



The Effects of Electronic Devices on The Human Psyche

Zakaria Kortam - 2021

This experiment was conducted during two normal school weeks starting on the 1st of November at 12:00 Ante Meridiem until the 14th of November at 11:45 Post Meridiem. The details and observations of the experiment were recorded on both an emotional and sensory basis, as well as using the Specialized Consolidating Emotional Tracking System, or SCETS, which essentially tracked various aspects of mood through various indicators and ratings [More elaboration below]. The basis of this experiment is a 15-year-old Male

1. Rules of the Trial

This Agreement shall begin on November 1 and continue for 14 days.

1. No Electronic devices where light is directly emitted into one's retina may be used. This includes all Desktops, Laptops, Phones, Tablets, Televisions, and other such devices. E-Readers, although not used during this experiment, are permitted. Viewing a reflection of a screen is also prohibited. Viewing a projector in class is permitted, as they also don't directly emit light into one's retina.
2. "No" applies to all aspects of life. There are no exceptions. Homework is to be done solely with paper and pen.
3. All work must be continued as normal. No skipping or putting off work in anticipation of the post-experiment. All school activity shall resume as it would otherwise.

2. Specialized Consolidating Emotional Tracking System

The Specialized Consolidating Emotional Tracking System is a customly developed system designed to enumerate emotions. It does so through a combination of 24 daily "Yes Or No" questions, sensory and emotional background consideration, in addition to post-day reflection. Each day, 6 total categories would be rated on a scale of 1-50, with 50 being the best and 1 being the worst possible. In addition, there were also background measurements where certain estimated percentages would be translated into a numerical value. For instance, for Information retention, if one recalls 80% of the material, it would be translated into a 40/50 score for that specific question. One would take that score into account when answering the other "Yes or No" questions as a reference and give a final score for that category.

3. Reasoning

The trial was done following observations of a peculiar and abnormal average state of mind. Critical and Independent thinking skills, calculation skills, in addition to efficiency, retention, and attention span, have all seen a sharp decline. The theory developed was that the substantial use of electronic devices has resulted in the deterioration of these various essential skills. To begin, with regard to Critical and Independent thinking. Due to social media, as well as the conventional media, many believe as they're told, rather than independently thinking and assessing the information provided. As a result, manipulation is increasingly spreading in both visible and invisible ways. One potential example would be ludicrous social media challenges such as the recent wave of vandalism, as well as the consecutively infamous "slap a teacher" challenge. Due to the decline in critical thinking, many dispossess the difference between positive

and negative effects and result in creating illogical and unreasonable actions due to the distorted understanding of reactions, law, in addition to the impacts of their actions on others. With regard to efficiency, information retention, as well as attention span, have also taken a substantial impact as a result of substantial use of electronic devices. This is due to the accustomation of the general populace to the convenience of electronic devices, patience, and in turn the previous categories mentioned, has become dull and weakened. When on social media, those which are disliked are discarded within a few seconds. However, the issue is that it creates a distorted form of reality where patience isn't necessary. Therefore, when these people are present in society, they will exhibit a desire to fulfill a similar sense of behavior, as they have become accustomed to discarding that which they disapprove of. This becomes a major roadblock, especially in learning, where an increasing number of students are less capable of learning due to their lack of patience and distorted sense of time. Many things in school are not desired by students to learn, however, they still must learn. Though now, with this new discard culture, many students shut their minds and discard it, as they do not wish to do so. They are acclimated to this system of shutting and throwing away that which one does not like, including learning, studying, and putting effort in school. As a result, they also become easily distracted, as they wish to escape this "boring" reality and into entertainment, which becomes a normal practice and habit. What results, as time goes on, is a lower threshold for boredom, where more action and excitement is required for satisfaction. The lowered threshold results in larger incentives to stray away from the subjects taught in class as they are "boring" at a sooner time; reduced attention span and retention. The constant consumption of time with entertainment harms efficiency and also clears the way for procrastination, as there is no "valid" incentive to switch off and commit to homework or studying, when there's still "an abundance" of time. Therefore, efficiency is also significantly affected as one's attention is split in various places and not strictly focused. To consolidate, the objective of this trial is to identify if this theory is valid and true.

4. During the Trial

Throughout the course of the trial, various benefits and differences were identified. For the first few days, symptoms of withdrawal were quite present. This is due to Social Media and the use of electronic devices, sparking a release of reward-hormones such as dopamine. When dopamine is consistently released daily, its effects diminish, and one will require increased dopamine to feel the same level of pleasure. Therefore, one's mind and body pushes them to use their devices for longer periods of time. And when the use is not fulfilled, a dopamine crash occurs, which causes the dopamine levels to descend back to normal. This crashing results in severe temptations, longing for device use, severely increased boredom, in addition to general discomfort and dissatisfaction. In an attempt to counter these initial effects, I entertained myself through the use of various physical games and figures, in addition to reading dozens of books, textbooks, encyclopedias. When done with my work in class, I'd read or draw. Consecutively, the lower levels of dopamine also meant that the sense of time slowed down. It could be discerned that the world and my subjective perspective on time slowed down. There was a sense of serenity and peacefulness, due to the elimination of the constant media stream and keeping up to date with hourly events. Meanwhile, there was a sense of more free time and time to relax, as many hours wasted on devices were wiped off. It resulted in the sense of free time due to the difference in perception of time depending on one's actions and satisfaction level. When one has a lower dopamine level, and is experiencing less pleasure, time seems to flow in a

bovine manner. However, when one is enjoying themselves, which devices tend to cause, time flows far more briskly. Therefore, there was reduced stress and pressure. However, on the other hand, there was also a mild sense of disconnect and isolationism. Due to the rest of the world being digitized, and all of my peers being online, there was a sense of missing out. Succeeding the first few days, temptations began to die down, however, were still partially present. Regarding homework and classwork, all work was done on paper with a pen. Interestingly, a hidden observation was developed where writing with pen on paper, results in increased focus, learning, as well as thinking. When writing with a pen, the mind recalls what was written significantly better. In addition, when reading off of paper, in contrast to a screen, there exists an exceptional difference in terms of processing and recalling the information. A possible explanation would be that due to the light intensity released by screens, one's mind is less capable of focusing and directing the majority of attention to a screen when compared to reading off paper, where light would reflect off the paper and into their eye. It's a conspicuous difference, as light reflection is much softer on the eye, as well as more natural to mentally process. Not only was there a significant difference visually, but also with regard to efficiency. Due to the removal of such a key distraction, work was completed in a quarter of the time it would normally take. Thirty Logarithmic problems, which would have normally taken an hour, took less than fifteen minutes to complete. On November Sixth, over eight consecutive hours were spent reading and taking notes on the AP Chemistry textbook. Interestingly, no boredom was experienced, and my attention did not burn out over the span of hours of reading scientific facts. In addition, due to the lack of electronic devices, there was no other entertaining alternative at that moment, which gave no incentive for interruption or diversion of attention. However, the same sense of isolationism and sense of disconnect was also present due to the inability to check grades, assignments online, and so on. In addition, it was a challenge to submit certain works, as they had no choice to be online, which forced me to figure out creative ways to do my work without looking at the screen. Therefore, there was a severe dependence on my peers and teachers in order to prevent me from slipping academically during this period. Consecutively, issues were faced in Math in specific, where new topics and concepts were introduced. Unfortunately, due to the lack of a physical textbook, gaps of knowledge formed, which could have only been filled by external sources of information like the internet. This was not the case, although, with other critical thinking based topics such as Chemistry, where there was the AP Chemistry textbook. Furthermore, I discerned a deep change in sleeping and resting patterns. Over the span of the two weeks, two naps were taken, in contrast to the usual, which is never taking naps whatsoever. In addition, rather than receiving around seven hours of sleep a day, which is the average under control circumstances, over ten hours on average were received in sleep, with twelve being the highest on a weekday. Aforementioned, this is due to the lack of distractions and forms of entertainment at that moment, which resulted in earlier sleeping habits, where eight post meridiem was the normal time of going to sleep.

5. Post-Trial

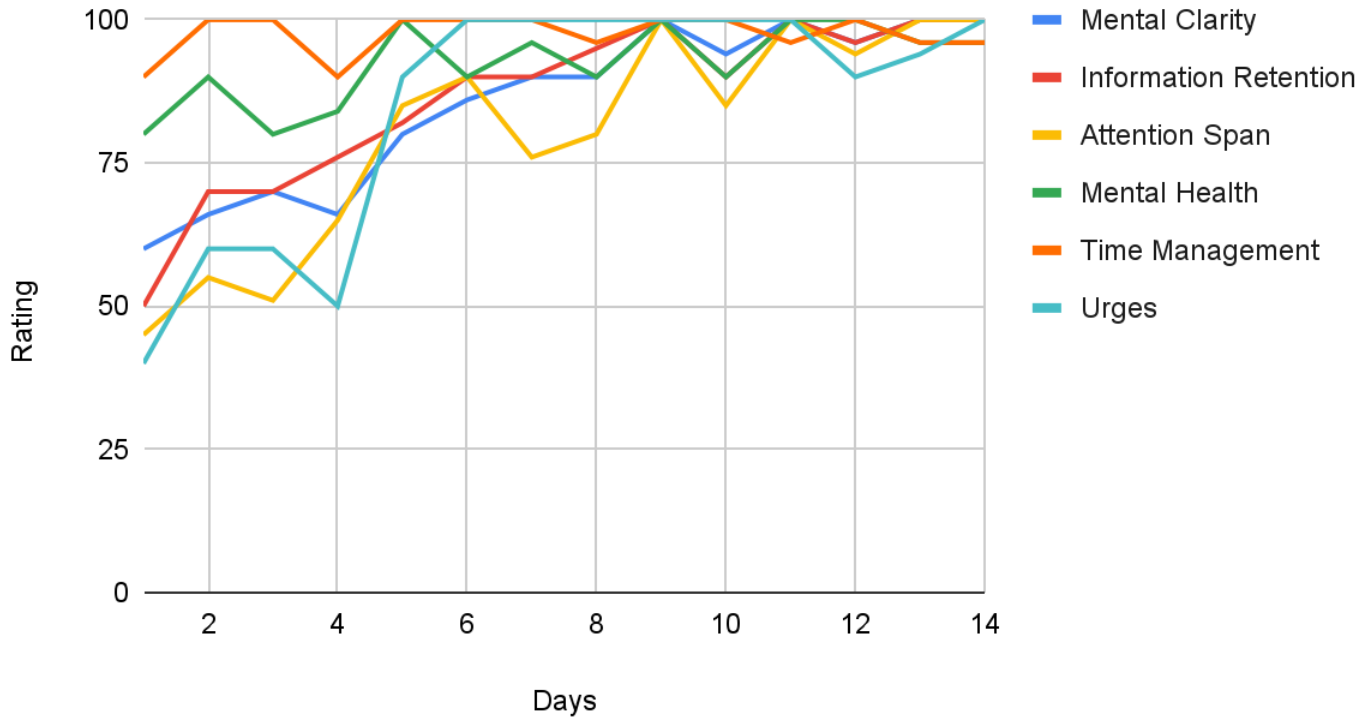
When my phone was first opened, and I began to use it, there was a very strange sense of euphoria, where colours seemed so bright and saturated, while blacks seemed pitch black. It was a very exciting and energetic feeling, which nothing close to would happen under normal circumstances. This presumably happened due to the release of dopamine in addition to the sharpening of dopamine receptors throughout the course of this experiment. However, for the first two days, following the experiment, a sense of freedom ensued, as I had completely forgotten about my digital devices. On the first day back on electronics, just a few hours in, my phone slipped from my locker and shattered on the floor, as I had forgotten that I even had a phone. The next day, I accidentally left my phone in class, and didn't realize until one of my peers told me so. The effects of this experiment began to slowly wear off over the next few weeks. By December, they weren't significant enough to still be felt. However, they did have a longer term mental effect, where in two weeks, years worth of stress seemed to have been wiped out.

6. Conclusion

This all proves that it is clearly possible to live a technology-free life, however, society has become too dependent on technology, and it has caused many to be incapable of standing independently. The issue being tested is not necessarily technology, but rather, the normalization of its unregulated and overuse, which is causing both mental and physical issues. This experiment has demonstrated that there is an impact committed by daily used devices. The average amount of sleep increased by over three hours by the flip of a switch. Work was completed successfully at four times the speed. Eight hours of Chemistry reading were done with no issue, boredom, or forgetfulness. Much of the information learned has still firmly stuck a month later. Phones, tablets, laptops, desktops, and such have all been created by large corporations in the name of money, not the best interests of humanity. Although they are useful and convenient, excessive use does contain harm, which has been overlooked due to the normalization of such devices. Due to this excessive use becoming the status quo, no one has bothered to truly take a look at this reality and assess whether it's the right call to be using these devices for the majority of one's day. Although some do understand that it's not necessarily healthy, they don't deeply understand how their lives would be without such devices. This experiment was done to show how life would be without them. Although boring, it was quite great.

Statistics

The Effects of Electronic Devices on The Human Psyche



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Mental Clarity	60	66	70	66	80	86	90	90	100	94	100	96	100	100
Information Retention	50	70	70	76	82	90	90	95	100	90	100	96	100	100
Attention Span	45	55	51	65	85	90	76	80	100	85	100	94	100	100
Mental Health	80	90	80	84	100	90	96	90	100	90	100	100	96	96
Time Management	90	100	100	90	100	100	100	96	100	100	96	100	96	96
Urges	40	60	60	50	90	100	100	100	100	100	100	90	94	100

Data Table - All data is on a scale of 1-100. This experiment was conducted during two normal school weeks starting on the 1st of November at 12:00 Ante Meridiem until the 14th of November at 11:45 Post Meridiem