

Cross-generational analysis of predictive factors of addictive behavior in smartphone usage / Maya Blau

Abstract

The term “smartphone” first came into use in 1997 when Ericsson, the Swedish telecom equipment manufacturer, described its newly developed Penelope GS88 mobile phone, as a smartphone. This designation came to signify a new category in the mobile phone market, comprised of phones which offered combined services of communication, computerization, voice communication, text messaging, personal information management applications, and wireless communication capabilities (Davey and Davey, 2014).

Smartphones offer many additional advantages, notably, that they enable users to communicate unencumbered by the constraints of physical proximity and mobility, as well as their contribution to successful text messaging-based health interventions (such as diabetes self-management and ending nicotine dependence) (Billieux, 2012).

Simultaneously with the rising demand for smartphones, and despite their allure to consumers and the fact that they embody significant innovation in the field of information and communication technologies, there is an increasing amount of research into their less beneficial sides, and in particular, addictive usage behavior (Park and Less, 2013) – the phenomenon which is the subject of this study.

Significant research has been conducted in recent years on the topic of smartphone addiction, and has produced various approaches to studying this phenomenon as well as a range of variables found to influence the development of the addictive behavior, such as: personality, psychological and emotional parameters, and demographic parameters of education, gender, and age. However, despite a growing number of

The study was conducted with the participation of 209 Israeli smartphone users of varying demographics, and representing three generations of smartphone users: Generation X, Generation Y, and Generation Z. Participants responded to an 82-item questionnaire based on the Smartphone Addiction Scale (SAS), which was translated into Hebrew and condensed. The factors affecting the tendency to develop addictive behavior were examined across the three cohorts and were as follows: social environment pressure to use smartphones, emotional gains from smartphone use, application types ranked by usage level, needs of the smartphone user, and personality traits.

Each participant's answers were analyzed using the standard statistical tools (Pearson Coefficient and ANOVA tests); additionally a multi-variable linear regression model was constructed for predicting smartphone addiction in the entire sample and for each cohort.

Findings

Regression analysis showed that there are significant differences between the generations, both in the extent of the addictive behavior and the factors affecting it. The study's main finding is that Generation Y demonstrates a level of addictive behavior significantly greater than the other two generations, while Generation X was found to have the lowest level of addictive behavior. The most powerful predictive factors for all the generations were pressure from the social environment to use smartphones, and emotional gains. In the two younger generations, a neurotic personality also acted as a predictive factor, and with respect to Generation Z, the WhatsApp application made a significant contribution in the hierarchical regression model to the explained variance of the level of addictive behavior.

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