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# **Digital Addiction: a conceptual overview**

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## **Abstract**

Digital addiction referred to an impulse control disorder that involves the obsessive use of digital devices, digital technologies, and digital platforms, i.e. internet, video game, online platforms, mobile devices, digital gadgets, and social network platform. It is an emerging domain of Cyberpsychology (Singh, Amarjit Kumar and Pawan Kumar Singh; 2019), which explore a problematic usage of digital media, device, and platforms by being obsessive and excessive. This article analyses, reviewed the current research, and established a conceptual overview on the digital addiction. The research literature on digital addiction has proliferated. However, we tried to categories the digital addiction, according to existing literature and current research. We discuss in this paper the conceptual outline of digital addiction, including its definition, theoretical background, its classification, symptoms, coping and future directions. We conducted a literature review and after that established conceptual overview of the digital addiction. Using scholarly bibliographic databases, covering 300 most relevant research papers from the period of 2012 to 29, October 2019 was conducted to determine a conceptual overview of digital addiction. Most paper examined to build on the concepts of definition, symptoms, coping with digital addiction. We only included those studies, which correlated to our conceptual review, but address the few relevant other studies also. We established conceptual explanations for digital addiction and its definition, classification, symptoms, and coping.

**Keywords:** Addiction, Digital Addiction, Internet Addiction, Technology Addiction, Computer Addiction, Video Game Addiction, Smartphone Addiction, Digital Devices, Digital Detox, Cyberpsychology, Applied Psychology, Clinical Psychology, Behavioral Psychology, Library and Information Sciences, Conceptual Framework, Literature Reviews.

## **Introduction**

As a digital medium (such as internet, smartphone, social networks, gadgets) and other online active devices have become more widespread, 28% of global adults now report that they go online “almost constantly,” up from 21% in 2015, according to a Pew Research Centre survey conducted from January 8, to February 7, 2019. Despite the digital platforms advantage and productivity enhancements from using digital devices a growing literature finds many people overuses their devices which connect digitally in ways that interfere with their daily lives (Cho, 2015; Clayton et al., 2015). The first relevant research article on digital addiction was “Internet addiction: a brief summary of research and practice (Cash, Hilarie. et al., 2012)” published as its synonyms term Internet Addiction.

We present a conceptual overview of digital addiction. Next, to identify definition, core background, symptoms, and coping of digital addiction, we conducted a literature review and synthesis on conceptual overview of digital addiction. This review aimed at synthesizing and established the conceptual overview of digital addiction. No such conceptual overview was available before in this area. The concept of addiction has been heavily promoted in modern life (Billieux et al., 2015; Starcevic, 2016). Thus, in recent years, almost every activity has been a prey to a tendency to make it look addictive, which has resulted in new disorders such as musical activity addiction (or musicorexia), food addictions etc. (Starcevic, Vladan; Joel Billieux, and Adriano Schimmenti; 2018). In order to modern disorder, the digital addiction is a new kind of addiction resultant excessive use of digital media or devices, or platforms (Khang, Hyoungkoo; Jung Kyu Kim; and Yeojin Kim; 2013).

## **Definition of Addiction**

Addiction a primary, chronic disease involving brain reward, motivation, memory and related circuitry; it can lead to relapse, progressive development, and the potential for fatality if not treated. While pathological use of alcohol and, more recently, psychoactive substances have been accepted as addictive diseases, developing brain science has set the stage for inclusion of the process addictions, including food, sex, shopping and gambling problems, in a broader definition of addiction as set forth by the “American Society of Addiction Medicine in 2011 (Smith, David E.; 2012).” However, digital addiction of types of addiction caused by excessive or problematic use of digital technologies. The studies on digital addiction exiting their synonym terms, i.e. technology addiction, internet addiction, computer addiction, etc. (Singh, Amarjit Kumar, and Pawan Kumar Singh; 2019).

## **Methodology**

### **Search strategy**

We conducted a literature review for the construction and establishment of conceptual overview of digital addiction of publications available from 2012 until 29, October 2019 to identify all relevant studies. As indicated above, the first relevant paper on digital addiction was “Internet addiction: a brief summary of research and practice (Cash, Hilarie. et al., 2012)” as its synonyms term Internet Addiction published in the year 2012. Thus, we included studies published from 2012 in order to analyze data and established conceptual framework. We search two comprehensive bibliographic databases to Google Scholar, ScienceDirect, and PubMed. We used such search terms as ‘Addiction’, ‘Digital Addiction’, ‘Internet Addiction’, ‘Technology Addiction’, ‘Computer Addiction’, ‘Video Game Addiction’, ‘Smartphone Addiction’, in combination with (using the “AND” Boolean operator) terms as Digital Devices. After identifying and deleting the duplicates, we next reviewed from the resulting titles in order to locate additional relevant papers.

### **Inclusion and exclusion criteria, and study selection**

We required studies in our review to have the following characteristics:

- a) Searches in Google Scholar, Sciencedirect, and PubMed for the most relevant scientific, scholarly papers published between the years 2012 to 29, October 2019,

- b) Published or online first in peer- reviewed journals,
  - c) Written in English,
  - d) Selection and determination of most relevant published papers that were found pdf version,
  - e) Conceptual analysis considering the general contents of the relevant papers,
  - f) Analysis and classified the papers according to their various conceptual aspects like definition, theoretical background, symptoms, causes, and coping, etc.
  - g) Generate the conceptual overview of digital addiction.
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- ✓ *Studies were excluded that only reviewed digital addiction, but not in the context of digital devices, or platform, or medium usages.*
  - ✓ *We included studies that explained definition, theoretical background, causes, symptoms, and coping of digital addiction.*

## **Results**

A total number of results after searching Google Scholar, ScienceDirect and PubMed bibliographic databases 305 articles were found in the first step, through the application of the inclusion criteria (most relevant papers, etc.), this number decreases to 125 articles. Finally, another use of the inclusion criteria (free pdf papers), the number of 125 papers again decreased to 23 most relevant papers.

### **Major review finding and established conceptual overview**

#### **Definition**

Digital addiction abbreviate as (DA) define as “Digital addiction (DA) denotes a problematic relation to the technology described by being compulsive, obsessive, impulsive, and hasty (Alrobai, Amen; 2018).” In order to explain what digital addiction is it is important to define an addictive behaviour. Addiction according to Cash (2012) begins to take hold when we do it too much; the brain is forced to withdraw Neuro-receptors in an effort to restore balance, especially when we no longer get the high from the same level of activity or drug use. Digital addict is colloquially used to describe a person, whose interaction with technology is verging on excessive,

threatening to absorb their attention above all else and consequently having a negative impact on the well-being of the user. When it is used as a conversational phrase, digital addict describes an increasingly common dependence on devices in the digital age. The phrase “Digital addiction” is used to pinpoint the possible warning signs in being over exposed to technological gadgets at a time when the rate at which the use of digital gadgets in daily activities is ever-increasing and the possibilities of becoming dependent upon them is becoming frightening (Rugai, Joseph and Joy-Telu Hamilton- Ekeke; 2016). The American Society defines digital addiction for Addiction Medicine (ASAM) as well as the American Psychiatric Association (APA) as “a primary, chronic disease of brain reward, motivation, memory, and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social, and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviours (Peper, Erik and Richard Harvey; 2018).”

### **Categories of Digital Addiction**

Digital addictions manifest in several ways that cover various degrees and areas of technological usage and some are Media addiction: Television, movies, video, games, and music (Joseph, Rugai & Joy-Telu Hamilton-Ekeke; 2016). Young, K (1999) classifies online addiction into five types: Computer (games) addiction, Information overload, Net compulsions, Cyber-sexual addiction, and Cyber-relationship addiction. Social network addiction, which is relatively new, would map to the last category, but it may still include elements of the others, e.g. games.

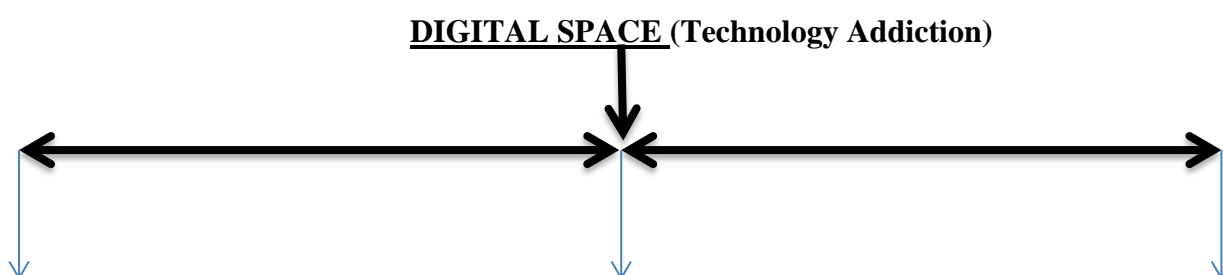
The following categories listed by Gandolfi (2010) are:

- ✓ Information overload: Too much online surfing leads to decreased productivity at work and fewer interactions with family members,
- ✓ Compulsive Addiction: Excessive time spent on the phone or in online activities such as gaming, trading of stocks, gambling and even auctions often lead to overspending and problems at work,
- ✓ Cybersex Addiction: Too much surfing of porn site often affects real-life relationships,
- ✓ Cyber-relationship Addiction: Excessive use of social networking sites to create relationships rather than spending time with family or friends may destroy real-life relationships,
- ✓ Virtual Addiction,

- ✓ Internet Addiction,
- ✓ On-line Solicitation (Gandolfi; 2010).

Gandolfi (2010) provided a new list of types of digital addiction to include Facebook Addiction Disorder (FAD), YouTube Addiction Disorder (YAD), Google Search Addiction Disorder (GSAD), Widget Addiction Disorder (WAD), Twitter Addiction Disorder (TAD), and Blackberry Addiction Disorder (BAD).

After reviewing existing literature on digital addiction, we tried to categories the digital addiction in different areas are following:



<b>DIGITAL DEVICES</b>		<b>DIGITAL PLATFORMS</b>		<b>DIGITAL MEDIA/MEDIUM</b>	
<b>EXAMPLES</b>	<b>ADDICTIONS</b>	<b>EXAMPLES</b>	<b>ADDICTIONS</b>	<b>EXAMPLES</b>	<b>ADDICTIONS</b>
<b>Computer</b>	<b>Computer Addiction</b>	<b>Google Search</b>	<b>Google Search Addiction</b>	<b>Video Games</b>	<b>Video Games Addiction</b>
<b>Smartphones</b>	<b>Smartphones Addiction</b>	<b>YouTube</b>	<b>You Tube Addiction</b>	<b>Computer Games (online /offline)</b>	<b>Computer Games Addiction (online /offline)</b>
<b>Digital Gadgets</b>	<b>Digital Gadgets Addiction</b>	<b>Facebook</b>	<b>Facebook Addiction</b>	<b>Internet</b>	<b>Internet Addiction</b>

<b>Selfie with smartphone camera</b>	<b>Selfies or Selfie Addiction</b>	<b>Twitter</b>	<b>Twitter Addiction or Twitteritis</b>	<b>Online media/modes (online movies, online shopping)</b>	<b>Online Addict Behaviour</b>
*****	*****	<b>Digital Simulation</b>	<b>Digital Simulation Addiction</b>	<b>Mobile Apps</b>	<b>Mobile Apps Addiction</b>

### **Causes of Digital Addiction**

Sunwoo and Rando (2002) enumerated some of the reasons for digital addiction to include personal factors such as low self-efficacy. In most of cases or studies, shows that people who are overly shy and cannot easily relate to their peers are also at a higher risk of developing a digital addiction (Kuss, Daria J., and Mark D. Griffiths; 2011). Certain people are predisposed to having a digital addiction, such as those who suffer from anxiety and depression. Their lack of emotional support means they turn to the digital media to fill their need (Castille, Christopher M., and Tilman L. Sheets; 2012). Studies from the University of Iowa show that digital addictions are quite common among males ages 20 to 30 years old who are suffering from depression (Yildiz Durak, Hatice; 2018). Even being stressed and unhappy can contribute greatly to the development of a digital addiction (Rosen, Larry D.; 2012).

### **Symptoms of Digital Addiction**

An addiction of digital space manifests in both physical and emotional symptoms (Petry, Nancy M., et al.; 2014). The major emotional symptoms are typical of digital addicts- Anxiety, Depression, and Isolation (Zhang, Jie. et al.; 2019) and major physical symptoms of digital addicts are backache, headaches, weight gain or loss, disturbances in sleep, blurred or strained vision (Kandasamy, Sunitha; Abulrahuman Mohamed Buhari; and Shyamala Janaki; 2019). The Carpal Tunnel Syndrome is one of the most significant symptoms of digital addicts (Colucci, Annalisa; 2018).

### **Coping to Digital Addiction**



The reviewed studies explained that at least 64% of people now spend up to 4 hours daily of leisure time in front of a screen (Twenge, Jean M., Gabrielle N. Martin, and Brian H. Spitzberg; 2019). Just as TV watching has been linked to higher rates of obesity and diabetes, this extra sedentary time is bad for our health (Henson, Joseph. et al.; 2018).

The following methods of coping with digital addiction are reviewed:

- Unplug the digital media, devices or platform before bed (Jackson, Darla; 2018) (Fuller, Georgina; 2019),
- Turn off notification of your smartphone (Sheridan, Elizabeth; 2018),
- Apply a digital detox for coping with digital addiction (Varma, Harshika; 2018),
- Stress management is one of the best solution for coping technology related stress and addiction (Yuvaraj, Mayank, and Amarjit Kumar Singh; 2015).

## **Conclusion**

Digital addiction (DA) is an emerging domain of Cyberpsychology, an impulse control disorder that involves the obsessive use of digital devices, and other digital medium, despite negative consequences to the use of digital technologies. This disorder may also be referred to as technology addiction, internet addiction, etc. Final reviews of the literature of digital addiction published under the year of 2012 to 29, October 2019 concluded that the conceptual framework. By selecting the appropriate papers on Google scholar, Sciencedirect, and PubMed to understand and analyze the concept of digital addiction, conducting a content analysis of appropriate identifying relevant concepts, and conceptual themes. A few years back, we witnessed a rapid rise of computing and mobile technology, influencing human behavior change, with common labels, like digital addiction, digital anxiety, or negative effects of the use of technologies, focused on the purpose of clinical psychology, and having a psychological and behavioral impact, detrimental for the technology users. This includes a wide scope of knowledge area of health and wellbeing promotion. Finally, this study would help in the creation and established conceptual overview in digital addiction.

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