Technological Addictions: Are These the New Addictions?

Mariano Chóliz\textsuperscript{a,}*, Enrique Echeburúa\textsuperscript{b} and Francisco J. Labrador\textsuperscript{c}

\textsuperscript{a}Department of Basic Psychology, University of Valencia, Valencia, Spain; \textsuperscript{b}Department of Clinical Psychology, University of the Basque Country UPV/EHU, San Sebastián, Spain; \textsuperscript{c}Department of Personality, Complutense University, Madrid, Spain

Information and Communication Technologies (ICT) are a hallmark of today's societies. These tools are necessary and useful for any successfully functioning organisation, and they are used by the majority of the population. The major factors that foster the ICT use to get in touch with other people are accessibility, availability, intimacy, high stimulation and anonymity. Nothing is wrong with the use of ICT. However, clinical evidence of overuse in numerous patients, in some cases with symptoms similar to those of addictive disorders, has been reported. Technological addictions may be particularly relevant to adolescents [1], a population of great vulnerability to addiction. Indeed, teenagers have less impulse control [2], are poorer at long-term planning, and tend to minimise the risks of potentially dangerous behaviours. This is due primarily to cortical immaturity [3], particularly in the prefrontal cortex [4]. Additionally, adolescence is a period during which individuals develop personal independence from adults. ICT support this independence in that the younger generation is more comfortable with these tools, which provide access to social relationships that teenagers find particularly important.

With respect to addictions, both the DSM-IV-TR [5] and the ICD-10 [6] recognise the existence of only so-called substance dependence disorders (i.e., those that are traditionally known as drug addictions). Even pathological gambling disorder is not considered to be a disorder of this type, but instead is currently classified as an "impulse control disorder". However, it is probable that the next edition of the DSM (the DSM-5) will include "Addictive Disorders" as a new category, with "Gambling Addiction" as the only behavioural addiction included under this rubric. In fact, a near unanimous agreement in the scientific community that pathological gambling meets the main diagnostic criteria for an addictive disorder has been reached [7]. Technological addictions, despite its short history, also have a great deal of clinical, social, and scientific support for its inclusion as an addictive disorder [8], although it may still require some time and some additional research before this is reflected in the DSM.

Early warning signs of potential ICT abuse are related to negative changes in school/work performance and psychosocial impairment. The main and most significant characteristic of an addictive disorder is that it involves dependency. Even if ICT abuse interferes with other activities and is harmful to the patient, the addict may be unable to stop engaging in this behaviour. The most significant technological addictions involve the Internet, mobile and video games. However, these tools are increasingly interrelated, to the extent that it is possible (and will become even more so in the future) to connect to a social network via a mobile phone to play a game online. It has become increasingly necessary to analyse the psychological processes involved in the development of dependence given that the three aforementioned technologies are characterised by three elements that are essential to such processes: 1) the sense of playfulness and experience of absorption provided by games, 2) the interactivity of and opportunities for social interaction provided by the Internet, and 3) the accessibility and availability of the mobile phone.

It is not usual to consider the TV as ICT. But it is necessary to be taken into account, because of the high daily use by part of the young people and adolescents (about two hours a day) [9]. In fact, TV caused a great change in the daily pattern of behavior, to such an extent that watching television during hours currently is considered as completely usual.

Focus on the psychological process of dependency enables us to analyse technological addiction as a clinical entity in terms of the DSM-IV-TR criteria for substance dependence disorders. This will allow determination of whether these criteria are met by the abuse of the Internet, mobile phones, and video games. The criteria are as follows:

1. Tolerance: need for increased use of the technologies over time.
2. Withdrawal: emotionally intense discomfort when going an unusual length of time without using the technology or when use is disrupted.
3. Greater use than intended when beginning a session.
4. Desire to stop the use of the technology without being able to do so.
5. Spending too much time engaged in activities related to the technologies.
6. Stopping other activities in order to increase use of the Internet, mobile phones, or video-games.
7. Continued use of the Internet, mobile phones, or video-games despite an awareness that such use is causing damage.
Application of these criteria can increase our understanding of the pathology associated with the abuse of ICT and allow the development of appropriate diagnostic questionnaires and treatment protocols. Currently, questionnaires already exist for the diagnosis of mobile-phone dependence [10, 11], Internet addiction [12], and video-game addiction [13], as well as the treatment protocols for these “new” addictions [14-16].

However ICT overuse can be a symptom of an underlying mental disorder and a way to cope with emotional distress. Risk and protective factors need to be considered to explain the vulnerability of some people to become dependent. In addition, future studies would enable better understanding of the detrimental effects that ICT overuse may have on social satisfaction offline and on an overuser’s life as a whole.

REFERENCES

Mariano Chóliz, PhD
(Guest Editor)
Department of Psicología Básica,
University of Valencia, Avda.
de Blasco Ibáñez 21,
46010-Valencia,
Spain
Tel: 34 963864853
Fax: 34 963864822
E-mail: Mariano.Choliz@uv.es