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# The Dark Side of IT: The Negative Aspects of Information Technology

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**Abstract**

**Purpose:** The development of information technology (IT) has drastically helped and improved our lives. However, it also has several negative aspects that we discuss in this paper. The purpose of this research is to understand the negative impacts of information technology.

**Methodology:** We conducted a literature review using data from previous researchers, journals, and websites. The nature of this paper is casual and analytical to focus on cause and effect and using a quantitative approach for the data collection method. We used Microsoft Excel and SPSS to record and analyze the data using both regression and correlation tests.

**Findings:** Firstly, we found that there is a significant impact of social media on cybercrime. Secondly, we found that there is a positive relationship between user impact and distraction levels. Lastly, the results showed that there is no correlation between the overuse of technology and health issues which rejected our third hypothesis and our findings in the literature review. Despite this, we find that amount of media and technology consumption can influence the side effects of IT. We recommend that excessive usage of social media and other forms of technology should be avoided.

**Unique Contribution to Theory, Practice and Policy:** We presented wide range of negative issues (i.e. health, cybercrime and cyberbullying) surrounding IT and social media consumption. The results of our research underscored the need to develop policies for organizations that produce or manufacture different IT products consumed by most people and operate social media platforms, in order to ensure that safety and security features are prioritized and implemented. The government and parents also play fundamental roles in minimizing the negative impacts of IT.

**Keywords:** *Information Technology, Cybercrime, Social Media, Excessive Usage, Distraction Levels, Cyberbullying*

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## INTRODUCTION

Today's technology has advanced by great strides. Technology has infused every aspect of human life, and its use is continuing to increase. Moreover, technology has made our life quicker and easier. People today cannot imagine their lives without laptops, smart phones, smart watches, and so on (Trakhtenberg, 2012). But are we becoming happier in life of recent technologies?

The use of information technology has spread further than hardware and software (Ghashi, 2020). Encountered with this reality, many people all over the world are deeply concerned about the impact that these changes may have on their lives, the lifestyles of their children, and the lifestyles of many others. Technology itself does not represent a danger to humanity, but human misuse of technology causes harm the society.

Technology misuse includes fraudulent activities, hacking, cybercrimes, and drug addiction. Moreover, technology can increase the air and water pollution. Technology can be addictive and affect our communication skills. With technological and communication advancements, it changes how we associate to one another and the impact it has on relationships (Hertlein, 2014). Excessive screen time can have negative physical and psychological consequences such as sleeplessness, obesity, eyestrain, anxiety, and depression. Besides technology affect children's mental health such as ADHD, autism. Therefore, it is necessary to raise people's awareness of the harm caused by it.

The purpose of this study is to analyse the negative aspects of information technology. We developed three research questions and based on them we proposed three hypotheses that we are going to analyse. The research questions are:

RQ1: Does social media influence cybercrime?

RQ2: Is there a relationship between user impact and distraction levels?

RQ3: Does the overuse of technology increase health issues?

Regarding these questions, we propose the following hypotheses:

H1: There is an impact of social media on cybercrime.

H2: There is a relationship between technology user impact and distraction levels.

H3: There is a relationship between the overuse of technology and health issues.

### Study Variables

According to Lutkeyich (2021), "Social media is a collective term for websites and applications that focus on communication, community-based input, interaction, content-sharing and collaboration". Social media has improved the way people communicate with each other. However, there are other negative impacts such as cybercrime. Cybercrime is referred to as any illegal activities online using a computer or network. It can include hacking, cyberbullying, credit card fraud, and identity theft (Dennis, 2019). In addition,

information technology has several impacts on the user such as resulting in high levels of distraction (*Dyopath*, 2019). Furthermore, the overuse of technology has led many users to addiction. The urge of being constantly online has taken a toll on users causing health issues in the field of psychology, sociology, and physiology (Johnson, 2020).

## LITERATURE REVIEW

The successive advancement of technology, that has invaded our life, such as smart devices and social media that are used by anyone and at any time, used for socializing, enjoyment, communication, and information exploring has become a crucial part of people's life. Currently, our world is becoming virtual, a world where everything gets place in virtual surroundings (Polyviou, 2007).

Despite the advantages of technology, it has a dark side. The excessive usage of laptops, smartphones, tablets and videogames can cause damaging side effects on our psychological, sociological, and physical life that may have profound consequences on our health (Bondanini et al., 2020).

The article "Misuse of Technology", Timm (2021) discusses the misuse of technology, specifically how technology can be used to harm others. It mentioned examples of technology misuse such as cyberbullying and hacking. It also discusses how to prevent and avoid technology misuse or abuse and what steps to take if you are a victim of it. The article talks about how technology may be used in inappropriate ways, how it can be used to harm to other people. Everything in this world has its bright and dark sides (Large, 1999). Some major dark sides of information technology development will be discussed.

### Fraudulent Activities

In the article "Fraud in a world of Advanced Technologies", Nickerson (2019) discussed that the topic of fraud in today's age of modern technology is explored in this article. It gives several examples of fraudulent activities, such as phishing and identity theft. It also addresses how to avoid being a victim of fraud and what steps to take if you already have been scammed.

### Hackers or Hacking

In the article "In the Digital Era, Democracy needs hackers", Hirsh (2018) discusses hacking in the digital era. It mentioned examples of hacking such as hacking into devices and systems to steal data or wreak havoc. It also discusses how hacking can be used to democracy, in where some of the government in Canada are employing hackers in order to firewall their system so that they will not be easily hacked.

The paper was written by E & ICT Academy (2018) entitled "Why ethical hacking is useful?" explains why ethical hacking is beneficial to organizations. It provides some examples of hacking that are considered to be ethical, such as locating weaknesses in computer systems and evaluating the effectiveness of security solutions. Additionally, the positives of ethical hacking, such as contributing to the improvement of security. In

addition to that, the Academy also added that there is an increase of demand for hackers for those who can protect or put up a firewall for their information system. This is because the hackers are evolving and can easily manipulate the data and infiltrate the system. Hence, they are looking for white hackers in order to protect the system.

In this article "Privacy of people in digital era", Tehilla (2019) discussed the topic of people's right to privacy on the internet. Its mentioned examples of the ways that individuals' right to privacy might be violated, such as hacking and spying. In addition to this, it offers advice on how to safeguard your privacy and what steps to take in the event that it has been violated.

**Cybercrime**

The essay entitled "How does cybercrime affect our daily life?" by *Dotneck Software Development* (2022) highlighted the ways in which online crimes impact our everyday lives. The writer discuses that it affects the businesses in a micro level, as well as the national security of a country in a macro level. It gives some examples of the types of crimes that may be online, such as phishing and identity theft or even spread malware in your system and spread virus so that you may not be able to use your computer and all of your data will be lost. It also explains how to protect yourself from being a victim of cybercrime and what steps to take in such case.

**Technological Impacts on the Environment**

The article "The impact of technology on the environment and how environmental technology could save our planet?" *Edinburgh Sensors* (2019) examines environmental technology as well as the effects that technology has had on the environment. It gives examples of the harm that technology has brought to the environment, such as the pollution of the air and the depletion of natural resources. It also addresses how to avoid harm to the environment and what steps to take if you find yourself a victim of environmental damage.

In the "Negative Impacts of Technology on the Environment", Okafor (2022) it explores the effects that technology has had on the surrounding natural environment. It gives examples of the harm that technology has brought to the environment, such as the pollution of the air and the depletion of natural resources.

**Impact of Technology in Drug Use**

In the article "Interplay of Technology Addiction and Substance Abuse", Gateway Foundation (2022) discussed about the influence of technology has had on drug misuse. Its mentioned examples of the ways in which technology may be utilized to encourage drug usage, such as internet drug sellers, are given.

In the other paper entitled "What if we could fight drug addiction with digital technology?" by Scientific Foresight, Quaglio and Boone (2019) explored the applications of digital technology in the battle against drug addiction. It gives many examples of how technology, such as online support groups, might be utilized to assist individuals in overcoming their

addictions. It also mentioned the advantages of using technology to combat addiction and offers advice on what to do if you or someone you know is struggling with addiction.

**Technology Weakens our Creativity**

Recent technology development is one of the distractions in our life. People are spending most of their time using technological devices that may reduce their creativity. Creativity is a phenomenon whereby something new and valuable is developed, such as thinking of new and uncommon ideas and converting those ideas into reality, whereas these ideas come from deep thinking. However, using technology excessively may distract our minds from thinking clearly which affects our creativity (Adil, 2022).

**Sleeping Problems**

Using technology such as smartphones may cause lack of sleep. Some researchers discovered that having technology devices such as smartphones in the bedroom can affect the quality of sleep. A study in 2015 confirmed that exposing your eyes to the blue light that is emitted from smartphones can suppress melatonin and disturb circadian clock. Therefore, devices can interrupt your sleep. In addition, addiction to social media platforms makes switching off your mobile difficult which may affect your sleep (*Harvard Health Publishing*, 2020).

**Side Effects on Kids**

According to a study by *Mayo Clinic* (2014) which claimed that technology affected children health, when playing time is important for a child's brain development rather than watching screens such as television, videogames, smartphones and tablets that may cause serious mental problems such as loss of social skills. Although children can gain little benefits from some screening time, but playing time should be for running, swimming and drawing (Pietrangelo, 2019).

Studies had also proven that kids who spend longer time on tablets, televisions and smartphones are lonelier than kids who spend less time. Nowadays, kids and teens spend most of their time on social media and YouTube, therefore they spend less time meeting up with their friends (JM, 2017). The article "Negative Impacts of Technology in Children", ScreenGuide (n.d.) highlighted five negative effects that children may experience as a result of their exposure to technology. These implications include lower ability to focus for extended periods of time, increased distractions, and increased levels of sedentary behavior, higher levels of social isolation, and increased levels of cyberbullying. The article offers advice on how to reduce the riskiness of these unintended consequences.

**Physical Development**

Addiction to smartphones causes serious problems in physical development such as obesity and vision dilemma (Ma et al., 2021). When you stare at the smartphone for a long time, it is harmful for eyes, especially when children's eyes are more sensitive than adults. When you are addicted to smartphones, you have a lower chance of interacting with other people

and decrease in physical activities will increase the possibility to be obese. On top of that, using a small device with your hands for a long time might result in body imbalance (Park & Park 2014). As a result, overuse of technology has an impact on physical health, that would make people lazy and dull to meet other people face to face (Akram & Kumar, 2017).

Exposing children to technology from an early age would certainly affect their live, health and social life. Children are more likely to face social isolation due to lack of communication with people as well as physical issues such as obesity and vision problem. Unfortunately, most children who use technology are unable to ride bikes and rely on themselves (Alghamdi, 2016). Another study admitted that overusing smartphones and tablets can have a negative effect on eyes in adolescents, for example blurring, dryness and inflammation (Kim et al., 2016).

Meanwhile, the Non-Communicable Disease Risk Factor Collaboration's (2004) report stated that one of five people in the world is obese. Obesity is becoming a serious problem between people. A major cause of obesity is the lifestyle that suffers from deficiency of physical activities that would be a side effect from using smartphones and technology permanently (Park et al., 2019).

**Psychological Development**

Excessive usage of technology could cause a Neurosis condition which leads to psychological and developmental disorders, such as anxiety, depression, anger, and low self-esteem. Smartphones, tablets and videogames made kids depend on technology and interact less face to face with people (Alghamdi, 2016). Other studies have observed that technology addiction is the main cause of anxiety, depression, attention deficit hyperactivity disorder (ADHD), and occurrence of behavioral problems in adolescents. It has been noticed that 29.3% of teenagers aged 10–19 years experienced smartphone/technology addiction (Bong et al., 2021).

Numerous studies proved that ADHD is associated with screen addiction were technology increase ADHD severity. Children with ADHD spent their time on screens regularly and reacted in an aggressive way when screens are forbidden (Al-Ansari & Aljahrami, 2020). Another study demonstrated that children using smartphone are more likely to have disorders like Autism. While data reveal that 20% of parents don't keep an eye on what their children are browsing online. A poll found that many children spend long hours on smartphones and tablets to the point of addiction, that would be hard for parents to control their children (Zainelabdin, 2020).

**Cyberbullying**

Cyberbullying is considered a significant example of technology abuse due to potential risks (Beran & Li, 2008). Cyberbullying can exist in any demographic and that the use of smartphones and social media platforms are increasing. Therefore, the younger generation is a sample that deserves our recognition and attention (Abaido, 2020). As a result of the

rapid advancement of technology and easy access to the internet, people are involved in transferring nasty texting, photos, or videos about another person without recognizing the possible danger they are causing to others. Bullying in any form, however, can have a negative impact on a person's life (Sofian et al., 2019).

On the other hand, parents are worried about the phenomenon of child sex abuse. Families, as the primary caretakers, fail to protect those (Sofian et al., 2019). Therefore, child abusers have discovered a new hiding spot. When parents allow their kids to use the internet, their primary goal may be to provide an educational resource. However, if the internet is given access without child protection filters, children may be exposed to harmful adult content (Prakash, 2018). In this article uploaded by Mayo Clinic (2022) entitled "Social Media", they had discussed the usage of social media by adolescents. It provides evidence both for the beneficial and bad applications that may be found for social networking. It also covers how to protect yourself from the harmful impacts of social media and what to do if you find yourself to be a victim of its abuse.

## THEORETICAL FOUNDATIONS

Before social media, different media effects theories already developed focusing on traditional media like television, radio, film, and print media. There were also theories that explored the different impacts of advertising or marketing and public relations (PR). The major theories are cultivation theory, agenda setting theory, framing, uses and gratifications theory, social learning theory, and third person effect. Even when the social media has emerged, some of these theories are still applicable. However, several theories that centered on the effects of different social media platforms have also emerged. Sadly, most of these are negative effects, such as cybercrime and detrimental health issues like lack of focus due to overuse or overexposure from social media.

Cybercrime has been one of the common crimes committed using the social media in the past years. Clearly, cybercrime is a criminal offense. It is used broadly used to describe diverse types of crimes committed outline and also occurs in countless threats, such as online scams and malware (Govender, Watson & Amra, 2021). According to Palmieri, Shortland and McGarry (2021), cybercrime in the criminological literature is regarded as a rational choice or the inability to control oneself. Under such premise, the routine activity theory (RAT) is one of the prominent theories consulted, alongside the strain theory and the general theory of crime (GTC). Among these, RAT of Cohen and Felson's (1979) was seen to mostly expound cybercrime (*cf.* Jaishankar, 2007).

Govender, Watson and Amra's (2021) work mentioned that RAT had three integral components that will converge for a crime to occur (*see* Cohen & Felson, 1979). As seen in the figure, these are (a) suitable target; (b) the absence of capable guardian; and (c) the likely motivated offender. They also argued that crime committed follows certain patterns apart from the three components mentioned, rather than merely a random occurrence. Similarly, Palmieri, Shortland and McGarry (2021) exclaimed that several studies that applied RAT found that those who spent more time in using the social media (Facebook,

Twitter) and its specific settings like chat rooms are likely to be exposed to a motivated offender.


*Figure 1: Cohen and Felson's (1979) routine activity theory (RAT)*

RAT's concept shows how one becomes a victim of cybercrime. The victim basically serves as the suitable target for the motivated offender as influenced by his or her availability as a victim or inclusiveness as the offender's attractive target. When the opportunity comes in the absence of guardianship or the ability of persons or objects to limit a crime from happening, the motivated offender strikes to commit cybercrime. (Cohen & Felson, 1979)

Since, there have been different discussions on what cybercrime is, our study will explain how social media and its excessive use can lead to cybercrime. RAT is regarded as a situational crime theory, which shows that offenders would choose to commit a crime based on what they see as available opportunity (Govender, Watson & Amra, 2021). Our potential results will add to the justification and support on the applicability of the RAT to explaining cybercrime.

On the other hand, we believe that IT and other forms of social media can serve as huge variables of distraction and can negatively impact the user. The basic premise lies on how the IT tools or the social media can take easily distract a user from his or her activities or routines, which can lead to non-completion. For example, a student may not be able to study well because of mobile phones and social networking sites can easily call his or her attention and eventually leads to conflict. Goel, Prokopec and Junglas (2013) discussed that Baron's (1986) distraction-conflict theory has the basic premise that an individual can get distracted in the presence of "others," which are considered distracting. It is under social facilitation and can result to attentional conflict between the task and others. Social facilitation effects describe a person's individual behaviors in the presence of others.

As seen in the figure below, social facilitation shows the dominant response of an individual, which is being heightened when other things are around. Others are considered as distracting and when a person performs a task in the presence of "others," the individual clearly becomes distracted. The result is the so-called "attentional conflict" between the task and others. This is depicted by one's desire or tendency to attend to more than one mutually-exclusive input, which appear in perceptions that come from the environment's stimuli. The conflict also leads to increased arousal. (Goel, Prokopec & Junglas, 2013)

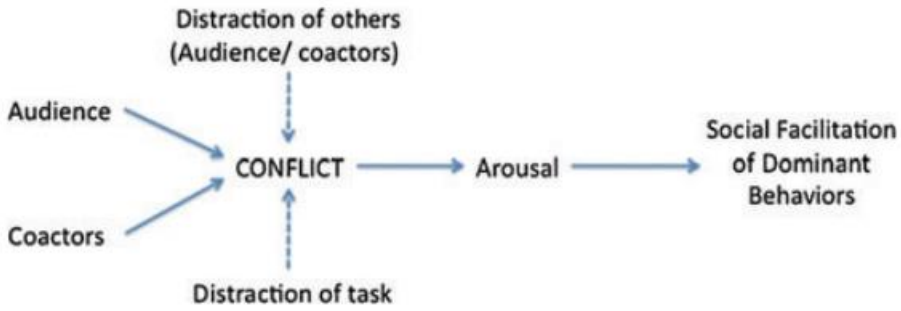


*Figure 2 Distraction-conflict theory of Social Facilitation in Goel, Prokopec and Junglas, (2013, p.268)*

Experts argued that social facilitation effects are not the same as some might best work in simple settings or conditions. Hence, our research can help in offering as example on these situations that can lead to distraction or conflict. The social media and other forms or IT or technology are regarded as the others that can distract the task of the user. By exploring such, one can see how the social media negatively affects a user by targeting on his or her attention span.

The overuse of technology and social media can also lead to detrimental health effects, especially due to overconsumption. This particular premise reminds the cultivation theory of George Gerbner, which is one of the major theories developed in media effects and cultural studies. One of the highlights of this theory is how heavy consumption of television can bring a negative view and outlook of the real world. Since the user is exposed regularly for long periods of time, his or her perceptions about the world, attitudes and behaviors are largely affected. An essential point in this theory is the excessive exposure of the user to the media. Since the cultivation theory is mainly focused on television, our study might offer an example representing the social media and how excessive use or exposure can result to negative health impacts.

## RESEARCH DESIGN

In order to further understand the dark side of Information Technology, we decided to conduct a casual and analytical research that focuses on the study of cause and effect. We aim to further understand if the advancement of technology is causing an increase in health issues and the different negative impacts that result from technological misuse.

To properly address this topic and taking into consideration the short time frame that is available for the completion of this study, we chose to conduct a cross-sectional study and implementing the quantitative data collection method using a survey.

A questionnaire was made using Google forms and the link was sent to several participants. Our sampling technique that was used in this research was the random sampling technique where every member of the population has an equal opportunity to be chosen. Our aim was to have a sample number of at least 100 participants to ensure the validity of the data that we were gathering. The data that we gathered were recorded and uncompleted surveys were disregarded. The completed surveys were then transferred from Google forms to Microsoft Excel for analysis.

In addition, for further analysis, we used SPSS which is a software tool that was developed by IBM for statistical analysis. To test our hypotheses, we performed a regression test and correlation tests to help us better understand the relationship between the variables. Furthermore, the tests were then analyzed and a discussion between the results and our findings from previous researchers is compared.

**Statistical Analysis**

The survey was structured in a way that would test and investigate our three main hypotheses that were agreed upon at the introduction of the discussion. We delivered our survey questionnaires via email and other online communications, as long as the respondents conveniently and safely receive the questions. The survey was administered to a total of 86 people and the results analyzed with respect to our research objectives.

- A regression test was used on the first hypotheses with an aim to assess the impact of social media on cybercrime.

- A correlation test was used on the second hypotheses with an aim to assess how the distraction levels are impacted on different users.

- A correlation test was also used on the final hypotheses to investigate the impact of overusing technology on the health of the user.

**Demographics**

Technology has been heavily assimilated by users all over the globe regardless of age, gender, highest education attained, and social economic status (Baker and Hubona 2013). Approximately every homestead has or is close to technologically oriented devices such as computer, laptops, or smart phones (Hay and Pearce 2014). Our 1st hypothesis set out to investigate the impact that social media has on cybercrime- the act of conducting crime activities such as identity theft over the internet. The first research questions revealed an interesting finding: while approximately 18 percent said they did not view technology as a threat to their security, 92 percent disagreed and did not feel safe while online. This

manifestation was also supported when 23 out of 68 people (34 percent) believed that with the advancement of information technology, cybercrime has reached new heights.

Our second hypothesis set out to support whether use of information technology has negative impacts on the users with by increasing the distraction levels. For example, 25 out of 68 users (37 percent) recorded that they agree to these claims. With the internet and information technology being a commodity to be consumed, the customer is always right, and 91 percent said that the advertisements that pop up online are a source of stress to them. With most users from our survey spending the maximum time online (31 percent spending more than five to eight hours), it is evident that the cyber world needs more attention in terms of user security. There is a primary need for internet users to feel safer while conducting their virtual operations online.

## RESULTS AND FINDINGS

### Regression Test: H1

From the regression result it can be concluded that 41% of technological consumption is associated with negative impacts such as decline of users' health and increase in distraction and increase in cybercrimes. Additionally, from the variance statistics, also known as the ANOVA, it is clear that the data gathered is not random and has significant correlations as showed by the P-value, which is the value that shows the probability that the data may be random. The P-value 0.0040204 being less that the significance value F of 1.48451E-09 (0.0040204<1.48451E-09) indicated a strong suggestion that technology is at the core cause of increase in cybercrime. From this finding, we can conclude that the negative impacts of technology such as increased cybercrime and poor mental health do not occur by chance.

**Table 1 : Regression Test Summary Output**

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.6538912 |
| R Square | 0.4275738 |
| Adjusted R Square | 0.4189006 |
| Standard Error | 0.9643987 |
| Observations | 68 |

| ANOVA | | | | | |
|---|---|---|---|---|---|
| | df | SS | MS | F | Significance F |
| Regression | 1 | 45.8510041 | 45.8510 | 49.2987 | 1.48451E-09 |
| Residual | 66 | 61.3842899 | 0.93006 | | |
| Total | 67 | 107.235294 | | | |
| | | | | | |
| | Coefficients | Standard Error | t Stat | P-value | |
| Intercept | 1.1511775 | 0.38617409 | 2.98098 | 0.00402 | |
| Cybercrime | 0.6630940 | 0.09444030 | 7.02130 | **1.48451** | |

**Correlation Test: H2**

We used correlation analysis to determine whether there is a significant relationship between technology user impact and distraction levels. The mean value of user impact is M=3.63, SD=1.315 while the mean value of distraction levels is M=3.56 and the standard deviation is SD= 1.331. According to the findings in Table 2, the correlation between user impact and distraction is 0.809, because the p value associated with this correlation 0.809 at p>.0.05, which reveals that there is a strong positive relationship between user impact and distraction levels.

**Correlation Test: H3**

We conducted another correlation test to examine whether there is a relationship between overuse of technology and health issues. The mean value of technology use is M=3.66, SD=1.060 while the mean value of health issues is M=1.09 and the standard deviation is SD= 0.286. According to the findings in Table 2, the correlation between technology use and health issues is -0.097. Because the p value associated with this correlation -0.097 at p<.0.05, it indicates that there is a no relationship between technology use and health issues.

**Table 2*:* Correlation Test**

| | Technology use | Health issues | User impact | Distraction |
|---|---|---|---|---|
| Technology use | 1 | | | |
| Health issues | -0.097142776 | 1 | | |
| User impact | -0.004884427 | 0.00817958 | 1 | |
| Distraction | 0.01960422 | -0.1315422 | 0.80979409 | 1 |

## Secondary Data

### Hypothesis 1: Impact of Social Media on Cyber Crime

Social media entails out virtual world of connections and inter-personal relations (Talmud & Mesch, 2010). Just like it is easy to indulge in social media such has Facebook, twitter and Instagram, it is also easy for cybercrime to take place on these sites that are meant to make our lives better by increasing out connectivity (Olubukola Stella Adesina, 2017). The following sections explain how some aspects make social media to be a risk zone exposing the users to the risks of identity theft, virus attacks and spying. Awareness creation is among the right approaches that online users should take advantage of as it is thought the programs of the awareness events (most of which can be available virtually)

### Increased Ease to Information Theft

From the survey we conducted, 96 percent of respondents recorded that they believe that being online increases the risk of virus attacks and privacy invasion. Before understanding what privacy, breaching is, it is vital that we understand how a virus makes this crime happen. A virus is code of text that is coded by a hateful person (a cyber-criminal) with a bad intention, which could possibly be information theft (Frank & Eweniyi Odunayo, 2013). Some information such as credit card numbers and social security numbers are confidential and, in the event, that they fall on the wrong hands, they could be used for much more aggregated criminal activities such as identity theft (Acquisti, 2013).

So, the attacker must find a way to get the code to land on the social media of the target and accomplish this technological threat. They achieve that by infecting a media file such as a photo or a link and sending it through the social media, where the users who are not cautions fall for this threat and get their private data stolen (Vukalovic & Delija, 2015).

Without the right information or some knowledge of how to be safe while being online, numbers of victims will keep increasing (Zwilling et al., 2020). For example, 92 percent of respondents in our survey believe that being constantly online adds a new layer of stress. Part of the stress stems from not knowing which links or images are safe to download to their phones because it is difficult to know which images contain dangerous code without the proper software to detect malicious code.

### Not Sure Who to Trust

Most cybercrimes online happen from people who are easy to trust such as friends and relatives (Huey et al., 2012). Referring to the survey we conducted, majority of respondents spend approximately five to eight hours online. Besides consuming entertainment material or even holding official meetings over the social media, this time is also spent interacting with relative and loved ones. As previous research shows, there is a high possibility that virus attacks and malicious codes will come from people we trust, that is, our friends and relatives (Jain et al., 2021).

91 percent of respondents reported that online existence can at times be stressful. This can be aggregated by the fact that being online poses the fear of being attacked even by those close to us and the magnitude of the loss in the event their valuable data and information is stolen (Virtanen, 2017).

**Public vs. Private Computers (Contributions to Cybercrime)**

With the need to provide technological support and facilitate internet consumption, the cybercafé business has become increasingly patent. People without devices to access the internet and social media, or people requiring guidance with some information technology issues such as filling of online forms can now walk to their nearest computer service provider and be assisted.

However, because this is an expected situation, one may forget to log out of their Facebook or Instagram account from public computers, exposing their information to other users on public computers. If one of the users is malicious, there is no limit to how much data they can steal; thus, as previously stated, part of the mandate of security awareness programs should be to educate people on the importance of maintaining the integrity of their passwords after using public computers.

**Hypothesis 2: Correlations between User Impact and Distraction Levels**

Studies have showing that distractions that come as a result of internet consumption gadgets such as mobile phones are increasingly becoming a problem especially among the aging population that calls for immediate attention. Mobile phones are a major part of our day to day live. However, when it comes to age and the distraction levels, the results are, well, distractive. The youth seem to be coping well with the mobile phone technology with the applications and technology being served proving hard to operate for the aged population (Riskinanto et al., 2017). In order to understand how different levels of distractions impact different users, we have divided the section into subsections that further explore the correlation in topic.

**General Modernization**

Business and operations are going online. Shopping is now carried out on the order and delivery basis contrary to the motto “in-house shopping”. Additionally, school results and tests are being administered and graded online. Change is inevitable and so the old-fashioned way of doing things is slowly becoming obsolete (Lee et al., 2019). Now, the problem and distraction arise when those with limited technological orientation are forced to adapt to the technological way of doing things.

After doing the summation of those that agree and strongly agree, it results to 41. On the contrary, only 15 out of 68 respondents do not see technology as a constant source of distraction. The 15 respondents may not be victims of technological distraction but they existence is significant in showing that, while there are those who have mastered the art of swimming against the wave of technological ocean, a good number need further guidance on how to operate the technological devices such as smart phones and televisions.

### Emerging Organizational Trends

As part of modernization, paperwork minimization and automation are now the new norm, with the dominant competition being having a better performance than the computer or give in to replacement. The survey we conducted revealed that young people are more competent on technological trends compared to the old people. This is primarily contributed by the fact that, with new technology comes a lot of learning and practices to master the new technological processes. For example, the wave of COVID-19 revealed that working from home will soon become a skill for every worker to have. Working from home required skills such as video conferencing, networking, and sending of documents over the internet (Kramer & Kramer, 2020). In other words, there are lot of skills to learn and the old people (those not yet retired), must learn them to remain relevant and that, of course comes with a lot of stress, which may in turn be a constant source of distraction.

### Hypothesis 3: Relationship between the Overuse of Technology and Health Issues

When it comes to technology, maintaining mental health and sanity requires more attention than is usually given. With various types of content being posted on the internet on a daily basis, there is so much to consume that it requires strong mental discernment for an online internet user to distinguish which content to act on and which to disregard. The respondent's contribution backed up the facts when 91 percent stated that in their opinion, physical, psychological, and social health issues are threatened if one does not control the type of content they consume from the internet. The subsections that follow, in conjunction with the survey results, elaborate on the fact that health issues are subject to overuse of technology.

### Wrong Reliance of Technology

People frequently seek health advice from the medical interns regarding their symptoms. While some people do this to get a sight of their current condition, others disregard a physician's prescription and treat themselves with remedies they read about on the internet. This is the group that is causing the most concern. This brings us back to the first survey question, where 82 percent of respondents said they found technology to be disadvantageous.

### Depression

Depression is a mental condition where the victim is unable to understand or control their emotions resulting to them secluding themselves from the rest of the public (Maj, 2011). While 91 percent agrees, I hold a strong position that when it comes to mental health, the details are found on the consequences and the things or acts that the victims is influenced to perform. From the survey we conducted 38 percent of respondents affirmed that indeed, the internet, or rather the internet, to some degree, promotes drug use and irresponsible sexual behaviors such as rape and trolling of people based on their sexual orientation.

### Blue Light from Devices' Screen

The human eye is very sensitive to some light spectrum, some of which can be detrimental. An example is the blue light, a light spectrum produces by devices' screens and that when consumed to long period of time may have both short and long-time effects to the eyes. The short-term effects of over exposure to blue light are irritation and mild to strong eye discomfort. On the other hand, long term effects include reliance to eyeglasses or in the worst-case scenario, blindness. To avoid this complication, the International Standards Organization (ISO) hold that devices should come fitted with eye caring mechanism to help filter the blue light and prevent it from entering the eye.

## DISCUSSION

The goal of this study is to analyze if there is an impact of social media on cybercrime, if there is a relationship between user impact and the level of distraction, and if there is a relationship between the overuse of technology and health issues. After analyzing all our data from previous researchers and the primary data that we collected, we conducted a regression test and correlation tests to analyze the results and compared them to the data gathered from previous researchers.

By conducting a regression test on the data that we gathered from our survey, we concluded that social media does have a significant impact on cybercrime. The information gathered from previous researchers also supports our hypothesis where cybercriminals do use social media platforms to perform illegal activities.

Furthermore, we performed a correlation test using Pearson's correlation coefficient model on two different hypotheses. The first test will measure if there is an existing relationship between the impact of technology on the user and the level of distraction that results from using technology. The second test will measure the relationship between the overuse of technology and if it is causing any health issues towards its users.

Regarding our first correlation test, we concluded that there is a strong positive relationship between the impact of technology and the level of distraction they are experiencing. The data from previous researchers supports our hypothesis where technology does in fact cause users to be easily distracted due to their compulsion of always being online. Meanwhile, the results in our second correlation test were very astonishing.

Our results show that there is no relationship between the overuse of technology and health issues which means that using technology for an extended period does not cause any health issues to the user. On the other hand, while analyzing the data we collected from previous researchers which state that the overuse of technology does cause physical and psychological health issues. The results from our survey rejected our third hypothesis and dismisses the data gathered from previous researchers. However, due to the small sample size of the participants and other limitations, these results can be contemplated as ungeneralizable, unreliable, and invalid.

## CONCLUSION

It is concluded that everything has bright and dark side. Despite all the side effects of information technology that we have discussed in this article, the positive aspects cannot be ignored. Our study examined, that there is positive relationship between the impact of social media on cybercrime, and positive relationship between user impact and distraction levels. Besides, our study found out that no relation between the overuse of technology and health issues. Our results, however, may not be accurate and reliable as our sample size was too small to generalize.

Information technology side effects depend on how people are using it, so they should be aware how to use the technology in good way. Highlighting the negative effects of technology would guide us to identify them so people would adopt technology to obtain the ultimate benefits of it, as it has become an integral part of our lives. Therefore, People should minimize their technology devices usage to prevent addiction. Organizations should mobilize the security level, to protect their data. Rules and obligations should be created to limit cyberbullying and cybercrimes in society. In addition, Governments should implement eco-friendly inventions to make our world cleaner and reduce pollution. Moreover, Parents should monitor their children to limit smartphones, tablets and video games spending time, and exchange it with physical activities, to avoid technology negatives that was discussed in this article. Permanent new technological evolutions, have and will persist to change our world positively and negatively.

### Limitations and Scope for Further Research

While conducting this study, we face several limitations. The time frame that was available for us to complete this study was brief which limited our ability to gather more data. When conducting quantitative research, we are required to obtain a large sample size to ensure the reliability and validity of the data that we acquired. However, due to the low response rates, we obtained only 71 responses with 3 incomplete surveys. In addition, we believe that the language barrier may have caused misinterpretation of the questions which may have resulted in inaccurate answers.

For future research on this topic, we suggest a mixed methods approach combining a questionnaire and conducting interviews. This triangulation may offer the extraction of very rich and useful information and data that would improve the reliability and validity of the study.

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