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I pledge my honor that I have abided by the Stevens honor system.

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The Smartphone Addiction: How Smartphones Affect Our Lives

Smartphones have become a part of our daily lives; they can detail our day-to-day schedule, let us communicate with people across great distances, and even interact with possibly millions of people around the world, all at once. We are more connected to the world than ever, yet we seem to be becoming less connected to the people closest to us. There are many concerns regarding smartphone and other screen based media, including the possibility of social or emotional developmental delays, the deterioration of the written language, and whether or not children are mature enough to handle them. There are also health concerns, from eye damage to lack of physical activity. However, even with all of these concerns, research has shown that smartphones, although seem to be a potential addiction, are just becoming integrated into our daily lives. The rapid technological advancements have simply paved the way for a new social structure.

Social skills are an extremely important part of how we live our lives, and are learned from a very young age; it is believed that children start learning social behaviors as newborns. Having positive relationships with your peers is essential to healthy development. The question to consider now is whether or not electronic devices such as smartphones and tablets are harming social development in children. Studies have shown that electronic use in general will not harm social development in children. One correlational study interviewed and polled teachers and parents of several kindergarten children, aged 5-6. Data collected include demographics such as age, gender, education levels of parents, and number of siblings, technological exposure and availability, an evaluation of social skills such as self-control, coping with peer pressure, and anger management, and an evaluation of social preferences (Ogelman 171-172). In this study, parents filled out the forms for demographics and technology usage, teachers evaluated the children’s social skills, and researchers determined social preferences. The study found that there is no significant correlation, positive or negative, between using any screen based media over the weekend, and social skill development (Ogelman 175). So it seems that simply using screen technology in a limited fashion will not harm development of social skills in children. However, it was also found that unnecessary exposure to screen based media during the week has a significant negative correlation with social skill development. Social skills decreased as unnecessary technology usage, such as smartphones, tablets, and television, increased.

Along with these findings, researchers evaluated if there were any predictive effects of technology usage. What was found was that while there were no predictive effects of technology usage on social skills, there is a predictive effect on the impact someone will have socially, as well as that person’s social preferences (Ogelman 178). Smartphones, tablets, and laptops do not have any positive or negative effects on social development, which is good news. With the rise in technological developments making it easier and more readily available to access them, it is comforting to know that a limited amount of use will not affect how children develop socially; however, this is a correlational study, so it cannot imply any causation with regards to unnecessary usage. There are pitfalls with every study, and in this case, the small sample size cannot easily generalize the results. Parents also may not have been objective in determining the technology usage and availability at home. However, this does not negate the results, and one cannot argue with the fact that technology has shown very few implications with social skill development. These minimal implications signify that children today are the start of a technologically advanced generation, which is paving the way for a shift in the way we interact with smartphones and society.

Another big question with the rise of smartphones is what impacts they have, if any, on academic performance. There have been many studies over recent years looking at any implications smartphones have on academic performance. One study, a cross of sociology and computational social sciences, specifically considered social media usage with regards to academic performance. The parameters of the study included social media platforms and outlets, academic performance in college, and time diaries, an application that collects data from your phone based on activity and app usage (Giunchiglia 178-179). Participants recorded socio-demographic data, were required to attend class during the project, and were required to have and Android cell phone. This project lasted for two weeks, and while that was a short period of time for a computational social science study, it was a longer period of time for a sociological study. From the activity logs of the participants, there were a total of 957 different apps used, which seems rather large; however, thirty-two of those apps were classified as social media apps, while only eleven of them were classified as a social network. The data collected included the running time of each application and the screen status information, which allowed researchers to account for any run time where the application was running in the background. The academic performance was measured based on the grade point average of the participants, and the number of credits taken and completed, which was provided by the university at which the study took place (University of Trento - Italy). There were many aspects of the data examined, including the distribution of cell phone usage while studying, the average amount of time and frequency of usage, and what implications it has to academics.

For the distribution of cell phone usage, it was observed that there is a mostly uniform distribution among students (Giunchiglia 181). Students will use social media while studying regardless of the time. There were spikes in usage late at night, between 12AM and 3AM, as well as early in the morning, between 7AM and 9AM. As could be expected, the hours of 9AM to 6PM on the weekdays showed less usage, likely as work or classes were held. Compared to attending classes, students were also found to be more likely to be checking social media applications more frequently and for longer periods of time while studying. One interesting finding stated that if a student was in class when they checked social media, they were more likely to stay on their cell phones during the remainder of class. On average, social networking sites, such as Facebook, held the highest duration of time, while messaging apps, such as GroupMe, were checked most frequently, however, with more time in between. There were many correlations associated with this study, the most profound being that, while studying, the longer students avoid their smartphones and social media outlets, the better their academic performance. There was a significant negative correlation between social media usage and academic performance. The findings of the study also demonstrated that there are no significant differences between men and women regarding any correlations between social media and academic performance. In other words, men and women respond the same when exposed to social media while studying, however there is a difference regarding majors. One of the most interesting findings of this study is that science students are more susceptible to this negative correlation than their humanities student counterparts. While it is still unknown as to why this occurs, as a whole, the study has shown that students at high risk of being addicted to their smartphones are less likely to have a “distinctive academic performance” (Giunchiglia 184). As smartphones are becoming more a part of our society, we need to evaluate the way we interact with them, and discover a way to coexist without the constant distractions.

A major concern people have about children having smartphones is whether or not they are becoming addicted to them. There are two views in regards to children with smartphones; there is the view of the smartphone generation, and the view of the addicted child. The smartphone generation considers children as “media-savvy” individuals, who are almost naturally skilled at using digital and screen-based devices (Vincent, Haddon 122). The Net Children Go Mobile Project is a study that surveyed children in Europe about their smartphone habits and how the felt about screen based media. The teenagers who took part in the study described themselves as always having the phone in their hand, as if their generation was meant to grow up engaging in the culture of smartphones (Vincent, Haddon 123). Nearly all smartphone-savvy teenagers and young adults have had the experience of teaching their parents or grandparents how to use a smartphone, tablet, or laptop. Smartphones are becoming a natural extension of how children communicate and socialize. With smartphones, children and teenagers are easily able to be available to their friends and family at the push of a button.

On the other hand, being readily available can also be construed as addiction. This idea of smartphone addiction is actually not a new phenomenon. The addicted child is stemming from a “mobile addiction;” when phones first went mobile, and when the first cell phones were released, people were viewed as addicted to their phones. The idea of the addicted child is not something only adults see in children; both children and teenagers can see that some of their peers are “addicted” to their phones. When asked, they explained this smartphone addiction as using their smartphone every day, that you “sort of need it,” (Vincent, Haddon 126). Children and teens feel the need to have “‘full-time’ access to peers” (Vincent, Haddon 127). Read receipts, notifications when your friends are online, and peer pressure, stress and anxiety take hold. Teenagers have a fear of being “out of the loop;” in the age of knowing everything about your friends’ lives, and having your life being broadcast online, the last thing anyone wants is to be disconnected from their peers, even adults.  This requires you to be completely accessible, and socially accepted at all times. It is this belief that leads to the perpetuation of the perspective of a youth addicted to their phones and to being online. This belief starts young; children experience a bias blind spot, where they notice the “addiction” in others, but fail to see it in themselves. Boys and teenagers believe that girls and children are more addicted to smartphones and screen based media, while girls and children believe boys and teenagers are more addicted (Vincent, Haddon 124). The main problem with this idea is that both children and adults are continuing to adhere to “language and frame of ‘internet addiction,’” which is not helping to dissipate this growing idea that everyone is addicted to their phone.

It is extremely common to see children and teens in groups where no one is communicating directly; each of them is staring at their phone rather than having direct conversations. The Net Children Go Mobile Project also concentrated on how children and teens can cope with the overload of communication. Many children and teenagers struggle with being “always on” and always available to their peers. While those with a smartphone do not struggle as much with this, it is very difficult for those who do not have a constant flow of access to the Internet. Smartphones are giving teenagers the ability to “strengthen friendship ties… through mobile devices” (Vincent, Haddon 111). With the ability to have constant availability, many children and teenagers feel obligated to do so. They feel as if they no longer have a choice but to be easily accessible, they have “[lost] their freedom” (Vincent, Haddon 111). With this influx of messages and communication, many people are susceptible to communication overload. Attempting to keep up with these messages can lead to problems with anxiety, feeling as though something will be missed, and feeling obligated to be available any time of day, so as to read the messages as they come in, and not miss anything.

However, children and teenagers need to learn when it is and is not appropriate to use their phones, and how to deal with situations that are not appropriate. There are some instances where teenagers understand that their smartphone is inappropriate, such as class, studying, and sports practice, as it can provide distractions to what they are doing. The simplest solution to these occasions is to keep notification out of sight, either by turning the smartphone off, or into do not disturb mode. Another solution would be to prioritize messages (Vincent, Haddon 115). This would require you to be more focused and mature, and be better able to manage communications; you would need to be able to separate yourself from distractions, which can be very difficult, depending on the person, and the situation. In this study, the data concluded that older children were better able to disconnect from the idea of permanent availability; they became less dependent on their smartphones, and did not feel they were missing out by being offline (Vincent, Haddon 118). These two studies can help explain why it seems children are attached to their smartphones, and that, as one gets older, it is easier to cope with the information and communication overload that many experience as unaccustomed smartphone users. Those in the smartphone generation, as they mature, are becoming more aware of how to interact with smartphones, and integrating them into an acceptable role in society.

Smartphones and other screen-based media have become extremely useful in daily lives, and have become tools for people to organize and control their lives. However, the more often people use their devices, the more likely it is that they will suffer from problematic smartphone use. Jon Elhai describes PSU as excessive use of smartphones, with similar symptoms to addiction, including “social or work interference, and withdrawal symptoms when unable to use one’s phone” (Elhai 159). Elhai explains that PSU is associated with consequences including academic difficulties, mental health problems, and distracted driving. Elhai performed a correlational study, to assess the connection of smartphone usage to how one processes negative emotions. One theory, the Compensatory Internet Use Theory, suggests that people attempt to alleviate their negative emotions by using (or overusing) technology (Elhai 160). His study had many measures, including demographics, smartphone use, a smartphone addiction, and emotional regulation, each of which measured by a scale survey.

Elhai’s study tested three hypotheses (Vincent, Haddon 161), the first being the idea that rumination, a maladaptive coping mechanism for regulating negative emotions, is connected to heavier smartphone usage. This hypothesis was supported, and it was found that rumination lead to problematic smartphone use. People with social anxiety will turn to their smartphones or tablets, any online media that will allow them to escape from the obligation to interact socially. The second hypothesis suggested that higher levels of expressive suppression--hiding emotions--and lower levels of cognitive reappraisal--changing emotions to better react and interact with others--is also associated with heavier smartphone use. However, his findings actually suggested the opposite. Higher abilities to regulate your emotions actually led to a higher likelihood of problematic smartphone use. The final hypothesis stated that heavier smartphone use evidenced higher scores of problematic smartphone use. This hypothesis was also supported, and fit with pre-existing models of problematic smartphone use.

Elhai’s findings suggest there is a correlation between higher smartphone use and rumination, similar to the Compensatory Internet Use Theory. The results suggested that people with “social anxiety and who ruminate about social interaction may avoid in-person social interaction, [and] instead excessively [use] their smartphones or other online media” (Elhai 164). People are turning to their smartphones in order to avoid social interactions, and are becoming more disconnected from the people closest to them. It is as if people are starting to prefer the online, virtual world to reality. This “habitual, increased use of a smartphone can grow into problematic smartphone use, causing impairment in such areas as school, work or social interaction,” (Elhai 164), and is associated with mental health issues including depression, anxiety, PTSD, proneness to boredom, and fear of social evaluation. While problematic smartphone use is an issue, it is not the same as the idea of smartphone addiction. Smartphones are a tool of society, but can become a destructive outlet to which people turn, just as any other societal tool can become. The society we live in today is still resistant to the integration of smartphones as a positive tool; however, it is still paving its way to a new societal structure.

Throughout my research, I have found that, although it is less an addiction, and more a poor choice of words, there are still ways to combat this so called addiction. The first is to monitor your usage. Being aware of how often you are using your smartphone, and when you are using it, can help you to determine if it is possible you are suffering from problematic smartphone use. Being aware of when you are using your smartphone will help you figure out times you could decrease your usage. The first step would be to follow the Giunchiglia study, and download a time diary log application that will record smartphone activity and overall usage. From here, you can more accurately understand your own habits, and how to correct negative ones. Another way to combat a smartphone addiction is to avoid using it when you are studying or working. This is possible by either turning it off or placing it in do not disturb mode to limit any and all distractions. This is a good way to focus on what is most important at the time, specifically schoolwork or your career. It is less important in these times to be socially active, and more important to be focused. Vincent and Haddon’s research has shown that teenagers are becoming better able to disassociate themselves from their social lives when it is necessary, such as at school, while studying, at sports practice, or with their families. It is also important to be able to prioritize messages received, and understand when it is not appropriate to be using your smartphone. Many people have a hard time understanding when it is time to “unplug” from their device, and live in the moment. Putting these methods into practice, I believe, will help break the smartphone “addiction.”

While there are some negative effects of smartphones, such as the possibility of poor academic performance, and associations between mental illness and excessive smartphone use, smartphones are not addictive. The language in which we discuss the effects of smartphones are the only true implications of addiction. With the rapid advancement in this technology, people believe it is addictive, and are casting smartphones in a negative light. Smartphones are not going anywhere. The technology we have at our fingertips, which is constantly improving, has the ability to change the world, even more so than it already has. It is hard to imagine what the world will look like in the future, but even harder to accept that the future is right around the corner. Society has gone through so many social changes; it does not seem possible that something as relatively small as the smartphone can have such a huge impact on the world. Society is still adapting to smartphones, and people are still learning how to properly integrate them into society.

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