

## **Literature Review**

### **1. Review Digital wellbeing in general (definition, the roles, history of development)**

According to tutor slide: Digital health is a trend that is being talked about by medical experts, researchers and equipment manufacturers to use technology to support the mental and physical health of people. The goal of digital wellbeing is to create technology products that promote the use of healthy technology and help users maintain a healthy lifestyle.

Another definition: Digital wellbeing is a movement for balancing the time we spend using technology (smartphones, web, etc) and other activities. The goal is to reduce the potential harms caused by overuse on screens such as decreased focus and productivity at work and school. (Sinicki, 2020)

According to Gareth Hughes's team, Digital wellbeing is about taking care of people's health and the balanced relationships between life and work using digital technology. Use technology to promote people's well-being and increase awareness of safe and responsible use of technology. (Gareth Hughes, n.d.)

From the 3 above definitions of Digital wellbeing, it can be concluded that: Digital wellbeing is a trend used to indicate the application of technology to support and improve to improve human health. The goal is to use technology to minimize the potential harms caused by technology and to change bad habits when using technology (addiction to technology, etc.).

According to website name "digitalwellbeing.ie": Digital wellbeing help people use technology effectively, by giving them the tools they need to use technology to advance the pursuit of their goals. Using technology to pursue your goals By delving into everyday lifestyle habits, technology helps people develop new habits and improve their quality of life (Wellbeing, 2019).

Summary, the role of Digital Wellbeing helps people to have better habits of using technology. Using technology to help people reach their goals easily, and creating and maintaining habits that improve quality of life. At the same time, it helps people reduce the time they spend using technology in unnecessary tasks, helping people to balance life and technology.

### **2. Review the impact of digital wellbeing on human being in the past and current now (how it change the way we live, what is the trend, pros and cons...)**

#### **How it change the way we live:**

Technology has a great impact on how people communicate, learn and think (Allen, 2019). It has positive and negative effects on the world and affects everyday life. First, technology has a huge impact on learning.

Technology makes learning easier by providing resources that make it easier for learners to refer to the material they are working on. Technology also promotes self-learning through websites such as youtube, etc. Secondly, technology has changed the way we communicate. Technology has brought us new ways of communication such as video calling, texting, etc. Ultimately, technology has played a large role in the medical industry. There are many technology applications to help users monitor health (heart rate, blood pressure, etc). Besides that, technology also has potential risks. Mobile technology can reduce communication and relationships between people. In addition, it can cause distraction from school work..

According to Tapaleao and Vaimoana's study, there are several change in life. The first thing is technology influences children's development. Technology has changed children learning and parenting. Children tend to imitate, learn more from technology through technology devices than learning from parents. Further, The fact that technology develops has caused an increase in people with mental illness because users have bad habits when using technology. In addition, people's social activities have undergone major changes thanks to the digital age. Social media has become a platform that helps like-minded groups collaborate and grow together. "But it also allows antisocialists to take advantage of the dark web to build new groups based on violent, antisocial, morally offensive or illegal behavior. ". Finally, there is a private and public security issue. Online abuse over internet and social media sites is highlighted as a number of specific issues related to personal and public security. Example: Cyberbullying and phishing, etc.

(Tapaleao, 2018 )

Both authors say the pros and cons of technology. Technology is very important in today's life, making a great contribution in many fields but also has many potential risks. Both articles say that the advancement of technology has changed children's development and has also caused mental health problems with great information security risks. These potential harms are very worrying in the current technology age. To minimize these risks, people must have a habit of using technology properly.

### **Trend:**

There are number of trends that will be developed by digital wellbeing in the coming years (Sanchez, 2020) . The first is sleep hygiene. Getting enough sleep is now one of the essential things for a healthy life. To have a good sleep, people need to have good habits to improve sleep quality such as: taking phones out of the room, etc. The second is to use technology to improve health (mental and physical). Currently, there are starting to appear many applications of technology to improve human health through exercise videos (yoga, gym,etc) and time control applications to limit the technology's risk to mental health.

"There are some digital wellbeing trends in the coming years," says by a report from the Digital Institute of Care and Wellness. (Laura Rooney, 2018). The first is AI. The potential benefits of AI in Health and Care are assisting in the diagnosis and detection of minor changes in patient health (heart rate, etc), early identification of underlying disease, and monitoring of incidence. disease to help prevent and stop its spread and diagnostic imaging (radiology, pathology). The second is Blockchain. Blockchain's potential benefit in Healthcare is that Blockchain is an element that can significantly reduce the time, cost and risk associated with the way Health and Care organizations operate. This technology could provide a new paradigm for the exchange of medical information by making electronic medical records more efficient, uninterrupted and more secure. medical data, drug development, medical research, data confidentiality ...

Generally, the growing digital trend revolves around health issues. In the article 1 author gave problems that the technology was intended to be developed in the future (health, sleep, etc). In a research by the Digital Health and Care Institute has shown that specific technologies will be integrated to improve human health such as: using AI for medical examination, Optimizing management hospital with blockchain, etc. The one problem that unnoticed is mental health and the adoption of technology to reduce it. In the era of internet boom and smartphones can be addictive, people spend a lot of time on screens affecting health, mind and fitness. Adopting Digital wellbeing will help users improve their smartphone time, thereby improving their health and helping teenagers lead healthy lifestyles.

Digital has a number of benefits as follows: Limiting screen time to a certain number of hours, Reducing eye strain in frequent device users, Being aware of unforeseen mental health impacts, Increasing emphasis on physical activity and nutrition, Supporting healthy sleep patterns, especially for users that bring devices with them to bed. Besides, there are also the following disadvantages: Social Disconnect, Digital Media Manipulation, etc

3. Identify your topic (research question) in the wider context.

### **Type of mental health are effected by smart phone:**

There are a number of mental health types can affect young people when using mobile phones (Illness, n.d.) like: Self harm: Do along risky things,... Psychosis: look real world in different way. Anxiety & panic attacks: cyber threats,... Eating disorders: Spending a lot of time on smartphones leads to changes in eating habits. Depression: Lost game, bad information,. Switch to Dror Ben-Zeev's team: The data they collect have shown that smartphones can cause mental health problems such as Stress, Depression, Loneliness (Dror Ben-Zeev, 2015 ). It can be seen that smartphones, apart from their immediate benefits, still have potential risks to mental health. Mental health

problems today are not well known and of little concern, so the development of the disease will be very dangerous for students. Issues such as anxiety, stress will cause students to have negative thoughts in life and can do thoughtless things (self-harm, suicide ...). In addition, depression also makes students afraid to communicate that threaten life relationships. These potential risks of the phone directly affect students' (physical and mental) development.

### **Purpose using smart phone:**

According to data from research by Ben group (WOODCOCK, 2012), in the survey of 188 smartphone owners, about 88 (46.8%) of people use it for academic purposes. From there, it can be seen that using mobile phones for learning purposes is being received by young people. Besides, the data collected from their interviews suggests that young people also spend a lot of time playing games and entertainment. Most young people use their phones to text everyday with their friends (Lenhart, 2012). According to the Lenhart study, 63% of all teenagers in Lenhart's study said they exchanged messages daily. Just 1% of teens say they text less than once a week. When they were asked specifically about texting their friends, 49% of teens send and receive text messages with their friends every day while 28% of teens say they never text their friends. In 2009, 54% of teenagers texted their friends every day. To sum up, both authors conclude that most of student's activity in thier phone is texting and spending time on social meadia but children also do other activity for entertainment likes: watch flim, play game,etc. It can be seen that smartphones meet many of the needs of students, from which students will increase the frequency of using smart, which will make students change their habits in life (study, etc). In addition, the increased frequency of cell phone use will also cause mental problems causing eating disorders, anxiety, sleep disturbances, etc.

### **How much time are young people spending on screen-based activity?**

According to Shashank V. Joshi's team: American teenagers (13- to 17-year-olds) spend an average of six and a half hours and tweens spend an average of four and a half hours on screen media use (Shashank V. Joshi, 2019). According to Frank Bentley's group study , Based on the data they surveyed among teenagers, they found that teenagers use an average of 173.6 minutes per day to interact with their phone and 130.9 minutes to use mobile apps. Average total teen usage time per day is 304.5 minutes (about 5 hours) (Frank Bentley, 2015). From 2 data above, Teenagers spend an average of nearly 5 to 6 hours per day interacting with their smartphones. Shows that the frequency of young people using smartphones is very thick in 1 day. Since then, it is easy to experience mental problems (eating disorders, sleep disorders, etc).

#### 4. Discuss research methodologies.

Primary research is the study that collects data from events, objects and people to be able to observe, analyze, measure directly through Surveys, Observations and interviews (Driscoll, 2011). Primary research does not get data from available sources such as books, newspapers, etc. The objective of primary research is to find out about a problem that can be confirmed by other subjects and to eliminate the researcher's prejudice about the research process. Three common ways to conduct primary research is Observations, Interview and Survey. Observations is observe and analyze the subjects that need research. Including observations of other related objects and events. Interview is ask participants directly questions about the subjects that need to be studied to get information. Survey is ask participants about their opinions about the research object through a questionnaire about the research object. The pros of primary research are Better data analysis, no need to worry about ownership issues, etc. The cons of primary research are high cost, spend time doing research, information provided may not be incorrect, resources are needed to conduct research (interviews, data analysis, etc).

Secondary research is one that is based on data collected from other relevant studies (questionpro, n.d.). Those are the data that has been analyzed and selected. These data will be aggregated and collated for analysis for the study. Secondary research includes research papers that are published in research reports and similar papers. These documents may be provided by public libraries, websites, data obtained from filled out surveys, etc. The advantage is the information is readily available and the source of data is large and does not cost much to obtain data. No research time is wasted as the data are available. The disadvantage is the reliability of the data must be carefully selected. Required data may not be updated for long periods of time. Research results may depend on the quality of such research.

Qualitative research is the study of collecting and analyzing non-numeric data such as: text, video, etc. to understand concepts, opinions, experiences (Bhandari, 2020 ). Research is often used to gather insights into a subject. Qualitative research is often used in social sciences, history, etc. There are some qualitative methods. The first is observations. Record everything observed where needed to study. The 2nd is interviews. Question people to find out ideas, experiences, etc. The 3rd is group practice medium. Questioning and discussion among a group of people. The 4th is survey. Distributing questionnaire with open-ended questions. The 5th is secondary research. Collecting existing data in the form of text, images, records audio or video, etc.

Amanda Lenhart (Lenhart, 2012) used survey method to study data on young people texting over the phone. They surveyed and achieved the following results:

The average number of texts submitted by teens on a single day has increased from 50 in 2009 to 60 in 2011 and most of this increase occurs among older teenagers aged 14-17, from an average of 60 messages per day to an average of 100 over the next two years. And 63% of teenagers exchange messages daily with the people in their lives. This outpaces the frequency they choose to use other forms of daily communication, including phone calls (39%), face-to-face communication outside of school (35%), and texting on the internet social (29%), instant messaging (22%), talking on landlines (19%) and emailing (6%). Through the survey they obtained their results and compared them with a 2009 research and found an increase in texting among young people and giving specific numbers..

Christopher Bulpitt's team used the interviewing method in his research paper, "Views of elderly people on living wills" (Rebekah Schiff, 2000). Through interviewing 81 people, they found that the average age of the participants was 81 ( about 66-97) years old. Most live in independent housing (69; 93%), alone (44; 64%) or with family members (25; 36%). One participant is wheelchair-dependent; others can walk: 25 (34%) independently, 26 (35%) with sticks, 22 (30%) with frames. Half of them received help at home. Sixty-one participants (82%) have not heard about the will to live. When in the terminal stage of terminal illness, 68 people (94%) said they would refuse surgery, 67 (93%) artificially fed, 66 (92%) ventilated, 65 (90%) recovered cardiopulmonary strength, 62 (86%) subcutaneous or intravenous fluids, and 59 (82%) antibiotics. From the collected data, they completed a study of the elderly's perspectives on the will to live.

In this research, surveys and interviews are the two best data collection methods for the research paper. Using survey method will help to get data quickly through internet survey. Besides, there is no cost to do the implementation. However, the survey information may be impractical and lead to erroneous results. Therefore, it is necessary to conduct interviews to get information directly. Based on the face-to-face interview, the respondent will give more truthful information and based on his or her appearance, we can conclude that the information is true or false.

## 5. Review similar product

ActionDash is an application that aims to help users control the time they use their smartphones. Through the application, users can view the usage time (of each application in the smartphone) and from there adjust usage

time. In addition, the application also has other features such as concentration mode to help students not lose concentration while studying and a limited time feature, etc.



6. Identify some Propose hypothesizes in your topic after reviewing lots of materials in section 1, 2 3.

Using smartphones makes our lives more convenient and easier, but there are also potential risks to mental health.

The less time I use the smartphone, the happier and healthier life is.

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