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Education Values Toward Virtual Addiction and FOMO

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Abstract: *Virtual addiction is affecting a large number of children and their families nowadays. This phenomenon is associated with a notion that is closely related to self-esteem. This notion is called FoMo and represents the fear of being left out, of worthlessness and the idea that the life of others is better than one's own. At the same time, vulnerable people through these mechanisms find it difficult to find a way out of these situations on their own and often try to ask for help. The interdisciplinary approach of these two closely related and often interdependent phenomena allows the partial and sometimes total improvement of both habits together with the creation of new thinking patterns and new set of values that contribute to a better quality of life for children and their families, considering the hybridisation of online and offline life. At the same time, it is encouraged to use the Internet in a healthy way in order to reach a level of digital excellence (Kreutzer, 2022) achieved through digital sociology studies (Mackenzie, 2022) and to educate teenagers and parents about the impact of Fear of Missing Out (FoMo), associated with the integration of learning opportunities given by the philosophy of information (Moračiková, 2022). The association of frequent group activities in real life and increasing anchoring in reality through the development of social skills forms a strong preventive character.*

Keywords: *social media addiction; Fear of Missing Out; FoMo; childhood; prevention; interdisciplinary.*

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1. Introduction

Virtual addiction can be defined as the excessive use of electronic devices with the function of connecting to a network, reducing the time reserved for daily activities and normal social functioning, characterised by a natural feeling of well-being. In the modern world, the Internet has become an integral part of conducting activities. In these conditions, young people from all fields must be taught how to obtain digital excellence that allows the use of the Internet in optimal and safe conditions, with the aim of increasing creativity and competitiveness in the fields of interest (Kreutzer, 2022).

Internet addiction was defined and introduced as a term in 1998, when similarities were identified between Internet and psychoactive substance users (Marciano, Camerini, & Schulz, 2022). Nowadays, we can generate healthy habits to cope with the hybrid (online-offline) life of today (Mackenzie, 2022). It is good to take into account the characteristics of Internet users that vary with each digital generation (segmentation of 5 to 10 years in which interests, habits, and culture related to the Internet change at each age threshold). In addition, there are differences in the use of the Internet depending on the housing situation: rural/subrural and urban/suburban (Lichy, 2022).

FoMo is a phobia that consists of the fear of being left out, which reflects the deep desire to be accepted by the group. It is related to issues such as abandonment, fear of rejection, and resilience. At the same time, there is also the fear of not losing the opportunity to interact with others. Our mission is to find adequate and effective means to fight this alienation of modern man and to understand how it got here (Dossey, 2014). To educate teenagers, by being explicit and showing them the benefits of a healthy lifestyle and a good social insertion, is a daily effort for educators, medical staff, and parents. The family and the teenager must feel that they are understood and are keeping in real-time the support they need, because the sentiment of abandonment is accentuated in difficult situations (losing a job, technical problems with the car, other adverse events at school). There are situations in which the use of the Internet leads to socio-spatial disparity, when social relations in the real world weaken and the person feels alienation, loneliness, despair, fear of tomorrow, and anxiety that no one cares what happens to them. Thus, FOMO is also amplified by the asynchronous communication that sometimes occurs with digital means of communication. For example, someone sends a question and experiences anxiety if he does not receive a prompt response, if the recipient is angry or does not want to answer, or is deliberately ignoring him. And even the one who has to answer is stressed because he either interrupts his activity and does not want to upset anyone because he does not answer promptly, or because he switches the phone to silent mode, or because he suspends his mobile data so he can focus on his activities (Lichy, 2022).

Another suitable definition would be given by the permanent tendency to be in connection with the achievements of others, to not miss the experiences that bring rewards to others (Gupta & Sharma, 2021). Another part of FoMo is related to the fear of the idea that peers have more beautiful and richer experiences than the person in question (Anastasya et al., 2022). FOMO is related to the behaviour of excessive comparison of social media users by following aspects of other users' lives to confirm that other people's lives are better, richer and more dynamic than their own, that other people's lives are full of happiness over time while theirs is dull and devoid of meaning (Eitan & Gazit, 2023). The average person looks at their phone 150 times a day or 6.5 minutes every hour (Bandaru, Fiaidhi, & Gannamani, 2020). The study of FoMo has a significant interdisciplinary character, being related to sociological sciences, with situational and economic management. It is closely related to psychology, which allows personal introspection as well as the appreciation of organizational dynamics. The intensity of FOMO also depends on the individual construction of each one. It is often associated with neurotic disorders (Dinçer, Saygın, & Karadal, 2022). It can be seen that in the digital age, new codes of conduct have appeared as well as new ways of social behaviour in terms of physical dialogues because the part of online life penetrates more and more

within them. It was also found that children sit in front of the screen until their vision is affected, reaching the stage of digital toxicity caused by blue light. Resilience is determined by an emotional rehabilitation that ignores existing day-to-day frustrations (Young & de Abreu, 2017).

In Table 1, we summarise the main problems identified with children and young users and amplified by FoMo.

Table 1. FoMo and problem behaviors in children and young people

#	Author	Journal/site	Problem	Description	Combative measures
1.	Larry Dossey	Explore, 2014	Digital dementia	The alienation described well in the book "Alone Together" by Sherry Turkle, the desire for acceptance	To realise that posts on social networks are cosmetics of aspects of people's lives
2.	Mayank Gupta	World J Clin Cases, 2021	connection	The importance of rewards that others receive, which the person feels shortchanged	It's about acceptance and strengthening face-to-face connections Changing ideas about reward
3.	Frank Song	University of Washington, 2022	gambling	Importance of immediate benefits, multiplying earnings with a small investment	Cognitive-behavioural therapy, occupational therapy, combating smoking, alcohol, and accompanying addictions
4.	Song H.	Digital Memories and Emotions, 2018	Driving and smartphone use	The perception of the danger to which he exposes himself is surpassed by the compulsion to use the mobile phone	Tightening coercive measures such as increased fines, driving license suspension, and the establishment of cognitive-behavioural therapy
5.	Ogel Yaran I.	Journal of Research in Business, 2022	Panic buying behaviour	The imagined advantages of storing The imagined advantages of getting a commodity at an incredibly low price Feeling of guilt and self-deprecation Conflict with relatives generated by money (parents, siblings)	Discuss money issues openly and honestly in the family Establishing a new set of priorities Voluntary unsubscription from certain shopping sites
6.	Gannamani,Vishnu Sudheer	scholar.archive.org, 2020	Sleep disorders	The quantity and quality of sleep Bedtime and night waking times	Polysomnography, night video EEG, hypnogram, exclusion of severe organic sleep disorders, sleep apnea
7.	Simon Mackenzie	The British Journal of Criminology, 2022	Criptocoins	The desire to get rich quickly, the desire to make a splash, to get big benefits with as little effort as possible	Economic education, education regarding the use of the Internet Going through some digital sociology studies
8.	Moravčíková Erika	Communication Today, 2022,	Homo digitalis	Redefining roles according to the skills and knowledge of using digital devices	Cultivating authentic values Involvement of young people in cultural actions Adequate homework assignments "Informational" diets

#	Author	Journal/site	Problem	Description	Combative measures
9.	Rosenfield, M.	Living with blue light exposure. Rev Optom, 2019	Digital oculotoxicity	Eye damage from blue light Falling asleep Deformation of writing	Creating free digital spaces in the house and making rules for all family members Adjusting the brightness of the screens of electronic devices in the home and adjusting the lighting in the home to create a warm environment without strong contrasts

FoMo can lead to the use of the mobile phone in any space and time, even in dangerous situations (when the person is driving the car) or inappropriate (when the person is in classes, at the theatre or other cultural activities and looks alternately at the show and the latest news updates on social networks, possibly including the person in question's posts from the said cultural activities). The complete opposite of FOMO is JOMO (Joy of Missing Out), produced by the joy of escaping from attachment to those around you (Aranda & Baig, 2018). The desire for total disconnection sometimes arises from the anxiety of not being able to properly deal with a permanent connection with those around, of not knowing how to interpret and process information. This is how the desire to isolate oneself appears. It can even be considered a defense reaction in some cases (Sezgin & Karabacak, 2019).

2. Mechanism

People can never be sure whether they are doing enough to fit in socially. This emotion is reinforced by the fear of being socially excluded (Gupta & Sharma, 2021). FOMO also expresses the fear of one's inability to deal with certain situations, as well as the embarrassment of being restricted in finding out what the people around are doing. Surprisingly, sometimes these people are more interested in what others display and not necessarily what happens outside the virtual space. To meet social demands and fit into certain groups, people tend to spend more money than they can afford (parties, gifts, trips, cars, etc.). These ideas can also lead to antisocial acts of a negative nature (Luca et al., 2020).

A particular form of virtual addiction is the financial form of FOMO, in which shares, stock exchanges, and the evolution of the cryptocurrency market are followed. It is also a way to demonstrate to the world the presence and attention to the evolution of virtual space, as well as keeping up to date with the news. There is also the form of gambling in which the ″investor″ places a value in a fund hoping that it will turn out much more. From the gambling framework, there are lotto games, machine games, and casino games, these being practiced at least once in their lifetime by approximately 86% of the population. Persistence in behaviours with financial risk, gambling with negative consequences on the person but also the family, generates a combination of effects such as the disruption of family life, collective financial decline, depression, and even suicide (Song, 2022).

People tend to take stock of their abilities in various fields, analysing their ability to create and accomplish various goals, this introspection of attitudes, opinions, and behaviours being in accordance with the theory of Festinger 1954 cited by Ögel (2022). That is why people sometimes use the actions of others to serve as a benchmark for themselves (Ögel, 2022). That's why the older you get, the more FOMO is accentuated because the social requirements also become more and more complex.

The line between daily internet use and addiction is very thin and crossed when people think that the virtual world is more interesting than the real one. Also, people with internet addiction spend more time than they originally intended, they make a habit of lying to their family members about the time spent in the virtual space, and they feel irritated when they don't have the means to access what becomes their comfort space (Anastasya et al., 2022). In the view of Self-determination theory proposed by Deci & Ryan (2000), FOMO associated with virtual addictions can also appear

in families where even inter-family competition is cultivated, each of the members wanting to prove to the others that they have more important achievements. Children will become more strongly addicted if parents cultivate as a habit concealment, putting pressure on others, humiliating peers, and even discrimination. FOMO is correlated with the level of parental relationship and parenting styles (Dinçer, Saygın, & Karadal, 2022). In the case of obese children, FOMO may appear due to the predominant concentration on their lives in the online environment because in everyday life they feel dissatisfaction, failures, and lack of social inclusion. In addition, obesity associates children with many comorbidities similar to adults, such as diabetes, cardiac and hypertensive disorders, sleep apnea, genetic or acquired dyslipidemias, but also posture disorders, disc herniations, depression and personality disorders, and others. Children with obesity can develop depression due to a dysfunctional relationship with their parents, but also with schoolmates, as a result, they decide to take refuge in the virtual world, further reducing movement and calorie consumption through the prism of reducing the time reserved for daily physical activities. It leads to abulation, anhedonia, lack of perspectives, and failure to realise future plans (Ciubara et al., 2014). Virtual addiction concurrent with FOMO can also develop in workers in multinational companies or workers in fields where competition is increasingly fierce, such as even medical fields. In the desire to keep up with the news but also to learn things about the organisation that he cannot find out at work, the employee often consults social networks, but without realising it, consumes more and more of his time.

Figure 1 illustrates the cascade of deprofessionalisation or the decrease in school performance.

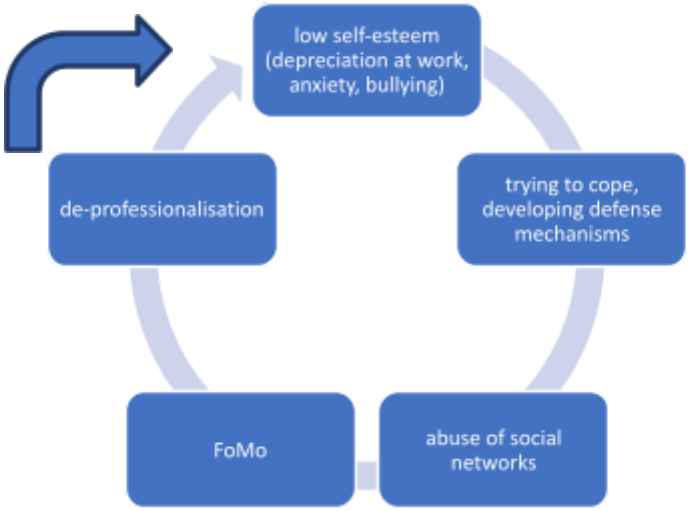


Figure 1. Fo-Mo-deprofessionalisation cascade

The excessive use of the mobile phone is generated not only by the need to control certain situations but also by the necessity of its functions in everyday life, such as planning a trip or using it as an alarm clock. The phone is also used for electronic applications in relation to banks or various suppliers and even for attending online courses (Aranda & Baig, 2018).

The feeling of being cut off from the world also appears when social networks (Facebook, WhatsApp, Meta) are not working and is accompanied by a mixture of emotions such as discomfort, boredom, and anger. Facebook is used by 70% of American adults. WhatsApp is considered a more private application than Facebook, and Instagram is more public, while the bonds between those who interact are significantly weaker. The importance of organisational communication on these networks (working groups on WhatsApp or exchanging information on Facebook and other networks) cannot be neglected either. The malfunctioning of these networks generates stress, tension, anxiety, and feelings of insecurity (Eitan & Gazit, 2023). There is a close connection between digital addiction and FOMO, but also with other phenomena such as Social Media fatigue.

At this point, the person realises that he already has a problem and that his daily schedule is disrupted by habits related to media use, and the desire to disconnect naturally appears (Rautela & Sharma, 2022). Computer scientists, along with sociologists and psychiatrists, are analysing a new phenomenon regarding refuge in the metaverse. The metaverse represents a series of applications, a new "world" where people can meet, build a new life, and perform real-life aspects like shopping or doing a different job than in real life. Using without anticipating the dangers represented by these games and platforms can lead to major existential crises and psychological or psychiatric disorders, such as dissociative disorders that lead to emergency presentation in a specialised service. The metaverse reinforces the transition to a digital economy by completely changing the buyer's psychology of goods and services. That is why these applications are of great interest to economics specialists. Fictionality gives rise to creative attitudes in economic markets as well (Bojic, 2022; Mackenzie, 2022).

People of culture and artists (painters, philosophers) also raise alarm signals by drawing attention to man's sacrifice to the presence of machines. Homo digitalis can use technology for messianic purposes, the researchers point out. People become convinced by the trend of dataism, i.e., they come to believe that the universe is composed of a combination of data and people must relate as strictly as possible to this philosophy (Moračíková, 2022). Social and work pressure governed by technology end up redefining social relations as well as the hierarchy of power. Digitisation is eroding the private work segment because, thanks to technology, people choose to perform part of their work duties at home, after finishing their normal training or work schedule. Digitisation encourages compulsive comparison with others. Another term introduced by specialists is infobesity, meaning the exaggerated need for information, which can be combated with an informational diet. JOMO appears as a reaction to these overloads and is the person's joy of being omitted from discussions and activities that take place online, being a way to hide and escape from groups, i.e., social avoidance (Moračíková, 2022).

Symptoms:

- Impatience
- Inattention / selective attention with neglect of important aspects
- Irritability
- Increased distractibility
- Compulsive comparison with others
- Compulsive anxiety about sending messages – being wrong or being misinterpreted
- Persistent feeling of insecurity
- Lack of trust in other people
- Superficial and sporadic relationships with others
- Compulsions to buy (to use virtual shopping stores)
- Narrowing the field of concerns
- Memory disorders
- Sleep problems
- Memory decline
- Problems controlling emotions (panic attacks)
- Low self-esteem
- Decline in academic performance from a previous personal level
- Taking more than 6 selfies per day
- Posting a message on social media daily
- Disorganized sex life
- Association with alcohol, drug, or tobacco use
- Association with financial or housing problems that amplify the phenomenon
- The inability to control the time spent on the Internet
- Inability to have control over finances (always maintaining high debts)
- Association with problems from breaking the law

Figure 2. Symptoms

Spending more than 2 hours a day on the Internet increases the risk of suicide (Gupta & Sharma, 2021). The inattention is due to the fact that on social networks, the patient only follows certain aspects, not giving importance to other useful information in academic training and social functioning. Sleep disorders are intertwined with excessive use of social networks and excessive use of the Internet. Important factors are bedtime, time interval, and the number of sleep hours, as well as the hours of night awakening (Bandaru, Fiaidhi, & Gannamani, 2020).

The child is in continuous development. His memory develops by acquiring many notions on the motor plane, on the sensory plane, and adaptively to the changing circumstances of life. The child learns to integrate efficiently and creatively attributes such as attention, intelligence, and the will to self-realise and self-determine through a scholastic approach (Guarnero, 1953). That is why, in some schools, they have tried to take the measure of not using the mobile phone during study hours because the phone can distract the student from school tasks during class hours (Coskun & Muslu, 2019).

When their phone is taken away, they become irritable and angry, experiencing withdrawal-like symptoms. That is why people with neurotic tendencies are more likely to develop addiction to the use of the Internet because it predisposes them to their increased vulnerability, their doubts related to everyday life, as well as their increased sensitivity to criticism and the tendency towards an exacerbated reactivity. They also develop compulsive tendencies to display certain posts or comments in response to certain actions of acquaintances, which they consider disturbing, even getting into major online conflicts (Marciano, Camerini, & Schulz, 2022).

An important role is played by the person's attachment to certain values, but also his attachment to his family and friends. Certain people with attachment disorders may be more vulnerable online, and others may benefit if they identify these disorders in those individuals. On the other hand, it is good to be restrained to avoid exaggerations regarding the restriction of Internet use because it is good to be able to accept that when a new form of communication appears, people will invest more time, leaving the old forms of interpersonal relations (Kostić, Pedović, & Stošić, 2022).

FOMO is also linked to some personality disorders. Some people post daily activities and selfies and are more likely to suffer from histrionic personality disorder because they have a greater need for attention, acceptance, and social approval. If the problems progress to FOMO, sleep and nutrition are neglected, sometimes very severely (Arslankara & Usta, 2020).

Another particular form of consequences of using the Internet can appear in vulnerable people through a borderline personality disorder or schizophrenia, manifested by the illusion of being controlled through the computer, with the possibility of evolution towards a well-systematised delirium on this topic (Madary, 2022).

And in the case of personality type D (from disttress), individuals have a tendency to somatise isolate themselves from their peers and, sometimes, they will even suddenly stop being present on social networks, especially because of the fear of making a mistake with something or of feeling exposed and judged by others (this happens because they feel insecure about everything they do) and they walk the path to JOMO - the joy of no longer being part of social game (Rahardjo & Mulyani, 2020).

New platforms that produce important cultural changes are emerging all the time. There is a continuous cultural shift agreed upon by large communities that initially comprise one generational segment and later determine the accession of other segments. Such an example is given by the TikTok platform, which appeared in 2017 with a more consistent popularisation in 2018. At the beginning, more emphasis was placed on the community of dancers, but nowadays it is a platform used for promotion by companies of constructions, fashion companies, craft companies, and others, the type of consumers always redefining (Boffone, 2022).

Spending money on shopping has always been a complex problem. This behaviour can reach panic levels in certain circumstances, as it was during the pandemic period, when the accentuation

was propagated and gained momentum through social networks. This is what happened with the false crises for personal hygiene items: people ended up buying excessively under the reign of panic. Due to these purchases, the person can self-analyse and enter into cognitive dissonance because he realises that these excessive purchases were not strictly necessary, ultimately leading to a feeling of guilt. Sometimes there is also the intention to lie so that the family members do not notice the damage caused by these purchases. Sometimes these purchases can make young people come into conflict with the law (the desire to use social networks for fraudulent purposes). Another problem is the temptation to buy luxury brands (Ögel, 2022). In the trends of using the Internet for buying, economists have studied the segmentation of consumers by Acculturation to the Global Consumer Culture (AGCC). Thus, virtual communities are created and dedicated to consumers of similar products, who assume similar risks, who prefer to share the same feelings within a group, either good feelings or worries. The rear-view mirror effect, in which the effects of Internet use cannot be assessed until they have ended and the cause is in the past (Lichy, 2022).

Teenagers from troubled family environments can be victims of cryptocurrency scams, which are currently part of a gray market (without very firm and precise regulations) and where financial investments with a pronounced speculative character take place. Cryptocurrency scammers speculate on the views of people disillusioned with life who decide under the influence of the saying "YOLO" (you only live once). The offers seem too good to be true, but the bidders go on the idea that the victim will be too tempted and logical reasoning will be defeated by the desire for quick profit. The buyer is given the idea that it is a once-in-a-lifetime opportunity, and by not acting quickly, another person will take it before him and take advantage of the gain and a better life. Thus, people who suffer from FOMO are the easiest to fool. In addition, it is repeatedly specified that the offer is limited in a number of seats and time in order to increase the probability that Internet users will want that offer. At the same time, they are accompanied by images of expensive cars (e.g., Lamborghini) to give the user the illusion that someone else will get the targeted car and lead a better life (Mackenzie, 2022).

Parents tend to exaggerate the problem of addictions in their children, which will intensify their feelings of guilt and worthlessness in front of their parents. That is why parents are encouraged to focus on their children's qualities, to reinforce good behaviors, to filter out remarks related to addictive aspects, and to demonstrate that it is safe and natural to ask for help from specialists. On the other hand, parents' divorce can influence their children's virtual addiction by adopting other addictions (smoking, alcohol, drugs, gambling). Many times, children come from addictive backgrounds where their parents also have various addictions. These vulnerable patients may develop FOMO. They can also be too open to others on social media by detailing their feelings, plans, troubles, dislikes, personal data or family members' data - things that can become problematic for them and their families. These families will have to be taught to ask for specialized help and avoid putting even more pressure on their children (Sultan, 2021).

We wonder what is the optimal dose of social media per day. However, it differs according to age, training, and social status, and no strict limits can be identified. One's own perception of being good with oneself is also important. The commitments of people who use social media become looser because they are not willing to completely give up the possible options offered by social media.

3. Evaluation

In the scientific literature it was designed the FOMO scale which reproduces the level of impairment very faithfully, but which very easily finds the correlation with Internet abuse. There is another scale called the Financial Fear of Missing Out Scale (F-FOMO) regarding the investments made by others (strangers or close people) and which would seem better than those of the person in question, while he also experiences a fear of the constant inability to find further financial investment opportunities. The same experiences can be related to any other aspect of life with an

impact on the professional or financial side: training, specialisation courses, employment opportunities (Song, 2022).

Another scale that assesses inappropriate mobile phone use behaviors is the Mobile Phone Problem Use Scale (MPPUS). With the help of this scale, it was discovered that people who feel the need for approval are more exposed to the risk of excessive use of the mobile phone (Aranda & Baig, (2018).

The false feeling that the user's phone has vibrated is another facet that shows that the person is addicted to the mobile phone and is afraid of being without it. Phantom cellphone vibration syndrome is the scientific name given to this increasingly present phenomenon (Bandaru, Fiaidhi & Gannamani, 2020).

4. Combative Measures and Solutions

A method to combat this FOMO syndrome in children is achieved with the help of the Beck technique by which it makes them realize that the images, messages sent by the participants on the social network do not fully reflect their lives and that by following these things we cannot make a real picture about the lives of these people (Dossey, 2014).

The solutions are presented in Figure 3:



Figure 3. Solutions

5. Discussion and conclusions

Virtual addiction is a multidimensional public health problem, involving decision makers, educators, doctors, psychologists, IT specialists, arts and physical education teachers, and many other social segments. The establishment of the mechanisms underlying FoMo has a pronounced preventive character regarding anxiety, depression, and the difficulty of adapting to the social environment. It is important to increase the resilience of affected people, to engage in activities that lead to the development of personality and individual skills in order to achieve a state of well-being, to feel competitive and accepted in modern society. The idea of daily effort for continuous education should be cultivated according to the principle that "the man who moves a mountain begins by carrying away small stones". At the same time, we must accept that the telephone is part of our lives, both the Internet for informational purposes and social networks, and everyone can find the balance and the path to well-being (Bozzola et al., 2022).

The bidirectional relationship between children's relationships with their parents and virtual addiction influences and may accentuate FoMo, with parents expressing concern about excessive Internet use and children not knowing how to manage their time and the quality of interactions with their parents. That is why the whole family deserves to be advised on family behaviors related to the use of smart devices (Koca & Saatçı, 2022).

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