

## Literature Review

# Internet Addiction Leads to Loneliness or Loneliness Leads to Internet Addiction?

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### Abstracts

Received: June 11, 2024  
Accepted: July 19, 2024  
Published Online: December 2, 2024

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**Introduction:** Internet users in Indonesia are growing from year to year. Based on the latest data from the Indonesian Internet Service Provider Association, known as Asosiasi Penyelenggaraan Jasa Internet Indonesia (APJII), in 2022, internet users in Indonesia reached 210 million. With a large number of internet users, there are positive and negative consequences that occur. Internet addiction began to be studied by many researchers. These studies include research on the factors that cause internet addiction, as well as its correlation with loneliness. To explain the correlation between internet addiction and loneliness. **Methods:** Literature review. **Results:** Loneliness is a complex and usually unpleasant emotion that is thought to be a factor in individuals experiencing internet addiction. Loneliness is the thought of loss and dissatisfaction that occurs due to a mismatch between the individual's social interaction and the social interaction one expects. Hence to overcome the loneliness that is felt, individuals express themselves better in cyberspace than in person. Internet addiction is a condition in which internet users use the internet excessively, due to a lack of self-control and interferes with their daily tasks and functions, to the detriment of themselves. This sums in several negative consequences. Studies showed that internet addiction and loneliness are correlated and mutually reinforcing. **Conclusions:** The relationship between loneliness and internet use is bidirectional in the sense that just as the internet may drive individuals towards loneliness, loneliness can also encourage individuals to spend more time on the internet.

**Keywords:** Internet Addiction, Loneliness

**Cite this as:** Lestari. T. B. "Internet Addiction Leads to Loneliness or Loneliness Leads to Internet Addiction?". Jurnal Psikiatri Surabaya, vol. 13, no. S11, pp.87-94, 2024. doi: [10.20473/jps.v13.isi1.62661](https://doi.org/10.20473/jps.v13.isi1.62661)

## INTRODUCTION

Nowadays internet usage in the world is growing and has contributed to people all over the world. There are some benefits of internet usage such as online transactions. Online transactions provide efficiency in running errands, thus time spent on such activities can be lessened and allocated for other activities such as gathering with family and friends. The internet is also beneficial as a tool in several professions such as journalism, research, and online marketing. The internet gives easier access to information needed in their respective fields. Last but not least, the internet is a more economical communication medium so that it can be used to communicate with family and friends [1].

Based on a survey by Asosiasi Penyelenggaraan Jasa Internet Indonesia (APJII) in 2016, internet users in Indonesia reached 132.7 million users [2]. Internet users aged 10-24 years reached 18.4% or around 24.4 million, aged 25-34 years had a percentage of 24.4% or 32.3 million users, and aged 35-44 years reached 29.2% or 38.7 million, aged 45-54 years reached 18% or 23.8 million internet users and above 55 years there were 10% or 13.2 million users [2]. The latest survey in 2022 based on Asosiasi Penyelenggaraan Jasa Internet Indonesia (APJII) internet users reached 210 million users, this showed how widespread internet use is in Indonesia [2].

The vastly growing and widespread use of the internet has positive and negative impacts on its users. Excessive use of the internet networks has several impacts on daily activities. These various kinds of information and facilities enable individuals to survive for long periods in front of computers or smartphones [3]. The substantial amount of convenience of internet usage is also one of the factors in which users are able to spend time using the internet on smartphones or computers [3]. The increase in internet use is currently very significant, therefore it can result in the emergence of new problems with the term internet addiction [3].

Internet addiction refers to the excessive use of the internet by individuals and cannot be separated from using the internet in everyday life. A person is addicted to the internet if time spent on the internet is more than seven hours a day, meaning that the length of internet use equals or exceeds human sleep time in a day [4]. Caplan [5] sees technology addiction as a subset of behavioral addictions; internet addiction exhibits features of the core components of addiction (i.e., salience, mood modification, tolerance, withdrawal, conflict, and relapse). He says that using the internet as a way to escape disturbing feelings, developing tolerance with the internet to achieve satisfaction, experiencing withdrawal when internet usage is reduced, experiencing increased conflict with other people due to the activity, and relapsing back to the internet are signs of addiction [5]. An individual will be classified as an internet addict when one meets one of the following conditions: 1) One will feel that it is easier to achieve self-actualization online than in real life; 2) One will experience dysphoria or depression when internet access is interrupted or stops functioning; 3) One tries to hide one's actual usage time from his family members [6].

Researchers at Carnegie Mellon University [7], conducted a longitudinal study on the psychological impact of increased internet use and it was associated with decreased family communication and reduced local social circle size. Researchers [8] found that the more addicted Internet users are, the higher their likelihood of using the Internet to escape something. When stressed from work or depressed, internet addicts showed a higher tendency to access the internet and reported higher levels of loneliness, depressed mood, and compulsiveness than other groups [8].

Loneliness can also affect individuals experiencing internet addiction. Based on field observations, teenagers who feel lonely and lack close communication with parents divert the feeling of loneliness by excessive

use of the internet [9]. Some research also showed that loneliness was described as a feeling caused by social relationships that don't meet one's expectations [10]. Loneliness felt by individuals can be classified into two types which are social loneliness and emotional loneliness [11]. Social loneliness refers to the lack of social communication with other people, while emotional loneliness refers to the feeling of being incapable of having close relationships with others [11]. Some research also showed a link between internet addiction and loneliness. This leads the author to question whether internet addiction causes loneliness or vice versa. This paper aims to further explain internet addiction and loneliness, and whether there is a relation between the two variables based on research data provided by previous research.

## REVIEWS

### Internet Addiction

Addiction is defined as a habit that must be done in certain activities or substance use, albeit its consequences corrupt physical, social, spiritual, mental, and financial well-being. Normally, addiction shows psychological and physical features [12]. Physical dependency occurs when an individual's body experiences dependency on certain substances, for instance, drugs or alcohol [12]. Psychological dependency starts when the patient experiences withdrawal symptoms such as depression, craving, insomnia, and irritability [12]. According to Caplan [5], tech addiction is a subset of behavioral addiction; internet addiction for instance shows the main features of addiction (i.e. salience, mood modification, tolerance, withdrawal, conflict, and relapse). Taken from this perspective, internet addicts show salience for the activity, often experience cravings, and feel preoccupied with the internet while being offline. Caplan [5] also described signs of internet addiction as using the internet as a means to escape from uneasy feelings, developing tolerance with the

internet to reach satisfaction, going through withdrawal, and having increased conflict with others because of the activity and relapsing from the addiction.

### Loneliness

Loneliness is defined by Russel [13], as the thought of loss and the presence of dissatisfaction that happens due to incompatibility between the form of social interaction an individual wishes to have and the form of social interaction an individual has. There are 3 aspects of loneliness according to Russel [13]:

- a. Trait Loneliness is a thought derived from loneliness that can change at a certain condition or an individual who undergoes loneliness because of one's personality. This means that an individual has a low sense of trust and is afraid of strangers.
- b. Social Desirability Loneliness is the occurrence of loneliness caused by the desire to have a social life as wished but this kind of social life isn't achieved in an individual's environment.
- c. Depression Loneliness is the evoking of negative feelings i.e., feeling sad, lacking enthusiasm, feeling of worthlessness, thinking about failure, etc.

Loneliness is a universal and complex feeling that arises from subjective or objective solitude and the perception of being alone in society [14]. Loneliness can be divided into two types which are social and emotional [14]. Social loneliness is defined as the lack of social communication or by not being part of the group who participates in joint activities [14]. On the other hand, emotional loneliness is the inability to forge a close and intimate relationship with other individuals [14]. The feeling of loneliness can be experienced at every stage of life; however, this feeling can be more intense especially during adolescence [15].

One of the important variables related to loneliness is the duration of loneliness. Based on this perspective, loneliness can be evaluated through three different measures

[16]:

a. Short Term Loneliness (Temporary)

This type of loneliness occurs from time to time in a day. Short-term loneliness happens when relational hope isn't fulfilled. These situations are temporary and occur in a short length of time.

b. Loneliness Due to Situation (Situational)

This type of loneliness is a process of loneliness that occurs after a certain kind of event. Generally, it continues until the transition process is completed, then ends. Loneliness happens because of stressful life events, such as divorce, moving to a new place, losing loved ones, etc.

c. Long Term Loneliness (Chronic)

This type of loneliness happens when an individual is exposed to an unfulfilled relationship for years.

Internet use in the world, especially in Indonesia, is rapidly growing. Internet users get tremendous benefits from the internet. Humans can feel the advantage of the internet. Various kinds of information and facilities that the internet provides cause individuals to stay in front of computers and smartphones for long hours. Nevertheless, the escalation in internet use nowadays is incredibly significant, hence resulting in the emergence of new problems with the term internet addiction. The excessive use of the internet leads to the question of whether it is a way to eradicate the feeling of loneliness, in which loneliness is a universal and complex emotion that arises from subjective or objective solitude and the perception of being alone in society [14]. This phenomenon becomes a big question in the researchers' mind, whether there is a relationship between loneliness and internet addiction among adolescents. The author also inquires whether internet addiction is the cause of loneliness or loneliness is the cause of internet addiction.

Frangos et al. [17] mentioned that internet addiction itself is affected by several factors namely sex, psychological condition, socio-economic condition, purpose,

and duration of internet use. Young, Pitsner, O'mara & Buchanan [18] stated that loneliness becomes one of the psychological factors resulting from diminished or lost social relations with other people so individuals vent the lonely feeling by increasing internet use such as playing games, using social media, online shopping, or looking for information, etc. Longitudinal research conducted by researchers at Carnegie Mellon University found that increased internet use is related to decreased family communication and the size of social circles [7]. Researchers [8] found that the higher the internet addiction is, the higher the possibility of individuals using the internet as a means to escape from something. In the moment of stress caused by work or depression, internet addicts show high possibilities to access the internet and report higher levels of loneliness, depressed mood, and higher compulsivity compared to other groups [12].

Based on research conducted in Indonesia regarding internet addiction and loneliness, there is no research specifically conducted to examine these two variables alone, they are related to other variables as well. Research done by Ariani, Supradewi, & Syafitri [19] on the role of online loneliness and self-disclosure on internet addiction in late adolescents, the results showed that online loneliness and self-disclosure had a significant role in internet addiction in late adolescents. On the contrary, there was no relation between loneliness and internet addiction. Loneliness and online self-disclosure contributed 9,3% to internet addiction. Another research [9] on loneliness and self-esteem as predictors of internet addiction in adolescents showed that there was a significantly positive influence from loneliness and self-esteem altogether on internet addiction in adolescents, reciprocally the two variables each independently affected internet addiction. Nonetheless, between loneliness and self-esteem, loneliness was found to have a bigger portion rather than self-esteem with each contributing 21,5% and 9,7% respectively, the rest was

influenced by other factors that were not examined in this research. Those factors were low self-control, depression, shame, and low life satisfaction which resulted in internet addiction. Researchers [9] advised conducting research on a deeper level on factors causing internet addiction that haven't been studied i.e. low self-control, depression, shame, low life satisfaction, etc.

Another research on the relationship between loneliness and social media addiction in adolescents in the city of Bandung initially hypothesized social media as a way to reduce feelings of loneliness because it can serve as a means to build online relationships or to express oneself in cyberspace resulting in continuous use of social media in teenagers who do not have satisfaction in their social life [20]. This research aimed to obtain empirical data about how closely social media addiction is related to loneliness in teenagers in the city of Bandung [20]. The results showed that there was a weak correlation between social media addiction and loneliness in adolescents. It was found that there was a significantly positive correlation between loneliness and social media addiction in adolescents in the city of Bandung. The level of loneliness and social media addiction in these adolescents was low. In other words, it indicated that loneliness was not the main factor of adolescents experiencing social media addiction. This finding is in line with previous research [21] that found that there was a low relationship between loneliness and social media addiction for social media addiction was more closely related to social anxiety and happiness. Several research in Indonesia showed there was a positive correlation between loneliness and internet addiction, yet this relation is on a low level. In contrast, in research conducted abroad by Hasmuaj [22] on internet addiction and loneliness among students at the University of Shkodra, it was found that there was a small negative correlation between loneliness and internet addiction. This result indicates that excessive internet use is related

to the low level of loneliness in university students and perhaps it's because individuals who spend more time on the internet have more chance to establish personal relation to other users, although this relation is unstable and objects to reduce social loneliness.

On the other hand, it hasn't been found any relation between gender differences with internet addiction and loneliness level. A study [23] showed that participants who exhibited higher levels of internet addiction tended to have portable gadgets with access to the internet, use the internet for a longer duration every week, experience loneliness socially, perceive themselves as a victim of bullying or cyberbullying in their educational environment and report a disturbed class condition. Researchers also reported a correlation between high-level internet use and loneliness. This finding is aligned with the previous research that found lonely internet addicts can find a swift boost resulting from online experiences that change their mood, thus finding it a pleasant thing to do and tend to repeat the activity [24].

Loneliness has a role in internet addiction because lonely people don't succeed in their offline interaction which is caused by the lack of social skills, resulting in internet addiction. Another research [25] on internet addiction and loneliness in adolescents in Bangladesh during the COVID-19 pandemic, concluded that there was a correlation between internet use and school-age children who experience loneliness. Researchers found that internet addiction caused by loneliness was affected by several factors i.e. education level, education media, economy, and living environment. Individuals with a higher economic background were more likely to suffer from internet addiction because of their ability to get and access gadgets (ex: smartphones, TV) and Wi-Fi for they belonged to a financially stable family. A study [26] done in Turkey regarding the relation between loneliness and internet addiction among adolescents during the COVID-19 pandemic also found that there

was a significantly positive relation, though weak, between individuals' level of loneliness during the pandemic and internet addiction level. This indicated that as loneliness increases, internet addiction levels will also increase. In this research, the mean of internet addiction of adolescents whose mother has a higher level of education was found to be higher. A mother's education level indicates that she is a working woman, and the pandemic is causing additional responsibilities for a mother to work from home.

The correlation between loneliness and internet addiction is bidirectional, this means that as internet addiction leads individuals to loneliness, loneliness also leads individuals to spend more time on the internet [26]. This relationship explains why adolescents easily switch to digital means to meet their needs when they feel their social needs aren't met.

### CONCLUSION

Various studies related to internet addiction and loneliness have been carried out by several researchers nationwide and abroad. There is no empirical evidence which states that internet addiction is purely caused by loneliness. There are other factors that cause individuals to experience internet addiction. Several existing studies state that there is a positive relationship and correlation between internet addiction and loneliness or vice versa. However, the correlation seems low. This is because the cause of internet addiction itself is not purely from loneliness. Several other factors also cause internet addiction such as the convenience of internet access, low self-control, depression, feelings of shame, and low levels of life satisfaction, etc. Lonely individuals use the internet to socialize with other internet users and even though the relationship is unstable, they find it more enjoyable. Loneliness also influences preferences for online interaction, because individuals who feel lonely can interact online to express themselves better online than offline. There is no direct evidence of whether internet addiction causes loneliness or

loneliness causes internet addiction, but existing studies show that the two phenomena are correlated and mutually reinforcing. The relationship between loneliness and internet use is bidirectional in the sense that just as the internet may drive individuals towards loneliness, loneliness can also encourage individuals to spend more time on the internet.

### ACKNOWLEDGEMENTS

None.

### CONFLICT OF INTEREST

The author declares that she has no conflict of interest.

### FUNDING

The author has no funding.

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