Why Do Children and Adolescents Consume So Much Media? An Examination Based on Self-Determination Theory

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Abstract

Use of media in general and of new media in particular, by children concerns many researchers and parents. Children and adolescents are exposed to an extensive range of communication channels and a variety of media. In this study, we used self-determination theory to examine why children and adolescents consume so much media. This is a mixed-method study. A total of 345 participants from Israel completed questionnaires; 90 children and teenagers were interviewed.

Findings suggest that children and adolescents consume media because they feel that it meets their various needs, some of which are not being met in another environment, and each time choose the media that meet their specific needs, in the process of informed consumption. For example, to surf the Internet, they prefer a particular medium, PC or smartphone, or tablet over other medium, according to the ability of each medium to offer the specific content they are looking.

Keywords: Self-determination theory (SDT); Autonomy; Competence; Relatedness; Media

Introduction

These days' children are exposed to a large selection of sources and channels of information. Many studies have shown that media are playing an increasingly important role in the children's lives [1-5]. In this study, we sought to answer the question regarding why children and adolescents consume so much media based on self-determination theory (SDT). According to SDT [6,7], fulfillment of the basic psychological needs for autonomy, competence, and relatedness in close relationships is essential for the wellbeing of children and adolescents.

Self-determination theory

SDT comprises six sub-theories, each of which explains a different set of motivation-based phenomena [6,7]. SDT is a powerful framework for studying wellbeing and functioning in various areas [8,9]. A sub-theory of SDT, basic psychological need [10] suggests that there are three basic psychological needs that are essential for growth and development: autonomy, competence, and relatedness.

The need for autonomy, independence, and choice has to do with finding interest in what one does, and with expressing opinions and emotions. The need for competence is the need to feel equipped with skills and capable of coping with goals and objectives, to experience oneself as capable of implementing and executing plans. Relatedness is the need to feel part of a group, to have a sense of being protected, secure from physical and emotional harm, accepted and loved, as opposed to feeling rejected and alienated. The fulfillment of these basic needs is essential for a child's wellbeing [6,10,11].

For example, when a boy surfs and watches a program seeped in violence, according to this approach it is necessary to find out what is the child's need, what is his reason for viewing violent content. The child must be offered an alternative option to the partial and at times negative solution the child discovers in the various media. Extensive viewing of violent content may create the impression for the boy that the world is violent and exacerbate his condition [12].

Researchers [13-21] have argued that because the media is part of our living environment, its influence in shaping the personality of a child is in its interaction with other environmental factors, which affect each other in different ways. The media is part of

the natural, social environment, which affects the children, and does not stand by itself. At the end of the day, the user decides what to use and when, according to his needs. A person grows, develops, and shapes his personality, his attitudes, opinions, and beliefs, according to innate tendencies, and as part of a complex environment, which includes direct, face-to-face experience by way of TV media, virtual media, radio, and print [20,22,23].

Researchers [12,24,25] have claimed that the media has a double effect on children and adolescents. On one hand, the media can make a positive contribution: it opens new horizons for their development and provides essential social learning. Exposure to a wide range of programs and media applications helps develop a worldview based on a broader continuum of experiences and stimuli than a worldview based on experiences without media, exclusively on face-to-face experiences in the immediate vicinity, and it broadens the mind and the possibility of equal opportunity and social mobility. On the other hand, children may build and consolidate their worldviews by exposure to content that is often unreliable, biased, and misleading [4,20,26-28].

Choosing a medium from the available supply

Many studies conducted in the US, Europe, and worldwide [4,20,29] found that television was the means of communication preferred by children and adolescents. Researchers found that children watched more than 15 hours of TV per week, and that 12- to 15-years-old watched even more than 17 hours per week. In the estimation of Comstock and Scharrer [14], the significant feature that differentiates TV from the Internet is the interactivity of the Internet and the enormous variety of content, information, and applications available there. Millwood-Hargrave and Livingstone [21] argued that the content selected is what is significant, whereas the channel or medium are less so. At times children watch the same program broadcast over the Internet in its entirety, without editing (for example, reality shows and programs in which certain parts had been cut before broadcasting on television, are available online without censorship and editing).

Researchers [24,30,31] found that media consumers are rational, thinking persons who choose from a variety of media, decide to what they will be exposed, and shape their consumption habits according to their needs.

Needs met by television: Children and adolescents have a need to understand the society in which they live; TV programs meet this need and serve as an alternative socialization process, which children should experience. In the 1970s, researchers became aware of this source of socialization and claimed that TV programs provide an extended family of sorts, which represents a microcosm of society as a whole [32-34]. Television programs are the arena where a child creates para-social interaction with a large number of stable and transient characters. Para-social interaction is the relations that viewers develop toward TV characters. The child identifies with the characters, which creates the para-social interaction. Viewers feel that they know the characters, and perceive that they have the same feelings toward them as they do toward flesh-and-blood acquaintances, but they are not concerned that the TV character will criticize them [32,33,35-

37]. The relationship that children develop with TV characters is similar to the relationships children used to have when they lived as part of an extended family within a tribe or a clan [35], but without worrying about embarrassing, even humiliating criticism. Para-social interactions, which can provide opportunities to examine "how to behave" in a variety of situations, play the same role for children and adolescents as real social interactions. They provide essential social learning: how to react to the extended social group, how to integrate into society, and how to avoid certain situations. Although TV programs can present models for every social role, they do not provide consumers with a mirror image of themselves, nor with the feedback necessary for total development [12,38-41]. In recent years, reality shows have been gaining popularity. Researchers [12,42-44] have found that these programs, devoid of script, staging, and editing, are rife with aggression, gossip, tale-telling, exclusion, and social manipulation to a much greater degree than recorded programs. Research has revealed that children identify with the characters on reality shows and with their behavior. Children and adolescents whose TV viewing is unbalanced, who watch many hours on their own, without involving parents or friends in the contents they are viewing, may be harmed [45].

Needs met by the Internet: The Internet is an arena that hosts both modern and conventional media, offering a vast array of interactive possibilities. Internet users differ in their capacity to understand, analyze, appraise, create, and distribute content. They also differ in their success in using communication, information, and media technologies; in identifying and coping with harmful content; and in utilizing it for democratic and humanistic purposes, as well as for individual communal purposes [2,25,46-48].

In this study, we examined why children and adolescents consume so much media, and what are the needs that the media meets. We did so base on self-determination theory (STD). Specifically, we examined:

1. Browsing and viewing habits of children and adolescents

2. Reasons and needs for media preferences

3. Reasons and needs for content preferences

4. Reasons and needs for media preferences for the consumption of certain content.

Methodology

Sample

The sample included 345 Israeli children and adolescents. The age range was 8-18, with a median of 15 (M=14.41, SD=2.86), and there were slightly more girls (52.4%) than boys. Participants were divided into two age groups: children (up to 8th grade or age 14; 46.2% of respondents), and adolescents (9th-12th grade, 53.8% of respondents).

Most participants (83.2%) were native Israeli, and the rest were born in the CIS (8.8%), Ethiopia (3.1%), or other (5.0%). Most (80.1%) reported that their parents were married; the

rest reported their parents' marital status as divorced (13.8%), separated (3.7%), or other (5.7%). Regarding domicile, 41.9% reported living in an apartment owned by their parents, 33.5% in a house owned by the parents, and 24.6% in a rented apartment. A little over half of the participants (50.8%) reported that their financial situation was average, 30.6% above average, and 5% as significantly higher than average. Only 13.6% reported that their financial situation as below average, of whom 3.7% described their financial situation as significantly below average.

Written consent was obtained from the parents of each of the children participating in the study.

Tools

This is a quantitative mixed-method study with a qualitative element. A total of 90 children and adolescents were interviewed. The research tools are based on those of the Office of Communications [2,20,27,49-51]. Below is a description of the research tools:

Preference of medium for the consumption of broadcast content

a. Closed table including 22 items: What types of content do you prefer to consume in each of the following media:

Content: music videos; drama; teen magazine; slap and humor; movies; family series; reality; talk shows; news and current affairs; documentaries; sport; entertainment; game shows; investigative program; nature; design and fashion; consumption; craftsmanship; cooking; music; health.

Medium: Internet; TV; DVD video; VOD; YouTube; computer; tablet; radio; newspaper; smartphone.

b. Open-ended questions: These questions focused on the considerations and reasons for choosing a particular medium when exposed to the same content:

- Consider all types of media: What are your three favorite types of content in media of all kinds?

- Sometimes you can be exposed to the same content through different media: television, video, YouTube on the computer, tablet, radio, or newspaper. What are the considerations and reasons for you to choose a medium to be exposed to that content? When I choose television, it is because... When I choose video or DVD, it is because... When I choose YouTube, it is because... When I choose a tablet, it is because... When I choose movies and programs on the computer, it is because... When I choose the smartphone, it is because... When I choose the radio, it is because... When I choose the newspaper, it is because ...

- When it comes to the same content (for example, a TV show that be watched either on television and on the Internet), when and under which circumstances do you prefer the television? When and under which circumstances do you prefer to watch a video or a DVD? When and under which circumstances do you prefer to watch YouTube? When and under which circumstances do you prefer the Internet? When and under which circumstances do you prefer the tablet? When and under which circumstances

do you prefer the smartphone? When and under which circumstances do you prefer the radio? When and under which circumstances do you prefer the newspaper? When and under which circumstances do you prefer a book?

Content preference: Rating of the degree of preference for each type of content being watched on a 5-point scale ranging from 0=Not at all, to 4=A lot. Closed table including 21 questions.

Check next to each type of content you watch how much you like watching it: videos clips; drama; teen magazine; slap and humor; movies; family series; reality show; talk shows; news and current affairs; documentary; sports; entertainment; game shows; investigation; nature; design and fashion; consumerism; craftsmanship; cooking; music; health.

Open questions

- What are the three sites you browse most? What is there on each of these three sites? Why do you like to browse each of these three sites?

- What are your three favorite TV programs? What are these programs about? Why do you like these programs?

1. **Media consumption habits:** How many hours a day do participants spend using, watching, or browsing TV, DVD, VCR , VOD, Youtube, computer, tablet, Internet, radio, newspaper, smartphone? Participants answered nine closed questions on a 7-point scale: 0=Not at all, 1=Less than an hour, 2=One hour, 6=Five hours or more.

2. **Questions about background characteristics:** age, class, gender, country of birth, type of home, number of rooms, number of people living in the home; sector.

3. **Personal interviews:** Interviewees were asked questions to clarify the quantitative findings, to help us understand the reasons behind the findings and the factors affecting the preference for a given medium. The semi-structured interviews covered all the subjects included in the research topics, but the order of questions was determined by the dynamics with the interview. The interviewees wanted to share events they lived through, positive and negative experiences, and some gave detailed descriptions.

Statistical Procedures

Quantitative analysis

In addition to descriptive statistics, based mainly on the distribution of frequencies and averages, we conducted exploratory factor analysis with Quatrimax-type rotation, which indicated that it is possible to group various types of media into four main types. We also conducted linear regression analyses.

Qualitative analysis

We analyzed qualitatively the free-text answers of the children concerning their content consumption preferences, and the factors behind these preferences. Our analysis identified the principal themes in the children's answers. We also analyzed the interviews with the children.

Findings

Viewing habits

Participants were asked to note the degree to which they consume various communication media. Results appear in **Table 1.**

The data in **Table 1** show that children and adolescents spend an average of 3.1 hours a day browsing the Internet ($Md=3$, $SD=2.0$). Only 4.5% never browse, 22.6% browse up to an hour a day, and 16.3% browse an average of 2 hours a day. Over half of the respondents (56.6%) reported that they browse 3 or more hours a day, of whom 13.0% browse 3 hours, 15.7% browse 4 hours, and 7.2% browse 5 hours. About one-fifth of the respondents (20.8%) browse an average of 6 or more hours a day.

By comparison, children and adolescents spend an average of 2.1 hours a day watching TV ($Md=2$, $SD=1.7$). Answers revealed that 12.3% never watch TV. About one quarter (27.6%) watch no more than an hour a day, and approximately the same rate (24.9%) watch 2 hours a day; 16.1% watch an average of 3 hours a day, and the rest (19.1%) watch 4 hours or more.

Children and adolescents spend an average of 1.6 hours a day watching movies and other TV programs on the computer ($Md=1$, $SD=1.8$). However, 29.9% do not use the computer to watch TV content, and 30.4% watch no more than an hour a day; 21.8% watch TV content on the computer up to 3 hours a day, and the rest (17.9%) watch more than 3 hours a day.

Children and adolescents spend an average of 1.6 hours a day watching YouTube ($Md=1$, $SD=1.5$). Only 10.4% never watch YouTube, 51.2% watch no more than an hour a day; 25.6% watch an average of up to 3 hours, and the rest (12.8%) watch 3 hours a day or more. Children use tablets to browse an average of 0.8 hours a day ($Md=0$, $SD=1.4$), with most respondents (62.1%) not using tablets.

Table 1: Viewing habits of children and adolescents (average hours per day).

	Dispersion measures				Distribution							
	N	*M*	*Md*	*SD*	Not at all	Less than an hour	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours and more
Browsing the Internet	332	3.1	3	2	4.50%	9.60%	13.00%	16.30%	13.00%	15.70%	7.20%	20.80%
TV	341	2.1	2	1.7	12.30%	14.40%	13.20%	24.90%	16.10%	8.50%	5.30%	5.30%
Watching TV content on the computer	335	1.6	1	1.8	29.90%	14.00%	16.40%	13.10%	8.70%	8.40%	3.60%	6.00%
YouTube	336	1.6	1	1.5	10.40%	30.10%	21.10%	15.20%	10.40%	7.70%	2.40%	2.70%
Browsing on a tablet	335	0.8	0	1.4	62.10%	8.40%	11.90%	6.90%	3.30%	4.20%	0.90%	2.40%
Watching a DVD	335	0.5	0	1.2	75.50%	9.30%	5.70%	2.70%	2.40%	1.50%	1.50%	1.50%
Reading a book	334	08	0.5	1.2	38.00%	29.30%	19.50%	4.80%	3.60%	2.40%	0.00%	2.40%
Reading a newspaper	333	0.3	0	0.6	64.30%	27.30%	6.00%	1.20%	0.30%	0.00%	0.60%	0.30%

Table 2: Viewing habits of children and adolescents: Differences between viewing patterns and Pearson correlation.

	Dispersion measures		Differences in number of viewing hours (Pearson correlation)							
	M	*SD*	Browsing the Internet	TV	Movies and TV content on the computer	YouTube	Browsing on tablet	Watching DVD	Listening to radio	Reading a newspaper
Browsing the Internet	3.1	1.7								
TV	2.1	1.5	1.08** (0.28**)							
Movies and TV content on the computer	1.6	1.2	1.55** (0.39**)	0.47** (0.16**)						
YouTube	1.6	1.8	1.61** (0.30**)	0.53** (0.21**)	0.06 (0.21**)					
Browsing on tablet	0.8	1.4	2.49** (0.19**)	1.41** (0.21**)	0.94** (0.27**)	0.88** (0.30**)				
Watching DVD	0.5	1.1	2.77** -0.02	1.69** (0.21**)	1.22** (0.30**)	1.16** (0.22**)	0.28** (0.32**)			
Listening to radio	0.4	0.6	2.76** -0.02	1.67** -0.06	1.20** -0.06	1.14** -0.07	0.26** (0.18**)	-0.01** (0.28**)		
Reading a newspaper	0.3	1.2	2.88** -0.01	1.80** -0.03	1.33** (0.13*)	1.27** (0.16**)	0.39** (0.17**)	0.11 (0.33**)	0.12 (0.16**)	
Reading a book	0.8	1.2	2.37** 0	1.28** -(0.13*)	0.81** 0	0.75** -0.01	-0.13 -0.07	-0.40** -0.06	-0.39** -0.07	-0.51** (0.36**)

p<0.05*, p<0.01**

Table 3: Qualitative analysis on Internet.

Need	Quotations
Autonomy	"I find information on websites that helps me in school and in life, about everything that interests me. I'm no longer ashamed for not knowing things, I go straight to the Internet and look for information and find it, and I feel like everyone else." "There are TV shows I don't like to watch with others, they talk about the characters and insult the character I like, so I watch these programs on the Internet. It's much better because on the Internet they show the program without censorship and without advertising, which distracts me." "I can get to sites I like to watch the movies and programs I want when I want and where I want, when I travel, in my room, everything is always available." "There is a tremendous variety of shows, movies, websites one can browse, that's wonderful, I can choose whatever I really want to surf and not compromise on 'what's out there,' surf wherever I want, watch what I want." "I like to get under the blanket in my bed and surf without anyone bothering me." "I find my favorite music, I can find online the newest songs." "I love to surf fashion sites, shoes, accessories, special haircuts, it gives me ideas how to dress and how to look." "I love to watch uncensored standup shows and without others watching with me and making comments." "I like to watch programs about distant and special lands, and cooking programs that show how to cook special dishes."
Belonging	"I like social networks, so I know what's going on with everyone." "Even when I'm sick, I feel like I know what's going on through Facebook." "I'm never alone, there's always someone to correspond with."
Ability	"I have a hobby building worlds and virtual logo software. My Internet friends help me, send me ideas, show me what they have built. They send YouTube videos of what they built with explanations. It's wonderful. I'm learning a lot from that." "I'm playing on the Internet against experts. This enhances my gaming skills." "I'm a wiz at building animated films on the Internet. I post them and get likes, and some tell me what else can be done and how to do it."

Table 2 compares the average times children and adolescents spend on different media, and lists Pearson correlation.

As seen in **Table 2**, children and adolescents spend significantly more time browsing the Internet than they engaging in any other activity examined. Furthermore, we found significant and positive correlations between the amount of time browsing the Internet and the time they spend watching TV ($r=0.28$, $p<0.01$), movies and TV content ($r=0.39$, $p<0.01$), YouTube ($r=0.30$, $p<0.01$), and watching content on a tablet ($r=0.19$, $p<0.01$). We also found significant and positive correlations between the amount of time adolescents watch TV and the time they spend watching movies and TV content on the computer ($r=0.16$, $p<0.01$), the time they spend watching YouTube ($r=0.21$, $p<0.01$), the time they spend watching content on a tablet ($r=0.21$, $p<0.01$), and the time the spend watching DVDs ($r=0.21$, $p<0.01$).

Preferred content and media: Qualitative analysis

The following is based on a qualitative analysis of free-text answers by respondents concerning their medium and content consumption preferences, and of factors or conditions behind these preferences. In the analysis of the answers, we will attempt to identify the central themes, with respect to each question separately. The following review pulls together all the themes we identified in the course of the analysis. The nature of the analysis made it possible, in some cases, to identify several themes in a single (qualitative) response, and therefore the summary of percentages may exceed 100%.

1. **Preferred content:** Qualitative analysis of the children's and adolescents' answers showed that the leading content is music and videos (26%), followed by entertainment content such as reality shows, entertainment shows, and game shows of all sorts (22%), and by movies (19%), satire and comedy (10%), and drama series (9%). Eight percent preferred sports and 6% preferred news content, nature and science or art, cooking, and fashion.

2. **Preferred media and needs that each medium satisfies:** The needs the children listed can be divided into three themes: autonomy, competence, and relatedness. The children listed their preferred media in the following order: the Internet, TV, PC, and YouTube, smartphone, tablet, reading a book, DVD, radio, and newspaper.

Internet: Children and adolescents were asked to specify under which conditions they prefer the Internet. The most common answer was that the preference of the Internet for consumption of content is universal (37%), in other words, there is a tendency to prefer the Internet in principle "at any moment," "almost always," "under all conditions," etc. Twenty two percent mentioned the accessibility and convenience of the Internet as a reason for their preference; 15% noted that the Internet is their preferred means of searching for content of different types, and an additional 7% mentioned the Internet as a means of accessing unique content. Children also mentioned using the Internet for the purpose of games and in social contexts **(Table 3)**.

Television: The most common reason for watching TV is the convenience. Twenty eight percent of respondents mentioned aspects such as "large screen," "convenience," "sitting on a comfortable sofa," or "because it's next to me." Twenty five percent noted that they watch TV because they like it; 16% said that they watch TV because of the quality of the programs; 7% said they watch TV because it broadcasts specific content; 12% said they watch TV especially to consume certain content ("a program I like"); 12% said that the TV is on when they are at home in general, and 11% tended to note specific times, such as "in the evening," "at night," or "before bedtime." An additional

4% indicated that they watch TV in the living room, and a similar rate listed the bedroom as the preferred viewing room **(Table 4)**.

Computer: Ninety seven percent of children and adolescents use computers. Twenty percent noted that the reason for this is their simple personal preference ("I like it," "it's more fun"), and a similar percentage said that the computer has become a significant tool in the consumption of movies and programs. Twenty percent said that the reason for preferring the computer to watch movies and programs is convenience and availability, due in part to the ability to control the time and manner of viewing ("as convenient to watch as TV," "I'm comfortable lying down"), as well as control over the course of viewing as far as searching is concerned: "you can do things at the same time" and "because I'm right there and I can stop whenever I want." An additional 4% noted that the reason for choosing the computer is its availability compared to other means. Eighteen percent said that they preferred to choose movies and shows through the computer because of the uniqueness of the content, most of the time because "they are no longer available on TV or they had broadcast it already." Eleven percent said that the reason they watched movies and programs on the computer is the diversity and choices they have with regard to the content they consume **(Table 5)**.

YouTube: The main reason for viewing YouTube is to consume music: nearly half of the children and adolescents (47%) mentioned this reason; 22% said that they watch YouTube because of its availability: this medium is immediate, available, mobile, and accessible from many devices in their environment; 16% noted that watching YouTube is part of their normal daily conduct, part of their routine existence. An additional 2% indicated that watching YouTube is performed concurrently with other activities, for example travel, sports, studying, or playing; 17% said that they watch YouTube because of the great diversity of content available on this medium, and abundance of content offered; 12% said that YouTube offers unique content that cannot be reached by other means; 8% said that watching YouTube serves social needs, either as joint entertainment or as a means of consuming content considered to be innovative and up to date. Only 2% of respondents reported not viewing YouTube at all **(Table 6)**.

Smartphones: The two common causes that children and adolescents mentioned for using smartphones are ease of use and accessibility (28%), and the availability of the device (27%).

Table 4: Qualitative analysis on TV.

Need	Recurrent statements
Autonomy	"If I want, I watch the program with my family. I can express my opinion about the character, argue with others, say what I have to say to them." "I learn from television programs about situations people find themselves in, and like this I put it together in my head how to act if something similar happens to me." "I see so many images of parents, of people in different situations, of classes, of schools around the world, it opens up the mind." "I'm learning from the series I love how to dress, how to talk, I'm learning about different types of people." "I already have a plan where I want to travel around the world, I'm watching a series about wonderful places around the world and I'll go there." "I love watching TV in the living room with everyone, but I don't like when they start to say insulting things about the character I like. Or ask me 'How can you even like him?' It's insulting to me."
Belonging	"It is more pleasant to watch scary programs and movies with someone, so one is less scared." "Everybody sits and has dinner in front of the television, it's like a cafe and cinema together, except that you can talk and laugh." "I feel like a close friend of the character that I love, that we are really friends, for me, I feel very close to her emotionally and I share everything that happens to her."
Ability	"I'm learning from the characters how to behave in case they attack me violently." "I know how to record shows, and I watch them over and over, until I understand the situation thoroughly." "Thanks to the TV series that I'm watching for some months now, I learned how to get along with people without fighting with them, but to find other ways of solving complex problems." "I see that there are so many professions one can work in, so many options to choose from, it gives me a wonderful feeling every time."

Table 5: Qualitative analysis on Computer.

Need	Quotations
Autonomy	"It is as convenient to watch as TV." "I can stop it whenever I want." "Watching movies and TV shows that have already been broadcast." "I could never live without my computer." "There are so many important things in my computer, pictures, movies, work that I prepared." "I feel that my computer is the most important and most precious of all the things that I have in my room."
Belonging	"I can watch the series that everyone watches, but they have already been broadcast on TV when I couldn't see them, so I'm watching on the computer and in this way I'm up to date of whatever everyone is watching." "It is easy for me to work on the computer, when I log into Facebook and Whatsapp, more than on the smartphone. I write more, I check more carefully what I have written, I can see the pictures and the movies that others uploaded better."
Ability	"There are many open programs and tools I like to use on the computer, and every time I learn more ways to do things and more functions." "I constantly discover new things and new possibilities."

Table 6: Qualitative analysis on YouTube.

Need	Quotations
Autonomy	"I choose the music I like in the background, I put on the music, and then I concentrate more on my studies." "I find rare clips I couldn't find anywhere else." "I find YouTube videos that explain a lot of things that are important to me, otherwise I wouldn't understand many things."
Belonging	"We meet together, friends, and watch movies on YouTube, video clips." "I find good movies and share them with my friends, and they share the movies they find with me." "I find friends on YouTube who have similar hobby to mine, it's wonderful, even if I don't know them, we share many things with each other." "I found friends who exactly the same hobby as I do, and we together 'edit' videos on YouTube, even though we do not meet face to face."
Ability	"I create videos, together with others, on YouTube, I'm constantly learning new things." "Everything is so easy and accessible on YouTube, you can easily put together complex movies with special effects, with the help of others."

Concerning the accessibility and ease of use of the device, they indicated that smartphones are lightweight, portable, and accessible; concerning their availability, the mentioned that the smartphone "is always with me" and "always available." Fourteen percent stated that they chose a smartphone for the purposes of communication ("texting," "Whatsapp"), and as a means of maintaining social relationships ("talking to friends"). Six percent of respondents indicated that they used a smartphone for play. For 34% of respondents the preference for smartphones is general, and it is unrelated to specific reasons or situations. Thirteen percent of respondents indicated that they use smartphones primarily outside the home (e.g., in school, on trips), and an additional 7% noted that they use smartphones while traveling **(Table 7)**.

Tablet: Fifteen percent of respondents cited the convenience of using a tablet from the point of view of mobility and accessibility, 7% indicated the specific characteristics of the tablet, especially those related to technical aspects, such as screen size and user interface (especially compared to smartphones). Fifteen percent indicated that the reasons for using a tablet are the gaming options, and 6% mentioned their personal experience using the tablet. Twenty-one percent indicated that they prefer using a tablet to other means in general **(Table 8)**.

Books: Fifteen percent indicated that they prefer reading books in general. Eleven percent of respondents considered reading a book a leisure activity and 6% further mentioned reading for the purpose of relaxation, detachment, and silence. Ten percent of respondents read books out of interest, and 4% because it was an obligation, usually as part of school assignments. Twenty-two percent indicated that reading a book was not one of their preferences, and 19% stated that reading a book is their default when they are bored, especially when no Internet or television is available. Fifteen percent associated to reading a book with a particular time, usually in the evening or at bedtime **(Table 9)**.

DVD: Sixteen percent of the children and adolescents indicated that they watch movies and series on DVD. Nine percent cited the flexibility and convenience associated with it, both technically ("can switch tracks back and forth," "don't have to wait to load") and from the point of view of control options ("I can choose the appropriate time for watching," "I choose what to watch"). Sixteen percent reported that they preferred to watch DVDs in the case of special content that cannot or would be difficult to obtain by other means, such as movies describing personal experiences (for example, trips and family events), and movies and series, or content that cannot be located easily. Twenty-four percent do not use DVDs at all, usually because they don't own a device or a setup, and 23% saw no need for it. Six percent noted that they watched DVDs at social gatherings, and 5% mentioned the quality of the experience, commercial-free viewing, and the ability to control the viewing process **(Table 10)**.

Radio: The two most common reasons for using the radio are at outdoor activities, especially when driving (16%), and to listen to music (11%). Seven percent indicated that they listen to the radio to catch up on the news and current events ("to know what's going on"), and 5% of respondents showed a general preference for listening to the radio. Forty-seven percent did not choose to use the radio.

Newspapers: Twenty-four percent read newspapers for their content, especially news and current events ("I want to know what's going on"). Thirty six percent of respondents tend not to read newspapers, and 4% indicated a general preference for reading newspapers.

Discussion and Conclusions

In this study, we used self-determination theory (SDT) to examine why children and adolescents consume so much media, and what are those needs that are satisfied by the various media. We also examined their browsing and viewing habits, the reasons and needs for preferring one medium over another and one type of content over another, the reasons and needs for preferring a certain medium for the consumption of a given content.

Findings indicate that the media indeed are a very significant portion of the children's and adolescents' routine. This finding is consistent with those of other studies that found that the media occupy an important place in the children's lives [1-5,12,52].

Preferred content and preferred media

Preferred content: Findings show that the leading content consists of music and video clips (26%), followed by entertainment content such as reality shows, entertainment and game shows of all sorts (22%), movies (19%), satire and comedy (10%), and drama series (9%), sports (8%), and news, nature and science, art, cooking, and fashion (6%).

Table 7: Qualitative analysis on Smartphones.

Need	Quotations
Autonomy	"It's always with me, everywhere." "I don't leave home without it." "I have a lot of personal things on my smartphone, videos, photos, all the Whatsapp groups, my Facebook."
Belonging	"I'm constantly in touch with all my Whatsapp groups, and I check my Facebook account." "I use the smartphone to stay on top of all the events and about whatever happens." "Since I have a smartphone I feel that I fit better into my class." "My family has a Whatsapp group, and my parents occasionally surprise us with all kinds of surprises, send us songs." "I show my grandma the photos the send me on Whatsapp of the extended family and it makes her happy."
Ability	"Whenever I have nothing to do, like when I'm traveling, I play on my smartphone and I reach high levels in the game and have higher and higher achievements." "I'm learning to operate the smartphone, I help others operate theirs, to do shortcuts, reach applications."

Table 8: Qualitative analysis on Tablet.

Need	Quotations
Autonomy	"I take my tablet on trips; it is more convenient than the smartphone." "I can continue doing my homework and other work on the tablet even when I'm not at home, and also when I travel." "I like watching programs on the tablet under the covers in bed. I can watch quietly without anybody interfering."
Belonging	"It's more comfortable browsing Facebook on a tablet when I'm traveling, than using the smartphone."
Ability	"I prefer working on the tablet because a touch screen is more convenient than a computer screen, and bigger than a smartphone screen." "I'm most comfortable working on a tablet; it's easier because it has a touch screen."

Table 9: Qualitative analysis on Books.

Need	Quotations
Autonomy	"I like to read books. I feel like I'm disconnecting from reality and living in the reality of the book." "I read almost every book; I like to read books." "Reading a book is the most convenient. I'm taking the book with me and read it anywhere I want, I'm not dependent on any device, charger, or connection to the Internet."

Table 10: Qualitative analysis on DVD.

Need	Quotations
Autonomy	"I can choose what program or what episode to watch, and I can watch the same episode several times, until I understand all the deep things, which you cannot see when you watch once."
Belonging	"We like to watch together, the whole family, old movies. Sometimes my parents laugh, saying that we don't understand, and they explain to us the jokes in the context of the period when the movie was filmed."
Ability	"You can fast forward, rewind, don't have to wait to load, which sometimes takes a long time, for example, on the Internet".

Preferred media: The findings indicate that children and adolescents make informed choices of media. Their choice has to do, on one hand, with awareness of the unique properties of each means of communication, its capabilities, and advantages over other methods, and on the other hand with different types of content.

The findings of this study are consistent with those of previous studies, such as the work of Eisen and Lillard [23] who found that already at an early age children choose a medium based on its capabilities and on their needs, and with other studies that found that the choices of children and adolescents are informed and not accidental.

The results show that the Internet is the first choice of children and adolescents, and that television is ranked second. They prefer the Internet medium to other media, based on what each medium has to offer (computer, smartphone, tablet, etc.). They are not "locked" into one medium, but choose each time based on the specific advantages of a medium meeting their requirements.

Earlier studies, conducted in Europe and revealed that television is the preferred medium of children and adolescents, who watch more than 15 hours of television per week. In the present study, however, we found that in Israel the Internet is the preferred medium for this age group. Nevertheless, our findings support those of Comstock and Scharrer [14], who mentioned the interactivity and variety of the Internet content as the two main differences between it and television.

The Internet answers the children's need for the autonomy to choose where to surf, what to watch. It helps with their studies, especially in the preparation of schoolwork. It allows watching TV programs alone, without the entire family, without commercials, and without censorship; satisfies the demand for belonging; and provides uninterrupted contact with others through social networks. It satisfies the need to demonstrate ability, find materials, build sites, share with experts, produce video clips, and more.

Children like television and TV programs. If they have the opportunity to watch these shows on television (rather than on a computer, smartphone, etc.), they prefer to watch them on television. TV shows satisfy a need for autonomy. Children and adolescents feel that they learn by watching TV shows on

how to cope with life, with others. They feel that television is a key socialization agent in their lives. It satisfies their needs for belonging, for shared viewing with family and friends, watching programs that friends talk about, identifying with the characters. It meets the need to demonstrate ability , to cope with the world, to find a career, to learn how to interact with others. In the interviews, the children and adolescents (78%) related that they like to watch TV because there are other people with them: parents, siblings, friends. They have a sense that they are together with others rather than being alone. But many (63%) indicated that they do not like it when others make comments about the characters they like or when they are criticized for their choice of characters. Thirty five percent said they like talking about the characters with family and friends, and in this way, they learn to see the characters from different angles. Thirty percent said that they changed their minds about some of the characters as a result of conversations with others.

The children shared personal stories in the interviews. For example, a 12-year-old boy said he suffered from the violence of children in his class, and that he watched at home television programs that provide tools on how to deal with violent incidents. He said he watched television programs broadcast live on television or through video on demand, and that he watched the same programs through the Internet, watching for many hours violent programs that helped him, in his words, cope with violent situations in which he may be involved at school and elsewhere. In the interview, the child described the world as a violent one, saturated with violence, listed examples of the violent incidents seen in movies and television series. The interview suggested that extensive viewing of violent content has created a feeling in him that the world is violent. He suffered from violence in school, but the extensive watching, as it transpired from the interview, did not help him deal with violence at school, but enhanced his feeling that the world was a violent place.

Many of the children's complaints were related to smartphones.

Children told stories such as: "Some children took my smartphone, accessed by Whatsapp, and posted offensive messages in my name, which caused me great harm." "When I was in school, children took my smartphone from my bag without permission, got into my Facebook, and wrote on a pretend confession by me of something that I didn't do."

In conclusion, children and adolescents consume media because it meets their various needs, some of which are not met in other environments. The interviews revealed that children and adolescents prefer not to involve their parents for fear of parental criticism of their conduct. Some of the adolescents related that their parents decided to limit their access to the Internet, which resulted in anger toward the parents, but they continued to surf the sites they wished elsewhere, such as at school, with friends, at the library, and so on.

It is preferable, therefore, to avoid as much as possible a criticizing and judgmental attitude, and instead conduct a dialogue with the children. Children and adolescents are afraid of criticism and punishment by their parents. Parents must therefore talk to their children, listen to them, and try to reach a solution that is acceptable to the children; one that stimulates their sense of responsibility, as opposed to encouraging a lack of a sense of responsibility toward themselves and their environment; one that encourages a sense of personal and collective identity, as opposed to anonymity; one that to encourages a sense of belonging, sharing, and maintaining relationships, as opposed to indifference, alienation, and rejection. To engage in a dialogue, parents must be open to accepting the children's ways, and be aware of the children's capacity for inclusion as well as of the place where the children happen to be; the need to reassure the children and formulate with them methods of action; they must illustrate for the children what positive values are, and what is right and true; and they must guide children in their choices, at the same time developing their strengths and their ability to cope with difficulties.

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