

## Pitfalls of Technology in Education

Proposal – Outline – Essay

Brice Hamilton  
Dr. Stewart, Instructor  
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### Introduction

This is a proposal to the next generation of students born in 2020 facing a new era of technology-based remote learning. While technology will be an inseparable and unavoidable aspect of your life, its potential negative impacts on education must be addressed and evaluated. The crux of the problem is that technology has grown at an exponential rate each year while the biological brain of humans has remained virtually unchanged for thousands of years. For this reason, the human brain will fundamentally not be able to keep up with the exponential expansion of technology and these ever growing disparities will result in negative influences on your health and education.

### Background

**Need** - It has now been proven by various scientific sources that the overuse of computers yields significant reduction in interpersonal skills and the ability to sympathize with other humans. There is currently expanding literature in this field that must become more accessible to future students.

**Subject** - The primary negative impact of remote-learning relates back to our fundamental needs as humans to connect with one-another through physical learning---a trait that has been recently removed in the remote learning environment.

**Purpose**- It is important to consider that learning through physical connection has been biologically encoded in our DNA through-out millenia where it is only in a very short time span that it has been removed from the learning process in the computer based remote-learning environment.

**Scope** – The objective will be to provide studies, research, and science that makes the reader consider the negative impacts on remote learning and how it must be addressed and evaluated in the course of their education.

**Audience** – The next generation of students born in 2020. This paper is oriented to any person literate enough to read and think critically.

## Description

This proposal aims to provide the future student with information that can make them think more critically about technology-based remote learning. The basis of the scientific information reveals a significant disconnect between human interpersonal skills as a result of excessive use of technology and remote-learning. The overall goal is not to eliminate the use of technology in remote-based learning, but rather to reveal that it can have detrimental effects on the overall process of learning. It is then hoped that the future student can take this information into account when developing their own course of education for the best health in their learning process.

- A look at current scientific research and literature in this field that examines the detrimental effect of remote-based learning
- Also looking at positive factors of technology and learning and how this can be balanced
- Studies in technology that demonstrate the current rate of expansion
- Biological findings of brain-size, evolution, and processing power
- Comparing this to their current status of health and education i.e. what they feel healthy/unhealthy doing
- How they can use their personal health and findings to consider this information and make changes in their life and education

## Implementation Plan

**Planning and research**—Gathering and evaluating current scientific literature in the field while combining it with human experience that can lead the audience to their own actions.

**Project Management**—Project will be completed on or before April 23<sup>rd</sup> and ready for further revision before the final due date of April 27, 2020

**Production**—Information will be gathered through multiple resources including: scientific research, USF libraries, and direct experience

## Schedule

Schedule will be to complete portions within a timely manner before the deadline of April 23<sup>rd</sup>.

**Qualifications**

This will be from the perspective of a student research report.

**Budget**

Only time spent on assignment. There will be no direct costs associated with this proposal.

**Conclusion**

With the primary negative impact of remote-learning relating back to our fundamental needs as humans to connect with one-another through physical learning, the student of the future must consider how growing disparities between technology and the human brain will play role in their education and overall health as a human. Based on the information presented, future students must incorporate their personal health as humans into their curriculum to achieve the best possible education and level of health in the technology based remote-learning environment.

## Essay: Pitfalls of Technology in Education

### **Introduction**

Students born in the year of 2020 will be facing a new era of technology based remote learning that will present significant disadvantages in the learning process. The following information in this report will provide resources that demonstrate how the overuse of technology yields significant reduction in interpersonal skills and the ability to effectively communicate with other humans through the writing process. Additional disadvantages addressed in this article include increased health issues and the deterioration of physical handwriting skills.

This paper provides the fictional account of a student named Ralphie to better evaluate how technology is negatively influencing the learning process. While the situation of the student's story may be considered extenuating given certain variables, the findings of his story align with existing scientific and medical literature suggesting decreased interpersonal relationships and social connectedness associated with remote learning has a detrimental impact on the learning process.

This proposal aims to provide the future student with information that promotes critical thought on the subject of technology-based remote learning. The overall goal is not to eliminate the use of technology in remote-based learning, but rather to reveal that it can have detrimental effects on the process of learning and personal health. It is recommended for future educators and students to take this information into account when developing curriculum and educational paths in the 21<sup>st</sup> century.

## **Ralphie's Story**

Ralphie was a young and striving high-school student born in the era when technology based remote learning was just becoming widespread. Like many of his peers, he was equally excited and nervous to begin e-learning as they have heard so many different opinions from their teachers on the subject. However, none of the students or teachers ever predicted the massive shift that was soon to come in the month of March, 2020 as a major health-crisis of a pandemic unfolded globally. This crisis forced schools to close for the remainder of the spring and summer terms to prevent the spread of the virus. With panic setting in on a variety of levels, one of the most critical aspects being considered was to convert the school setting to the online remote learning platform. It was now a race for students and teachers alike to scramble for laptops and computers in attempt to continue education through the remote-based learning platform.

Initially, the process started off just fine for those able to obtain the appropriate hardware and software required to access the courses. While there was a significant learning curve in opening the courses and accessing their contents, Ralph eventually learned the interface in a fluent and intuitive manner. Before too long, Ralph was blasting through several chapters in his course before they were even assigned. While he initially felt success in his advanced pace through the material, in the following weeks he began to feel down and wondered about what he was actually accomplishing. After all, there were no teachers or friends to shake his hand or congratulate him on his successes and he couldn't even see the reactions of his peers after all the painstaking time he spent working on his essays and writing projects. In addition, he felt like the days just blurred together as there was little to no concrete physical location or schedules outside of what was expected on the computer. For these reasons, Ralphie began to feel isolated from his peers and the world. This eventually led to a mental health depression that severely affected his sense of well-being and self-value in the real world. With Ralphie mental health deteriorating over the course of the semester, he began to lose interest in completing the online material and unfortunately feel even further away from contact with both his peers and teachers.

## Analysis

While the case of Ralphie may be interpreted in a variety of ways considering the large-scale social shift that an event such as a global pandemic creates, the overall detrimental effects that he is currently experiencing are also many reflected in the present scientific research on this subject. As revealed in the research conducted by Science Direct author Nigel V. Smith, social connectedness is necessary for learning while the 21<sup>st</sup> century proliferation of information and communication technologies may undermine precisely this sense of social connection. Although decreases in social connectedness have been observed in the scientific studies regarding online learning, ways these manners can be built online are still not clearly understood (van Tryon & Bishop, 2009). In conclusion, we may review the case of Ralphie's deterioration as a consequence of an ill-prepared transition from the physical method of teaching in the traditional classroom, to the fully online remote-learning environment that lacked the necessary learning trait of social connectedness as present in the literature.

Although the case of Ralphie may be considered 'extreme' in the sense of an unexpected health crisis of a pandemic unfolding, the story may also serve as an important reminder of detrimental effects of technology that must be considered in the future of technology based remote-learning. More specifically, the discipline of learning to write may be severely affected as the audience, elocution, and inflection all fail to exist in the online environment. In this sense, a large pitfall of technology replacing the physical aspect of education is not being able to physically or visually connect with the audience and reader that will be interpreting the writing.

An additional disadvantage of technology based remote learning that must be discussed includes poor health associated with increased sedentary time spent behind a computer. In the recent years, it has become vividly apparent in the scientific and medical literature that excessive time spent behind the computer can lead to serious health complications such as: impaired cognitive function, increased weight gain, poor sleep, and lowered cardiovascular health (e.g., [Chiasson et al., 2016](#); [de Jong et al., 2013](#); [Dumuid et al., 2017](#)). In the case of Ralphie as examined in this paper, one may easily begin to see the associations with these medical conditions exhibited during his prolonged use of technology based remote learning. For instance, the negative mood that Ralphie exhibited may be associated with the connection between sedentary behavior and depression such as revealed in the study of BMC Public Health that concludes “persons reporting more sedentary behavior had a significantly higher risk of depression compared to those who had exhibited less sedentary behavior” (Wang, Xiao; Li, Yuexuan; Fan, Haoliang, 2019). While the science in this field is currently expanding, it does not take doctorate degrees or research specialists to witness the developing impact on excessive technology use and student’s deteriorating health. The simpler fact remains that the nature of technology based remote learning forces students such as Ralphie to spend even more screen time in their everyday lives and this serves an inherent negative value that must be evaluated in the process of education.

Another significant pitfall associated with remote learning is the deterioration of formal handwriting skills and other physical traits of expression that are lacked in the technology based remote learning environment. This is shown further by studies indicating that over the past twenty years, there has been a significant gap and decrease in students' writing skills (Madden and Laurence 3-4). Due to the cultural shift from the twentieth century to the twenty-first century, students today are consumed with and rely on technology for too many tasks. As of now, technology is continuing to grow and students' writing skills are remaining on the decline (Bronowiki, K. 2014). Astonishingly enough, these sentiments towards the 'death of handwriting' have been shared since the role of technology and computers started becoming more widespread in the 1990s as evidenced in the quote "since the technology boom of the 1990s, the rise of digital communications and twenty-first century literacies leave many fearful for the future of the English language" (Dietz, Roback, and Maloof). It would be interesting to note if any of those who expressed similar concern would ever think that education would one day be shifted to completely online computer technology-based environment such as in the case of Ralphie.

While the aspect of handwriting deterioration may not be as directly relevant to the decline of health in Ralphie's case, it prompts a necessary discourse into the potential long-term consequences of remote learning technology in the field of writing education. A significant consideration may be that technology strips the creator from one of the most fundamental rights they may have such as the ability to physically grasp and take pride in something original and unique to themselves, thus an impending concern with the growing prevalence of online and cloud based information may be the lack of ownership or pride that a student or author may feel with their hard work. For these reasons, it may be fair to evaluate that a lack of ownership as described could lead to potential negative health aspects that pose significant disadvantages of technology based remote learning applications.

## Conclusion

With the primary negative impact of remote-learning relating back to our fundamental needs as humans to connect with one-another through physical learning, the student of the future must consider how growing disparities between technology and social connectedness will play role in their larger scope of education. As evidenced in the current scientific and medical literature, technology related activities such as remote-learning contribute to a more sedentary lifestyle that poses many substantial negative health complications to future students. Of these adverse health problems, depression resulting from excessive technology usage ranks among the most prevalent disorders in the population of teens and young adults in the 21<sup>st</sup> century such as in the case of Ralphie. In addition, the significant negative impact of technology and its influence on students handwriting and physical communication skills will continue to play a dominant role in the educational paths of future students. For these reasons, both the students and teachers of the future must take all of these potential disadvantages into account when forming educational paths in the growing technological world.

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