

# Internet Use and Adolescent Well-Being

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*Literature Review*

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## Internet Use and Adolescent Well-Being

Internet use is, without a doubt, the fastest growing means of communication in which technology is expanding upon today. Along with the rate of internet growth, the adolescent population is also growing into one of the newest and largest user of goods and services. With the increase of both, concern over the well-being of adolescents who use the internet has become a current issue topic. Much research has been done to determine the relationship between internet use and adolescent well-being. While some argue internet use leads to depression and isolation, others argue internet use promotes important interactive skills. How internet use is defined, as well as how adolescent well-being is defined, plays an integral part in determining if internet use has affects on adolescent well-being.

### Defining Internet Use

Internet use has several components. The way in which the internet is utilized, such as communicating with others or researching a subject, is one aspect of internet use. Another aspect is the amount of time spent utilizing the internet overall. These two differing examples of internet use, the how and the how much, play various and important roles in determining possible affects on adolescent well-being. Studies may investigate one or the other, or maybe both in their research.

Until the last few years, using the internet meant using a computer. Today, internet utilization is available on other technological devices including cellular phones. Even so, using the internet is not the same as using a computer; they are different (Johnson 3043). Where using the computer and internet both share the interactive aspect of visual input and manual output, computer use is limited to the software that is available for interaction and does not connect the user to others for the purpose of communication (Johnson 3043). While not all internet use is done for the purpose of communication, using the internet has limitless outcome ability regardless of the user's purpose. Adolescents typically use the internet for playing games, shopping, recreational and academic research, as well as communicating (Blais 522-23). Internet communication mainly consists of email, instant messaging, and chat rooms (Blais 522-23).

The amount of time spent on the internet by adolescents is just as important as what they are using the internet for. Differing opinions on this definition of use has also caused a wide range of findings within research on internet use and adolescent well-being. The examination of daily, moderate, and compulsive internet use has come into question within research and analysis in an attempt to establish a link between internet use and determining affects on adolescent well-being.

## Defining Adolescent Well-Being

Adolescent well-being, like internet use, includes multiple components. In terms of adolescent well-being, the most prevalent factors appear to be the psychological and cognitive developments. Psychological well-being focuses on emotional factors that may lead to depression, loneliness, isolation, and low self-esteem. Cognitive well-being, on the other hand, focuses on the mental processes that promote attention, perception, comprehension, memory, and problem solving (Johnson 3041). While both of these components of an adolescent's well-being are important, they are separate and not the same. In the course of research, defining which component of adolescent well-being is assessed has significant bearing on the results. Most research has studied the psychological component with only a few focusing on the cognitive or examining both.

### Initial Research

With the growing concern over adolescent use of the internet, research began to emerge in the late 1990's. It is reported that initial studies found that internet use was associated with a decrease in well-being which promoted depression and loneliness (Van den Eijnden 656, Van der Aa 765, Blais 523). These same "findings" were later found to have "dissipated or disappeared over time" by the same researchers (Van den Eijnden 656, Van der Aa 765). This conflicting data, along with the continual change of the internet itself, has resulted in further studies on internet use and adolescent well being.

### Types of Internet Use

In her article, "Adolescent Internet Use: What we Expect, What teens Report," Elisheva F. Gross states that what is expected about adolescents online is that: (1) boys use the internet for different things than girls, (2) internet use causes social isolation and depression, and (3) adolescents use the internet as an "anonymous identity playground" (634). These expectations were based on findings in past research by others on the topic of internet use and adolescent well-being (636). Gross states that past research "has often relied on global measures of both activity and well-being" (636). Through a methodology of questionnaire and daily usage logs of both seventh and tenth grade students, Gross found 91% of the 261 participants reported occasional or regular internet use with no gender differences observed. However, in the case of amount of usage, tenth grade boys reported they had been using online activities significantly longer than girls (88% of the boys reported being online more than two years compared to only 72% of the girls) but there was "indiscernible differences" among the seventh grade participants on length of usage (640). Of interest, Gross points out, is that a small group (only 5%) of mostly males spent an average of 82.5 minutes online gaming (640). This is significant because it supports the expectation

that boys use the internet differently than girls in activity and time online (640). Gross found no association between time online (overall or by domain) and psychological adjustment indicating an increase in depression or loneliness (642). In relation to adolescents using the internet as an “anonymous identity playground,” Gross found almost 50% of those who responded to questions regarding this type of internet use did pretend to be someone other than themselves as well as 92% reported to have pretended to be older (643). Gross expounds “from an Eriksonian perspective, it might be expected that use of the Internet for identity experimentation would be related to adolescent well-being” (644). Gross defined internet use by the amount of time spent online as well as by the ways in which the internet was utilized, game playing. Gross identified adolescent well-being through isolation and depression, but found no association between internet use and well-being. However, Gross also added the aspect of identity experimentation to the defining of well-being; and therefore, redefined adolescent well-being. Here, Gross combined cognitive development (pretending) within well-being which for the rest of her study focused on psychological factors (depression and loneliness).

### Communicating Online

Seeing evidence to the fact that adolescents spend the majority of their time online in communication, Kaveri Subrahmanyam and Gloria Lin examined the relationships between the online use of communication activities and the way adolescents view their feelings of loneliness through an online questionnaire of 192 participants between 12 and 19 years of age (663). Their analysis indicated no relationship between loneliness and either overall time spent online or to the amount of time spent on email, as well as no relationship between loneliness and knowledge of chat partner identity or familiarity with chat partner (672). However, the analysis did indicate loneliness was related to participant gender and their perceived relationship with their online partners (672). Subrahmanyam and Lin conclude that the “relationship between internet use and well-being is complex” (673). According to Subrahmanyam and Lin, this complexity results in a need to further examine how loneliness, internet use and social support are related (673). By pinpointing a specific utilization of internet use (communicating) as a focus and examining its affects on adolescent well-being (psychologically), results were mixed. These mixed results, determining some harm to well-being and no relationship between the two, lead to more defining questions.

### Frequency of Use

In a short-term longitudinal study of internet and computer use by adolescents, Teena Willoughby contends: computer games have shown to enhance children’s spatial performance skills and have been positively related to reading skills and academic performance (195), “moderate” use of computer games does not appear to be

negatively related to children's social relationships (196), and the relationship between technology use and healthy development appears to vary according to the "frequency" of the activity (196). Willoughby investigated whether the quality of relationships with parents and friends, "academic orientation" (defined by Willoughby as a composite of standardized scores rating grades, educational aspirations, frequency of planning ahead, frequency of being bored at school, and perceived importance of doing well at school), and well-being (also defined by Willoughby as combining issues of depression, social anxiety, self-esteem, self-image, and life satisfaction) would significantly predict frequency of internet use by surveying 1,591 students on two different time points (early and late high school) (197). Willoughby found internet use to be "prevalent" among both boys and girls with no significant differences between gender or time periods (199). Both genders also reported using the internet an average of 1-2 hours a day (199). Willoughby also found higher frequency of internet use in early high school was associated with less positive well being (200). These higher levels of internet use also resulted in "weaker academic orientation" as compared to those with more moderate levels of internet use (201). Defining "frequency of internet use" as a factor influencing behavior is a useful step toward determining the affect of internet use on adolescent well-being. Here, Willoughby is able to associate high levels of use in terms of frequency and lower academic orientation. While academic orientation does associate with adolescent well-being, adolescent well-being is again changed in definition. More important to note of this study is that distinguishing the various levels of internet use had an impact on the overall outcome of the study. Willoughby found an association between internet use and less positive adolescent well-being. Willoughby also questioned the results by saying it was not clear if the adolescents with weaker academic orientations were drawn more to the activity of game playing or if repeated gaming led to the weaker academic orientation (202).

Continuing with the definition of internet usage in terms of amount of time spent on the internet, Regina J.J.M. Van den Eijnden, Gert-Jan Meerkerk, Ad A. Vermulst, Renske Spijkerman, and Rutger C.M.E. Engels conducted a longitudinal study of online communication, compulsive internet use, and psychosocial well-being among adolescents. Van den Eijnden et al. cited others who revealed that the "intensity" of internet use differentiated adolescents from others (656). Van den Eijnden et al. tested five hypotheses: (1) online communication rather than other internet applications is positively related to future compulsive internet use, (2) positive relationships exist between online communication and depression and loneliness, (3) online communication is positively related to future depression and loneliness, (4) depression and loneliness are positively related to future online communication, and (5) online communication and future feelings of depression is stronger for adolescents high in loneliness than for adolescents low in loneliness (656). The study was conducted through a written questionnaire with a sample of 663 participants, ranging in age from

12 to 15 years of age over a six-month interval (657). Van den Eijnden et al. found chatting and instant messaging were important predictors of “compulsive” internet use in the second assessment (660). Instant messaging was also found to have had a significant relationship with depression but no significant relationship with loneliness (660). Concluding the study, Van den Eijnden et al. found that “frequent” online communication was positively related to “compulsive” internet use six months after their initial assessment (662). The positive relationship found between instant messaging and feelings of depression was supported to be positively related six months later; suggesting “excessive use of instant messaging may be a risk for the psychological well-being of adolescents” (663). Further defining internet use characteristics with terms like “frequent” and “compulsive” continues to shed light on the affects internet use has on adolescents. This study clearly shows internet use has negative affects on the adolescent well-being. This study also begins to examine the characteristics of the adolescent more individually than as a whole.

### The Adolescent

Niels Van der Aa, Geertjan Overbeek, Rutger C.M.E. Engles, Ron H.J. Scholte, Gert-jan Meerkerk, and Regina J.J.M. Van den Eijnden suggested that individual characteristics will affect whether or not individuals will use the internet in a “maladaptive manner and as a consequence develop a low well-being” (766). In a diathesis-stress study of 7,888 eleven to twenty-one year olds Van der Aa et al. examined “compulsive internet use” in terms of the relationship between “daily internet use” and possible lowering of well-being in adolescents toward tendencies of loneliness, low self-esteem, and depressive moods (767). Adolescent extraversion, agreeableness, and emotional stability were questioned in relation to internet use (767). The results showed that adolescents with compulsive behavior toward internet use also reported feeling more lonely, depressed, and having a lower self-esteem (770). Those adolescents with a compulsive behavior toward internet use were reported to be mostly introverted, least emotionally stable, and least agreeable (773). For the purpose of relating internet use to adolescent well-being, Van der Aa et al. found daily internet use was “only marginally associated with low well-being in adolescents” (775). The definition of internet use was refined by exploring the amount of “daily” internet use and the amount of time within usage patterns. Although having said that, for the adolescent, the results of Van der Aa et al.’s study confirmed certain personality traits are an indication of how they use the internet; and therefore, using the internet does not affect everyone in the same manner (773). It would stand to reason and was significantly proven in this study that the adolescent as an individual, rather than as a collective, differentiates the cause and effect of internet use at least on psychological well-being. Van der Aa et al. points out that many past studies were performed on the point of view that internet use affects everyone [adolescents] in the same way (773). Van der Aa et

al.'s findings open an entirely new dimension of the current issue debate of whether or not internet use is harmful to adolescent well-being by establishing a valuable missing link: adolescents themselves have different personality traits that influence why internet use has an impact on well-being.

### The Cognitive Well-Being Perspective

Most of the research done on internet use and adolescent well-being has focused on the psychological perspective of well-being. However, in her editorial essay on internet safety, Brendesha M. Tynes poses that adolescent participation in "social online environments" such as chat rooms can foster learning (576). Tynes suggests online game playing may help develop cognitive skills (578). Although her article gives no factual data based on a study performed, Tynes states "Online social networking can facilitate identity exploration, provide social cognitive skills such as perspective taking, and fulfill the need for social support, intimacy, and autonomy" (579). These statements support the cognitive development issue in the well-being of adolescents as a whole in their internet use. Tynes does not address internet use in terms of time online but only through the utilization of online activity (game playing and communication) to promote the benefits of cognitive skill development. Tynes' only support for her claims is through citing the research of others.

### Conclusion

After reviewing the literature on internet use and adolescent well-being, results show internet use can become addictive to certain types of personality types in adolescents. More frequent use of the internet does present well-being issues; however, this conclusion seems to pertain more to a subgroup of adolescents rather than the whole. Currently, the premise behind most research on internet use and adolescent well-being is based in terms of the adolescent as an entity. Likewise, internet use from the perspective of time spent online versus time spent utilizing an online application changes the results in reference to adolescent well-being. Research focus was spent on the more prevalent online activities (game playing and communication) in most studies furthering the definition of online use, but this was often a gray area still needing more distinction. As the internet itself continues to evolve, so will those who use it. Adolescent use of the internet and its affects will continue to be studied and the context behind those studies (internet use and well-being) will also continue to be defined more finitely. Defining internet use and adolescent well-being makes a difference in determining the affects internet use has on adolescent well-being. Continued clarification on not only what internet use is, but also what aspect of adolescent well-being is influenced, is needed in order to find true answers to the question "Is internet use having affects on adolescent well-being?"

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