

Resisting hyperreality?: talking to young children about YouTube and YouTube Kids

Manuscript Type: Empirical Research Keywords: YouTube Kids, Digital media, Baudrillard, Micro-celebrity, hyperreality This article reports on a study investigating how 13 young children in English speaking countries (England, Scotland, Australia, USA) watch and engage with digital content on YouTube and YouTube Kids (YT/YTK). Given the increasing amounts of time children spend viewing these platforms, and related concerns around the commercial algorithms which direct their viewing choices, the research aims were to understand how young children make choices about what to watch and to explore the extent of their comprehension of the constructed, 'unreal' nature that characterises a large proportion of these videos, particularly those presented by children (micro-celebrities). Using child centred methodologies the research was carried out by parent-researchers and the findings were analysed and interpreted using elements of Baudrillard's (1994) theory of hyperreality. The study found that the children selected videos for a variety of reasons including those related to their 'real-life' interests, and were largely able to discern between the real and hyperreal in videos by drawing on existing frames of reference and applying their developing knowledge and understanding of the world. The paper provides insights into young children's experiences,
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Abstract

This article reports on a study investigating how 13 young children in English speaking countries (England, Scotland, Australia, USA) watch and engage with digital content on YouTube and YouTube Kids (YT/YTK). Given the increasing amounts of time children spend viewing these platforms, and related concerns around the commercial algorithms which direct their viewing choices, the research aims were to understand how young children make choices about what to watch and to explore the extent of their comprehension of the constructed, 'unreal' nature that characterises a large proportion of these videos, particularly those presented by children (micro-celebrities). Using child centred methodologies the research was carried out by parent-researchers and the findings were analysed and interpreted using elements of Baudrillard's (1994) theory of hyperreality. The study found that the children selected videos for a variety of reasons including those related to their 'reallife' interests, and were largely able to discern between the real and hyperreal in videos by drawing on existing frames of reference and applying their developing knowledge and understanding of the world. The paper provides insights into young children's experiences, understandings and preferences around using YT/YTK and extends Baudrillard's perspectives on the hyperreal from postmodernism into a post-digital conceptual realm.

Introduction

This paper reports on a pilot study which explored the experience of watching videos on YouTube and YouTubeKids (YT/YTK) from the perspective of children aged 3-7 (n=13) in England, Scotland, Australia and the USA. Taking the critical position that children have agency and are active viewers of digital content (Livingstone Blum-

Ross, 2020), the study focuses on the ways in which young children choose what videos to watch and how they understand and interpret what they watch on these platforms in relation to their own spheres of knowledge and socio-cultural contexts. Given the on-going concerns around the amount of time children are spending engaged with YT/YTK (Lozano-Blasco et el., 2021) and the commercial intentions of the algorithms which underpin the sites (Burroughs, 2017), a key aim of the study was to ascertain the extent to which children are able to discern between the representations of childhood, family and their wider world. A particular focus was to explore how children interpret representations portrayed in the popular genre of micro-celebrity (child presented) videos, as compared to the reality of life as they understand and experience it. To this end, Jean Baudrillard's seminal theory of hyperreality (1994) was used as a theoretical framework through which to analyse the data collected from conversations with the children in response to videos they viewed. In particular the processes experienced by media consumers as they move away from the 'real' and towards the realm of the simulated 'hyperreal' which were identified by Baudrillard (1981: 15) as 'diversion, distortion, capture and ironic fascination' were used to structure the analysis of the children's comments and responses. An explanation of Baudrillard's theoretical concepts guiding this study are discussed in the forthcoming sections.

The current study challenges the notion that children are in danger of becoming 'mesmerised' (Bridle, 2021) by the videos they watch or of entering into a world of hyperreality whereby images and simulations of reality replace the real experiences of life through the ceaseless, uncontrollable expansion of YT/YTK media. Instead, the children in this study were found to utilise specific strategies in distinguishing between the real and the hyperreal, and depending on age, used their existing

knowledge of the world as a basis from which to interpret and critically appraise the videos they watched.

The paper concludes with a reflection on young children's experience and engagement with YT/YTK in terms of the extent of their understanding of the commercial underpinnings of the platforms they watch and their ability to distinguish between reality and hyperreality. The type of strategies the children use to choose and make sense of content is highlighted, adding weight to the argument that even very young children can be actively and thoughtfully engaged with on-line digital content. The article aims to provide authentic insights into young children's experiences, as they engage with content on YT/YTK. It also aims to extend Baudrillard's perspectives on hyperreality from the postmodern context in which he was writing, into a post-digital context which priorities human dignity and agency in a world increasingly saturated with digital media technology and which focuses on encouraging trust and responsible innovation from technology producers (see Cramer, 2015).

The following section outlines recent research on children's engagement with YT/YTK, and provides an account of the relevant aspects of Baudrillard's theory of simulacra and hyperrreality which serves as the theoretical framework for the study.

Literature review

Research indicates that the amount of time children spend watching YouTube and YouTube Kids around the world continues to grow (Statistica, 2021; Izci et al., 2021). The latest UK figures come from the Office of Communications (OFCOM) 2020/21 report which states that YouTube is the most watched channel for young people and that children are spending around an hour on YT/YTK every day.

According to OFCOM (2019), children watch YT/YTK for three main reasons: to feel a connection with people similar to, or different from, themselves, to experience sensory exploration and stimulation and to explore their own hobbies and interests, including 'how to' videos for crafts or activities.

The constant growth of available videos on, and children's viewing of, YT/YTK has led to concerns around algorithm driven digital content that functions to position young children as a monetised commodity (Burroughs, 2017) and 'mesmerises' them into passively accepting the authenticity of the content they watch (Bridle, 2021). Critics claim that YTK in particular was set up to target and shape young children as consumers with values centred around; consumption, competition, surveillance, judgement and reward (Abdul Ghani and Cambre, 2020). Jaakkola (2019) has also drawn attention to the manipulative 'kidbait' features of the popular toy review genre on YouTube whereby children are drawn in by children of their own age receiving free toys to unbox and play with.

It has also been established that child vloggers and influencers – micro-celebrities as they have now been termed (Abindin, 2020) - can have a powerful impact on the aspirations and career ambitions of children through the process of what has been termed 'wishful identification' (Tolbert & Drogos, 2019). Indeed, research by Papadatou (2019) found that 1 in 5 British children want a career as a social media influencer or YouTuber. It is also important to acknowledge that both theoretically (Vygotsky, 1978; Papert, 1991) and through research (Gee, 2010; Woods, 2017) it has been well established that children's engagement with digital artefacts such as media does not happen in a vacuum, whereby parents' socioeconomic status and

sociocultural and linguistic backgrounds play an important role (Tomopoulos, 2010). For example, the content displayed in media can be based on parental choice rooted in parents' sociocultural perceptions what they wish their child to engage with and internalise (Radesky et al., 2020). Nevertheless, the tools that media offers children as affordances of learning, playing, imagining, and interacting has the potential to encourage children to become active participants in their own learning, engaging with self-regulation and reflecting on 'how' rather than 'what' they learn (Danby, 2019; Karagiannidou, 2019). Research in the last two decades has shown us (Dens et al., 2007; Gee, 2010; Marsh et al., 2005) that the perceived influence of television shows and media on children determines the degree of influence parents exert on their children's television viewing behaviour. Recent research continues to show that whilst parents serve as gatekeepers for children's media engagement there should be further research conducted to understand how for example, children directed YouTube kids media influence children's transferring that knowledge to the world around them (Hirsh-Pasek et al., 2015; Radesky et al., 2020). Taking the stance that children are agentic in engaging with media and digital content and driving their engagement, the current study is significant in the context of understanding how children interpret representations portrayed in child presented videos, as compared to the reality of life as they understand and experience it.

It is clear that the landscape of children's media consumption continues to develop and expand as digital technology advances, as more devices find their way into 'smart homes' (Woods, 2021) and into small hands, and as commercial platforms for sharing content diversify and proliferate. The rise of young children as producers and consumers of digital content is an important aspect of this exponential growth and one which has been recognised as demanding attention in early childhood studies

(Ruiz-Gomez et al., 2022). Previous studies have explored various aspects of children's viewing habits and have evaluated the quality and appropriateness of YouTube videos for young viewers (Neumann & Herodotou, 2020), YouTube as a site of participation (Chau, 2010) and the implications and uses of YT/YTK videos for children's learning (Izci et al., 2019).

However, as recognised by Ardis Storm-Mathisen (2016) the challenge of developing appropriate theoretical and methodological tools to investigate children's relationship with the constantly changing and diversifying world of on-line digital media is an ongoing one, with a particular need to find ways to link discursive aspects to practical realities. This identified need to connect discursive (what children say) and practical (what children do) elements of young children's experiences of, and interactions with, digital content on YT/YTK chimes with Baudrillard's seminal theoretical approach to understanding people's relationship with media in both material and subjective terms (1981; 1994). Although Baudrillard was writing before the age of digital technology and his empirical work was based largely around television viewing in the 1980s, aspects of his theories are adapted as the analytical framework for this study as they offer a distinctive and potentially useful novel way of interpreting children's choices and understanding of the content they watch on YT/YTK.

Theoretical framework

Baudrillard's theory of simulacra and hyperreality

The data collected for this study is analysed through the lens of Baudrillard's concepts of hyperreality and simulacra/simulation (1981; 1994). These concepts are drawn on in order to situate the study within the context of our 'consumer society' as

Baudrillard terms it, whereby social life and relations are increasingly governed and mediated by representations via media technology. Baudrillard argues that unlimited and/or unregulated media expansion can lead to subjects losing contact with the real, and inhabiting a simulation of reality. He terms this state 'hyperreality', where the image, or simulacra, becomes the dominant form and content of human communication and perception. According to Baudrillard (1981:14), this process towards the hyperreal works through a process of 'seduction' whereby the masses become 'narcotized' and 'mesmerised' by the image. They seek 'spectacle' rather than meaning and become disenfranchised and powerless. People can no longer distinguish the real from the unreal/simulated. Baudrillard identifies four aspects to this process, which he terms as diversion, distortion, capture and ironic fascination:

There is in this conformity a force of seduction in the literal sense of the word, a force of diversion, distortion, capture and ironic fascination. There is a kind of fatal strategy of conformity (Baudrillard 1981:15).

These four forces form the theoretical and analytical framework for this research and guide the analysis of data. The study explores the extent to which young children's experience of engaging with content on YT/YTK aligns with Baudrillard's 'strategy of conformity' and the associated loss of connection to the real that he argues occurs in societies saturated by commercialised media images which are mere simulations of the physical and material world. This study takes the exponential growth of the algorithm driven platforms YT and YTK, and the increasing amounts of time many young children spend watching videos on these sites, as the area of concern. It explores young children's experience of viewing on these platforms using Baudrillard's theory as a scaffold to link the material and discursive aspects of what

children choose to watch on YT/YTK, what they think, and say about what they watch. This is in order to better understand what kind of support, information and education may be most useful to young children as they develop their digital identities and grow up navigating the on-line, as well as the physical/material world.

Baudrillard argues that as simulacra or hyperreal copies of reality on screen become more 'alive' to us than the real person or object being represented, individuals lose the ability to tell the two apart, leading to what Baudrillard famously termed 'the death of the real' (1994: 159). In the end game of this process Baudrillard claims that simulations of reality come to replace reality itself in human life, and the code or signifier becomes increasingly important until nothing exists outside of the system and we find ourselves trapped in a simulation of life itself.

Given the issues outlined above and the research gap in the area of early childhood studies that particularly seek to understand the experiences of young children from their perspective as they watch digital content on YT/YTK, this study is timely. As YTK has opened up the potential for increasing numbers of young children to be producers of digital content as well as consumers (Izci et al., 2019), a specific interest of the study was exploring how children make sense of content created and/or performed by other children of their own or a similar age.

The study's research questions were as follows:

- 1. How do young children choose what to watch on YT/YTK and what do they enjoy about the content they select?
- 2. To what extent do young children recognise and/or resist the constructed hyperreality of the content they watch, especially that produced by microcelebrities?

- 3. What evidence is there that young children's understanding of content on YT/YTK can be aligned with the four elements of the process towards hyperreality - diversion, distortion, capture and ironic fascination - as described by Baudrillard?
- **4.** How useful are Baudrillard's theoretical approaches as interpretative tools in understanding young children's relationship with on-line content?

Methodology

The child participants for the study were recruited via a small team of international researchers based in England, Scotland, and Australia. Out of the 13 children participants, five were children of the research team. All were neurotypical and usually attended mainstream school or pre-school although at the time of data collection they were learning at home due to the 2020/21 pandemic lockdown. At least one of each child's parents was employed in a professional job such as in the education or technology field. Table 1 indicates the participant profile and the cultural background of the family as well. This narrow but purposive sample was necessary as due to the restrictions of the pandemic at the time of data collection, the data had to be collected by a member of the child's household (usually a parent) in the child's home. The data collection methods were designed to allow the child's voice and perspective to be the focus of the study, and to explore the usefulness of Baudrillard's theory of hyperreality as a theoretical lens. The use of parent researchers was a strength of the study as the children were more confident and at ease with their parent and therefore more likely to be candid than with an unknown researcher. Furthermore, consistency across participants was achieved by the parents following a script developed and peer-reviewed within the research team.

Given evidence establishing that children often begin their engagement with on-line digital content as infants (e.g., Anonymous, 2016), this study focused on participants who were very young (aged between 3 and 7), but who were old enough to be able to communicate verbally, understand the questions asked of them and give their consent to be part of the study. The study was approved by the University ethics committee in each participating institution.

The 13 children who took part in the study are detailed below in terms of age, nationality and gender. Each is given a code for identification in the findings section:

Child	Age	Nationality	Gender	Code	Parental
					sociocultural
					background
1	5	Scottish	Female	F5Sc	British
2	7	Scottish	Female	F7Sc	British
3	4	English	Male	M4E	British
4	6	English	Female	F6E	Greek
5	5	English	Male	M5E	American
6	3	English	Male	МЗЕ	British
7	5	English	Male	M5E2	Greek
8	5	Australian	Male	M5Aus	Indian
9	5	Australian	Male	M5Aus2	Serbian
10	5	Australian	Female	F5Aus	Indian
11	5	Australian	Female	F5Aus2	Chinese
12	6	Australian	Female	F6Aus	Indian
13	5	American	Female	F5USA	American

Table 1: Participant information

Ethical considerations with children as co-researchers

Although our study depicts a relatively small sample, the participants included children across the age range and of both genders, therefore addressing the need for qualitative research to be as representative of the population as possible given the practical constraints of data collection (Bock and Sergeant, 2002). The sample size is also reflective of the practical situational constraints of the data collection and the exploratory nature of the research.

With research perspectives changing and as we involve children as co-researchers to study a problem, this study considers that not only parents and teachers should be asked to speak on behalf of children. Children's involvement requires consent for their involvement and usually there a number of gatekeepers (e.g., researcher practitioners, parents) who control this process (Danby, 2017). In this study, although some children were the researcher's children, we sought children's verbal consent. Thus, maintaining an ethically sound approach to involving young children in the research process. In fact, children are more comfortable, and data is more reliable than an outsider researching children's media engagement practices, and as such, the data become more reliable deriving authentic and non-biased children's responses. (Marsh & Richards, 2013). This study thus employed an authentic way incorporating ethical practice procedures, while co-researching with children as agentic participants (Danby & Farrell, 2004).

Methods

Two data collection methods were used with the child participants which were specially designed to capture the nuances of YT/YTK viewing from their perspective. The first was a child led YT/YTK tour). This involved the parent-researcher sitting with their child while they watched YT/YTK videos and asking them to share the videos that they liked. The child was prompted to talk about the videos, why they liked them and how they chose the next one. These conversations lasted twenty minutes and were digitally recorded and transcribed. Which videos were watched and for how long was also noted down by the parent-researcher. This method was an adaptation of the physical 'Toy Tour' developed by Ploughman et al (2000).

The second data collection method involved all the children being shown the same 15 minute video of the toy review video *Ryan's World* featuring the 'micro-celebrity' Ryan Koji (Abindin 2020). Ryan is the most subscribed child on YouTube with 9.4 million subscribers and more than 16.5 trillion video views (Shaheen Hosany & O'Brien, 2021). In the video shown to the children which is typical of the type of content produced by *Ryan's World*, Ryan unboxes new toys related to a children's film and plays a smash and grab game with his dad. The children were then asked the following reflective questions and their responses were recorded or written down by the parent-researchers:

- Is Ryan a real boy do you think? How do you know?
- What do you like about his videos?
- Would you like to be friends with Ryan? Why? Why not?
- Where do you think Ryan gets all his toys from?
- What makes Ryan happy? Does anything make him sad?

- Why do you think Ryan makes these videos?
- Are you like Ryan? In what ways?
- Would you like to be Ryan? Why? Why not?

Both these methods were designed to allow the children to share their pleasures and fascinations with the digital content they watch on YT/YTK and also to examine the extent to which they are able to discern 'reality' (the physical world) from what Baudrillard (1994) terms as 'hyperreality' (an image or simulation of the physical world). All the children in the study were viewers of YT/YTK to some degree, although not all had previously seen a video by Ryan, the micro-celebrity who featured in the second data collection activity. All of the data collected was reviewed by two researchers in order to maximise consistency in coding: Firstly by the person collecting the data, and then also by the lead researcher for analysis. This dual process also allowed the research team to decide when sufficient data had been collected to be able to address the research questions (Fusch & Ness 2015).

The contributory elements of hyperreality that Baudrillard (1981) identifies, namely: diversion, distortion, capture and ironic fascination, provided a useful scaffold for analysing the conversations we had with our young research participants about their use and enjoyment of YTK and their responses to Ryan's video.

The meaning of these four elements are explained in summary below:

- 'Diversion' describes the entertainment value derived from a screen-based media product.
- 'Distortion' refers to the extent to which a screen image is different from reality.

 'Capture' refers to the power of the screen image to gain and hold the attention of the viewer.

Age	Code	Online interests	How YT/YTK content
			selected
3	МЗЕ	He likes to watch educational videos,	No answer given
		such as counting, learning colours and	
		shapes, and the alphabet. He	
		particularly likes Bob the Train, and	
		Peppa Pig (answer provided by parent)	

'Ironic fascination' is the irony that although the viewer is 'captured' by the
hyperreal screen image, they would prefer to be experiencing the artificially
represented activity or situation themselves.

These four aspects of 'hyperreality' are expanded upon and described in the subsequent section in tandem with illustrative quotes from the children indicating how their understanding and experiences as consumers of YT/YTK both align with and to varying degrees resist, these elements.

Findings

Before presenting the analysis of data using the Baudrillard's four aspects of 'hyperreality' the following table provides information about the on-line interests and methods of choosing content on YT/YTK of the child participants from the youngest to the oldest. Where the information is drawn from the parental questionnaire this is indicated, otherwise the data is from the children's responses during the child centred data collection activities.

4	M4E	I like superwings, elsa, numberblocks (answer provided by child) Ryan's World/Toy review Hamster parkour	Wait until its ended and then you choose a different one. I click on one that I want to watch. The one I like the
			picture and that looks funny.
5	F5Sc	Cakes Icing artist	I go switchy switchy
5	M5E	Creatures in Asia Animals in Australia Story bots Wild Kratts T-Rex Ranch	He only watches what we put on for him. He doesn't know how to select videos. (answer provided by parent)
5	M5E2	Hobby Kids	In my brain and then I can choose at the bottom.
5	M5Aus	Mario Rocket launch videos I like to watch Ryan	No answer given
5	M5Aus2	He likes to watch YouTubers that do pranks and challenges. He also like to watch YouTubers who are playing/ explaining Minecraft. He really likes "Unspeakable" and "Dude Perfect" who do challenges, experiments and	I choose ones they show and sometimes I use the word thingy

		gaming. and "Jelly" "FGTV" "Steven" "Carter"who show games. He also likes Mark Rober. We have watched his squirrel clip countless times. He does really like to watch science experiments and then wants to do them! (answer provided by parent)	
5	F5Aus	Ryan's video games and his science ones	No answer given
5	F5Aus2	It changes frequently, but recently she has been into watching a girl Roblox gamer play Roblox; the lady who puts Lego together; Paw Patrol live action videos; anything princess or Frozen themed; real kids dressing up and playing pretend; My Little Pony – both the cartoon and kids playing with My Little Pony (answer provided by parent)	I look at the pictures and find my favourite pictures and just do those. Sometimes I look for certain videos and sometimes I just pick the ones at the bottom of the screen
5	F5USA	Ryan	By looking at the thing- the little picture
6	F6Aus	Paw Patrol videos and other ones that have toys and stuffed animals as the main characters, but I can't always find them so I watch ones with kids in them like Ryan's World	I look at the pictures and find my favourite pictures and just do those. Sometimes I look for certain videos and sometimes I just pick the ones

			at the bottom of the screen
6	F6E	I like watching baking videos and	From the covering that it has.
		videos with dolls.	
7	F7Sc	Other people kinda near my age, I like it	[I use] the search button and
		because they are kind of like the same	the voice command
		as me	

Table 2: Children's on-line interests and methods of selecting content

It is interesting how some of the children were able to explain the process by which they chose what they wanted to watch and were confident of their agency over this, but others had no response to the question suggesting that they perhaps didn't understand what was being asked or had difficulty articulating an action which seemed obvious or natural to them. The children's choices of what to watch often relate to their wider interests/hobbies and 'change frequently' as they grow and develop their tastes and preferences. The extent to which the children's responses suggested alignment or resistance to the four tenets of 'hyperreality' is explored below, beginning with 'diversion'.

Diversion

Diversion relates to the entertainment value derived from a screen-based media product. In relation to YT/YTK the content is designed to be engaging as it relates to the children's interests and it is immediately accessible so no waiting for the desired programme to 'come on'. It is also in many ways 'easier' for children to watch an entertaining video than engage with a real-life activity such as talking to family members, doing homework or chores or simply being bored (Rideout, 2017).

Interestingly, according to an OFCOM study of children aged 4-12 in the UK:

The appeal of YouTube for many of the children in the sample seemed to be that they were able to feed and advance their interests and hobbies through it. Due to the variety of content available on the platform, children were able to find videos that corresponded with interests they had spoken about enjoying offline (OFCOM, 2019: 38)

This finding was borne out in the current study where the children chose videos that aligned with 'real life' interests. For example, one girl told us: 'I like watching baking videos and videos with dolls' (F6E) and another said: 'I want him (Ryan) to do some science and art because I like art. So I watch a lot of his creation of art.' (M5Aus).

Another child pointed to something they had created themselves and made a direct connection between the real and the hyperreal by comparing it to a similar item that had been created by a micro-celebrity in an on-line video:

I like when Ryan makes something like this. [Points to a jar with glitter and coloured water]. This is when he makes glitter. This bottle is like the one he made with duckies in it. And some confetti there. (F5Aus2)

One of the older children in the study explained her viewing choices in terms of enjoying the mirroring aspect of watching those of a similar age to herself:

Because like there is other people kinda near my age, under my age or kinda over my age, I like it because they are kind of like the same as me.(F7Sc)

Whereas for the youngest child in the study, the reason for liking a specific video was due to the specialness of the main character: 'I like the video because he is a superhero' (M3E).

Much pleasure was also taken by the children from watching another child play with toys they didn't have themselves and watching a child play in an idealised environment with pristine new equipment, happy parents and fun activities.

Fascination was also derived from watching another child behave in a way they were not permitted to do, especially in relation to their relationship with their parents. For example in response to another *Ryan's World* video where Ryan's dad has to stay on the balcony of their house for 24 hours one 5 year old exclaimed:

I absolutely love this video. I love it! He pranks his dad. (M5E)

When asked why he likes Ryan, one child responded simply: 'Because I like his smile,' (M5E2) and another said: 'He looks like a kind boy,' (F6E) indicating the importance of an amiable, accessible virtual 'friend' presenter for very young viewers of YT/YTK. The question of 'why do you like Ryan's videos' or 'Why do you like Ryan?' was only asked if the children told us that they had chosen to watch Ryan's World previously on YT/YTK.

For younger children the videos chosen were also frequently selected on the subjective criteria of being funny.

The way the questions were worded was an important element in how the children answered and an important learning point for the research team. For example several children interpreted the question 'How do you choose what to watch?' in a literal sense and explained how they physically selected videos with responses such as, '[I use] the search button and the voice command.' (F7Sc)

Others however, aptly described the way in which they chose videos in response to the prompts and suggestions on the screen. For example: I look at the pictures and find my favourite pictures and just do those.

Sometimes I look for certain videos and sometimes I just pick the ones at the bottom of the screen. (F6Aus)

by looking at the thing- the little picture (the suggestions bar). (F5USA)

Not surprisingly for participants this young, none of the children mentioned the algorithm controlling the 'watch next' videos appearing on their screen as influencing their choices. Some perceived their decisions about what to watch as completely their own personal free choice, whereas others demonstrated awareness that their choices were being directed by the on-screen suggestions, but were unaware of the mechanisms behind the process. The implications of this 'invisible' guide controlling the children's viewing are reflected on in the discussion.

Distortion

As adapted from the Baudrillardian context of TV viewing, 'distortion' in this study relates to the ways in which child produced content on YT/YTK is different from the 'reality' of childhood as a lived experience for the vast majority of children. Many videos, including *Ryan's World*, present a curated version of childhood which is shinier, happier and more fun than real life. *Ryan's World* encapsulates this through Ryan's constant receiving and unboxing of new toys – usually something that only happens on birthdays and special celebration days for most children. In the videos Ryan never has to share or play with tatty toys, his parents and siblings are always in a good mood and focused on having child centred fun and they often as a family take (sponsored) trips to places such as Disneyland where they don't have to queue and Ryan gets to do and have everything he wants.

The attraction of this distorted, ideal version of childhood is expressed by the children in the following examples:

Q: Why do you like Ryan?

Child Because he's perfect (M4E)

Q: Does Ryan ever feel sad about anything?

Child: No (M5E)

Interestingly some of the children demonstrated a surprisingly sophisticated understanding of the commercial nature of the YTK platform as clear in the following exchange in response to the *Ryan's World* video:

Q: Why does Ryan make these videos?

Child: So he can get money.

Q: How does that work?

Child: So people ascribing (sic) to his channel. The money goes into his mum and dad's bank account. (M5E)

There was some confusion among the children as to where Ryan gets his toys from, with none of the children showing understanding that the toy companies give Ryan the toys for free so he can market them on his channel. One child claimed that: 'He (Ryan) helps to make them' (F5Sc) and another told us that 'He [Ryan] creates every toy' (F6E). One girl thought he bought the toys using the money he makes from YTK, and a 4 year old boy used his existing knowledge of where new toys come from when he told us that 'his [Ryan's] mum and dad buy them from the shop.' (M5E)

The distorted reality of Ryan's on-screen life was not always completely approved of by the children either, raising the issue of the extent to which even very young children are 'taken in' by the commercialised culture of the content they watch. For example in response to the question 'Would you like to be Ryan?' one child answered:

A little bit, because he's got a mansion. But he's got too many toys. He's got like a million! He keeps making more Ryan toys, more and more. (M5E)

And another commented: 'Nope, because he spends a lot of money on his toys and not on more important things.' (F6E)

Two children commented that they didn't want to be Ryan as they would rather be themselves ((F5Aus2; F6Aus)

In relation to the question as to whether Ryan is real, the children tended to draw on their understanding of physical qualities of 'realness' in their answers, rather than reflect on whether Ryan is 'acting' or behaving 'naturally' which was the intention of the question. For example:

Q: Is Ryan real?

Child: Yes, because real people on videos have small sticky out bits of hair, cartoons don't. (F7Sc)

One child commented that: 'I think Ryan is real because he actually looks human and is real. He lives all the way in America' (F5Aus).

Again, this demonstrates the importance of recognising that the child's interpretation of questions may be different from expected when they talk about their perception of what they watch on YT/YTK.

Capture

This element refers to the capturing of the viewer's attention of the simulation of reality presented to them on screen and can be used in the context of YT/YTK to describe the power of algorithms in directing and dictating what children choose to watch.

As expected and mentioned earlier in relation to distortion, the young children in our study were unaware of the sophisticated algorithmic mechanisms underpinning their choices on YT/YTK and assumed complete agency in what they chose to watch. For example, during the on-line YTK digital tour one child commented: 'I'm trying to find something that looks good.' (M5E)

It was interesting how the children in the study were also able to explain their control over finding what they wanted to watch in terms of the choosing mechanisms of the platforms. For example, one 5 year old explained that he chooses what to watch: 'In my brain and then I can choose at the bottom' (M5E2). Others explained what they do to navigate to preferred content on YT/YTK using their own terms for the controls:

I choose ones they show and sometimes I use the word thingy. (M5Aus)

Like one day I watch icing artist, the next day I go switchy switchy. (F5Sc)

It was also apparent that the same videos were suggested and selected time and again with children making reference to this feature through comments such as: 'I've watched this one loads of times' (F5Aus2), and 'I'm going back to one I usually watch' (M5E). In this sense favourite videos seem to become akin to favourite toys in

the children's 'real life', to be returned to and enjoyed, providing a feeling of comforting familiarity.

Ironic fascination

This aspect of Baudrillard's theory of hyperreality relates to the irony that although the viewer is fascinated by the simulation of reality that s/he is watching, the actual fascination is with the real object, person, place or activity that is being represented. In relation to the children in this study this 'ironic fascination' came through strongly when the children were asked about whether they want to be Ryan, with comments such as: 'Of course I would like to be him, he has lots of toys.' (M4E)

The following exchange is also particularly telling in this respect:

Q: Do you like watching Ryan because he gets to do lots of fun things or do you watch because you want to do the things yourself?

Child: Me. I want to do it (M5E)

Another child explained and demonstrated how he copies Ryan's physical actions:

I also like Ryan's moves [child dances and shows Ryan's dance moves]. He is in the pool and he does like this [shows a karate move]. (M5Aus)

A discussion around baking videos captures a 5 year old child making a clear distinction between the real and the hyperreal, whilst expressing the pleasures that she derives from passive viewing:

Q: What makes a good YouTube video?

Child: Cakes

Q: Why?

Child: Because they are yummy?

Q: But you can't taste them on the TV?

Child: But then we can taste them here – I think every cake people make will taste good but the best ones eaten is mummy's cake.

Q: How does watching cake make you happy if you can't taste it?

Child: Because I just like watching things that I like. (F5Sc)

The power of ironic fascination seems to align with the popularity amongst children of digital content produced/presented by other children who they can more easily relate to than an adult, including unboxing videos, child vloggers and toy reviews. Indeed, when asked: Is there anything you don't like to watch or that you find boring on YouTube/YouTubeKids? One 5 year old answered simply: 'Ones with adults in' (M5E).

The relationship between on-line and off-line identities was made clear by one child who expressed their interest in both watching and doing activities on YT/YTK and connected this to their wish to make their own videos:

I would like to make my own videos. I would like to make science ones, like science tic-tac..... I saw an interesting one like a fruit clock. Ryan took a wire and he stick them in the fruits.' (F5Aus2)

Other children when asked specifically if they would like to be Ryan decided that they didn't as they felt uncomfortable with the heavily commercialised world he

seems to inhabit. For example: 'Nope, because he spends a lot of money on his toys and not on more important things.' (F6E)

This question was understood by the older children in the sample (5-7) who were generally able to give reasons as to why they would or would not want to be Ryan, whilst the younger children in the study (3-4) struggled to make sense of the abstract nature of the question. This raises the question of the extent to which very young children recognise the constructed, unreal nature of the videos they watch on YT/YTK and this will be discussed in the following section.

Discussion and conclusion

This study has highlighted innovative ways in which even very young children can be included in on-going conversations about how digital content is created and shared. The study findings demonstrate the importance of continuing to find ways to listen to children's voices as consumers, particularly in the context of working towards a post-digital model of interactive on-line content that safely includes and engages even the very youngest children, both on and off line.

Much previous research in the area has focussed on the potential 'dangers' around young children's engagement with YT/YTK, with children often positioned as passive and potential victims of insidious commercialisation facilitated through such algorithm driven platforms. However, most of the young children in this study revealed themselves as powerful and sophisticated consumers of digital content, actively working to assimilate and make sense of what they watch on YT/YTK into their existing and developing 'mental models' of knowledge and understanding about the

world. For example, several of the children provided rational, if not accurate, explanations of where Ryan's toys came from and thoughtful reflections on the 'real boy' behind the camera and what being 'real' actually means. They also provided insights into the pleasures they derived from watching YT/YTK micro-celebrity content especially around videos which mirrored their own interests or showed other children engaging in activities they would also like to experience.

The young children in the study (for example, M5E, F7Sc, F6E) clearly liked content that they found funny and/or which was of particular interest to them and they largely enjoyed videos showing them children doing things they would like to do within an idealised, safe and happy environment. They liked videos that they could go back to repeatedly to relive familiar pleasures as well as new content that captured their fascination. The virtual YTK tours we conducted with the children also showed us how much young children like to share and talk about what they enjoy watching with other children and with adults - an opportunity that is not always taken in busy 'smart homes' (OFCOM, 2020/21).

One of the most important findings was the children's enjoyment of content produced by friendly, appealing children of a similar age and their 'ironic fascination' of the things these children do . If we reconceptualise young children viewing child produced content on YT/YTK not as children experiencing what Baudrillard termed the 'death of the real' (1994, p. 159) but as children identifying aspects of others' lives that they would like to experience themselves, then opportunities open up to create content that enhances children's lives and provides them with more, rather than fewer, real life experiences. The challenge for parents, educators and socially responsible media and digital content creators is to find ways to build on such mental

models created by children and consider how to devise ways of connecting children's on-line fascinations with real life activities in their own home, schools, social groups and communities in a non-commercial format. One radical possibility to consider would be to find ways of giving more young children the skills and opportunity to share their own videos on platforms such as YouTube Kids, thus democratising the medium and making the links to 'real life' stronger and more socially cohesive. The possibility of including such learning opportunities in pre/schools has yet to be comprehensively explored, but perhaps the time has come to consider the development of children's understanding of on-line identity construction and ability to critically engage with these platforms as important aspects of their education, capitalising on child' voice and their preparation for life in an increasingly digital world.

In terms of the usefulness of Baudrillard theories of simulacra and hyperreality as interpretative frameworks for analysing and understanding children's responses in relation to this type of on-line media content, the approach was found to be helpful in two key ways. Firstly, it provided a set of established categories through which to organise, analyse and compare the children's responses to the digital content they watched on YT/YTK. Secondly, it allowed children's viewing and talking about content on YT/YTK to be conceptualised as part of the same process - that of a thoughtful engagement with hyperreal content. The approach therefore provided a unified way of collecting and interpreting the children's responses and exploring both the discursive and material elements of the experience.

The on-going challenge for parents, educators and researchers is to ensure that we support and encourage young children to engage with on-line content, such as the endless videos posted on YT/YTK, in ways that are meaningful to them in an on-line world where their attention is constantly being demanded by infinite sources of fascination.

Even given the decades since it was written and the advances in digital media communication which have occurred during that time, it would seem that there is still much value in Baudrillard's approach when trying to understand how specific child intended content on YT/YTK works to fascinate and captivate young children's time and attention. Of equal importance is the opportunity Baudrillard's theoretical concepts give us to map the ways in which young children seem to resist the transition into the realm of the hyperreal, which is arguably the aim of algorithm driven on-line content. This has implications for understanding how children frame what they see within their existing structures of knowledge and experience, and the ways in which they adapt hyperreal images into their imagined mental models. The enjoyment that children derive from algorithm prompted familiar and favourite videos to watch next is also an important facet of their relationship with YT/YTK that needs to be acknowledged.

This study has highlighted the importance of finding novel ways to explore and interpret children's understanding of digital content. Making space in the on-going debates around algorithm driven media platforms for children to tell us how they experience these digital worlds is vital so we can learn how to best support them in being and becoming discerning, empowered viewers of on-line content both now and in the future.

Limitations and implications

The limitation of our study is the limited participant pool of children. However, the findings also portray a stark reminder and contribution to literature that further research needs to be conducted in line with the sociocultural implications such as parents' views and perceptions as gatekeepers, parents' sociocultural and educational backgrounds on children's media engagement and safe/educational digital choices. This study embarks on making a point that children are agentic users of media as they learn to interpret the world around them (as evident in the data) that also underpin children's choices and voices. But those choices work in partnership with parents' involvement and coaching of their children from the early years on.

Hence our contribution is also about promoting research in strengthening parent-child partnerships for making smart digital choices, regardless of families socioeconomic, cultural and linguistic backgrounds. Children's internalisation of ideas and practices encountered and experienced in the realm of media and digital worlds need to be further researched and the repercussions they may have on children's learning and developmental trajectories.

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Child	Age	Nationality	Gender	Code
1	5	Scottish	Female	F5Sc
2	7	Scottish	Female	F7Sc
3	4	English	Male	M4E
4	6	English	Female	F6E
5	5	English	Male	M5E
6	3	English	Male	МЗЕ
7	5	English	Male	M5E2
8	5	Australian	Male	M5Aus
9	5	Australian	Male	M5Aus2
10	5	Australian	Female	F5Aus
11	5	Australian	Female	F5Aus2
12	6	Australian	Female	F6Aus
13	5	American	Female	F5USA

Table 1: Participant information

Age	Code	Online interests	How YT/YTK content selected
3	МЗЕ	He likes to watch educational videos, such as counting, learning colours and shapes, and the alphabet. He particularly likes Bob the Train, and Peppa Pig (answer provided by parent) I like superwings, elsa, numberblocks (answer provided by child)	No answer given
4	M4E	Ryan's World/Toy review Hamster parkour	Wait until its ended and then you choose a different one. I click on one that I want to watch. The one I like the
5	F5Sc	Cakes	picture and that looks funny. I go switchy switchy
	. 555	Icing artist	l go omiciny omiciny
5	M5E	Creatures in Asia Animals in Australia Story bots Wild Kratts T-Rex Ranch	He only watches what we put on for him. He doesn't know how to select videos. (answer provided by parent)
5	M5E2	Hobby Kids	In my brain and then I can choose at the bottom.
5	M5Aus	Mario Rocket launch videos I like to watch Ryan	No answer given
5	M5Aus2	He likes to watch YouTubers that do pranks and challenges. He also like to watch YouTubers who are playing/ explaining Minecraft. He really likes "Unspeakable" and "Dude Perfect" who do challenges, experiments and gaming. and "Jelly" "FGTV" "Steven" "Carter" who show games. He also likes Mark Rober. We have watched his squirrel clip countless times. He does really like to watch science experiments and then wants to do them! (answer provided by parent)	I choose ones they show and sometimes I use the word thingy
5	F5Aus	Ryan's video games and his science ones	No answer given
5	F5Aus2	It changes frequently, but recently she has been into watching a girl Roblox gamer play Roblox; the lady who puts Lego together; Paw Patrol live action videos; anything princess or Frozen themed; real kids dressing up and playing pretend; My Little Pony – both	I look at the pictures and find my favourite pictures and just do those. Sometimes I look for certain videos and sometimes I just pick the ones at the bottom of the screen

		the cartoon and kids playing with My Little Pony (answer provided by parent)	
5	F5USA	Ryan	By looking at the thing- the little picture
6	F6Aus	Paw Patrol videos and other ones that have toys and stuffed animals as the main characters, but I can't always find them so I watch ones with kids in them like Ryan's World	I look at the pictures and find my favourite pictures and just do those. Sometimes I look for certain videos and sometimes I just pick the ones at the bottom of the screen
6	F6E	I like watching baking videos and videos with dolls.	From the covering that it has.
7	F7Sc	Other people kinda near my age, I like it because they are kind of like the same as me	[I use] the search button and the voice command

Table 2: Children's on-line interests and methods of selecting content

Resisting hyperreality?: talking to young children about YouTube and

YouTube Kids

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Sarika Kewalramani is an Early Childhood STEM Lecturer at Monash University, Australia. Sarika's research expertise resides in conceptualising kindergarten teachers' understanding of the nexus between creative STEM-based play and technology (Internet of Toys/Robotics) integration practices in ways that promote 'All' children's learning and development.

Shannon Ludgate is Course Leader on the Early Childhood Studies programme at Birmingham City University. Her PhD focused on the use of touchscreen technology in early years settings, seeking to determine the affordances of touch-enabled devices when used with pre-school children. Her research led to the development of a new method of gaining consent when researching with young children, and Shannon has also developed a new pedagogical framework to support the implementation of touchscreen devices into practice.