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Virtual Addictions, Teleworking and Artificial Intelligence in the Pandemic

Marius Adrian Alberti DĂSCĂLESCU[1]

[1] Clinical psychologist, trainer, Brasov, Romania, daswiss01@gmail.com

Abstract: *This article points out that during the pandemic of SARS-CoV-2 virus and quarantine, people who were already addicted to the Internet, video games or TV, this was exacerbated in most cases. Other people have had to adapt to the economic and social life generated by the pandemic, launching various online businesses. Some people, however, have developed at least one virtual addiction that has affected their health, family life, self-image, behavior, will, and psychological immunity. The article mentions the types of virtual addictions, the concept of digital dementia (Khoja, 2021) and the profile of digital addicts. Here are some tips to help you keep your balance when it comes to surfing the web. The 20-item test developed by Dr. Kimberly Young, which identifies the level of internet addiction, is mentioned. The article continues with the benefits and risks of telecommuting. The SWOT Analysis is presented as a tool for assessing strengths, weaknesses, opportunities and threats. Artificial intelligence has allocated a special space where arguments are presented that were the basis for the implementation of robot technology and digitization. Starting with the cartoon film, Wall-e, from the brief presentation of the Robot Sophia, we also argued with the help of the myth Pygmalion and Galateeia, the prudent advantages we must have in our relationship with robots. The study, conducted by Oracle and Future Workplace, highlights employees' perceptions of robots and artificial intelligence.*

Keywords: *virtual addictions, teleworking, artificial intelligence, lifestyle, melatonin.*

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1. Introduction

Since the beginning of the SARS-CoV-2 virus pandemic, each of us has been determined to set other reference systems, to be more careful with our health, that of our patients and our loved ones. Life in the pandemic has new connotations, and patients who contracted Covid-19 and recovered may have been left with questions about disease prevention and a healthy lifestyle. The old medical saying: It is easier to prevent the disease than to cure it, it now has a new psycho-emotional and practical load (Grigoras & Ciubara 2021; Izzat et al., 2021).

A special situation was represented by the categories of chronic and acute non-covid patients, who had more difficult access to specific medical services. Also, some patients who went through Covid-19 disease were left with some post or long Covid-19 sequelae. During the quarantine period, many young people went to the virtual environment for medical advice, socializing, looking for a job, commercial transactions and entertainment.

So is the case with the 15-year-old C.N. who had begun to develop a virtual addiction to social platforms. His parents noticed this obsessive-compulsive behavior late, which ended with sleep disorders. Basically, the boy locked himself in his room, claiming his right to privacy, went to bed at dawn, around 03.00, and his schedule became chaotic, the interest for school activities decreased dramatically, especially in the online version. It wasn't long before C.N. he became depressed, irascible, and full of demands (Radulescu et al., 2020).

The parents were alerted and first asked for the advice of the family doctor, who later referred them to the clinical psychologist. The advice received was practical and was based on restoring mutual trust, by adopting sleep hygiene, by limiting internet access and by engaging in common activities such as learning a foreign language, exercising at home, housework, and so on It seems that the alternation of the reward with the coercion, gave results, and the therapeutic alliance between the family doctor, the clinical psychologist and the family, gave results (Pandele et al., 2021; Silistraru et al., 2021).

Here are the questions that this article focuses on:

What are virtual addictions and how can we keep them under control?

Does telecommuting a new pandemic opportunity?

What is the role of artificial intelligence (AI) in optimizing daily activities?

2. Definitions

ADDICTION s. F. Drug addiction, with a tendency to gradually increase the dose. (<fr. addiction) (DEX.RO).

Addiction A state of psychological or physical dependence (or both) due to alcohol or other drug use. To describe this condition, the equivalent term addiction is preferable, as it refers more explicitly to the criteria on which it is diagnosed, which include tolerance, withdrawal, loss of control and compulsive substance use (Izzat et al., 2021; VandenBos, 2020).

VIRTUAL ADDICTION is manifested by dependence on the content of various social platforms, online programs, internet and television that slowly and surely take over the user's freedom for a period of time, affecting his self-image, health, behavior and will.

Starting with DSM-5 (2013), this framework extends to Substance-Related and Addictive Disorders, including gambling.

3. Types of virtual addictions

Depending on the platforms, devices (smartphone, tablet, laptop, PC, TV) and virtual reality (VR) accessories, we detect several specific types of addictions, compared to the content and time of exposure to:

- social platforms;
- video games with or without consoles, gambling, stock market investments;
- online games with various consoles where more players can participate. There were cases when participants were deprived of sleep for several days in a row, and some of them developed tendencies to schizophrenia or suicide;
- music platforms and movies of various genres;
- erotic platforms, which in the pandemic offered free access to new posts in the field, in order to capture as many customers as possible.

What is the reason why these online concerns are so successful? Why is addiction set in relatively quickly and takes up more and more time?

If we discuss only the impact of the most popular social platforms, a meta-analysis from June 2021, which assesses *The prevalence of dependence on social networks in 32 nations: meta-analysis with subgroup analysis of classification schemes and cultural values* (Cheng et al., 2021), we will note that dependence on social networks has emerged as a problem of global interest, with researchers around the world conducting studies to assess how widespread the problem is. The meta-analysis involved 63 independent samples with 34,798 respondents from 32 countries in seven regions of the world. The

prevalence of dependence on social networks was twice as high for members of collectivist regions as for those in individualist regions.

These nuanced findings demonstrate that social media addiction is a heterogeneous issue that has a spectrum of symptom severity. Such heterogeneity is similarly observed in other psychiatric disorders, such as alcohol abuse and gambling disorder (American Psychiatric Association) (DSM, 2013), in which a positive diagnosis may have various clinical manifestations.

The SARS-CoV-2 virus pandemic directed some people more towards the virtual world, because they had more free time available, they sought to socialize with their loved ones, they wanted to know what is the evolution of the pandemic, its causes and treatment, finding a job, buying or selling online, or having fun.

Some people find refuge in the virtual world, because they meet with a pleasant addiction, for an easier socialization, because in real life they may have faced disappointments, shattered hopes, the negative side of human nature, or I want to meet other people, maybe more interesting, could be an explanation for why social media and the internet are successful. Also, let's not forget the pressure of the group, fashion and utility (Luca et al., 2020).

It is true that most of us use the internet, social networks, or watch TV, because we want to be informed, socialize, shop, or relax. What is important is not to exceed the threshold of individual tolerance, not to become addicted and to know how to say stop, to the virtual connection, in favor of real life. A netizen remarked more jokingly, more seriously that when his grandfather had a radio he had 6 children, when his father had a TV he had 3 children, and since he has internet, he has no children.

4. Brief history

The recognition of computer or internet addiction is demonstrated by Margaret Shotton who shows that obsessive computer addiction affects psychological development and social activity (Shotton, 1989).

A study in April 2013 on the prevalence of Internet addiction and its association with Indian adolescent psychopathology, published in PubMed, found that a cross-sectional study sample of 987 students from various faculties in Mumbai. Students were assessed with a specially constructed semi-structured test and The Internet Addiction Test. Of the 987 adolescents who took part in the study, 681 (68.9%) were girls and 306 (31.1%) were boys. The average age of adolescents was 16.82 years. In total, about 74.5% were moderate (average) users. Using the original criteria of the

test, 0.7% proved to be addicted, and those with excessive internet use had high scores on anxiety, depression and anxiety depression (Goel et al., 2013).

5. Digital dementia

The reality is that this pandemic has further accentuated the addiction to the internet and TV, to people who were already addicted in this regard. A new concept has been launched to describe this behavior: digital dementia (The,ismaili). What does this thing mean? Dementia is characterized by confusion, disorientation, and memory impairment. In a worrying development, recent studies have linked excessive use of screens and connected devices with reduced attention span and poor memory among young people in what is described as 'digital dementia'.

Recently, digital technology has expanded and diversified. These devices store everything we need, but they come at a price, diminishing general cognitive abilities.

Psychiatrists have noted that overuse of smartphones and other Internet-enabled devices can significantly reduce attention span, memory capacity, and thus accelerate early-onset dementia. The term "digital dementia" was coined by neurologist Manfred Spitzer, who described that excessive use of digital technology could lead to impaired cognitive function. He anticipated that short-term memory could be affected due to underuse, overuse of digital technology.

Children and adolescents are most at risk, due to their dependence on digital devices, especially since their brains are maturing. Given these issues, we might ask ourselves, are we heading in the right direction with the digitization of all?

6. The profile of digitally dependent people

- they always have their smartphone with them and they button almost all the time;
- pay attention to every sound emitted by the mobile phone, so as not to lose any message (nomophobia);
- has changes in the spine (kyphosis, scoliosis, lordosis);
- the face may be pale, tired, looking into the mobile phone, with possible eye conditions;
- may be apathetic or irascible, depending on the context;
- have problems with communication, face-to-face socialization, social interaction;

- have become dependent on constant validation, which denotes deficiencies in self-image;
- have a tendency to be overweight, obese, have a metabolic syndrome or type II diabetes;
- others are underweight because they do not allocate enough time for meals;
- sleep cycle is disordered, meals are chaotic or fast food abounds;
- do not have time for physical exercise and become sedentary, at risk of cardiovascular disease;
- are always in a time crisis and live longer in the virtual world than in real life;
- self-esteem, self-image and the ideal self are disturbed;
- personal hygiene may be poor;
- sometimes are victims and / or aggressors in cyberbullying;
- have become addicted to digital dopamine.

7. Recommendations

Especially for children and teenagers, it is necessary for parents and grandparents to make time to communicate with them, face to face, in a real and pleasant way. Brain training is a noble goal that can be achieved by: memorizing poems, learning a foreign language, singing with a voice or a musical instrument, solving crossword puzzles, pen writing, craft development, painting, deciphering tests of insight or solving math problems. If the social interaction, a restful sleep of 7-9 hours a night, a balanced diet and exercise at any age, then the brain will produce the "happiness tonic", ie the combination of endorphins, dopamine, serotonin, melatonin and oxytocin, at which adds brain-derived neurotrophic factor (BDNF). The most beneficial sleep is at 9.30 pm, with the curtains drawn in the bedroom and the decoupling from the blue screens an hour and a half before bed. Glymphatic function acts as a detoxifier of the brain during sleep. This will help the brain to produce endogenous melatonin, which plays a role in regenerating the neuroendocrine system and running the maintenance program, which will eliminate toxic soluble β-amyloid proteins, ταυ proteins and useless records, fix useful information accumulated over the day and will prepare you for the next day. In general, amyloid plaques are deposits made of aluminum silicate and amyloid peptides, which means that they are a conglomerate of proteins (Banich & Compton, 2018). Following the maintenance process, neuronal neuroplasticity is ensured and the onset of neurodegenerative diseases is avoided. Restricting internet access through a digital detox program can start with one day each weekend without access

to blue screens. These things can be done gradually, until a healthy habit of digital detoxification can be reached. The time spent in front of the blue screens can be replaced by the time spent with family and friends, outdoors, in the sanctuary of nature, according to the concept back to nature, where fresh air, connection with real life, richness of landscapes, can happily change the perception of the virtual world. In this way, the bad cocktail made of cortisol, insulin, adrenaline and noradrenaline will no longer create addictions in your own body, which is at rest and sedentary. The abundant life will be oriented towards what is good and healthy, offering meaning to each day and authentic connection with the family and the support group. A useful tool in identifying virtual addiction is the Internet Addiction Test, which was developed by Dr. Kimberly Young and is based on 20 items that assess the level of Internet addiction.

8. Advantages of teleworking

8.1.For the employer:

- no longer rents office space and other facilities;
- only service machines, utility payments or cleaning service are required;

8.2.For the employee:

- the transport time is eliminated;
- the program is autonomous and flexible, which proves responsibility;
- work in a family environment, limited level of illness with the SARS-CoV-2 virus;
- low level of stress and burnout;
- you can take a second job.

9. Risks of teleworking

- long working hours on the PC, on the internet;
- rigid static posture with changes in the cervical and thoraco-lumbar spine;
- repetitive, tiring movements;
- forced positioning of the wrist;
- not judiciously dividing time, which is uninterrupted, without a break;
- distraction from family members, from professional activity;
- decreased socialization;

- risk of hypertension, sedentary lifestyle, obesity, metabolic syndrome, type II diabetes.

For a more detailed analysis of the benefits and risks of teleworking or telemedicine, SWOT Analysis is the ideal tool for a clear and relevant organizational radiography, where strengths, weaknesses, opportunities and threats are assessed.

10. Artificial Intelligence (AI)

The launch of the American science fiction film **Wall-e** in 2008 brought to the attention of the public the robots and their usefulness. Since then, great strides have been made in robotic technology, equipped with artificial intelligence. The areas that have developed this advanced technology, where humanoid-looking robots are used or not, but equipped with (AI), are: military, medical, industrial, telecommunications, automotive, space, aeronautics, agriculture, organizational, entertainment and sex industry. The **Sophia robot** is a branded and visible exponent of (AI), which was activated on April 19, 2015, and in October 2017, she became a citizen of Saudi Arabia, being the first robot to ever receive the citizenship of a country. This has led to a number of controversies over human and robot rights. Let the whole of humanity repeat, on another scale, the **myth of Pygmalion and Galateeia**, in which the creator falls in love with his creation. Will this collaboration between man and robot always be beneficial? Will there be competitions for energy and raw materials in the future? What will be the emotional intelligence of robots in the future? Will they surpass people? If the robots work non-stop without the need for a salary, a rest leave, they will not go on strike, they will only need energy, what good will people do then? Will they probably dedicate themselves to artistic creations, consumption and probably become overweight like the people in the Wall movie?

Until then, all major online platforms: Google, Amazon, Facebook, Youtube, etc. are already equipped with artificial intelligence that, analyzing the user's profile, come with personalized ads and purchase suggestions, according to algorithms to assess the intention to buy or view. This can be so beneficial, because it saves us from additional searches, but it can create an even greater dependence on the internet, based on digital, superspecialized marketing.

Moreover, a recent study (Oracle, 2019) by **Oracle** and **Future Workplace** reveals that artificial intelligence is changing the way people perceive their work. 64% of people would trust a robot more than their manager, and half used a robot instead of their manager for advice.

Workers in India (89%) and China (88%) trust robots more than their managers, followed by Singapore (83%), Brazil (78%), Japan (76%), the United Arab Emirates (74%)), Australia / New Zealand (58%), USA (57%), UK (54%) and France (56%).

More men (56%) than women (44%) turned to (AI) at the expense of their managers.

82% of people believe that robots can do things better than their managers.

When asked which robots can do better than their managers, survey respondents said that robots are better at providing unbiased information (26%), maintaining work schedules (34%), and solving problems (29%).) and budget management (26%).

When asked what managers can do better than robots, workers said that the first three tasks were to understand their feelings (45%), train them (33%) and create a work culture (29%).

For the purpose of the study, the term "robot" most likely refers to the automation of robotic processes and artificial intelligence-style software robots, rather than physical robots. However, the results of the survey show some interesting trends in the way employees interact with their managers and technology. The survey was conducted by Savanta between July 2 and August 9, 2019, with 8,370 respondents. The study was administered online and conducted in 10 different countries and in six languages. Permanent full-time employees between the ages of 18 and 74 were eligible to participate, the survey targets human resources leaders, managers and employees.

One aspect that can be beneficial to patients, depending on how it is used, is the implementation of the single health record or electronic patient record, where all prescriptions and referrals from all health professionals (doctor) are recorded in real time. family physicians, specialist psychologists), dynamic medical tests, blood type, medical history, patient and family contact details, extremely useful in emergencies, where artificial intelligence can help us to gain time precious.

11. Conclusions

Every day, the virtual temptations diversify and become more refined, adjusted according to the internet user profile of each of us. It takes a smart willpower effort to have a balance that adds value to our lives, between the virtual world and real life. Internet browsing should stop an hour and a half before bedtime, which should be 9.30pm - 10pm, so as not to disrupt the brain's maintenance schedule and endogenous melatonin

production. Healthy and timely eating, along with daily exercise can ensure a psycho-emotional tone that can cope with any virtual addictions.

Telework is a new opportunity in the pandemic, which can provide a viable alternative for people to honor their employment contracts. If breaks are observed for those who work on the Internet or on the PC, according to the 20-20-20 rule, ie every 20 minutes of working on the computer, a break of 20 seconds is welcome to look out the window at an object 20 meters away. Also, adherence to the meal, sleep and physical activity schedule can provide the balance needed for an honorable activity.

Artificial intelligence helps us to accelerate the development of innovation and digitalization. Artificial intelligence can be a useful help to man in many areas of activity, if we know how to keep decision management in our country.

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