTube kids as well as the channels that show cartoons. Family channels, mom channels, homeschool channels, etc should be able to stay on YouTube.” • “If a website is home to content that is both family friendly and general audience, maybe the website should offer something similar to the way Netflix is set up to ensure parents have a quick and easy way to vet out non kid friendly content.”
A system for parents to provide consent	5	<ul style="list-style-type: none"> • “I think a way to police the targeted ads is to simply get consent from parents by adding a consent form on all YouTube accounts.” • “Parents accounts can (should) have an option that allows them to state whether or not kids (as defined by the parent) watch from this account or channel, thus providing verifiable consent.”

The results of the three parts of the study will be discussed altogether in the following section.

6. Discussion

The primary purpose of this research was to identify the potential implications and opportunities created by the recent COPPA Rule's implementation on YouTube. By conducting an extensive literature review and a qualitative content analysis of videos and comments in light of a CPE approach, it was possible to identify some of the groups with a vested interest in the issue, characterize how COPPA may potentially impact them, and suggest further studies and improvements to better implement the rule on online platforms in the future.

6.1. Groups of interest and their relationships

As explained in the literature review section of this work, YouTube is a multisided platform that connects three key groups: (1) content creators, (2) audiences (viewers) and (3) advertisers. Each of these three groups is commodified, providing value to the platform and to each other, as follows:

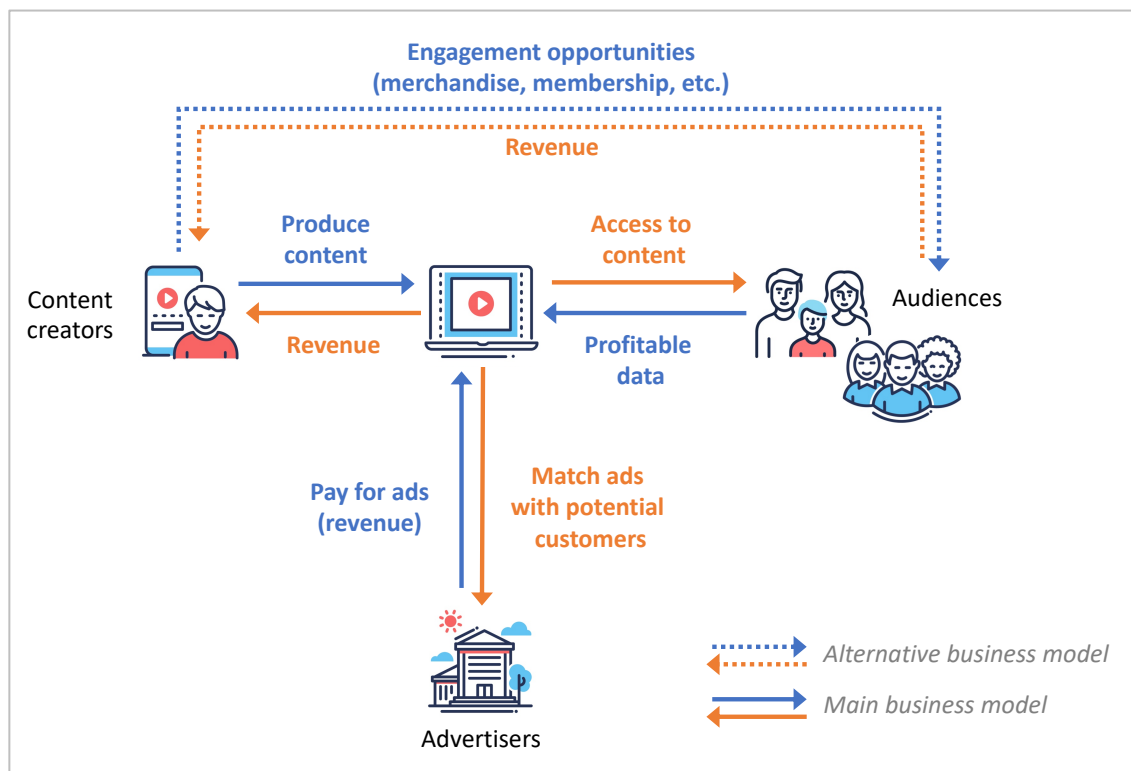
- Content creators provide videos, while they receive payments for views;
- Audiences give their data, while they get access to free content; and
- Advertisers generate revenue while they are promoted to potential customers.

Additionally, YouTube diversified its revenue model with alternative monetization features that do not necessarily include advertisers in the exchanges. In that case, content creators provide videos, products and engagement opportunities to their audiences, while the audiences pay for it. A synthesis of these relations is presented in Figure 28.

When any of the three sides of the platform is disrupted for some reason, the other sides are directly or indirectly affected, and the effects can be either positive or negative. Therefore, creators, audiences and advertising companies are all understandably interested in the outcomes from the COPPA Rule's implementation on YouTube.

Figure 28

Synthesis of the multisided exchanges on YouTube.

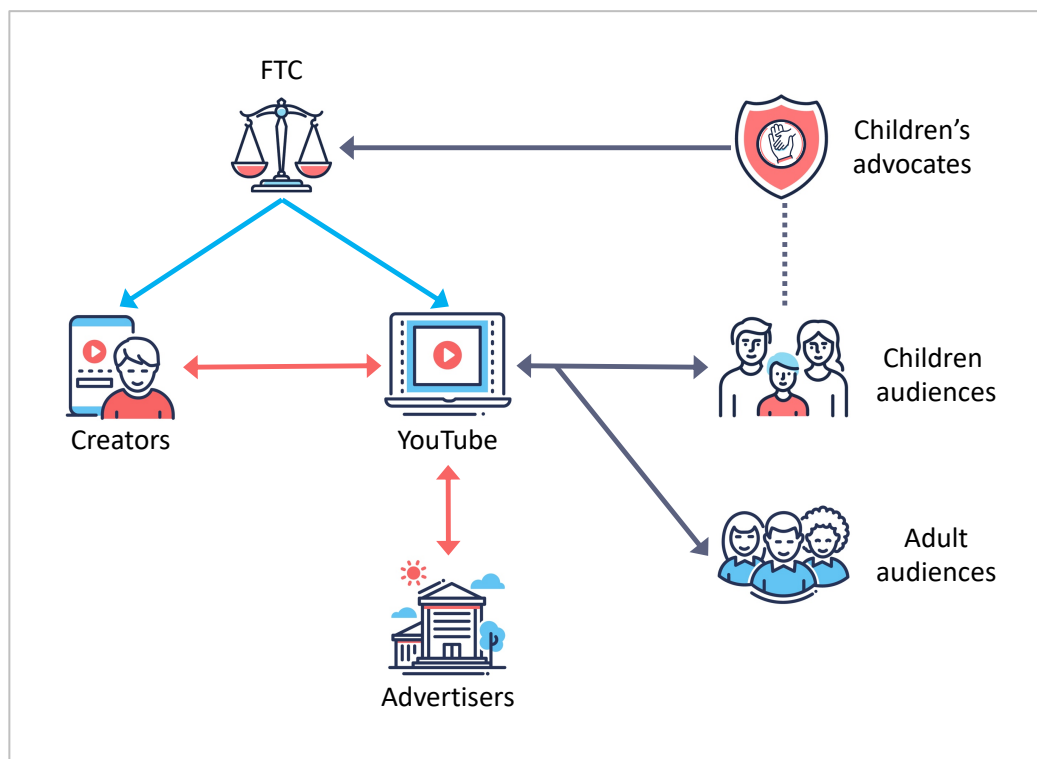


Nevertheless, specific groups within each of these three sides may have greater concerns than others. Besides YouTube and the FTC, which are the direct parties of the settlement, other specific actors were identified as particularly interested in the issue, including children and adult audiences, parents, children’s advocates, and creators that produce child-directed or child-appealing content. The major groups identified as having a vested interest in the implementation of the COPPA Rule on YouTube and their interrelationships are presented in Figure 29.

The present research focused on understanding the opinions of creators and parents. The findings showed that creators that are having their voices heard are not necessarily those that are directly affected by the policy implementation. The majority of channels identified in the first part of the research, study 1, did not have any of their latest 50 videos marked as “made for kids”.

Figure 29

Major groups with vested interest in the implementation of the COPPA Rule on YouTube and their interrelationships



Another observation was that most channels in the search query had less than 100,000 subscribers in the sampling moment, and some videos had a relatively small number of views (the minimum was 80). That finding is consistent with the YouTube's statement that search results are not a list of the most-viewed videos for a given query but, instead, are based on a variety of factors including engagement metrics and how well the title, description, and video content match the query keywords (YouTube Creator Academy, n.d.-a). In the second part of the study, videos belonging to larger channels were about half of the sample, which is consistent with the methodology used for sampling.

Also, the creators in the videos sampled in the first study were mostly male, while in the videos sampled in the second study (i.e. from creators that were affected by the new system) they

were mostly female. That particular finding is consistent with the risk pointed by some parents that the COPPA rule's implementation on YouTube would unevenly affect female creators because many feminine hobbies and interests are traditionally considered "childish" or child appealing.

Women have been traditionally underrepresented, misrepresented, and underpaid in media (Hill, 2016; Women's Media Center, 2017; Women's Media Center, 2019). Although YouTube is touted as a democratic space, studies showed that the gender imbalance persists on the platform (Wotanis & McMillan, 2014; Döring & Mohseni, 2019; Regueira et al., 2020). Thus, the findings in this study indicate that the current application of the COPPA rule on YouTube may potentialize gender inequality on the platform and contribute to the maintenance of the *status quo*.

6.2. Perceived impacts and consequences

The videos sampled in the first part of the study portrayed COPPA mostly as a negative act and anticipated that its implementation would cause harmful impacts on creators and audiences. Studies show that the more positive the content, the more it is likely to be selected by the viewer or become viral (Berger & Milkman, 2012; H. S. Kim, 2015). However, in the present study, videos that presented thumbnails or content with negative valence had more views on average than videos with positive valence. That may be explained by the fact that topics that are controversial or evoke high-arousal emotions such as awe, anger, and anxiety, regardless of their valence, can also play an important role triggering the viewers to select or share the content (Berger, 2011; Berger & Milkman, 2012; H. S. Kim, 2015).

Zhang and Zhou (2018) suggest that elevating the threat level of a message potentially attract social media users' attention and invite them for further appraisal. As a result, content that

produces higher fear-arousal increases the message recipient's intention to click. Also, they denote that when individuals feel capable, they put more effort into tasks that can produce positive outcomes, which can increase content sharing. In the present study, the sense of efficacy may have been triggered by the use of calls-to-action messages and the possibility of contacting the FTC to produce change.

The call-to-action to reach out to the FTC was present in about 16% of the videos sampled in the first study, which represents 35% of the views in the sample ($n = 13$; 4,927,263 views), and in about 40% the videos analyzed in the second study, which represents 89% of the views in the sample ($n = 6$; 953,951 views). When this observation is extrapolated to the whole universe of YouTube, it is reasonable to infer that the massive number of comments received by the FTC's open forum was influenced by the videos discussing the issue published in that platform.

Another evidence of the videos' influence on the comments posted in the FTC's open forum is the fact that some of them had a very similar structure, starting with the sentence "I would urge you to rethink the current rules and how vague they are. As a parent, I value [...]" followed by the personal reasons for sending the comment. After a more in-depth investigation, the exact same sentence was found to be part of a template provided by a YouTube creator named NerDECrafter. The screenshot of the template is presented in Figure 30.

The referred channel, NerDECrafter, does not seem to have videos directly affected by COPPA, like most of the channels analyzed in the first part of this study. However, from the evidence above, creators who do not produce child-directed content may have significantly influenced the parents' comments, which justifies the high number of references related to the risk of the COPPA rule affecting channels that are not aimed at children. Furthermore, impacts

on audiences were scarcely discussed in the analyzed videos, what may explain why a high proportion of references to impacts on creators – and not on children – was found even in parents’ comments, indicating that many parents may have been propelled to comment on the FTC’s public forum to try to preserve the content they consume as adults.

Figure 30

Screenshot of the NerdEcrafters’ template for comments in the FTC’s open forum.

example of what you can write:

Dear FTC members,

I am a (content creator/viewer/parent). I would urge you to rethink the current rules and how vague they are. As a (content creator/viewer/parent), I value (insert your values and how YouTubers/craft/art helps you). feel free to explain how female topics are not childish and how this rule can hurt many female creators. if you're a parent, please explain how much child-friendly content is important to you and how by giving your child access to your device, it is consent. Feel free to explain how you prefer targetted ads that show your actual interests and child interests vs random car or horror film ads.

Note. Screenshot obtained on August 1, 2020, from the description section in the video “NEW RULES MIGHT SHUT DOWN FEMALE CREATORS/ Arts & Crafts Channels FTC COPPA” (<https://www.youtube.com/watch?v=49DpBpVSEYc>), published on November 12, 2019.

If on the one hand most channels that were worried about the COPPA rule’s effects on YouTube did not get affected after all, on the other hand, only three of the 15 creators analyzed in the second study (i.e. channels that were somewhat affected) affirmed that they had children as their targeted audience while creating content. Still, the majority of these creators recognized that children might be watching their videos. It reveals the ambiguities of categorizing content when adults and children’s interests overlap. For example, the creator Brizzy Voices (“Golden and up” channel) that had some videos affected by the COPPA rule’s changes defined her content’s audience as follows:

I do not make videos for children. That is not my intention. So, it is by definition a lie to say my videos are made for kids. It is a lie. I do not make them for kids. Now, I do make

bright and upbeat videos about cartoon characters and about fantasy stories and about video games and make-believe and about art and costumes and my cute as hell dog. But I do that because this is the shit that I, a 28-year-old lady, love. So, I make these videos for adult dorks like me because most people these days seem to be dorks who love this stuff. (Brizzy Voices, 2019)

Many adults enjoy watching content that is deemed “made for kids” (see example in Figure 31), and the way COPPA rule is currently being implemented on YouTube results in anyone watching this kind of content being treated as children under 13.

Figure 31

Screenshot of a Tweet expressing a user’s feeling about the new COPPA compliant system.



Note. Screenshot obtained on August 2, 2020 from the tweet posted by @xAnzusx on January 6, 2020 (<https://twitter.com/xAnzusx/status/1214366000402984960>). The text “Los comentarios estan desactivados” is translated from Spanish as “Comments are turned off”. This notice is showed when a video is set as “made for kids”.

The COPPA rule specifies that an exception can be provided for sites or services that may be directed at children, but that does not target children as their primary audience, which is known as “mixed audience”. In these cases, the site or service can implement an age screen to identify if the user is an adult or a child under 13 and ensure that they do not collect personal data if they are a child (Federal Trade Commission, 2019a).

However, YouTube did not implement any sort of age-screen system, orienting that mixed audience content should be considered a type of “made for kids” content (Google, 2019a). In that way, any adult watching content that is identified as “made for kids” is treated as a child by the platform, while any child under the age of 13 watching content that is not identified as “made for kids” is at risk of having their data collected.

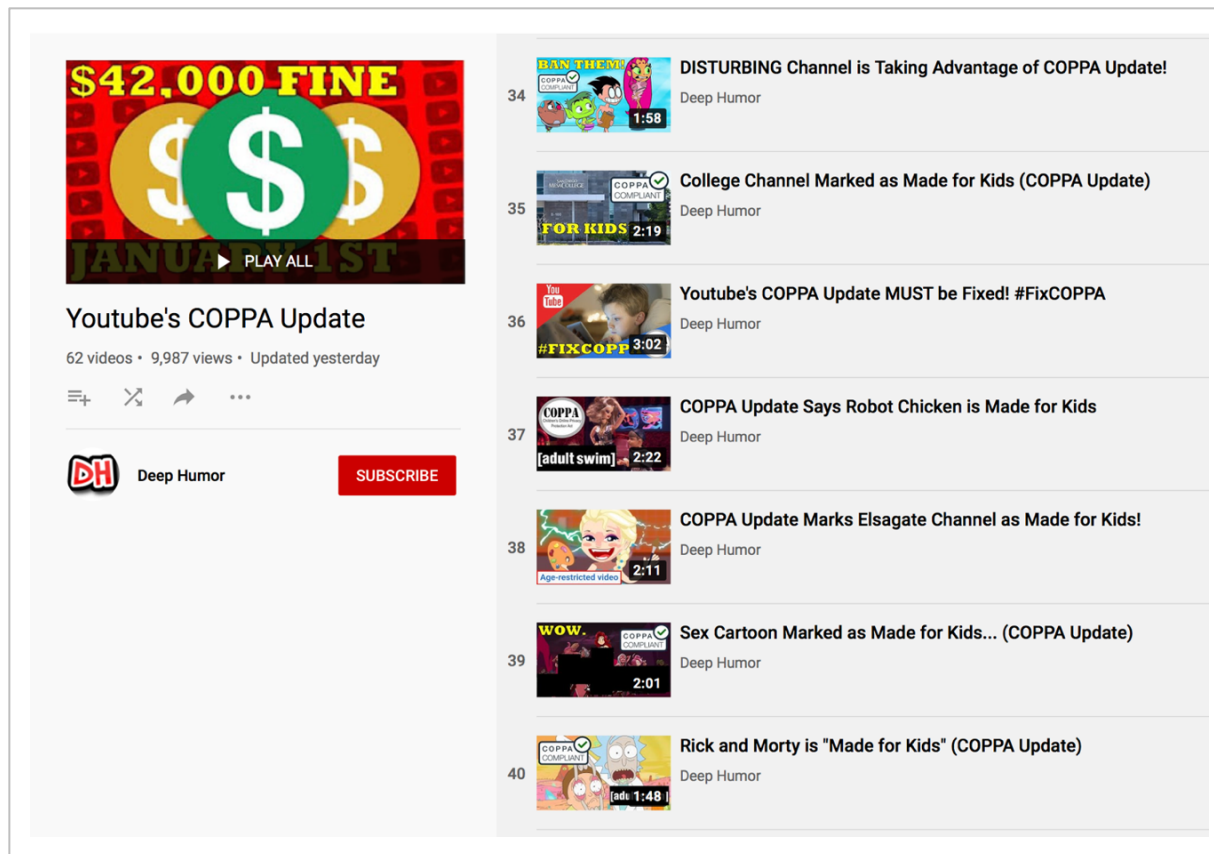
Another potential problem associated with the audience setting’s ambiguity is the use of an automated system to identify kids-content. YouTube implemented a machine learning system to identify “made for kids” content and override a creator designation if abuse or error is detected. Past experiences with such systems evidenced that they may make mistakes that cause anxiety, discontent, and a sense of injustice on creators (Plaugic, 2017; Gerken, 2019; Kumar, 2019).

Parker (2020) related that just after the new system was rolled out by YouTube in January 2020, many users reported that videos with violence, gore, and strong language were automatically marked as “made for kids”. They attributed it to a flaw in the machine learning system that would identify content containing visual elements that are often associated with kids’ content without considering the theme, context or the presence of inappropriate language and violent imagery in the videos. A channel named Deep Humor also posted many videos disclosing adult videos that were mistakenly marked as “made for kids” (Deep Humor, 2020a; Deep

Humor, 2020b). A screenshot showing a playlist containing some of the videos published by the mentioned channel is presented in Figure 32.

Figure 32

Screenshot of a playlist containing videos that show adult content that was mistakenly marked as “made for kids”



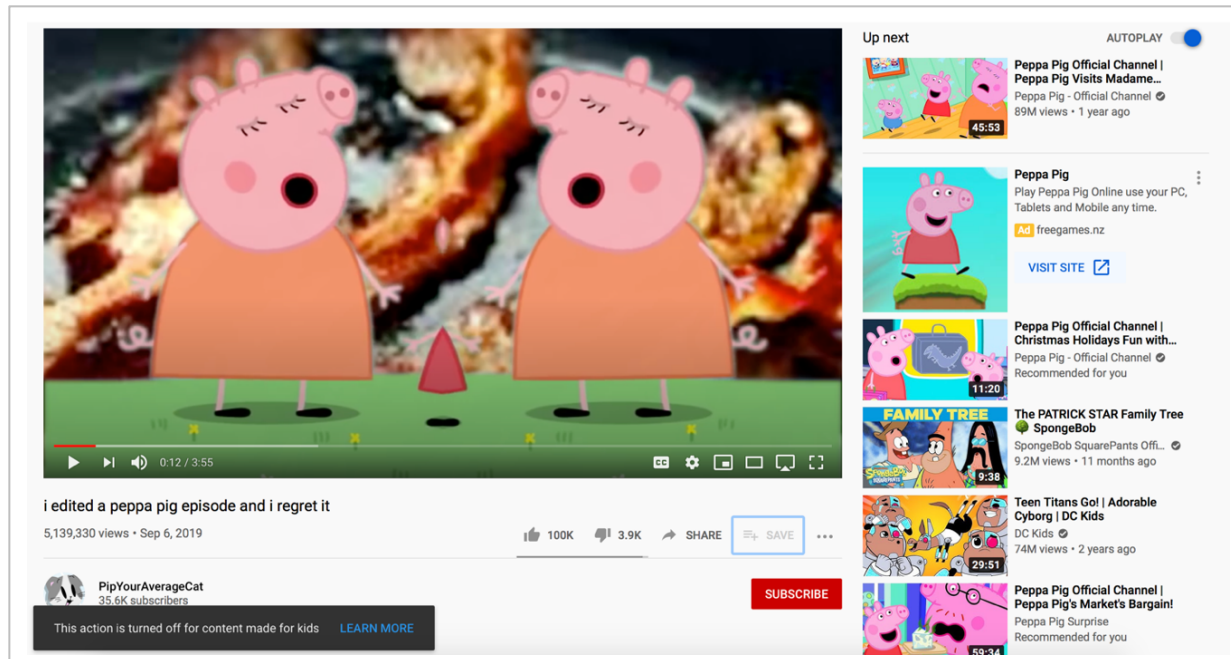
Note. Screenshot obtained on August 2, 2020 from the channel Deep Humor’s playlist page (<https://www.youtube.com/c/DeepHumor/playlists>).

Channel owners who disagree with an automated designation have the option to appeal by using the feedback button; therefore, some of these videos were later reset as “not made for kids”. However, some of them remain marked as “made for kids” as of the present date (PipYourAverageCat, 2019; RandomlyGirl, 2019), raising concerns that they may be

recommended by child-friendly content and inadvertently watched by children (Graham, 2019; Tufekci, 2019). An example of an inappropriate video that is currently marked as “made for kids” is presented in Figure 33.

Figure 33

Screenshot of an inappropriate video marked as “made for kids”.



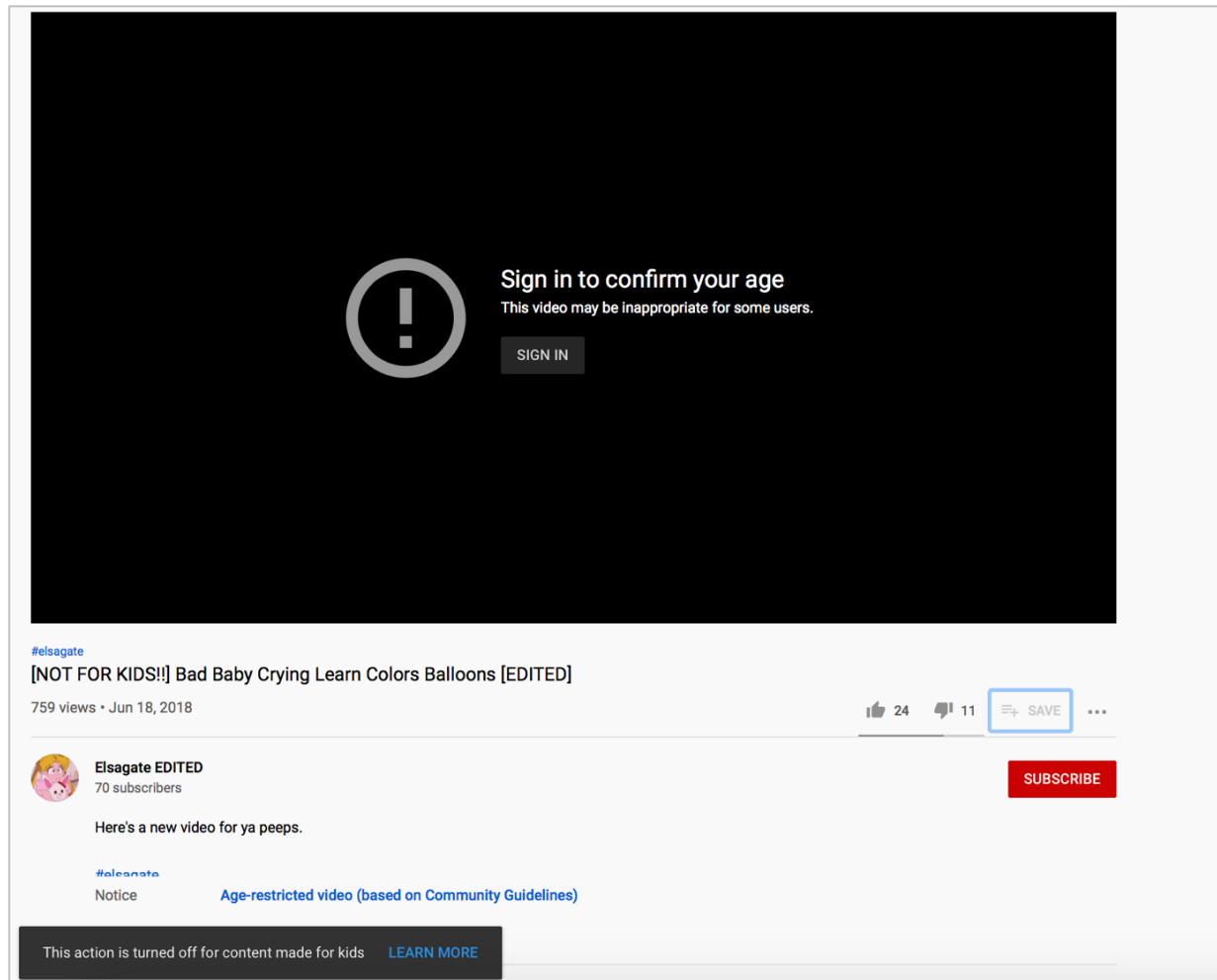
Note. Screenshot obtained on August 2, 2020 from the video “i edited a peppa pig episode and i regret it” (https://www.youtube.com/watch?v=0g2oUevqy_c), published on September 6, 2019. Notice that the video is displayed along with other videos that are genuinely made for kids.

Although some might think that creators would not be interested in maintaining their content marked as made for children because of possible revenue losses, content that is inappropriate or borderline may also be demonetized for not being considered suitable for advertisers (YouTube, 2017a). Thus, it is feasible that having inappropriate content marked as “made for kids” might be more advantageous than having it marked as not, especially if the creator maliciously intends to expose children to such content.

The audience's setting system provided by YouTube is so inconsistent that it is possible to find videos that are simultaneously marked as “made for kids” and as “age-restricted” (Elsagate EDITED, 2018). An example of such a case is presented in Figure 34.

Figure 34

Screenshot of a video marked as “made for kids” and as “age-restricted” at the same time.



Note. Screenshot obtained on August 2, 2020 from the video “NOT FOR KIDS!!] Bad Baby Crying Learn Colors Balloons [EDITED]” (<https://www.youtube.com/watch?v=VqiCC-GjXkg>), published on June 18, 2018.

As a result of a video been marked as “made for kids”, every user watching those videos – including adults – lose their ability to comment, add the video to a playlist, or engage with the

content and other users. The ability to participate is a core characteristic of social media platforms such as YouTube and provides many benefits to users, including the establishment of social connections, the diversification of cultural expression, the creation of affinity spaces, and opportunities for sharing knowledge (Jenkins, 2009, pp. 5-15).

Engagement features are also important to creators. By using the comments section, they can build a relationship with their audience by “hearting” outstanding comments (when creators “heart” a comment, viewers can receive a notification about that and the creator’s channel icon is shown with a small red heart in their comment), asking and answering questions, creating conversations, and establish a sense of community. The creator of Juju's Little Big World (“Graphite/Opal” channel), for example, affirms that:

Comments are really important to us, especially the small YouTube channel. It's a way to support other growing channels by us commenting on them. It's also a way for other channels to support us. And it's really a way that we connected with this community of small YouTubers. (Juju’s Little Big World, 2019)

YouTube expressed their concern about the issue in the comment they submitted to the FTC public forum, stating that the participation features are valuable tools for creators to get helpful feedback from viewers and asking the FTC to treat adults as adults, even when they are viewing kids content (YouTube, 2019d). It is important to remind that COPPA provides an exception to sites that have a mixed audience, but YouTube did not implement any sort of age-gate system. In the same document, YouTube urged the FTC to provide balanced and clear guidelines to help creators better understand and comply with the COPPA rule.

The lack of clarity and control may lead to emotional and psychological challenges for creators (Caplan & Gillespie, 2020). The vagueness in determining the audience, along with the

system changes, the inconsistency of the YouTube’s machine learning technology, and the risk of getting fined by the FTC or punished by YouTube contributed to a general sense of worry and confusion among creators (Alexander, 2019b; Kelly & Alexander, 2019; Spangler, 2019). The manifestation of uncertainty, anxiety and fear was the impact on creators most identified in the content analysis of videos about COPPA, and that finding seems to have been potentialized by two factors, as follows:

1. Most of the analyzed videos were posted in the interval between the date when YouTube added the new “made for kids” audience setting and the date when YouTube published a video answering questions about COPPA, and the FTC also released the guidelines for determining if the content is child-directed within this interval. Thus, the moment when most of the videos were published corresponds to the moment with the highest level of uncertainty, when creators were experiencing significant changes and had less information available.
2. Videos with negative valence and fear appeal were the most prevalent in the study, which may have heightened the apprehension among creators.

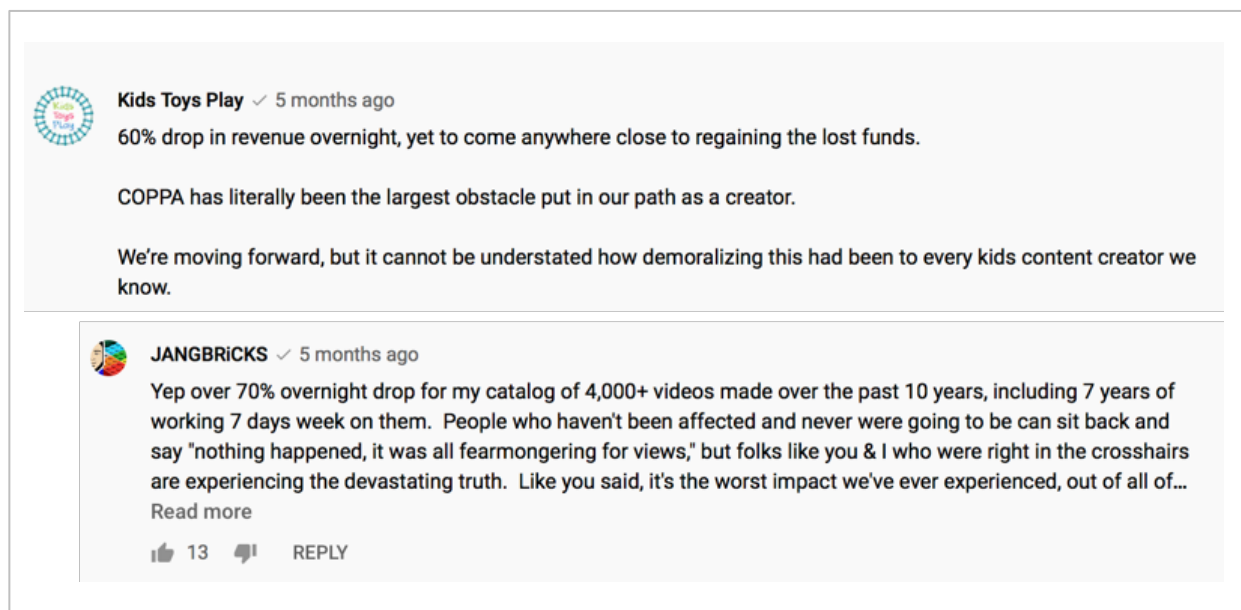
After YouTube published the video answering questions about COPPA, the number of videos in the samples was noticeably reduced, which may indicate that the uncertainty among creators lessened after they received further information about the rule implementation.

The anticipated outcome that caused greater concerns to creators was the risk of losing revenue. Johnson et al. (2020) studied the costs of consumer privacy choices in the context of online advertising and found that ads displayed to users whom opt-out of personalized ads fetch 52.0% less revenue on the exchange than ads for users who allow them. YouTube creators expected this drop to be even severer, compromising up to 90% of their gains (Jennings, 2019),

but after the changes were implemented, they reported between 30 and 70 percent loss in revenue (Pinto, 2020; Sapra, 2020; Sherman, 2020). Figure 35 shows a screenshot of creators discussing their losses in the comments section of a video about the impacts of COPPA rule.

Figure 35

Screenshot of creators' comments discussing their losses as a result of the COPPA rule's implementation.



Note. Screenshot obtained on August 4, 2020, of comments under the video “What The Data From 40 Million Channels Says About COPPA” (<https://www.youtube.com/watch?v=SwFjj2Zg0NU>), published on February 27, 2020.

The revenue's level of importance may vary to different creators. Some creators engage in producing YouTube content without monetary motives, only pursuing opportunities for creative autonomy, liberation from social, spatial, and institutional constraints, connection with niche audiences, self-realization, or future work (Kuehn & Corrigan, 2013; Zboralska, 2017). Other creators appreciate the revenue as a form of compensation for the time and resources they

invest in making videos. The creator of Dance Spot Family Vlogs (“Graphite/Opal” channel), for instance, expressed the following thought:

Do you know how much money I've spent on this YouTube channel getting those two checks? Ain't nothing. That is literally a pinprick. That is the pay for the camera that I'm using right now to upload this video on. Or the editing software I've purchased over the years. Or the other camera or the light gear that I just bought is more than I got from my paychecks. (Dance Spot Family Vlogs, 2019)

There are also creators who come to depend on YouTube for their livelihood, working full-time (Stelter, 2008; Perelli, 2019) and even hiring other people to help them manage their channels (Balachandran, 2017; Stokel-Walker, 2019). Lastly, some creators build large production companies, employing dozens of people. ChuChu TV, for example, consists of a network of YouTube channels focused on creating lullabies, nursery rhymes, and songs for kids that have over 200 employees working on their studio (Jennings, 2019).

Different channels also have unequal opportunities to diversify their revenue. Larger channels, especially those able to build solid businesses, may turn to other revenue sources outside of YouTube. Cocomelon, for example, the most-viewed YouTube channel based in the United States, debuted on Netflix and Roku a few months after the changes were implemented on YouTube (Owens, 2020).

Shortly after that, the very same child-directed channel was acquired by Moonbug Entertainment, a global company that creates and distributes digital children’s content (Spangler, 2020). Moonbug also acquired Blippi, a live-action educational show on YouTube that generates over half a billion average monthly views. The company announced that they plan to make

additional acquisitions, expand the distribution to other languages and platforms, and introduce new merchandise, toys, apparel, franchises, and licensing products.

Although expanding the commercial deals to outside from YouTube may be highly profitable to companies, these opportunities are scarce to smaller channels, and other alternatives that are popular with such creators, like crowdfunding and product placement, may not be appropriate, effective or even allowed to be used toward children audiences.

There is also a disparity in how small and large channels are affected by changes on the platform, either because of YouTube's tiered governance strategy (Levin, 2018; Caplan & Gillespie, 2020) or because of the creator's own ability to cope with the changes. The statistical website SocialBlade presented a study with 172,227 channels marked as "made for kids" two weeks after the new system was implemented. They did not find a significant difference in views and subscribers' losses when comparing channels marked as "made for kids" and "not made for kids". However, when they separated the "made for kids" group into above and below one million subscribers, they found that channels with fewer subscribers had a severer decrease in views in the short term. It was possibly due to YouTube favouring larger channels (i.e. content they know that is safe) or to smaller creators drastically changing directions or producing less content (Urgo, 2020).

VideoAmigo, another statistics website, also conducted a study to evaluate the performance of kids' content one month after the new system was implemented (Martin, 2020). According to them, top YouTube channels increased the amount of content they uploaded in December 2020 and saw an increase in views in January 2020. Conversely, lower-performing channels uploaded fewer videos and saw a decrease in views. It exemplifies how the new system

may affect small and large channels differently and aggravate the growing imbalance observed on the platform (Bärtl, 2018).

Overall, these findings support the notion that the COPPA rule's implementation will harm children's content creators' abilities to build a career on YouTube and will contribute to the return of the *status quo ante*, where big companies dominate the children content's production. Due to the lack of revenue alternatives, some creators may have no other option but to change their content's direction to maintain their business and livelihoods. The creator of My World ("Silver" channel) explained it as follows:

So, this is why your favorite YouTubers are so upset. If you happen to follow them on Twitter. If you're seeing them on Instagram and they're very upset and they're saying things like, I'm not going to make videos anymore, I'm going to only post my videos to mixer or twitch. From now on, we're only making videos for people over the age of 13. We're not going to make videos about dolls anymore. We're not going to make videos about toys anymore. That's why you're hearing this. OK. It's not about them not wanting to make videos for you. It's because they need to figure out how to feed their family. (My World, 2019)

The present research findings indicate that many parents consider that YouTube is helpful and offer valuable content to their children. YouTube stated in the comment they submitted to the FTC's public forum that creators all around the world have been able to make free content accessible to audiences of diverse backgrounds, offering many benefits to children and families (YouTube, 2019d).

Indeed, digital technologies have been found to contribute to children's physical, social, and cognitive development (McPake et al., 2012; Hsin et al., 2014; Oliemat et al., 2018), and

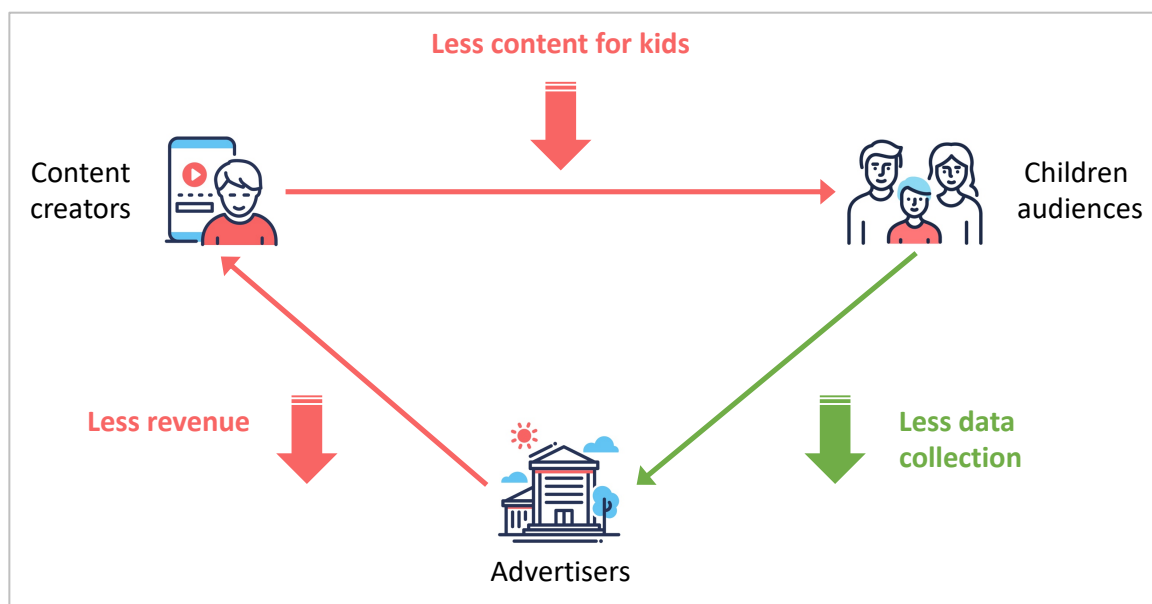
YouTube offers a plethora of entertaining, interactive, and educational videos that can be a great learning resource not only at home but also at schools (Szeto & Cheng, 2013; Knorr, 2014; Lange, 2016; R. Smith & Secoy, 2019; Bird, 2020; Bowen, 2020). A parent narrated the following experience in their comment in the FTC’s open forum:

My oldest daughter is autistic and watching YouTube videos has a big impact on her play skills. She also suffers from extreme anxiety and YouTube gives me the opportunity to show her other families and kids experiences before she tries new things which has helped her tremendously. (anonymous parent, 2019)

However, due to the lack of opportunities to generate revenue, many creators may be discouraged to keep producing children-directed videos on YouTube, which would lead to a decrease in this type of content on the platform (Figure 36).

Figure 36

Synthesis of the how reducing children’s data collection may lead to unanticipated consequences to creators and children audiences on YouTube.



The owners of the channel J House Vlogs (“Golden and up” channel), for example, abandoned their plan of creating an educative channel for children because of the COPPA rule’s implementation, what they explained as follows:

We had put together a team to help us with making these videos, and we had already begun making several when this announcement came out that they were turning off personalized ads on kids’ videos. We decided to push pause on any more production with this regulation. There's a lot of risk and uncertainty and potential penalties, and we've been busy trying to figure out what to do about the regulation rather than making more great content. (J House Vlogs, 2019)

The loss of content quantity, variety, and quality was, in fact, the most referenced impact to possibly affect audiences, both from the point of view of parents and the point of view of creators, as a result of the COPPA rule’s implementation on YouTube. The potentiality of that impact is so relevant that YouTube acknowledged it and established a \$100 million fund to be invested in the creation of quality children’s content on YouTube and YouTube Kids (YouTube, 2019c).

Just for a comparison, the Shaw Rocket Fund, an equity investment fund that supports the Canadian children’s media sector, invested a total of \$13,026,524 in the 2018-2019 fiscal year to produce 59 high-quality audio-visual projects, of which 32 were in English, four in English and French, 19 in French, and 4 in other languages (Shaw Rocket Fund, 2019). Also, large YouTube channels like Cocomelon (50 million subscribers in June 2019) and Kids Diana Show (28 million subscribers in June 2019) earned up to \$10.2 million and \$4.2 million per month, respectively, in 2019 (Martineau, 2019). Therefore, considering that YouTube’s fund will be disbursed over

three years to create content globally, \$100 million seems to be an underprovided amount from which only a small number of creators will benefit.

In addition to a loss of content quantity, variety and quality, parents and creators are worried that the discouragement of children's content on YouTube will lead to an imbalance towards more mature content on the platform. To protect themselves from being considered children-directed or children-appealing, creators may shift their content direction and add adult elements to their videos, like profanity, mature discussions, mild violence, and others accepted under the YouTube's advertiser-friendly content guidelines (YouTube, n.d-c). Even before the changes were fully implemented, some creators were already reportedly making changes to their channels (Alexander, 2019c). A parent narrated the following experience in their comment in the FTC's open forum:

This will make it harder for me to protect them. Creators will start to "age up" and age appropriate videos will disappear. It's already started to happen. My daughter like to watch one youtube channel because they were doing things like giant lego building, now they have shifted to video games and while she was watching it the other day they swore on the channel for the first time (that I've heard it). She told me about it right away and so we had to "ban" that channel. (anonymous parent, 2019)

Another concern is that removing the personalization will also lead to exposing children to more mature content. This study's findings showed that many parents do not consider personalized ads as a problem. Conversely, they expressed worries that the use of contextual ads may result in YouTube videos serving irrelevant and inadequate ads to their children. Although it is a valid concern, even inadequate personalized ads may be misplaced in children's content

(Francis, 2015), especially when the child is watching YouTube on an account that is shared with an adult, because the decision of which ad will be displayed is also based on past behaviour.

Actually, there was some confusion about the objectives of the COPPA rule, particularly concerning ads and inappropriate content. While some parents believe that the COPPA rule aims to prevent ads from appearing on children's content (e.g. a parent wrote "The point of this, from what I understand, is to keep children from seeing personalized ads" in the FTC's open forum), others think the rule is trying to remove inappropriate content. A parent shared the following thought in their comment in the FTC's open forum:

I am very grateful for the FTC's concern regarding the YouTube content that our children are being exposed to. I am a father and I am disgusted by the vulgarity of some of the videos children can access on social media. (anonymous parent, 2019)

A similar misperception was revealed by Dr Jake's Very British Reviews ("Bronze" channel) in the video that was analyzed in the second study of this research, as it is shown in the following excerpt:

Are they going to sue every Tom, Dick and Harry who accidentally reviews a Duplo Sets or something which is clearly aimed at children? No, they're probably not. I'm hoping that this is reserved for the likes of those, you know, Elsa videos where she's doing unsavoury things. You know, to those sorts of things that are really inappropriate and for some reason aimed at children. (Dr Jake's Very British Reviews, 2019)

Nonetheless, the legislation was not designed to protect children from viewing particular types of content online (Federal Trade Commission, 2019a), and its application on YouTube does not intend, by any means, to remove inappropriate material or inhibit children from

watching it. In fact, COPPA's primary goal is to place parents in control over what information is collected from their young children on the Internet.

The present research findings showed that the most prominent parent's opinion is that they should indeed be in control of their children's activities online. Similarly, Boyd et al. (2011) found that most parents believe that they should have the final say about what their child can do online. However, some parents in the present study fear that COPPA will not be effective in protecting children and that they will have less power due to its implementation on YouTube. For example, a parent wrote the following opinion in the FTC's open forum:

Parents should have the right to decide what content and kind of advertising is and is not appropriate. Your laws will inadvertently remove the control and rights of parents to make these decisions for our children. If I hand my device to my child signed in on my account or an account I created for them, I am giving my consent for my child's information to be used, and for him to engage in the YouTube community. (anonymous parent, 2019)

While YouTube is formally for 13 years and older users, many younger children are knowingly using it (Common Sense Media, 2017; Rideout & Robb, 2019). A study conducted by the Pew Research Center found that some 81% of all parents with children age 11 or younger allow their child to watch videos on YouTube, although the survey did not specify whether they used YouTube Kids or YouTube standard (A. Smith et al., 2018).

Likewise, Boyd et al. (2011) observed in their study about young users on Facebook (which is officially restricted to 13 and older users) that the majority of parents knew that their underage children used the platform, and many had even helped them to create an account. Thus,

it is reasonable to deduce that most children watch videos with their parents' consent, even on YouTube's main website.

In the way the COPPA rule is being implemented on YouTube, parents are completely removed from the decision process. With the new system, they are still not given the option to provide or deny the consent for data collection. Instead, the system results in none of the videos aimed at children collecting data – notwithstanding a user being a child whose parent is willing to allow data collection or an adult viewer –, while all videos marked as “not made for kids” keep collecting data – even if the viewer is a child and, in that case, in spite of parental content. Additionally, parents lose features that help them to control and intervene on what their children watch, like the ability to create playlists – which is helpful to select and restrict content their children watch – or comment on videos – which is helpful to provide feedback to content creators for how to improve their videos.

Boyd et al. (2011) suggest that COPPA encourages limitations on children's access to online services and, in response, parents decide to take greater risks in order to provide their children with online participation opportunities. They conclude that by creating a context of restriction, instead of offering explicit options to how their children's data should be collected and used, COPPA inadvertently undermines parents' ability to make choices and protect their children. A parent wrote the following opinion in the FTC's open forum:

As COPPA is set up now, it is actually harder for me to control data collection, because in many cases, it is either don't use a site at all, or lie and say my child is over 13. As a parent, I have no issue with my child having a Nintendo account. I have looked through it, and there is nothing there I would object to, and they do not collect more information than I am comfortable with them having. Except that Nintendo does not even give me the

chance to provide parental verification. As soon as I say my child is under 13, the features that I want him to have are shut off. The same is true of Youtube, by the way. The ONLY option for children under 13 is Youtube Kids, which, ironically, has LESS content I am comfortable with than regular Youtube. (anonymous parent, 2019)

Even though the risk of data collection will keep existing and the risk of exposure to more mature content may be heightened, some parents may still decide to take the risk of allowing their children on YouTube in order to provide access to online opportunities. That scenario may be especially true for parents that cannot afford a subscription to access alternative sources of entertaining and educational videos, which might amplify the gaps in provision, participation and protection and unequally intensify the burden on disfavoured groups.

6.3. Implications to the YouTube's children's content ecology

Although the COPPA rule's implementation might be positive in the sense of generally protecting children's online privacy, it may also harm YouTube's children's content ecology and unevenly affect creators and viewers.

First, content creators did not participate in the conversations during the FTC's investigation process that culminated with them being deemed "operators" under the COPPA Rule. Then, the FTC provided insufficient clarity and threatened creators with huge penalties, while YouTube implemented a system that ultimately transferred the onus of complying with the new rule to creators.

Suddenly, creators were obligated to designate hundreds, or thousands, of videos based on vague guidelines, while trying to understand the technical, monetary and legal implications of the changes. Along with the high risks that emerged from the rule's new interpretation, the lack of clarity and control caused a big commotion in the YouTube community, which reacted

publishing videos, organizing themselves to collaborate, and massively commenting in the FTC's open forum.

This scenario is consistent with the concepts presented by Cunningham and Craig (2019). In their article about creator governance in social media entertainment, these authors call attention to the fact that creators are not recognized as stakeholders in current academic and policy debates on platform governance, and the specificity of their interests is not usually taken into account. The top-down governance of state agency – which often exerts discriminatory influence over creators – and platforms – which primarily serve their own corporate interests – constitute a gross power asymmetry in relation to creators. In response, creators try to organize themselves and act collectively to improve their condition.

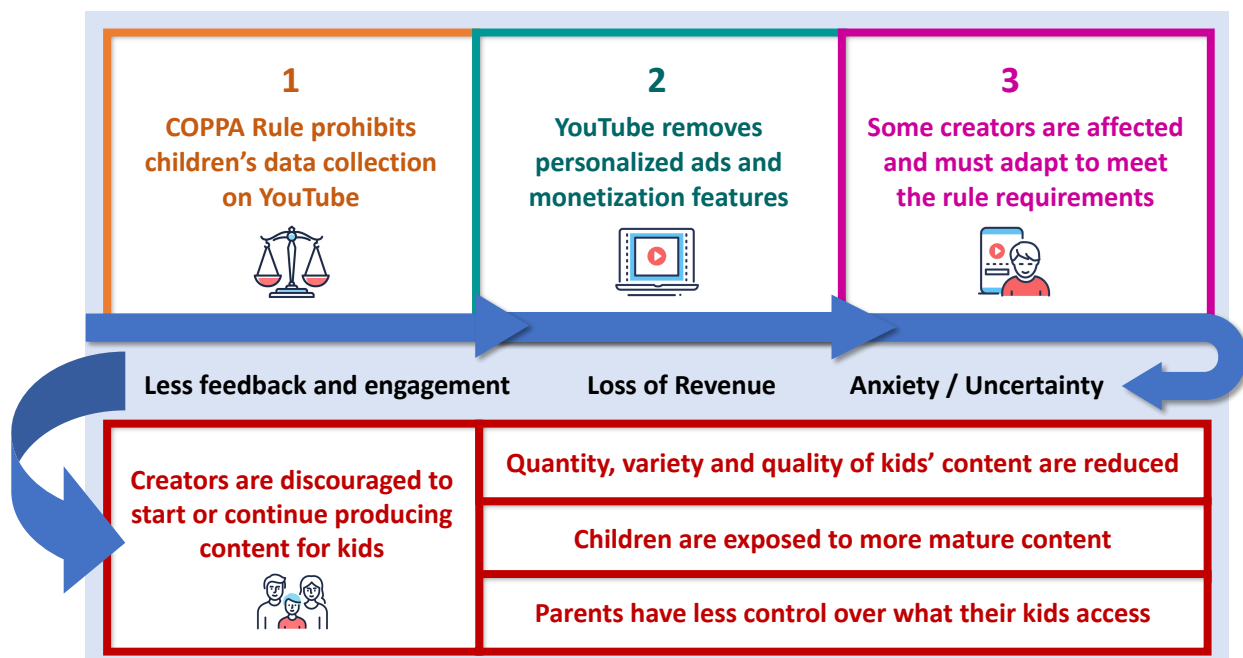
Despite the creator's efforts to exercise bottom-up advocacy for their rights, the findings of the present research indicate that the COPPA rule's application on YouTube will impact creators. YouTube shifted the responsibility of compliance to creators and employed governance mechanisms that are known to be faulty and biased, like algorithms and automated machine learning systems to enforce the changes, and creators were left with the risk of being penalized for any errors and with the losses the new system will cause, which are particularly harmful to the most vulnerable groups like women and small entrepreneurs.

Caplan and Gillespie (2020) explain that in platforms like YouTube, creators provide the labour and also cause the trouble, which leaves the mechanisms of incentive and compensation uneasily combined with detection and punishment mechanisms. YouTube decides to what extent these mechanisms will be employed, what is not always even-handed, while creators struggle to navigate the shifting landscape, with the hope of being heard, building an audience, and earning sufficient compensation for participating.

The lack of options to deal with the precarious conditions increased the anxiety, uncertainty and fear around owning a child-directed or child-appealing channel on YouTube. Simultaneously, the advertisement system's changes seem to have reduced the ability of children's content creators to generate revenue and build a business or a career on YouTube. As a consequence, creators entering the platform may be discouraged to create children content, and existing creators may shift their content strategies toward an older audience, resulting in less diversity, quantity and quality in the children's program available on the platform. Ultimately, it may result in parents having fewer options to protect their children and control what they access on the platform. A synthesis of the COPPA rule's potential effects on YouTube's children's content ecology is presented in Figure 37.

Figure 37

Synthesis of the COPPA rule's implementation's potential effects on YouTube's children's content ecology.



6.4. Potential solutions and opportunities

Protecting children's online privacy is important, but it should not be achieved at the expense of other children's rights or the parents' authority over their children's online activities. Hence, finding solutions that contribute to universal access to diverse and high-quality digital resources for children is crucial. For that reason, the present research also aimed to identify suggestions and ideas to minimize the risks and potentialize the opportunities created by the COPPA rule's implementation on YouTube.

In their videos about COPPA, creators offered solutions that were more practical and designed to solve the immediate problems caused by the new system. Most of them suggested or adopted other platforms to overcome the communication barriers imposed by the changes. Others asked viewers to search for new videos actively or proposed that creators should find other sources of revenue to maintain their businesses. Only one proposal was somehow related to the COPPA rule's application, and the solution was to simply let parents decide whether they will allow their children to access YouTube or not.

On the other hand, parents offered solutions that were more related to the COPPA rule's mechanisms than to the mitigation of practical impacts. Most solutions proposed by parents were related to the provision of clearer guidelines by the FTC, probably due to the high level of anxiety and fear created by videos from creators in the gray area of the definition of child-directed given by their current guidelines.

Some parents also suggested using an age-gate system or separating children's content from adult's content. As discussed before, COPPA provides mixed-audience sites or services with an exception that allows the use of an age screen to identify if the user is an adult or a child under 13 years old, but YouTube did not implement such a system. It is possible that adding an

age screen would require structural changes in the platform that would impact all of the users and content creators, even affecting the premise of openness of YouTube by requiring logging in for all viewers. Anyway, separating content would face the same limitations regarding the lack of clarity about what is considered child-direct and the overlap in children's and adults' interests.

It was also proposed that YouTube should adopt a rating system to classify content similarly to the maturity ratings utilized in mainstream media, particularly movies and TV. Although such ratings could prove useful to help guide parents deciding which content is adequate for their children, it is important to remember that the COPPA rule was not designed to protect children from viewing particular types of content online (Federal Trade Commission, 2019a).

Naturally, some parents also suggested that the FTC and the platforms should develop a better system for parents to provide consent. Those solutions should be designed to facilitate the understanding of which and how data would be collected, assure multiple options to parents, and offer easy mechanisms to provide verifiable consent, such as a parental control application that would be installed on parents and children devices to allow remote operation.

Another recurrent suggestion was just to consider parents responsible for what their children access online without resorting to policy regulation, which reflects the parents' perception that they are losing control over it. While that would be the ideal situation, parents may lack the digital literacy necessary to make the best decision to protect their children. Thus, regardless of parental consent being or not required for children's data collection, COPPA will only be effective if parents understand the mechanisms and risks involved in that process – from collection to use and disclosure.

Boyd et al. (2011) suggest that providing parents with greater opportunities to communicate, collaborate, and learn about online safety and privacy with their children are worthy goals, while other studies show that empowering children to set limits for their own online interactions is a crucial factor for protecting privacy, especially for those on YouTube (Unicef, 2017; Andrews et al. 2019). Thus, educating parents and children regarding the topic is fundamental to protect them, and national and international education campaigns – conducted by government agencies and private organizations – may be effective tools to enhance children's online privacy protection.

Although most of those solutions would probably enhance privacy protection and reduce the uncertainty for creators, they would hardly attenuate the other potential impacts identified in this study. Notwithstanding the clarity of the guidelines or the effectiveness of an age-gate system, child-directed content creators would still be deprived of the same revenue and participation opportunities offered to other creators who do not make content for children, with consequences to production and innovation in the children's content ecosystem.

Therefore, it is imperative that the FTC revises the COPPA rule in light of the current technological advances and considering all the economic and social relations associated with the issue. The primary aim of the rule – empowering parents and protecting children's online privacy – may not get lost, while online service providers must be required to set clear limits to the collection, processing and retention of children's data without being penalized for producing content and innovation that benefits children.

6.5. Limitations of the Study

Despite the researcher's efforts to conduct the study with academic rigour, some limitations should be noted. First, as an exploratory investigation of an issue that is new, this

study intended to gain a better understanding of the problem and recognize general themes and patterns related to the research questions. Thus, the findings should not be postulated as definitive statistics and facts.

Second, due to the lack of resources – especially personnel – the content analysis was conducted by one coder only, which can cause bias. To overcome this constraint, the researcher thoroughly examined the content before commencing the coding process, conducted two passes of coding, and visited the data numerous times over time. Also, the research was originally designed as a triangulation of methods and data sources to avoid bias.

Finally, convenient sampling of videos and comments that were readily available was conducted for all three parts of the study. As a result, it is possible that individuals of specific groups affected by the COPPA rule did not post a video or comments expressing their experiences and, therefore, were not represented in the sample. For example, a creator who produces content for toddlers may not find appropriate posting a video about such a complex issue to their young audience, while a creator who makes gaming videos that appeal to mixed audiences would.

Moreover, this research did not include other parts such as YouTube, advertisers, advocates and children, and the sampling only considered videos in English, even though YouTube is a global platform. Therefore, the findings may not reflect the opinions and struggles of the whole population affected by COPPA, and some other communities within the studied groups maybe experience the impacts differently.

7. Conclusions

While it is important to protect children's online data, rules such as COPPA may have unanticipated impacts. According to this study's findings, both creators and parents believe that the ability of children's content creators to generate revenue and build an independent business or a career will significantly decrease as a result of the COPPA rule's application on YouTube. Moreover, the lack of options to deal with the changes increased the anxiety, uncertainty and fear around owning child-directed or child-appealing channels on the platform.

Consequently, creators on YouTube may refrain from starting or continuing to create children content, either abandoning their channels or switching their content strategies toward an older audience. These effects were particularly critical to women and smaller creators, which may intensify the issue of gender inequality on the platform and benefit big companies, contributing to the return of the *status quo ante*.

As an outcome of the withdraws of children's content creators from YouTube, the production of children-directed content may decrease in quality, quantity and variety. Also, more mature content may gain traction, causing an imbalance that will ultimately harm children's access and participation on the platform and undermine parents' ability to make choices.

Parents believe that they should be in control of their children's online activities, and that should be the utmost goal of COPPA, but the manner the rule was implemented on YouTube completely removed them from the decision process. Instead, parents seem to be confused about the purposes of the changes – believing they were implemented to protect children's safety, rather than their privacy – and still left without the option to provide or deny the consent for data collection by the platform.

The way the COPPA rule is currently being implemented on YouTube will set the parameters for future application of that and other online privacy policies. The law is currently under review, and the regulatory approach needs to aim a balance between protecting children's online privacy and preserving the platforms' sustainability. Therefore, it is crucial to understand its impacts further and find better ways to increase parental involvement and protect children's online privacy without limiting children's access to innovation and technology and furthering the digital divide.

7.1. Future work

While an exploratory content analysis is a good starting point for understanding a problem and gaining insights about important themes and relations, there are opportunities for further research specific to this topic. In-depth interviews with parents, creators, and other actors may prove useful to explore their perspectives on the impacts identified in the present study. It is particularly critical to investigate how the most vulnerable groups like women, small entrepreneurs, and marginalized populations are impacted as they seem to be unevenly affected by the new COPPA rule's implementation on YouTube.

Further research should also investigate how channels changed their content and business strategies in response to COPPA, and if there was an effect on the quality and availability of children's content on YouTube. Finally, it is important to examine the effects of COPPA on other groups and communities that were not studied in the present research, like creators in non-English speaking countries, educators that use YouTube as a teaching tool, advertisers, and children that consume YouTube content.

Appendices

Appendix 1 - Codebook: Study 1

	Attribute	Code	Criteria
Channel	Size	Graphite/Opal	Less than 10,000 subscribers
		Bronze	10,000 to 100,000 subscribers
		Silver	100,000 to 1,000,000 subscribers
		Golden and up	More than 1,000,000 subscribers
	Made for Kids	None	None of the latest 50 videos is marked as “made for kids”.
		Few	One to 12 of the latest 50 videos are marked as “made for kids”.
		Some	13 to 25 of the latest 50 videos are marked as “made for kids”.
		Several	26 to 37 of the latest 50 videos are marked as “made for kids”.
		Many	38 to 50 of the latest 50 videos are marked as “made for kids”.
		Channel	The channel is marked as “made for kids”.
	Category	Film & Animation	That category includes movie trailers, scenes, and reviews, and animation and cartoon videos.
		Autos & Vehicles	That category includes videos related to cars, bikes, automobiles technology, and customized vehicles.

	Attribute	Code	Criteria
		Music	That category includes videos related to all genres of music and songs.
		Pets & Animals	That category includes videos related to domestic and wild animals.
		Sports	That category includes videos about sports and sport activities.
		Travel & Events	That category includes videos for traveling tips, travel places, event videos, and event tips.
		Gaming	That category includes videos for games, game hacks, tips, and game reviews.
		People & Blogs	That category includes videos about people, lifestyle, celebrity talks, vlogs, hobbies, and reviews.
		Comedy	That category includes comedy videos in different type like stand-up speech, sketches, parodies, and other funny videos.
		Entertainment	That category includes a range of topics like narratives, drama, performances and other amusing videos that are not included within other categories.
		News & Politics	That category includes headlines, news and politics.
		Howto & Style	That category includes how-to, tutorials, DIY, fashion, and style videos.

	Attribute	Code	Criteria
		Education	That category includes educational and informational videos.
		Legal	That category includes videos about legislation, regulation and other legal topics.
		Science & Technology	That category includes videos about science, research, innovation, and technology.
		Nonprofits & Activism	That category includes videos for non-profit organizations, advocacy, activism, and social causes.
Creator	Presentation	Person	One or more people are in front of the camera at least in part of the video.
		Animation	The whole video is presented as an animation with or without sounds and text.
		Voice Over	The video is present as a voiceover associated or not with images, and the presenter do not appear in the video.
		Text	Only text, with no voice or animation in the video.
	Visible identities	Race	Classified as specified by the creator(s), when available. Otherwise, inferred by visible characteristics according to the classification of population groups standards of Canada (Government of Canada, 2016).

	Attribute	Code	Criteria
		Gender	Classified as specified by the creator(s), when available. Otherwise, the visible identity is inferred as male or female.
Message	Thumbnail valence	Positive	The image present positive elements like smiles, thumbs up, optimistic words, and others that evoke a positive feeling.
		Negative	The image present negative elements like sad faces, tears, thumbs down, pessimistic words, and others that evoke a negative feeling.
		Neutral	The image present neutral elements like neutral faces, descriptive words, and other do not evoke feelings.
		Mixed	The image show both positive and negative elements, evoking mixed feelings.
	Content valence	Positive	Portrays COPPA as positive or has an optimistic view about the potential impacts of COPPA on YouTube or on a specific community.
		Negative	Portrays COPPA as negative or has a pessimistic view about the potential impacts of COPPA on YouTube or on a specific community.

	Attribute	Code	Criteria
		Neutral	Does not portray COPPA as particularly positive or negative to YouTube or a specific community.
		Mixed	Portrays COPPA as positive and negative depending on the characteristics of different groups.
	Intention	Inform	The creator intends to inform the audience about the COPPA Rule text, application, procedures, and any FTC or YouTube updates.
		Critique	The creator intends to express disapproval of YouTube, the FTC, or the COPPA Rule regarding the subject of the study.
		Share concern	The creator intends to share personal concerns about the impact of COPPA on their channel, community or others.
		Share opinion	The creator intends to share a personal opinion regarding to the COPPA rule text, application, updates, or procedures, which is not a critique.
		Share experience	The creator intends to share a personal experience due to the new COPPA rule application on YouTube.
		Share ideas	The creator intends to share ideas regarding the new COPPA rule application on YouTube.

	Attribute	Code	Criteria
	Message appeal	Rational	Share the message without aiming to trigger emotions on the audience.
		Emotional	Share the message using words, gestures, and expressions to trigger or intensify emotions like fear, laughter, empathy, and others on the audience. The emotions are registered as an open-ended input.
	Emotional appeal (adapted from Nabi, 2002a; Nabi, 2002b; and Nabi et al., 2007)	Anger	Message that attempts to arouse anger by expressing or inciting the desire to offend, attack or get back at the anger source.
		Confusion	Message that attempts to arouse confusion by stimulating doubt and uncertainty.
		Drama	Message that attempts to arouse commotion by the use of narratives, performance, and acting strategies.
		Empathy	Message that attempts to arouse empathy and compassion by expressing or inciting the desire to assist one in need and relief their suffering.
		Fear	Message that attempts to arouse fear by communicating situations as threatening and out of one's control.
		Guilt	Message that attempts to arouse guilt by inciting one to feel they

	Attribute	Code	Criteria
			have done something morally, ethically, or religiously wrong.
		Humour	Message that attempts to arouse laughter by using comedy techniques like jokes, sketches, and parodies.
		Relief	Message that attempts to arouse relief by communicating a situation as resolved.
	Call to action	Open-ended	Calls to action that are related to COPPA and may appear in any part of the video. “Subscribe”, “like”, and other unrelated prompts were not be added.
	Main message	Open-ended	Short note about the main message the video is promoting.
	Secondary message	Open-ended	Short note about any secondary message the video might be promoting.
Foreseen Impacts	On creators	Positive	The creator presents COPPA as beneficial for creators at some point of the video.
		Negative	The creator presents COPPA as harmful for creators at some point of the video.
		Neutral	The creator states that COPPA is not expected to have positives or negative impacts on creators.
		Varies	The creator states that COPPA may have different impacts on various creators at some point of the video.

	Attribute	Code	Criteria
	On children audiences	Not discussed	The creator does not discuss potential impacts of COPPA on creators at any point of the video.
		Positive	The creator presents COPPA as beneficial for children audiences at some point of the video.
		Negative	The creator presents COPPA as harmful for children audiences at some point of the video.
		Neutral	The creator states that COPPA is not expected to have positives or negative impacts on children audiences.
		Varies	The creator states that COPPA may have different impacts on various children audiences at some point of the video.
		Not discussed	The creator does not discuss potential impacts of COPPA on children audiences at any point of the video.
	On adult audiences	Positive	The creator presents COPPA as beneficial for adult audiences at some point of the video.
		Negative	The creator presents COPPA as harmful for adult audiences at some point of the video.
		Neutral	The creator states that COPPA is not expected to have positives or negative impacts on adult audiences.

	Attribute	Code	Criteria
		Varies	The creator states that COPPA may have different impacts on various adult audiences at some point of the video.
		Not discussed	The creator does not discuss potential impacts of COPPA on adult audiences at any point of the video.

Appendix 2 - List of videos: Study 1

Title and link	Channel
THE COPPA LAW Draw My Life https://www.youtube.com/watch?v=mK_yrLlrGjg	Draw The Life TikTak
You're Wrong About COPPA (Real Law Review) https://www.youtube.com/watch?v=C3Q48dwopVU	LegalEagle
What YOUTUBE's Not Telling You About COPPA https://www.youtube.com/watch?v=3GwDrHOe43E	Ian Corzine
Game Theory: Will Your Favorite Channel Survive 2020? (COPPA) https://www.youtube.com/watch?v=pd604xskDmU	The Game Theorists
This Video Is So Important.. (COPPA) https://www.youtube.com/watch?v=RR-qNkuCmvY	DanTDM
Something About COPPA (13+ Content) https://www.youtube.com/watch?v=JVZsbE4E68w	TerminalMontage
Get your KIDS OFF YOUTUBE! - Coppa Law https://www.youtube.com/watch?v=OQ1hKtJ0Xyw	AuntieTay
The end of our family YouTube channel FTC COPPA Law 🙄 https://www.youtube.com/watch?v=AoFp8sBMihI	The Moore The Merrier Vlogs
COPPA : Draw My Life (Coppa update 2020) https://www.youtube.com/watch?v=vlyylfepGto	Draw Their Life
COPPA Is KILLING Creators https://www.youtube.com/watch?v=BO5xZo73G3s	Ian Corzine
What The Data From 40 Million Channels Says About COPPA https://www.youtube.com/watch?v=SwFjj2Zg0NU	Video Creators
COPPA : Draw My Life https://www.youtube.com/watch?v=iKFtgPAAHOA	Draw My Story

Title and link	Channel
Age Reveal + Quitting YouTube (Due to the COPPA law) https://www.youtube.com/watch?v=gkJT6EDeMoo	Arxbird
Why Gacha Should Be Safe From COPPA (READ PINNED COMMENT) https://www.youtube.com/watch?v=cBHEZdag07o	Emmytchi
PewDiePie talks about FTC and COPPA https://www.youtube.com/watch?v=LyoS4xjxEc	T9T
I CAN GET SUED FOR 42,000 DOLLARS from COPPA...but only 4k FOR THIS? https://www.youtube.com/watch?v=gzGy6aojfdc	KonekoKitten
YouTube lied to us COPPA Discussion Gacha Life https://www.youtube.com/watch?v=xCkdfaiezzyo	Saffire Ocean
YOUTUBE IS SAVED! (COPPA GOOD NEWS) YouTube FTC COPPA Update https://www.youtube.com/watch?v=Ah5O5GeVjm4	KreekCraft
WHY it's not THE END of our Family YouTube Channel FTC COPPA Law 2020 https://www.youtube.com/watch?v=Bg6FX6Kovhg	The Moore The Merrier Vlogs
MUST WATCH WARNING COPPA Law and DOLLAR TREE DIYers/ CRAFTERS https://www.youtube.com/watch?v=CbfD6jxNkdg	Kelly Barlow Creations
COPPA INSIDER Update!!! What MORE YouTube Is HIDING https://www.youtube.com/watch?v=pwnvjuCTb54	Ian Corzine
Am I Quitting Roblox!? (My Plans For COPPA) YouTube COPPA Update https://www.youtube.com/watch?v=IChPMHGsbZg	KreekCraft
How to Protect your YouTube Channel from COPPA https://www.youtube.com/watch?v=S4OKggjeXak	Premium Aphid

Title and link	Channel
LegalEagle's Wrong About (Parts of) COPPA: On Age Gates, Mixed Audiences, and YouTube (VL146) https://www.youtube.com/watch?v=qeINFKi93OM	Hoeg Law
YouTube's Coppa law in a nutshell https://www.youtube.com/watch?v=dnCuSbQ2kQk	SpongeBoi.offical
The COPPA Law Could End YouTube... https://www.youtube.com/watch?v=UaabnzD2F6g	Crazytrain2015
Why COPPA is actually a GOOD thing https://www.youtube.com/watch?v=Qpj_zP8odLY	MadMunchkin
COPPA: everything you need to know! https://www.youtube.com/watch?v=1b9HGNHm-aQ	J House Law
Rosie Break's The FTC COPPA Law/Grounded/Arrested (READ DESC) https://www.youtube.com/watch?v=lwpY-aB_gYE	J Hop Reloaded
What YouTubers Should REALLY Be Scared Of... (It's Not COPPA) https://www.youtube.com/watch?v=0n9pKfTK6Dc	KreekCraft
Youtube Says THIS is Made For Kids (COPPA Update) https://www.youtube.com/watch?v=cVoyTDRReyE	Deep Humor
The END of Cartoon Connect....?? (YouTube COPPA LAWS) https://www.youtube.com/watch?v=quw5RH4NnZw	Cartoon Connect
COPPA, YouTube, the FTC...and You! (Hoeg Law - Five Minute Case Files) https://www.youtube.com/watch?v=k-maQcL1ZxE	Hoeg Law
Why COPPA and the FTC Are Doomed to Failure https://www.youtube.com/watch?v=b8y1KGIQ6KU	Video Game Story Time

Title and link	Channel
Youtube's COPPA Update Hasn't Affected Kids Channels Yet? https://www.youtube.com/watch?v=02vS-vkx8cQ	Deep Humor
Coppa Youtube Update [THE END] - Youtube Update 2020 Youtube Coppa FTC Law 2020 https://www.youtube.com/watch?v=-P8VmKOAYgl	Bye 9 to 5
How COPPA Affects YouTubers? (YouTube Coppa Explained) https://www.youtube.com/watch?v=4XvgzwtfM8	SimplyPops
Could This Be The End Of Our Channel... FTC COPPA Laws https://www.youtube.com/watch?v=5CL7PRwQgd8	R & L Life
YouTube FTC COPPA - Protect Kids Act Worse - How much money lost - No Personalized Ads Analytics https://www.youtube.com/watch?v=WVJB8M9sFL4	Dave Merc Productions
🙌 ACTUAL GOOD NEWS ABOUT COPPA! 🙌 11/22 Update YOU NEED TO SHARE! https://www.youtube.com/watch?v=yXPmHe2EU3Q	AbdallahSmash026
COPPA FOR ARTISTS: UPDATE FROM FTC https://www.youtube.com/watch?v=fnPHS1Y6whs	Ghost Paper
COPPA Happened ... What YOU do NOW https://www.youtube.com/watch?v=iCPpPpKDY34	Ian Corzine
The FTC CALLED ME about COPPA... (GOOD NEWS!) YouTube FTC COPPA Update https://www.youtube.com/watch?v=hPmzb8bD1E	KreekCraft
YouTube's doing what?! On Unintended Consequences, COPPA, and the FTC (VL98) https://www.youtube.com/watch?v=yngQ5mlGVV8	Hoeg Law

Title and link	Channel
COPPA made me QUIT animations https://www.youtube.com/watch?v=oVJSotGAwJo	Neutronized
Will the COPPA law be the end of ROBLOX youtubers?? (Roblox and youtube's DOOMSDAY) https://www.youtube.com/watch?v=7D9DZSQ4mVY	mmooii9000
New Year, New LAWS?! COPPA, CCPA, & MORE! - Tech Newsday https://www.youtube.com/watch?v=Ra7Eh3XlyYY	Internet Today
Making COPPA More Harmful: YouTube and “PROTECT Kids” (VL156) https://www.youtube.com/watch?v=RS6kpVIVy-l	Hoeg Law
The COPPA Law Got Worse https://www.youtube.com/watch?v=IYGUBkrzN9w	More Mr. Jamester
COPPA Just Got A LOT Worse!! Legislation Will Kill YouTube If This Passes! https://www.youtube.com/watch?v=GwIONqEkM5M	CrasherTalks&More
How COPPA Affects YouTube Gaming - SERIOUS DISCUSSION https://www.youtube.com/watch?v=xDJw4L1P_2s	AbdallahSmash026
YouTube, COPPA, FTC... How To Protect Your Channel [Beginner Guide] https://www.youtube.com/watch?v=soE4cbEqOMI	vidIQ
Youtube's COPPA Update Isn't AS Bad As You Think https://www.youtube.com/watch?v=N2cz84ZagKE	Deep Humor
COPPA Law Channel Changes https://www.youtube.com/watch?v=oc-HgkLUXy4	Ben Crossy
Not Just an FTC Problem: How YouTube's COPPA Inaction Puts Content Creators At Risk (VL137) https://www.youtube.com/watch?v=jC43PrL7zsg	Hoeg Law

Title and link	Channel
Will COPPA FTC law Terminate Gaming YouTube Channels? https://www.youtube.com/watch?v=jIPk7n6FVC4	Vertical Bullet
YouTube COPPA UPDATE! 🗣️ What Creators NEED to Know About COPPA! https://www.youtube.com/watch?v=UG4EgBxoNQc	Roberto Blake
COPPA Law Explained: What You REALLY Need to Know about COPPA YouTube https://www.youtube.com/watch?v=R6JtjZvuvUk	Marc Freccero
COPPA Breaks the law! / changes coming to channel / speedpaint OC https://www.youtube.com/watch?v=bkdPvQyHng0	Piper Sweeney
Update on FTC & COPPA vs YouTube vs LEGO, Toy, Animation & Gaming creators https://www.youtube.com/watch?v=F4ivd64jMaA	JANGBRiCKS
STOP THE COPPA LAW https://www.youtube.com/watch?v=0FEEOmz6wTk	Dere ;!
The Coming Youtube COPPA Adpocalypse https://www.youtube.com/watch?v=UEuPXBzEIHE	EEVblog2
news stations are MISLEADING PEOPLE about roblox and coppa... https://www.youtube.com/watch?v=VCKMzziMLCU	KonekoKitten
Does COPPA and the FTC apply to Education? https://www.youtube.com/watch?v=Xdk-t5bXazM	Flipped Classroom Tutorials
What is COPPA on YouTube? - How Will The COPPA Law Change YouTube? - https://www.youtube.com/watch?v=7g7pW8Poiss	Jose Arteaga

Title and link	Channel
NEW YouTube Policy: Is Your YouTuber Future At Risk? COPPA: Children's Online Privacy Protection Act https://www.youtube.com/watch?v=35kTwfm1gj8	Simon Leung
FINALLY!! WE HAVE GREAT CLARIFICATIONS ON THE COPPA LAW! https://www.youtube.com/watch?v=laCXLE2e-8c	DenoxSeries
COPPA, coloring, and what it all means for this channel https://www.youtube.com/watch?v=siNcpQ0jifY	Kits ans Caboodles
COPPA FTC COPPA Law Plans for the Future Does The COPPA Law End with YouTube? https://www.youtube.com/watch?v=XbLNjgyjzII	Chris Viso
Will Teacher Education Vlogs, VIPKid Channels get Shut Down ?? COPPA FTC Law https://www.youtube.com/watch?v=UfHTeFYtrq0	Lydia VQ
Youtube's new "COPPA" law ANIMATION https://www.youtube.com/watch?v=EppzfyrZTE	Spine_apples
new coppa law you will be ok https://www.youtube.com/watch?v=3r4Kc1pO8rc	Sillybonezzz
YOUTUBE FINALLY RESPONDED... (How To STOP COPPA) YouTube FTC COPPA Update https://www.youtube.com/watch?v=agK11nHb2-E	KreekCraft
Is DISNEY Behind this FTC COPPA Attack on YouTube? Will GUITAR CHANNELS Be Affected? https://www.youtube.com/watch?v=Zn4nGWhLuys	The Guitologist
Fuck You, COPPA and Fuck You, YouTube!! (Angry Rant) https://www.youtube.com/watch?v=beIAWrYCKis	03bgood
YouTube COPPA Law Is GARBAGE! Rikki Poynter https://www.youtube.com/watch?v=YubUKt9I_98	Rikki Poynter

Title and link	Channel
Is Legal Eagle Wrong About COPPA? COPPA, YouTube and Law. Lawyer Explains https://www.youtube.com/watch?v=vCGqEi_hL0Y	Nate Broady
New Guidelines are bad for EVERYONE (COPPA) https://www.youtube.com/watch?v=9MM-uyXov7o	cenesm
YouTube, COPPA, FTC: What is DEFINITELY Made for Kids Content? https://www.youtube.com/watch?v=axq9QH5_h5s	vidIQ
How To Animate In 2020 (COPPA) https://www.youtube.com/watch?v=LQi657Ko1i4	Drinking & Flagons

Appendix 3 - List of videos: Study 2

Title and link	Channel
An Important Update Regarding the Future of This Channel Jack Hartmann coppa https://www.youtube.com/watch?v=6_Mvx7yH7Ds	Jack Hartmann Kids Music Channel
Youtube Career is Over on January 1st 2020? COPPA Update ^{HD} https://www.youtube.com/watch?v=kLt2UKMEbAc	AnimeBroMii
Will My Channel Get Shut Down? What Coppa and the Terms Changes Mean for Creators https://www.youtube.com/watch?v=4kGqz0md7rw	Dr Jake's Very British Reviews
SHUTTING DOWN MY CHANNEL - Losing it All over COPPA & New Youtube Policy for 2019 https://www.youtube.com/watch?v=xA3kms8VnUI	Dance Spot Family Vlogs
Why Are My Favorite YouTubers Leaving Kids Like Me Behind? FTC and COPPA Enforcement on YouTube https://www.youtube.com/watch?v=zDGZCKCu85g	My World
I'm worried about YouTube and my channel. (COPPA) https://www.youtube.com/watch?v=84_YEaWXI94	Brizzy Voices
😭 KIDS Channel CANCELED! https://www.youtube.com/watch?v=4nnk9VZnve4	J House Vlogs
COPPA Law Channel Changes https://www.youtube.com/watch?v=oc-HgkLUXy4	Ben Cossy
The Future of Grace's World (FTC and COPPA Changes) https://www.youtube.com/watch?v=8Tp9kuxGJvs	Grace's World
Where do FAMILY channels fit in with COPPA?? https://www.youtube.com/watch?v=tqq_UgzaddI	WackyFamVlogs
THE END (COPPA) https://www.youtube.com/watch?v=bZADIHQx8bo	Sedona Fun Vids TV

Title and link	Channel
FTC COPPA New Youtube Changes for Creators Are We Quitting Youtube? https://www.youtube.com/watch?v=8RnMuiCGrHY	Juju's Little Big World
Save AGTube!!! ~ (COPPA, Restrictions, Instagram) https://www.youtube.com/watch?v=qfqT_xef9-Q	VioletDollies
What COPPA Means for Animation https://www.youtube.com/watch?v=y0B55jD4sZw	Bubblegum Cartoons
Get your KIDS OFF YOUTUBE! - Coppa Law https://www.youtube.com/watch?v=OQ1hKtJ0Xyw	AuntieTay

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