

# Children's Use of Screens: Analytical and Critical Reading in the Light of Scientific Theories on Communication Practices

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**Abstract:** Our research aimed to study children's relationship with screens through an analytical and critical reading of their use of screens by going back to the latest scientific theories about communication and media activities and practices in general, and the theory of 3- 6- 9- 12 in particular .Which was developed in 2007 by a French researcher named Serge Tisseron a psychology doctor and a researcher at the University of Paris. He specializes in studying children's relationship with the media and the role of the environment, i.e. the family and the school, in shaping this relationship and adopting the method and tools of content analysis in its qualitative or qualitative aspect. The research concluded that, unlike the previous theories, the theory 3- 6- 9- 12 does not talk about the effects of the means of communication and media on the child, but rather about the child's relationship with the means of communication and the media, and that the child's relationship with the means of communication and media differs according to the different stages of his life. And that the culture of screens is formed in the child through stages, and that each age period has positives as well as negatives and risks that must be dealt with wisely. Rationalizing the use of modern means of communication and media makes the child able to build a positive interactive relationship with his virtual surroundings according to his age, tendencies, and expectations, and supports his knowledge increase and his intellectual and creative abilities.

**Keywords:** Screens - Children - communication - media - scientific theories.

## 1 Introduction

The effects of mass communication have been the focus of research and studies by specialists in the sector, and one of the main axes of scientific theories of communication and media since Gutenberg's invention of printing, for several reasons, perhaps the most important of which are:

- The pivotal and essential role played by the recipient or the audience in the success or failure of the communication process.
- The interest of those in charge of communication, especially politicians, economists, and makers of communication and media content, to know the extent of their success in communicating their messages to the recipient and achieving their communicative and persuasive goals.
- The importance of influence as a human knowledge that enables understanding the causal relationship between the elements of the communicative process.

Receiving in its communicative and informative concept "represents a critical approach to the communicative process showing that media criticism stems from highlighting the recipient's interaction with the discourse and its interpretation of it while determining its effects on him and not only explaining and clarifying the discourse [1]". The first reception research, initiated by Paul Lazarsfeld in 1944, came to agree with the prevailing theory of that period, about the direct and powerful influence of the media on the recipient, formulated by Tchakhotine in 1939.

This research produced a new theory called the theory of selective and limited influence of the media. The basic hypotheses of this theory can be summarized in the following points:

- The audience of contemporary society is characterized as diverse and psychologically heterogeneous.
- Members of the public are members of social classes that differ according to various factors such as income level, age, gender... These classes are distinguished from others in terms of characteristics, beliefs, attitudes, and values...
- Members of the public in contemporary society are not isolated from each other and engage together in social

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relations based on family relations, neighborhood relations, or work relations.

- These personal differences between members of the public, resulting from different social classes and different relationships, make them pay attention to certain contents in the media, select what they are exposed to from these contents, and understand the content of the media in selective and different ways.
- Because of the selective exposure to the content and its difference from one person to another, the media message will have a limited impact on the audience.

Other research on reception conducted between the years 1980-1990 also confirmed that the communication and media message carry multiple meanings and therefore not all recipients interpret and understand it in the same way, because each recipient employs different intellectual capacities and political, economic, social, cultural and even religious and ideological references to decipher the symbols of the communication and media message. Thus, the interaction with communication and informational messages and their impact on the recipient, whether cognitive, emotional or perceptual, may be "positive, so the individual takes a positive attitude towards what he receives of communication and informational messages and contents" based on a set of Stimuli and triggers such as attracting attention, arousing interest, arousing desire and causing persuasion. He may be negative and accept the idea with his mind, but he is not affected by it and does not follow the required behavior because he rejects it in his heart." [2].

The status of the recipient in the communication model and process has been strengthened more and more with the advent of the Internet, modern means of communication and media, and the so-called social media. What distinguishes reception in the new communication model is interaction and asynchrony. By interactivity, we mean "the user's ability to continuously exchange reactions with other users through the new media and its applications."

As for asynchrony, it means "the possibility of interacting with the communication process at the right time for the individual, whether he is a receiver or a sender, by publishing and retrieving information via new media and its applications quickly and using it easily at anytime and anywhere [3]."

Interactivity and asynchrony are significantly determined, then, by "physical factors such as the place and time in which the connection is made to the Internet, and subjective factors, such as the degree of acceptance or reluctance of the recipient of what is presented to him [4]."

The importance of the receiver in the model and the communication process, and the new tasks and functions that he has assumed (receiving, producing, criticizing, sharing, publishing and broadcasting) due to the digitization of the communication and media scene, made the researchers direct their research interest more towards the recipient in this relationship, not only with the means, but also with the content of the communicative and media material and the contexts in which the content production process takes place.

The figures and statistics published periodically by opinion-gathering companies, media institutions, and digital platforms highlight the massive invasion of modern means of communication and media for all societies, all sectors, and daily individual and collective recreational and educational activities. This was reflected in the activities of the recipient of all races, social classes and age groups, and affected his behavior and communication, media and cultural practices.

Studies indicate that children are the group most affected by communication and technical innovations. Children are increasing their demand, use, and even addiction to the means of communication, modern media, and social media, day after day. According to the latest statistics published by governmental and non-governmental institutions, 93% [5] of children between the ages of 7 and 12 years own a mobile phone and surf the net for about 6 hours a week. As for those between the ages of 1 and 6, use the Internet and social media for 4 and a half hours per week. While 63% of children between the ages of 11 and 14 have an account on social media platforms. The relationship of children with traditional media, especially modern and social media, has been addressed by a large number of specialists, by raising research problems related to use and reception, and the impact of these means on behaviors, and ways to confront their negative repercussions, if any, and rationalize their uses and exposure to them. It turns out that:

Television programs have social and psychological dimensions and an important role in determining and refining children's behavior and the child's ability to acquire the characteristics of upcoming violence and the programs and films shown on television, which may be dangerous in some cases. Therefore, it is necessary to control what is shown on these screens of programs and films, and remove the negative ones from children.

The use of electronic devices by children "affects the child's academic achievement and weakens dialogue and communication with the family, as the child prefers to stay on his electronic devices rather than sit with the family" [6].

In order to reduce the negative use of electronic devices, in addition to building positive dialogue and communication with the child, it is necessary, according to what all studies have shown to enhance the role of the family in determining the child's behavior and habits in using electronic devices and accustoming the child to methods of communication and

positive dialogue from his early years. As well as accustoming him to the positive and optimal use of electronic devices by directing his inclinations towards positive thinking, science, and knowledge. And spreading family awareness and educating families by showing the correct methods for the optimal use of these devices in order to reduce their negative effects on children. This was confirmed by a new and recent theory in the field of what is called “family media”, which was developed in 2007 by a French researcher named Serge Tisseron, who is psychology doctor and a researcher at the University of Paris. He is specialized in studying children's relationship with the media and the role of the environment, i.e. the family and the school, in shaping this relationship.

## 2 Research Goals

Our research aims to:

- Explain and interpret another theory that dealt with the child's relationship with screens, which is theory 3- 6- 9- 12.
- Absorb the cognitive additions brought by the 3- 6- 9- 12 theory compared to previous theories.
- Understand the causes and reasons for the different impact of different screens on children
- Clarify the role of the family environment according to the theory of 3- 6- 9- 12 in rationalizing the child's relationship with screens.
- Monitor the solutions proposed by the 3- 6- 9- 12 theory to direct children's use of various screens for the better

## 3 Research problem and questions:

The emergence and development of media, traditional and modern means of communication and media (Internet, interactive television, electronic games, electronic boards, mobile phones, social networking sites...) has led to a radical change in the activities and behaviors of individuals and groups in all societies. Perhaps the category most affected by all these electronic communication innovations is the category of children whose use and addiction to them is increasing day by day. And if electronic means of communication and media are a source of knowledge, culture, learning and entertainment... then they also pose a danger that carries with it very negative practices, values and habits from (pornographic sites, violent content, extremist intellectual contents...). The emergence of these means, their rapid development, and the ease of obtaining and using them made the majority move from the culture of books to the culture of screens. An important and fundamental shift that some bless, and others deplore. In order to rationalize the uses of modern electronic means of communication and media and address their dangers to society in general and children in particular, researchers seek to find theories and practical solutions that help families and parents to develop and direct their children's relationship with these means in the most appropriate manner. In this research, after reviewing the most important features of the continuous and worsening communication and media invasion of all areas of life and human activities, and the reflections of modern communication and media on the cultural practices of individuals and addressing the most important schools of thought and scientific theories that were concerned with studying children's relationship with traditional and modern means of communication and media, we will address the problem of the theoretical treatment of children's relationship with screens through an explanation and analysis of a new and recent theory in the field of the so-called "family media", which was developed in 2007 by a French researcher named Serge Tisseron, who is a doctor of psychology and a researcher at the University of Paris. He specializes in studying children's relationship with the media and the role of the environment, i.e., the family and the school, in sculpting this relationship by asking the following research questions:

- What are the most important knowledge additions brought by the 3- 6- 9- 12 theory compared to the previous theories?
- What are the characteristics of communication and media activity and the relationship of children with means of communication and media in different age groups according to the theory 3- 6- 9- 12?
- What are the practical solutions proposed by the theory of 3- 6- 9- 12 for parents and guardians so that they can rationalize their children's relationship with the media in general and electronic means in particular?

Serge Tisseron's theory aims to give concrete practical solutions to parents and guardians so that they can rationalize their children's relationship with the media in general and electronic communication in particular, distributed over the four age periods that make up what is called "childhood", namely:

- The period between birth and 3 years
- A period between 3 and 6 years

- A period between 6 and 9 years
- The period after 12 years

Where the researcher considers that the communication and media activity and the children's relationship with the means of communication and the media differ according to the different age periods, which constitute "childhood". These differences are mainly due to the change in the mental, intellectual and emotional development of the child with the change of his age, which is what made him call his theory: Theory 3- 6- 9- 12.

#### **4 Research methodology and tools**

Considering that our research falls within the analytical research, we will adopt the method and tools of content analysis in its quality or qualitative aspect, which depends on dismantling the basic elements of the topics under study, and then studying them in an in-depth manner. And in light of this, provisions or rules are derived; Through it, it is possible to make generalizations that help solve social problems by defining a group of important records or categories that are included in the content that will be analyzed and adopted as evidence, to understand and analyze the theory 3- 6- 9- 12 and its knowledge additions. These records or categories are: positives of screens, risks of screens, and how to deal with screens.

#### **5 previous studies**

##### ***Qadem Jamilah: Ethical values in the media and their impact on the child's personality and behavior. Animation Model (2022)***

The study aimed to clarify the effect of animation programs on children's behavior and socialization in the cognitive and perceptual fields, which concluded in its results that cartoon series include a set of positive values such as developing children's imagination, humility and other moral values. On the other hand, the negative side overshadowed the positive side in many of them, such as the entrenchment of violence, and the lack of educational information added to the child's cognitive mind. Moreover, there are imaginary values that distract the child from his reality. One of the most prominent results of the study was that animation contains values that are contrary to the teachings of our religion, which constitutes an important factor that should be considered when choosing films to be shown to children. Finally, we offer the researcher suggestions to obtain a more beneficial and less dangerous vision.

##### ***Nadia Fatehi: The role of parents in raising children in exposure to television advertising: A field study on a sample of parents of children in the state of M'sila (2020)***

This study examined the effect of television advertising on the upbringing of children, and the importance of this study is because of the effect of television advertising on the child's behavior and values acquired during the process of his socialization, so that television has become a competitor to the family in raising the child and instilling in him values and culture, parallel to or in opposition to the values of society. We find that advertising, plays a major role in changing habits more than creating desires, as it presents different moral models and values for achievement in society. Consumption stems from the idea of social change and the transformation of the individual towards consumption.

Where the latter uses the values as advertising stimuli through which to influence the consumer. In parallel, media education teaches the individual how to deal consciously with the media and communication, and develop critical thinking and learning skills for the sake of socialization that makes them active citizens.

Therefore, it has become necessary for the family to be aware of these advertising contents and pay attention to media education to help them raise their children and benefit from the positives of television advertising and avoid its negatives. That is why we decided to use the descriptive survey method, which consists of collecting vital issues and examining the circumstances surrounding the subject by using the form tool to collect the required data, which was distributed to a group of parents of children in the city of M'sila in the period from August 27, 2020 to September 24, 2020.

As for the study sample, we chose it to be the accidental sample, due to the current conditions due to the Corona pandemic, which was the reason for the difficulty of contacting the researched sample.

##### ***Azza Ismail Abdel-Ghani Ali: The child and the media between the resulting risks and the perspective of Islamic law (2018)***

The research tried to show the impact of the media on the upbringing of the child and how to protect him in the era of information technology, and aimed to highlight the perfection, flexibility and comprehensiveness of Islamic law, and that Islamic jurisprudence is able to keep pace with the developments of the era and its calamities, and to clarify the correct legal solutions to many issues of excessive use of the media, which have emerged in the reality of people today. The

inductive and analytical approach was adopted by presenting the doctrines of the jurists on issues, mentioning the points of agreement and disagreement in them, stating the reason for the difference, if any, and listing the discussions between the sayings of the jurists, then stating the most correct opinion supported by evidence. In addition to documenting all the sayings and opinions from their authentic books. The research concluded with several results, including: a statement that the media have varying effects on the child, foremost of which is the visual media such as television and graphics, followed by magazines, newspapers, the Internet, etc., which pose a strong threat to children's behavior.

Among the most important recommendations of the research was the need for the various institutions and sectors of the state to communicate with modern media, such as: the Internet and Arab satellite channels, and to address them to increase targeted programs and to block what educationally offends the child viewer in particular. Also, confronting cultures that are hostile to Islamic values, by rejecting the negatives broadcasted by the information network, the Internet, computers, television, and others, due to their danger to the emerging generations. In addition to the necessity of directing the attention of young children to the aspects of faith, such as fearing God Almighty, fearing Him, and observing Him in secret and in public. Because the Almighty knows what your chest hides.

***Mahmoud Mohamed Abdel Halim: Mechanisms for guiding Egyptian children to conscious interaction with media and modern technology (2017)***

This research dealt with the problem of identifying the mechanisms of guiding Egyptian children to conscious interaction with the media and modern technologies.

It concluded that the process of informing the child is affected by two groups of factors: a group of individual and psychological factors that relate to the child's personality, preparations, needs, tendencies and desires, and a group of social factors; such as the values, customs, traditions and social norms that he lives in, and the groups he belongs to, especially since research and studies have confirmed that the media process is subject to many intertwined factors and influences, the most important of which are social and psychological factors, which must be taken into account. Because it weaves and forms the situation in which the media communication process takes place, and through which it exercises its role in influencing the child. Either negatively or positively in accepting ideas, information and experiences. In view of the phenomenon of the growing use of electronic communication technologies in modern societies, a new generation has emerged that no longer interacts with traditional media as much as it interacts with electronic media, called the networked generation or the Internet generation. And there are social networks such as Twitter, Facebook, which are characterized by the elements of instant media, interactive interaction, multimedia and modernization. It was found that the majority of the research sample, which amounted to (400 respondents), tend to imitate the hero they see in movies and series, and 8.57% of the sample answered that they want to be like the hero. This result shows that the child does not only tend to imitate the hero, but rather desires to be characterized by his qualities, and tends towards him, which reflects the seriousness of the television programs broadcast on the child's personality, negatively and positively. In addition, children are exposed through these means to scenes of violence, crime, and bad morals, whether they are children or adults, which has a negative impact on their behavior and their manner, whether during childhood or after it. Where confusion occurs in the minds of these children and they generate false impressions of society as a place for violence, which generates emotional imbalance among children. And because these means have become, whether we like it or not, an integral part of the daily routine of our children, and if we can delay the children's use of them, we cannot postpone this use for more than the kindergarten stage (5 years).

***Hashem Ahmed, Naghimish Al-Hamami: Television and its Possible Effects on Child Audiences (2015)***

This research addressed the issue of the potential effects of television on the children's audience and touched on the negative and positive effects that the audience of children watching television is likely to be affected by. It also touched on the issue of children's culture and ways of acquiring knowledge and how they are affected by what they see on television. In addition, this research also tried to reach the form and content of television programs that are suitable for children's audiences, which can contribute to positive effects on children's audiences.

***Daly Kenza: Reception of the media message by children and its impact on their social behavior: A field study in the municipalities of Amizour and Al-Qasr on violent video games (2012)***

The child lives in a social environment that influences him, and that determines and directs his understanding of the contents of violent video games, either by focusing on it or moving away from it to different degrees, which results in three levels of influence: the non-existent level, the reverse level, and the semi-absolute level. In light of three basic theories of the influence of violent media on the public which are: catharsis theory, selective influence theory, and observational learning theory, the researcher built an integrative model for the process of the impact of violent video games on children through a field study in the municipalities of Amizour and Ksar in the state of Bejaia.



## 6 Theoretical framework of the research:

Although the recent decades have witnessed remarkable development in prospective studies and data processing, which has had a tangible impact in improving theoretical construction in many areas, including areas of research and studies related to the media phenomenon. This led to the emergence of many media theories benefiting from this development, which opened the door to an important stage in the development of media studies and research and gave the green light for a real launch of media research, building on the legacy of previous theories and opening up to new scientific treatments in the field of communication and media. However, some research topics and problems impose on the researcher only theoretical approaches, frameworks and references. Research on the recipient's relationship with the means of communication and media and their role in raising individuals, instilling principles and values, forming opinions, directing them, and determining behaviors often requires the adoption of various theories of media influence. The uses and gratification theory looks specifically at the motives behind the public's use of the media as well as the manner in which those uses take place. This theory stems from the assumption that the public chooses the media that is characterized by content that can satisfy its needs. Since it falls within the theories that examine the influence of the media, the uses and gratifications theory pay special attention to the media audience and has been based on a number of assumptions, including: that the public seeks to achieve a specific goal from its exposure to the media, that the public is the one who chooses for himself what he prefers in terms of means and content. In addition, the media has become in a state of intense competition, linked to other sources of satisfaction, which can achieve these desires of the public. Some interpreted the motives that draw the public to the media as psychological and social motives. They are psychological and social problems in nature that the individual seeks to solve through the media and the messages it sends. This belief is refuted by the theories of influence with its varying levels: strong and limited, and its multiple time limits: long-term and short-term, such as the bullet theory or what is called (subcutaneous injection), the theory of direct influence, the theory of selective influence, the theory of cultural implantation, and the theory of prioritization. These theories believe that the recipient does not control the means of communication and the media and has no authority over them, but rather they are the ones that dictate their uses. And more than that, the means of communication and media are "the main force in shaping opinions and beliefs, changing lifestyles, and directing human behavior." (Hosni, Mohamed Nasr: 2015, p. 153). So, according to these theories, the means of communication and media have an undoubted influence on the audience. However, some believe that this influence is immediate, strong, similar, and unified for everyone, others see that it is selective and limited, and a third party believes that its strength is affected by other conditions that participate in influencing the individual and society (family, surroundings, school...), while others assume that the strength of the influence of the media is the result of the accumulation of weak influences of the means of communication and the media. It is certain that the debate about the uses of the means of communication and the media and about who controls the other, Is it the technology or the user? has not yet been resolved despite the huge amount of research and studies on the subject. This theoretical and cognitive discussion is also one of the reasons that prompted us to engage in a research effort that seeks to clarify the vision as much as possible about children's relationship with screens.

## 7 Manifestations and repercussions of communication and media invasion

All research and studies confirm that the means of communication, traditional and modern media, and social networking sites occupy a large part of the daily activity of individuals in all societies. A recent study conducted in 2015 by the Singaporean We Are Social agency confirmed that:

- There are 3,010 billion Internet users out of a total of 7,210 billion people, which is equivalent to 40% of the world's population (+21% compared to 2021).
- There are 2.078 billion active social networking sites, or 26% of the world's population (+12% compared to 2014).
- Those who have a Facebook account number 1,366 billion (+10% compared to 2021).
- There are 3.649 billion mobile phone users in the world (+5% compared to 2021).
- The average person spends 4 hours and 42 minutes watching TV and 4 hours and 25 minutes surfing the Internet

On the local level, according to similar studies, 65% of Saudis browse the intranet through mobile phones and smart devices, and 99% of the 19 million Saudis who use the Internet watch television for 20 hours a week.

Other statistics also showed that most companies and brands are heavily present on the Internet and social networking sites, especially LinkedIn, which brings together nearly 277 million subscribers of brands and companies.

As for educational services, "Saudi Telecom Company has provided, since 2012, networking services for the buildings and facilities of the Ministry of Education in various parts of the Kingdom, with schools in remote areas linked to internet service via satellite [7]."

All these statistics highlight the massive invasion of traditional and modern means of communication and media for all societies, all sectors, and the daily activities of individuals and groups: recreational, educational, and commercial.

This technological invasion and the spread of the culture of screens resulted in a radical change in the communication, media, and cultural behaviors of the recipient. Perhaps the largest group affected by all these communication and technical innovations is the category of children whose number, use and even addiction to them is increasing day by day. As “A Saudi child spends \$400 annually on buying video games and spends more than 6 hours a day playing on the net. 3,000 Saudi homes have a PlayStation, and 65% of the percentage of internet users are Saudis and 44% of Saudis browse YouTube daily. Saudi children are now mastering the “hacker” process to break the protection system on the Internet for any site that contains games. Which is because of the absence or difficulty of family control over them and the multiplicity of modern technology for mobile smart devices [10]”

On the other hand,” a study issued by the King Abdulaziz Center for World Culture affiliated to (Saudi Aramco) in 2014 indicated that 59% of Saudi children prefer watching television to reading. And that the first source of knowledge for children is the family, followed by school/kindergarten, television and other media, then the book, which comes in last place!!!

## 8 From “book culture” to “screen culture”:

It is not possible to understand and study the relationship of the family and its components with the means of communication and media, without analyzing the stages of development of cultural practices among individuals and in societies and the implications of innovations and communication and technological developments on these practices. The spread and development of the means of communication and media has led to the emergence of new behaviors, activities and practices that some thinkers and researchers have called the “screen culture.” The shift from “book culture” to “screen culture” created a gap in society, and the emergence of two basic classifications of communication and media users were:

First category: those who are able to understand and control modern means of communication and media.

In the second category: those who do not master the mechanisms and skills of using these means and controlling them, and they are mainly the poor and those who have not practiced their education for a long time, as well as those who use these means without supervision and without rationalization.

### 8.1: Characteristics of book culture:

\* *The cultural aspect:*

- Only one book can be read at the same time, and even if they are gathered in the same place, the readers remain (alone and isolated).
- Book culture encourages creativity and individual creativity (the book is most often written by one person).
- The book establishes a vertical relationship: the writer teaches the reader.
- The book encourages individual effort and individual activity.

\* *The cognitive side:* [10]

- The book encourages linear thinking (absence of interaction, at least instantaneous), as words, sentences, paragraphs, and meanings recur in a linear direction.
- The book relies on the narrative style of ideas.
- The book increases occasional memory.
- The book develops a focus on memorization, habituation and domestication.

\* *The psychological aspect:* [11]

- The book establishes the relative relationship (attributed to).
- At the level of identity, the book supports the ego (only one).
- The book encourages introversion and defensive attitudes.
- The book highlights the value and role of words in sculpting meanings, attitudes and values.

### 8.2 Characteristics of “screen culture”:

*\* The cultural aspect*

- Unlike a book, an individual can watch several screens at the same time.
- The screen enables the gathering of viewers of different ages, genders, cultures, and religions... and spread geographically on the same content (a football interview, a play, a movie tape...).
- Screens encourage co-production between several individuals or entities.
- Screens establish a horizontal relationship (sharing knowledge, information and skills).
- Screens facilitate the culture of thinking about many different things and topics, even for a limited period of time.

*The cognitive side:*

- Screens establish a culture of interactive circular thinking between several parties.
- The screens encourage thinking and evaluation by adopting a comparison between the contents.
- The screens value selective thinking and evaluating things through real-time analysis of the contents.
- Screens support education and creativity.
- The screens facilitate the coexistence of contradictions, opinions and different approvals of the same topic and the same issue.

*\* The psychological aspect: [11]*

- The screens establish an elitist relationship, in which the person in charge of communication chooses his partners in the communication process by addressing one category of audiences and recipients to the exclusion of another.
- The screens attribute identity to society and the environment, not to the ego (the audience of intellectuals - women, children...).
- The audience of the screens is multiple, not single (a group of people, a specific social group, the elite...).
- Screens encourage non-verbal forms by adopting images and representations.

After presenting the most important characteristics of “book culture” and “screen culture”, it should be noted that each of them has its pros and cons, as well as those who support and advocate for it, and those who denounce it and call to confront and avoid it.

Supporters of the “book culture” accuse screens in their various forms, traditional and modern, of causing a deterioration in the cognitive level of children, a decline in their academic results, an increase in their isolation, their lack of language skills, their tendency to material and physical violence, and even their depression and inability to communicate with others and integrate into society. All because of their excessive attachment to the imaginary and virtual personalities that they communicate with daily and for long hours through screens.

On the other hand, supporters of the “screen culture” see that the means of communication and media are a great human achievement that must be exploited as best as possible in all areas of life.

They call for the generalization of the Internet and electronic boards in all educational institutions, and they believe that modern software would help our children develop their intellectual abilities and facilitate their learning and proficiency in foreign languages. They even go on to say that modern technologies “will soon free us from all the troubles, obstacles and complications, and do our work for us.”

This conflict of attitudes and opinions produced an active intellectual and research movement about the role of communication and media in society and ways to rationalize their exploitation and use them positively, which made some suggest a compromise and call for the establishment of a dual culture that adopts traditional and modern together and combines paper and electronic.

No matter how different opinions and positions may be, it must be recognized that the progress we are currently witnessing in all fields and the effects of modern knowledge have led to a reduction in the gap between the child and science and technology in a way that requires a new education that is completely different from the education that is still prevalent in our societies.

In order for us to establish a new education that keeps pace with the developments you are experiencing and the transformations that our societies are witnessing, we must draw lessons and conclusions from the previous research,



## 9 Intellectual reading in media and child theories:

In order for us to understand what the “3-6-9-12 theory” carried in terms of cognitive and scientific additions, we must first review the opinion trends in the previous theories about the influence of the means of communication and media on the recipient, especially the child.

It should be noted first of all that the researchers, with their various affiliations and scientific positions, dealt with the effects of the means of communication and media in the beginning as a psychological phenomenon and not as a communication and media phenomenon, meaning that their research focused mainly on what the means of communication and media do to the recipient and not on the characteristics of these means and what the recipient can do with them.

The first studies, which were launched from the United States of America, with the support of the "US National Institute of International Health," paid attention in the first place to "what the means of communication and media do to the child." However, interest has shifted during recent decades to “what the child does with the means of communication and media.”

This fundamental shift in the directions of research on the effects of communication and media, led to the emergence of new theories whose results are in complete contradiction with the results of the first research and made "theories of the uses of communication and media" an important and effective element that cannot be dispensed with to understand these effects.

The many theories related to the effects of the means of communication and media on the recipient in general and the child in particular can be classified into three streams or intellectual trends: direct influence stream, selective influence stream, and indirect influence stream.

### Direct impact stream

This current includes several theories inspired mainly by experimental sciences and scientific models about behaviors that are called the “hypodermic injection or magic bullet” models. Founded by researcher Edward Thorndike at the beginning of the last century, this current considers that the child is a victim who is highly affected by the means of communication and the media and their contents. He is unable to address the images that are conveyed to him and that form his opinions and thoughts against him due to his loss of the ability to dismantle their symbols and their inner and real intentions.

Harold Laswell developed the “theory of direct influence” during World War I, based on Freud’s theory, which assumes that “man is driven by innate, unconscious and irrational forces that are partially controlled by the conscious mind, and as a result, human behavior is neither sane nor rational.”

This school of thought finds great support from anti-advertising associations and organizations, who compares the media and advertising content directed at children to someone who fires a bullet to hit a helpless child (victim). They believe that the influence of the means of communication and the media is a direct influence that enables the communicator to achieve his goals easily and quickly, helped by the negativity of the recipient (the child) who does not possess the mental, intellectual and cognitive capabilities that would help him understand it and address its negative repercussions.

The “Direct Impact” movement believes that “the effect of the media message on the recipient is similar to the effect of a gunshot, which, if aimed accurately, does not miss the target, regardless of its defenses.

It is also like a solution that is injected into a vein and reaches in a matter of moments all parts of the body through the blood circulation, and its effect is strong and cannot be avoided.

The American researcher Bandura believes that one of the most important dangers and repercussions of the communicative and media content is that it makes children re-do what they have seen and imitate some of the positions broadcast by the media, which explains why some of them resort to verbal and physical violence at times, without a convincing reason: (Recently, an 11-year-old boy shot and killed a fifteen-year-old teenager, in a replay of a clip he had seen on an American TV channel days before the incident.)

With the development of communication and media research, new theories emerged that made those interested in studying the effects of communication and media on children gradually abandon the idea of direct influence and establish a new intellectual current that they called: "the selective influence of communication and media."

### Selective Impact Stream:

Research on the relationship of the means of communication and the media to the recipient in general and the child in particular was affected by the selective theory that was founded by the Swiss researcher Jean Piaget in 1932 to respond

to the theories of direct influence. This theory is based on the idea that a person has mental comprehensions and intellectual skills that enable him to understand and comprehend the events that are going on around him and the various ideas and contents his mind receives, which makes him capable of either:

- Accepting and responding these communication and media ideas and contents after explaining, analyzing and understanding them if they are appropriate to his views, beliefs and positions.
- Or changing his behavior and beliefs to fit these thoughts and contents.

So, through the founding theories of the "selective influence" trend, socialization, absorptive energy, and the ability to adapt, have a major role in shaping the individual's relationship with the means of communication and media.

The individual is not exposed to all the messages and content broadcasted by the means of communication and the media, and he cannot absorb the huge amount of communication and media content that reaches him daily. Which makes him care about some of them and neglect the rest (selective exposure) and focus his perception only on some topics that he selectively chose to be exposed to (selective perception). So, he is the one who chooses what he wants to watch, hear, or read, and the contents do not impose on him, as the "direct influence" trend claims, just as the individual always seeks to focus on some of his perceptions to store them in his memory, so that he can retrieve them whenever he wants (selective recall), as the individual cannot remember all the events that passed him or the information that he obtained or received, which will determine the behaviors of individuals and their reactions. That is why, for example, advertisers insist on repeating the contents of their advertisements and flashes, republishing and broadcasting them several times until they are entrenched in the memory of the recipient and thus interact with them by taking the initiative to buy and acquire the promoted goods and trademarks and the advertised services that caught his attention, so he remembers them (selective behavior).

Contrary to what the "direct influence" trend of the means of communication and media acknowledges, the founders of the "selective influence" trend believe that the influence of the means of communication on the recipients, especially children, is limited and cannot be generalized to all recipients. As it differs from one individual to another according to personal capabilities, biological, social and cultural characteristics, genetic factors, and innate predispositions of the recipient.

Each recipient, according to the "selective influence" trend, is exposed to several different means of communication and media in their editorial line and media orientations. He receives diverse and even contradictory contents, and he cannot perceive them all, so each individual, as a filter does, selects what interests him and attracts his attention according to his preparations, abilities, circumstances, social characteristics, upbringing, upbringing, culture, needs, and special interests, then stores them, so he perceives them, remembers them, and adopts them to determine his interactions and behaviors towards them.

### **The indirect stream:**

The theories that furnish this current are the result of a group of studies and research carried out in the 1970s by a number of thinkers, led by the American sociologist Alihu Katz, who considers that it is not possible to understand the means of communication and the media without studying and understanding the masses and contents and their effects or possible repercussions.

Katz believes that the researchers who preceded him, especially Laserfeld, greatly exaggerated the "supposed effects" of the means of communication and the media on individuals. Which he sees as less in size and indirect, as some claim, and that it goes through stages and gates, and does not give its effect temporarily, but in the long term and indirectly, and that it differs from one individual to another and is greatly affected by social factors and relationships between individuals. That is, the effects of the means of communication and the media can be strong, but only when certain conditions are met and when they target certain groups. From this standpoint, the "indirect influence" trend came up with the concept of Opinion Leaders and their great and effective role in shaping public opinion and determining the size of the effects of the means of communication and the media on individuals, especially children.

So, the "indirect influence current" considers that the means of communication and media do not directly affect individuals, but rather support the beliefs, ideas and opinions that these individuals derive from their surroundings (family - school - society ....) and are firmly rooted in their minds. Thus, it does not introduce new and intrusive behaviors, but rather changes, confirms, and supports existing behaviors.

In order to communicate its contents and achieve its goals, the means of communication and the media rely on what it is agreed to call them "opinion leaders", who differ in quality and composition according to the content promoted.

If these contents are political ideas, senior officials and political celebrities play the role of "opinion leaders", but if the content is a commodity, brand or services, artists, actors and athletes are resorted to playing the role of "opinion leaders".

Likewise, if the contents are informative, educational and medical advice, then doctors and pharmacists will be selected. to be the opinion leaders in the campaign.

The increasing use of opinion leaders, especially in advertising and awareness campaigns, which mainly aim at persuasion and behavioral change, stems from an observation proven by studies. Which was: The recipient and the consumer interact positively with the media and advertising content if he trusts the opinion leader or leaders who are accredited to publish and broadcast these contents, who cannot fail him or deceive him.

Shiels points out that “opinion leaders, those people who are sought by others in seeking advice for (information), should be the link between their followers and decision-makers or idea-makers. As they play a double role in the flow of communication in two stages through the exposure of opinion leaders to the sources of communication, and then they transfer this information that they obtained from those sources to other citizens with whom they have positive relations” [13].

What can be concluded after reviewing the most important intellectual currents and cognitive theories that dealt with the means of communication and the media and the recipient of the lesson, is their agreement, despite some differences in the methods of handling, judgments and evaluations, that the means of communication and the media affect in one way or another (directly or indirectly or in stages...), the recipient in general and the child in particular, and that these effects concern all children without exception. These results are refuted by Serge Tisseron, the author of the 12-9-6-3 theory, who believes that what links the child, and the media, are not submissive or negative influences, but rather a parallel and interactive relationship. And that the child can control the means of communication and the media, and benefit from them by rationalizing his relationship with them and building them on sound, solid and balanced foundations and rules, and that the features and characteristics of this relationship differ according to the age of the recipient. Because Serge Tisseron, unlike those who preceded him in the field of researchers, considers that childhood is not an indivisible unit, but rather a group of stations, each station has its own specificity and advantages. And that it is wrong to study “the effects of the means of communication on children”, but it is necessary to study “the relationship of each category of children with the means of communication and the media” and ways to build them on sound and useful foundations by studying and understanding their features and mechanisms.

## 10 Theory 12-9-6-3

Cognitive psychology distinguishes between 4 age stages that an individual goes through during his childhood:

- Pre-three-year stage (cradle).
- A stage between 3 and 6 years (early childhood).
- A stage between 6 and 9 years (middle childhood).
- Post-12 years stage (puberty, adolescence).

Childhood, then, according to cognitive psychology, is not a single age stage with clear and unchanging characteristics, but rather a group of different age stations that accumulate and integrate to build the child's personality through the development of his knowledge and cognitive, linguistic and exploratory abilities, play and activity, the search for independence and emotional attachment to others, and the desire to change concepts and social values.

For his part, Jean Piaget also believes that the development of the child passes through four stages, namely: [14]

- The stage of motor intelligence (from 6 months to two years of age)
- Preparatory intelligence stage (between 2 and 7 years)
- Physical activity stage (from 7 years to 11 years)
- Formal operations stage (from 11 years to 15 years)

Despite some differences in defining the beginning and end of the age periods in which childhood is formed, Piaget agrees with Tisseron that the child's relationship with the means of communication and media differs according to the different stages of life he goes through, and that the culture of screens is formed in the child through stages. And that each age period has positives as well as negatives, and risks that must be dealt with wisely, in order to build a positive and useful media and communication culture, that enables the child to benefit from the means of communication and media and ward off their risks and limit their negative effects.

The following is a presentation of the pros and cons of screens at each age stage, and ways to rationalize the use of means of communication and media in each of them, as stated in Serge Tisseron's theory.

## 10. 1. Pre-three years:

### 10. 1. 1. Pros of screens:

The child, since his inception, begins to: develop his knowledge, discover his surroundings, and explore his personality through his daily activity, which can be supported by a positive use of screens, provided that four basic rules are respected.

- Using screens for short periods of maximum 10 minutes.
- Parental guidance while using the screens.
- Use appropriate software for this age.
- The purpose of use is to play only and nothing else.

### 10.1.2. Monitor risks:

Studies have shown that “a child under the age of 3 years does not benefit from non-interactive screens, and that language learning comes through oral and verbal dialogues and games and not from screens, which do not help at all in acquiring language skills [15]. Other studies [16] also showed that watching TV for long periods of time causes weight gain and obesity in children. And that “the negatives and dangers of screens for children accompany them until the age of ten, and that television programs, even suitable for them, drive away from what should be their main activity at this age: playing, interacting, touching, and getting used to sounds, people, places, and the general atmosphere around them” [17].

The child at the age of three needs to see himself playing the role of the main and active element, and not that passive, complacent object, as watching screens makes him all the time.

### 10.1.3. How do we benefit from screens?

After analyzing the pros and cons of using screens before the age of three, the researcher advises to rationalize dealing with them by children, which are:

- Screens are strictly prohibited in children's rooms.
- Rationalizing parents' consumption of screens, because they set an example for children of this age and imitate them in everything they do.
- Participation of children in their use of means of communication and media, and helping them to understand and comprehend the content they see, and to download and install software suitable for the age of children on the panels and electronic and media devices available to them.
- Encourage them to use electronic tablets for reading.
- Commitment to the balance between the use of screens and other means of education (photography – touch and assembly – group play – manual and intellectual activities...)

## 10. 2. The stage between 3 and 6 years

### 10.2.1. Pros of Monitors:

- Interactive screens mainly address two types of user intelligence:
- Sensory Intelligence: Intuitive Intelligence We do not understand in order to practice, rather we practice in order to understand.

Deductive intelligence: We try and try again so that we can avoid the mistakes we made and conclude how we should behave and how we should act. The interactive screens urge us to try and experiment in order to learn by adopting a method: observation, then hypothesis, then practice, then conclusion, then re-observation, then developing practice based on the results of re-observation.

This way of interacting with the environment is most appropriate for this age group, and the means of communication and media, especially electronic ones, will enrich them thanks to their interactive properties and features.

### 10.2.2. Screen Hazards:

Studies confirmed that most media content:

- Is not originally intended for those between the ages of 3 and 12, but the possibility of exposure to it is very strong, and the dangers of these contents (especially those broadcasts by TV channels) are that they are charged with feelings,

overflowing sensations, and exaggerated excitement that does not match their age.

- Children often cannot understand their meanings, especially its implicit and hidden intentions (such as advertisements that gloss over the image of goods and trademarks to facilitate their promotion and sale...).
- It causes a lack of reassurance in the child after turning off the screen (some violent content, for example, turns into a nightmare when sleeping...).
- Addiction to some of them, especially electronic games, leads to isolation and detachment from the surroundings and living in a virtual world that has nothing to do with reality.
- It contributes to the spread of physical and verbal violence, which may turn the child into a violent being who does not understand the language of dialogue and peaceful dealing with others, and quickly resorting to violence in his relationship with his surroundings.

### ***10.2.3. How do we deal with screens between the ages of 3 and 6?***

The proponent of the 12-9-6-3 theory advises:

- Respecting the signs accompanying television programs and electronic games, which clearly indicate the age groups that are allowed to view these contents or use these games.
- Preferring group electronic games that allow participation, interaction, exchange of ideas and opinions, and building fruitful relationships among the participants, in contrast to individual games that establish isolation and cut off from others.
- Preventing media and electronic devices in the rooms so that the child is not alone in using them and sailing alone on the net without supervision.
- Ensuring the establishment of a relationship of mutual respect between children and parents based on cautious trust, that would facilitate the acceptance of decisions to prevent and rationalize uses.
- Make sure to download and install the appropriate and suitable software only on electronic boards and devices.

### ***10.3. A stage between 9 and 12 years old***

#### ***10.3.1: Pros of screens:***

We live in the time of mobile and smart phones, electronic games and social networking sites, which have effectively contributed to paving the way for instant and rapid communication from any part of the world between individuals and groups, especially at this age, without linguistic or geographical barriers or obstacles. This technical and technological development has also made the world a small village and brought the physically, intellectually and geographically distant people closer to each other and resulted in very fruitful exchanges, cooperation and partnership on all levels: economic, social and cultural.

#### ***10.3.2. Disadvantages of screens:***

The development of the means of communication and the media has exacerbated the phenomenon of violence in the contents broadcasted by these means, especially those directed at children. Group games, chat rooms and discussion groups that are formed on social networking sites have contributed to the dissemination of these contents, which are broadcast by screens connected to each other and available to all groups at the cheapest prices and the easiest procedures.

#### ***10.3.3. How do we deal with screens between the ages of 9 and 12?***

Children usually get mobile phones and electronic devices for the first time when they reach the age of nine, and to rationalize their use, Serge Tisseron puts forward a set of conditions, namely:

- Preventing the use of these devices at the breakfast or lunch table so as not to interrupt communication between family members.
- Preventing these devices in children's rooms so as not to distract them from reviewing their lessons and completing their homework and so that their sleep time is not delayed because they are busy with it.
- Parents' commitment to positive behaviors in their use of these methods in order to set an example for their children.
- Reducing electronic games as much as possible, especially the violent ones, and preventing games that are not appropriate for their age.



- Determine a maximum time period for using devices and screens.
- Accompanying children when they use the devices and discussing the contents that they broadcast with them so that they understand their meanings and the messages they contain, both explicit and hidden.
- Children usually begin at this age to search for independence in opinions, attitudes, and behaviors, and to try to prove themselves.

Therefore, it is pivotal to guide them to balance their attitudes and behaviors, moderate their opinions, and avoid all unilateral, selfish and extremist thinking, which would make them avoid media and communication contents that carry or call for negative, extremist and violent behaviors.

Recalling what is permitted and what is punishable in the process of navigating the net, especially the three basic rules for this communication activity:

- Everything that is published is subject to applicable laws and regulations.
- What is published and broadcast on the Internet cannot be removed or erased later.
- Not everything that is published on the Internet is correct and certain. Many are false and fabricated contents.

#### **10.4. The stage after the age of 12:**

##### **10.4.1. Pros of screens:**

Collective electronic games facilitate the process of communication, exchange and integration between individuals and groups, instill in the participants a spirit of initiative, competition and positive challenge, and facilitate effective social relations. Studies have shown that "interactive electronic games inculcate in their users the values of solidarity, partnership, exchange and synergy.

And this positively affects their daily behavior." [18]. The age of over 12 years is also the age of interest and inclination to be active on social networking sites, chat rooms, and electronic discussions. Engaging in these communication activities contributes to the development of intellectual energies and innovative skills in children of this age. It facilitates their integration into society and their communication with those around them. Social networking sites also encourage expressing opinions and attitudes towards people, events and facts, and perhaps expressing what the individual is unable to express directly to others.

Social networking sites also enable the sharing of experiences, opinions, and ideas among those who have the same tendencies, beliefs, and orientations, and who are difficult to meet outside these sites, which would facilitate the building of exchange, cooperation, and partnership relationships between individuals and groups that are geographically distant and belong to different societies and environments.

##### **10.4.2. Disadvantages of screens:**

In addition to the violent contents that have become regularly broadcasted by websites, it is feared that adolescents will become addicted to surfing the net and electronic games regularly and for long hours at the expense of traditional recreational activities. Several studies have shown that adolescents who are addicted to electronic games often complain of psychological disorders, low or even no self-confidence, and feel a state of tension that makes them tend to isolate and withdraw, fear of contact with others, and fear of their "aggressiveness".

As for the dangers of social networking sites, they lie in the constant presence of some adolescents on these sites and their dissemination of details of their lives to virtual "friends", which often makes them vulnerable to blackmail and distortion or attempts by criminal and extremist parties to lure them.

##### **10.4.3. How to deal with screens at the age of over 12 years?**

- Adolescents over the age of 12 can browse the net, chat on social networking sites, and use all types of screens without fear after having mastered the characteristics, disadvantages, and advantages of modern means of communication, and what they hide and what they announce, but provided that:
- Determine the times and duration of using the internet and screens.
- Rationalization of uses by parents by giving advice and monitoring their children and blocking websites that violate good morals and spread extremist ideas that pose a danger to adolescents.
- Parents should not be stingy with advice to their children, because contrary to what they show of resentment and annoyance, children usually rejoice when their parents advise them and feel that they have a connection with them.

- Parents must discuss the contents that are broadcast and disseminated by the means of communication and media with their children, and explain their negatives and positives, and ways to benefit from what is useful and exploit them in the best way to support their culture, abilities and knowledge.
- It is preferable to avoid prevention, violence and authoritarianism, and to form a constructive discussion, interpretation and persuasion, because authoritarian prevention makes the child insist on discovering what was prevented from him in various ways to know the reasons for prevention, which makes him vulnerable to deception and fallacies.
- It is not recommended to be on social media before the age of 12, due to the lack of maturity of children at this age.
- It is advised to avoid secret monitoring of children's activities so that they do not feel, if they become aware of that, that parents lack confidence in their behavior and prefer advice and constructive discussions.
- Encouraging children to play group games on the Internet, because it would facilitate their social integration, unlike individual games that usually lead to introversion, isolation, and the inability to communicate and interact positively with others.

## 11 Conclusion

The importance of the 3- 6- 9- 12 theorem lies in the fact that it:

- It does not address the relationship of childhood with the means of communication and media in absolute terms, but rather deals with it through research in each of its four stages individually.
- Contrary to previous theories, theory 3- 6- 9- 12 does not talk about “the effects of the means of communication and media on the child”, but rather about the “relationship” of the child to the means of communication and the media.
- This theory gives us practical, tangible and very useful solutions to rationalize the uses and “relationship” of our children with traditional and modern means of communication and media.

Through this detailed presentation of the 3-6-9-12 theory, which was established in 2007 by the French researcher Serge Tisseron, it is clear that rationalizing the use of modern means of communication and media, makes the child able to build a positive interactive relationship with his virtual surroundings according to his age, tendencies, and expectations, and supports his knowledge increase and his intellectual and creative abilities. Provided that you do not overuse these means and avoid browsing on sites that broadcast immoral content and extremist and hostile ideas that urge violence, and provided that you do not prefer group electronic games that establish positive and fruitful relationships with selective individuals and groups. And to avoid individual games that lead to isolation and introversion, and develop in children selfish feelings and hostile attitudes that make it difficult for him to integrate into his surroundings and affect the proper functioning of his social relations. In order for us to establish these positive uses and behaviors, it is inevitable that our sons and daughters will be empowered with the keys and ways to build a meaningful and interactive relationship with modern and traditional means of communication and media, by spreading, consolidating and supporting education on these means in all stages of childhood.

## Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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