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Children Dominated by Screens

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Abstract: The article aims to provide the fact that our online social interactions have intensified and digital technology has established itself as the essential element for the survival of our species. As we can see, the line between learning time and screen time has become very blurred, reaching more than seven hours of connection per day on average. The article highlights in a unique way that more and more children have been caught up and have fallen into a destructive, stupefying and futile addiction, which can lead to depression. In this sense, to better use digital communication tools and to no longer let yourself be consumed by them, you need to understand how to use digital. The history of technologies allows us to understand the new modalities that result from them and the civilizational, anthropological and political disorders that now affect our societies. The purpose of my article is to show how new technologies influence children's mental health, the education, the role of parents, the respect for private life, how from consumers they become products. The main methods used in the study are observation and case study. The article is important and valuable for parents, children, but also for scientists, researchers in social sciences and more, because it provides a clear picture of the changes that are taking place globally and a possible perspective on the future.

Keywords: education; technology; society; health; self-image

1. Introduction

In the digital age, this feeling of inadequacy is even more present. We must surpass ourselves to always be aware of what is happening in the world. The syndrome of failure anxiety, the fear of missing something, the famous (FOMO) has become central. These existential anxieties feed on each other and feed on our fear of social death. This social anxiety is so strong that it pushes us to become one with our digital devices, smartphones in mind, to be sure not to miss out on life and not to miss our own. When you are a child or adolescent, this syndrome takes on extraordinary proportions; to the point of having in some cases dramatic consequences on their morale and mental health.

This addiction syndrome is difficult to manage and difficult to tame. For the child, this step back is not possible and even less so when he is just a baby. From birth to age 22, the brain is under construction. Throughout this period, our period, our brain matter, in full maturation, is very sensitive to its environment. Exposure to screens too early can lead to problems with the child's development and the different phases of learning. "The omnipresence of digital tools, motivated by good intentions: access to knowledge, a means of staying in constant contact with your child, is causing young people to enter

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the digital world earlier and earlier without protection, at the age when we We are supposed to give them advice on life, behavior in society, respect for others, at school” (Besse, 2023).

The evolution of technologies, added to the evolution of media uses, has completely revolutionized our audiovisual and digital consumption. Television on tablets, on mobiles, on multiscreens, social networks, groups in instant messaging, screens have become mobile, to accompany everywhere the nomadic man that we were supposed to become.

Current studies tend to demonstrate that the damage caused by early use of screens has an impact on the cognitive level. Children exposed very early show signs of delay when learning to read. They also show attention problems. We lack perspective even though we have more data than ten years ago.

Recommendations relating to screen time and content watched by children and adolescents are often correlated with prescriptions for sleep, physical activity, and a balanced diet, in particular to cope with the sedentary lifestyle of the most youth. Physical inactivity is a contributing factor to obesity.

2. The Mental Health of our Children

The health crisis and with-it confinement are often singled out as being the main culprits for the stress, anxiety and depression experienced by young people. Making screens and social networks responsible for the loneliness of young people would have been too simplistic. Psychologists have sought data on many potentially impactful global trends, including declining family size, changes in GDP, rising income inequality, and rising unemployment, as well as increased access to smartphones and more hours of Internet.

Media expert Sherry Turkle is right to want «to reclaim the conversation». She looked at the conversation avoidance that undermines our relationships, our creativity and our productivity. “The return to favor of face-to-face conversation could help us regain lost ground”, she says (Turkle, 2016).

The simple connection allows us many loopholes and it becomes extremely difficult to attract the attention of our children, our colleagues, our friends, unless we challenge them online and provided we only share opinions with which our connections, our subscribers will agree; which avoids real conflicts and public exposure. Most of the time, young people who suffer from loneliness think that technology could help them solve this problem. The prevalence of depression among adolescents and young adults has increased in recent years.

The smartphone has reconfigured human interaction. As their use has become more widespread, they have transformed peer relationships, family relationships and the way people experience daily life around the world, including for those who do not own a phone or do not have an account on social networks. It is more difficult to initiate an informal conversation, in playgrounds, in the canteen, in the park, than via instant messaging. It’s harder to have a deep conversation when every part is interrupted by notifications and vibrations.

Today, children and adolescents, whose brains have not matured, are exposed to the power of processors that have never been more powerful in the history of technology. They are exposed to the power of notifications, blue light, the attractiveness of bright colors, incessant vibrations, and very invasive applications. This constant pressure leads to many disorders including depression and anxiety, which are sometimes fatal. Loneliness is a central trigger in the deterioration of young people’s mental health. Contrary to the initial premise, the Internet has not always brought us closer to each other. Technology has also helped to isolate us. Teenagers are under constant pressure. Previously everyone lived their own life, we sometimes exchanged photos, but ultimately the means of social comparison were limited.

The adolescent is seen as someone who should not be approached, which is also why we have so much difficulty perceiving and understanding his discomfort. Despite their good mastery of digital communication tools, Generation Z is not very comfortable with them. But it is also a more fragile generation, more anxious and more prone to depression. A generation less inclined to take risks, less inclined to socialize in real life and to get physically involved. This is a real generational change that we should be more attentive to.

3. Self-Image

Previously, to be happy, you had to live hidden. We had to show modesty and discretion so that our society could be harmonious. What was private, intimate, remained so. But today everything is reversed. Modesty and discretion are slowly dying out. Everything must be shown, shared, commented on, loved, down to its strictest privacy.

TikTok, a social network owned by the Chinese giant ByteDance, is the application that today raises the most questions regarding its use by minors. With more than two billion monthly active users, it is popular with young people from primary school: 47% of users are between 9 and 29 years old. Worldwide, children aged 4 to 15 spend 75 to 100 minutes a day watching videos on this platform.

On TikTok, you just have to log in to receive continuous content, whereas on other social networks, you have to make a little effort to access what is shared there. The uninterrupted stream of videos arrives instantly. TikTok has become the most influential network. Maker of hits and stars, the algorithm has become decisive in the careers of certain artists. TikTok is now the search engine favored by young people, ahead of YouTube and Google. 30% of Gen Z social media users prefer to use TikTok for consumer product research. Many parents give in to the temptation of the cell phone earlier and earlier, 9 years for the first smartphone, citing the wish that their child is not excluded.

It's understandable to want to know where your child is when they become independent, start going to school or activities on their own. This permanent connection is reassuring. This is understandable when we have a demanding job which in no way allows us to be at 4:30 p.m. after school and we are not supported by a nanny, a parent, to be able to stay in contact with his child. These first separations are compensated by the acquisition of a smartphone which makes it possible to maintain a permanent link powered by SMS or calls, to which the child must respond as quickly as possible so as not to distress the parents.

Super socialization leads to withdrawal and negative self-perception. We begin to hate what we are because we cannot satisfy our desires. So we blame ourselves for not occupying the place that we imagine to be ours on the Web and in society, demanding our fifteen minutes of fame, a community of subscribers or followers as large as possible, We then feel sorry for ourselves, holding those close to us guilty for not having helped us occupy this place which would be due to us but which we would not have been able to take.

Technological tools were not designed for children and adolescents; consequently, uncontrolled use cannot be beneficial to them. Social networks consumed to the extreme penetrate deep into the child's brain to the point of modifying their self-esteem and identity.

4. The Brain of Young People in the Digital Age

The brain's adventure begins on the twenty-eighth day of pregnancy, with the appearance of the first nerve cells. To reach adult maturity, the brain must set up an ultra-sophisticated network of connections between neurons. The newborn's brain already has one hundred billion neurons and this number will no longer increase.

Measuring the effect of screens on children's brains requires that researchers follow a representative group of children over a long period of time, several years, or even several decades. Michel Desmurget, however, qualifies when asked whether overexposed children would lose intelligence quotient (IQ) points in the event of overexposure to screens, because the question must be addressed without forgetting to take into account the historical context. "Today we observe that the systematic increase in intelligence from one generation to the next is no longer true" (Desmurget, 2022).

Studies have shown that children who watch the most television are those who have the fewest words in their vocabulary. The question of the directionality of the correlation must be taken into consideration. Exposure to screens therefore has an impact on brain development and verbal IQ. Researchers are also wondering about the effects on brain structure. Before answering it, you should know that all activities have an impact on the brain. The latter is reconfigured according to activities and the environment.

Television can be a very powerful and effective learning tool for children if used wisely. Several cognitive theories have been proposed to explain the developmental changes accompanying the onset of learning from television, but the underlying neural mechanism is unclear.

Learning to read is extremely difficult for around 10% of children, they are affected by a neurodevelopmental disorder called dyslexia. The neurocognitive causes of dyslexia are still highly debated. Remediation of this disorder is far from complete and current treatments require significant resources. Researchers show that twelve hours of action video games significantly improve the reading skills of dyslexic children. They tested the reading, phonological and attentional skills of two matched groups of children with dyslexia before and after playing action or non-action video games for nine 80-minute sessions per day. They were able to find that only action video games improved children's reading speed, without any accuracy cost, more than a year of spontaneous reading development and more than or equal to very demanding traditional reading treatments. Attention skills also improved during action video game training. Action video games have been shown to effectively improve the attention skills of these children. Their results showed that this improvement can translate directly into better reading skills, offering a new, quick and fun remediation for dyslexia that has theoretical relevance for unveiling the causal role of attention in reading acquisition.

Studies have shown that our brain is genetically stable and has not undergone any modification since the increase in constant digital bombardment that we subject it to, but we must remain vigilant. Genetic stability does not mean that the effects are not scientifically observed on memory, concentration, sleep, well-being and on our mental health.

5. From Consumer to Product

Data collection has become sophisticated. It is only possible if the user spends as much time as possible in front of their screen, browsing the applications on their phone, on video platforms and on social networks. News feeds are the harmonious siren songs, because they are an eternal promise of happiness and novelty. This is how they are designed by increasingly complex algorithms, which are constantly being improved thanks to machine learning. The aim of infinite scrolling is to allow the browser to no longer have to click on the next page button to continue its digital wandering. A saving of valuable time

for the user and a saving of valuable time spent on the platform, because it limits the risk of disconnection.

The more time we spend online, the more the algorithm will be able to show us information, photos, videos, on themes likely to hold our attention and make us react. Our reactions are indicative of our personality and a great resource for businesses to leverage. So, the algorithms begin to feed the news feed of our social networks with as much information as possible with which we are likely to interact. From a screen time perspective, polarization is very effective in keeping people around as long as possible. Teachers are more and more often challenged by their pupils or students, when it is not the parents of pupils whose interventions are more and more frequent.

Pupils or students go so far as to contest established, scientifically or historically recognized facts. Their arguments often come from alternative sites whose information is dubious, but which benefit from incredible publicity and significant communities thanks to algorithms. How to teach calmly in these conditions? Media, information and digital citizenship education is one answer.

People reacted to fake news more with surprise and disgust, while hard facts produced responses characterized by sadness, anticipation and confidence. It is important to think about ways to limit the spread of misinformation. Politicians, representatives of organizations and unions now use social networks and video platforms to speak directly to their voters and potential voters and more generally to make themselves known or heard.

Worse than the control of humanity by machines, shouldn't we fear living in a world where the notion of truth has disappeared? A world where no one would want to believe it, a world where the truth would have been replaced by opinion, pushing the principle of freedom of expression to the extreme. A world where everyone would be convinced that the government is lying to them, that elected officials are lying to them, that researchers are lying to them, that teachers are lying to them.

The new technology industry has signed the death warrant of dialectic, has manufactured the tools to no longer reflect and to destabilize the foundations of our ability to debate and thereby the foundations of our societies. The impossible truth in politics, in the field of science, but also in the field of education makes any dialogue impossible. Creating society therefore implies returning to a common reality.

AI is far from controlling everything, but it directs certain significant parts of our lives. The proof being the thousands of servers that occupy company basements; connected to each other thanks to sophisticated programs, they send each other information continuously. According to American mathematician and data scientist Cathy O'Neil, algorithms are opinions in the form of code: "Our own values and desires influence our choices, as soon as we choose to collect this or that data to answer the questions we ask. Algorithms are opinions rooted in mathematics" (O'Neil, 2016).

Contrary to another popular idea, algorithms are not objective. They are optimized to meet a certain definition of business success. They are developed with the aim of supporting the development of the company for which they are designed. Thanks to machine learning, algorithms are refined and become more and more efficient. Technology exposes the worst in our human nature, diverting our attention from real concerns and issues. The technology was designed this way. It is the man who, for mercantile purposes, gave him this power. Addiction, polarization, indignation, populism, radicalization, vanity, self-worship, all our bad inclinations are exploited by the algorithms of social media platforms.

6. Generational Conflicts

Generational conflicts, cultural conflicts, conflicts of experiences inevitably mark differences and organize generational belonging. Being a parent has always been difficult. The uneasiness of adults regarding children and adolescents is today amplified by the evolution of our society, the family and the predominance of technologies in our daily lives.

Despite what they may say, children, but also adolescents, need parents to protect them from dangers, need a tutelary figure to limit them and guide them on a path favorable to them, particularly when it's about digital. Screens are omnipresent, including among children and adolescents. 89% of children have access to a smartphone or tablet when they are between 7 and 12 years old, most of the time this smartphone was purchased or passed on by their parents. Access to a fast connection and the latest generation of digital tools is becoming commonplace despite the high price of these devices.

Children have an immense capacity for observation and analysis. The answers we provide to their questions condition their appreciation of the world. As a result, we, parents become the first example to follow, the reference for their children, their first influencers. This is a heavy responsibility from which we cannot free ourselves and this is why we must avoid finding ourselves in a situation of contradiction.

In total, we spend more than 6 hours on social networks. We love watching series and films on streaming platforms. We can spend up to 6 hours and 18 minutes there per week. We spend more than 4 hours on YouTube and watching online videos. We must adapt the education we provide to our children. Digital education has become essential. We must be more involved from a very young age with our children, this will prevent discussions around these subjects from turning into conflicts when the children are older. Parents need to take a more active role in limiting the use of digital devices by their children who spend around four hours a day on them.

Parents' need for security makes it difficult for our children to disconnect, since we require them to be reachable at all times. Everything starts from a good intention, but this need for security will accentuate their dependence on digital technology. Exchanging and sharing personal information with an online video game partner can be dangerous, especially when the pseudonymous player pretends to be a child but turns out to be an adult. An adult who may have pedophilic inclinations and one day end up asking your child on a date in real life. Of the number of parents who have over-equipped their offspring to be better connected to them, few understand that they unwittingly expose them to much more serious dangers, because they do not monitor at all what is happening on the Internet; having their child in their sights is enough to reassure them.

Schools and teachers have entered the digital age by force. In a disparate way, depending on the means of the schools and the level of appetite and knowledge of the teachers. Some schools include the tablet in learning from a certain level for reasons of digitizing documents and reducing school bags.

7. Media Education

Media and information education should become a subject in its own right, because it gives children the ability to better understand the media and information environment, with a critical sense. It gives keys to the different aspects of the media and their content. It also provides keys to communication. Understand freedom of expression, protect yourself from conspiracy theories, not participate in disinformation, cyberharassment, develop online citizenship, among others.

Avoid screens the day before school, in the morning before going to school, to allow children and adolescents to easily concentrate when classes begin. Prohibiting screens during meals and at bedtime,

respecting the necessary sleep time for children are simple rules for children to understand. The rule of four steps for better growth by psychologist Sabine Duflo is easy to remember: not in the morning, not during meals, not before bed, not in the child's bedroom.

Social connections cannot be prioritized over healthy development and mental health. The place occupied by the smartphone in our lives is unprecedented for a digital device, which is why we must be vigilant at all times. Dialogue makes it possible to adapt this supervision taking into account the maturity of your child, to take an interest in and share certain practices, as we do with television by watching certain programs as a family, by setting rules and spending time with your child, offspring a pact of trust. Wanting to protect your child also means respecting their privacy, protecting their personal data and teaching them how to protect themselves.

8. Conclusion

Today, digital technology and more particularly artificial intelligence play a determining role in our lives. There are billions of us users and as a result, this technology has had such an impact that it has profoundly transformed our societies. AI should be an extension of individual human will and, in the spirit of freedom, as widely and equitably distributed as possible. Ethics can allow us to find the right answers to our questions when developing new technologies.

Understanding the digital world in which our children evolve, without us providing them with any protection, forces us to question the society of tomorrow, the one we will leave as a legacy. The society of tomorrow is taking shape today. The children of today will be the adults of tomorrow. We are already experiencing the effects of cognitive, societal and medical disruptions, consequences of the irrational way in which we use screens. We are collectively responsible for these disorders.

The geopolitical dimension must also be taken into account. That our children are only influenced by foreign platforms should also concern us. The notion of cultural sovereignty should not leave us indifferent. It is not about rancid protectionism or xenophobia, but about allowing our children to open up to several trends. We know that for many, the implosion of the current system would be a catastrophe, economic, but also narcissistic. Many people do everything to prevent this from happening. Imagine life without likes! Calls for boycotts often seem like huge cries of love towards the platforms in question, hoping that they will change and not disappear. This is what journalists and politicians express regarding Twitter, influencers on Instagram or TikTok, etc.

Self-regulation and regulation cannot do everything. The solution also lies in our ability to change, to move the lines of the model that is ours today. We must completely rethink our way of understanding digital technology, and above all the way we envision it for our children and for future generations. The survival of our species and our planet depends on it.

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