Internet Addiction Disorder and Its Impact on the Incidence of Psychological Well-being among Young Adults

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Abstract—At its core, this study asks how Internet addiction relates to psychological well-being among young adults, with a deliberate eye on psychopathology. We sought more than a single metric. The aim is to illuminate the lived experience behind the data, exploring how compulsive Internet use may echo in mood, anxiety, and overall health in everyday life. The sample size of 150 was selected through random sampling. The Internet Addiction Inventory & Psychological Well-being Scale are tailor-made instruments, with sufficient reliability and validity. The correlation analysis indicates a moderately strong negative relationship between the two constructs: higher Internet addiction is associated with lower psychological well-being. The ANOVA results reinforced the model's statistical significance. The statistical results were highly significant across all indicators, correlation, ANOVA, and regression coefficients, underscoring the reliability of the findings. The regression equation clearly showed that as internet addiction increases, psychological well-being systematically declines with each incremental rise in internet dependency, measurably eroding health outcomes.

Keywords: Internet Addiction, Psychopathology, Psychological well-being.

Internet addiction: It is known as problematic internet use or internet dependency, and is characterised by excessive or poorly controlled preoccupations, urges, and behaviours regarding computer use and internet access that interfere with professional, personal, and social life and its functioning.

Psychopathology: The study of mental disorders and abnormal behaviours. It encompasses understanding the symptoms, causes, development, and treatment of mental health conditions. In essence, it entails examining thought, emotion, and behaviour patterns that diverge from normal functioning and could be signs of psychological distress or disease.

Psychological well-being: It refers to a multifaceted state of positive mental and emotional health. It is more than just the absence of mental illness; it is about an individual's sense of purpose, happiness, and ability to function effectively in life.

I. INTRODUCTION

Relationships between digital media use and psychological and Emotional well-being have been investigated by numerous researchers, predominantly psychologists and medical experts, specifically since the mid-1990s, after the growth of the World Wide Web. A significant body of research has explored the phenomenon of overuse, commonly known as digital addiction or digital dependency.

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) and the International Classification of Diseases (ICD-11) do not include diagnoses for problematic internet use and problematic social media use; the ICD-11 consists of a diagnosis for gaming disorder (commonly known as video game addiction), whereas the DSM-5 does not. Experts are still debating how to diagnose these conditions effectively and when to do so. The use of the term addiction to refer to these phenomena and diagnoses has also been questioned.

Digital media and screen time have impacted the way we think, interact, and develop in positive and negative ways, but researchers are still in the process of establishing a significant relationship between the existence of hypothesised causal links between digital media use and psychological health outcomes. Those links appear to depend on the individual and the platforms they use.

The relationship between digital technology and psychological well-being has been investigated from many perspectives. The benefits of digital media use in childhood and adolescent development have been found. Concerns have been expressed by researchers, clinicians, and the public regarding apparent compulsive behaviours of digital media users, as correlations between technology overuse and psychological well-being become apparent.

Various types of internet disorders have been identified, including gambling disorder, gaming disorder, communication addiction disorder/compulsive talking, virtual reality addiction, video streaming addiction, and social media addiction. Physical and psychological signs and symptoms have been observed during clinical examinations of numerous case studies conducted and documented by experts. These symptoms may include defensiveness, avoidance of work, agitation, mood swings, fear, loneliness, boredom with routine tasks, procrastination, feelings of guilt, loss of sense of time, euphoria when using the computer, inability to prioritise or maintain schedules, and isolation. Physical symptoms of Internet Addiction Disorder may manifest as backache, carpal tunnel syndrome, headaches, insomnia, poor nutrition, poor personal hygiene, neck pain, dry eyes, vision problems, and weight fluctuations.

One widely accepted diagnostic assessment for Internet Addiction Disorder was proposed by K.W. Beard in a 2005 article in Cyber Psychology and Behaviour. Beard outlined five diagnostic criteria for identifying Internet Addiction Disorder in the general population, including preoccupation with the Internet, increased time usage for satisfaction, unsuccessful attempts to control Internet use, negative emotional states when trying to control use, and exceeding planned online durations. Additionally, Beard suggested that at least one of three additional criteria must also be met for a diagnosis of Internet Addiction Disorder, such as jeopardising relationships or opportunities due to internet use, lying to conceal internet activities, or using the internet to escape from problems or negative emotions.

Individuals seeking help for Internet Addiction Disorder often undergo mental tests or questionnaires to assess their dependency on the internet. Common assessment tools used for diagnosing Internet Addiction Disorder include Young's Internet Addiction Test, the Problematic Internet Use Questionnaire (PIUQ), and the Compulsive Internet Use Scale (CIUS). Long-term engagement in internet activities, particularly video gaming, can impact brain regions responsible for reward processing, impulse control, and sensory-motor coordination. Structural analyses have shown alterations in the volume of the ventral striatum among video game addicts, potentially due to changes in reward mechanisms. Video game playing has been associated with dopamine release comparable to that observed in drug abuse, and exposure to gaming stimuli can activate brain regions similarly to drug cues in substance abusers. Treatment studies utilising MRI to monitor brain connectivity changes have demonstrated a decrease in activity in regions linked to cravings.

While there is evidence suggesting that video game addiction may share neural mechanisms with substance abuse, leading to reduced sensitivity in the dopaminergic reward system, it is premature to equate this addiction with substance addictions, given the nascent stage of research in this area. A dual processing model of digital technology addictions has been proposed, highlighting an imbalance between reactive and reflective reward systems. Excessive and compulsive internet use, while designed to enhance connectivity, can paradoxically result in psychological detachment and distress. Internet Addiction (IA), characterised by a lack of control over internet use, preoccupation with online activities, and continued use despite negative consequences, has emerged as a significant global mental health concern, particularly affecting young adults who are susceptible to habitual and addictive behaviours due to developmental factors. Preliminary research indicates a strong association between maladaptive internet use and a decline in psychological well-being, negatively impacting key indicators such as self-esteem, real-world social relationships, autonomy, and academic performance. IA has been linked to heightened levels of depression, anxiety, loneliness, and sleep disturbances. Excessive internet use can displace essential offline activities, disrupt circadian rhythms, and foster unfavourable social comparisons, exacerbating existing vulnerabilities or introducing new psychological challenges.

Despite growing evidence, further research is needed to elucidate the precise relationship between IA and psychological well-being, as many studies have focused on specific facets of internet use or clinical populations, necessitating comprehensive investigations into IA's broad impact on the psychological health of young adults. Understanding this relationship is crucial for public health due to widespread internet access and the critical role of mental health during this life stage.

This study aims to systematically explore the link between Internet Addiction and psychological well-being among young adults, determining the prevalence of IA and analysing how varying levels of addictive internet use correlate with mental health metrics like stress, depression, anxiety, self-esteem, and life satisfaction. The findings will enhance understanding of the psychological ramifications of the digital age and inform

II. REVIEW OF LITERATURE

II.I. DEFINITION

Internet addiction, or problematic Internet use, refers to online activity that a person fails to control. The loss of control harms work, study, or mood (Young, 1998).

Blurred line between healthy and harmful use Smartphones and broadband reached most homes after 2010. As screen time rose, clear limits grew harder to see (Kuss & Lopez-Fernandez, 2016).

II.II. PREVALENCE AMONG YOUNG ADULTS

Most university students carry at least one connected device all day. A survey of 1,000 students in Portugal found that 12 % met the cut-off for moderate to severe addiction, and men scored higher than women (Pontes et al., 2015). Similar figures appear in U.S. samples of the same age range (Anderson, 2020).

II.III. PSYCHOLOGICAL WELL-BEING

Well-being covers mood, self-worth, purpose, and ties with others (Ryff, 1989). Low scores often pair with anxiety, depressed mood, social withdrawal, and low self-esteem (Diener et al., 2017).

II.IV. LINK BETWEEN ADDICTION AND WELL-BEING

Cross-sectional work shows that heavy users report more anxiety and low mood than light users (Moreno et al., 2011; Weinstein & Lejoyeux, 2010). A two-year follow-up in China found that students who used the Internet for more than six hours a day showed a rise in depressive symptoms over time (Lam & Peng, 2010).

II.V. FACTORS THAT RAISE RISK

Low self-worth, poor grades, weak parental monitoring, and few offline friends all predict higher scores on addiction scales (Ko et al., 2008; Mehroof & Griffiths, 2010). Personality also matters. High neuroticism and high impulsivity are linked to heavier use (Ceyhan, 2008).

II.VI. COPING AND TREATMENT

Behavioural therapy teaches users to set clear screen limits (Young, 2007). Small studies suggest that one-week “digital breaks” cut daily screen time by at least two hours (Li et al., 2018). Mindfulness practice, peer support, and campus counselling add further gains.

II.VII. GAPS IN THE LITERATURE

While many studies confirm a negative relationship between Internet addiction and psychological well-being, there is a lack of consensus on causal direction. Moreover, most research has been cross-sectional, limiting understanding of long-term effects. Additionally, cultural and gender differences and their impact on lifestyle in the experience of addiction are underexplored.

II.VIII. STATEMENT OF THE PROBLEM OF THE STUDY

The increasing prevalence of problematic usage of the internet among young adults raises concerns about its impact on psychological well-being. Despite widespread internet use, the association between internet addiction disorder and the incidence of psychopathology, such as insomnia, anxiety, depression, level of motivation, and other psychological disturbances, remains underexplored. This study aims to investigate how Internet addiction contributes to the development or exacerbation of psychopathological conditions in young adults, to better inform prevention and intervention strategies.

III. OBJECTIVE OF THE STUDY

The present study was proposed to investigate the severity of The Usage of Internet usage along with the Relationship between Internet addiction disorder and psychopathology in young adults. (18 -25years).

It aims to answer What is the nature of the relationship between internet addiction disorder and associated psychopathology in young adults?

III.I. HYPOTHESIS OF THE STUDY

- **H1** It is hypothesised that there exists a significant relationship between the rate of occurrence of Psychopathology and Internet addiction among young adults.
- **H2** It is hypothesised that internet addiction has a significant impact on the psychological well-being of young adults.
- **H3** It is hypothesised that with increased or problematic usage of the internet, the level of psychological well-being systematically declines.

IV. METHODOLOGY

IV.I. PARTICIPANTS

Young Adults studying or working in various institutions, including corporate and non-corporate settings, are the target population. The population is the entire set of individuals or objects having some common characteristics.

Inclusion Criteria;

1. Young Adults with moderate to excessive internet exposure.
2. The age range of participants from 18-25 years.
3. Participants belong to both genders.
4. Participants were asked for their consent to participate in the study.
5. young adults studying or working in institutional settings and corporate and non-corporate settings.

Exclusion Criteria;

1. Young Adults who cannot understand questionnaire language.
2. Young Adults under psychological intervention.
3. Young Adults who have taken similar tests earlier.
4. Young adults who are not using smart gadgets.
5. Young Adults who are admitted to the hospital due to internet addiction.

Purposive random sampling is used to select the sample for the study. As per the willingness to participate, 150 Young adults were selected.

IV.II. TYPE OF RESEARCH DESIGN

Correlational research design

IV.III. MEASURES

1. **Internet Addiction Test (IAT):**

The IAT was developed by Dr Kimberly Young, 1998, and it consists of 20 questions that were adopted to evaluate the respondents' level of internet addiction. Each item is scored using a five-point Likert scale, and a graded response can be selected (1 = “rare” to 5 = always). It covers the degree to which internet use affects daily routine, social life, productivity, sleeping patterns, and feelings. The minimum score is 20, while the maximum is 100, and the higher the score, the greater the level of internet addiction. Three types of Internet-user groups were identified in accordance with the original scheme of Young, and the scores ranging from 20 to 49 indicate minimal user scores, from 50 to 79 indicate moderate users, and scores from indicate excessive users. The instrument has exhibited good psychometric properties in previous research. The reliability for this questionnaire is 0.899 in Cronbach's Alpha (Sally, 2006)

2. **Psychological Well-being scale**

For the present study, the Psychological Well-Being Scale (42) items were developed by Dr Carol. D.Ryff was used to measure psychological well-being.

Author Dr Carol D. Ryff

1. Year of construction: 1998

2. Tool name Psychological Well-Being Scale

3. Applicability for adults

4. Language and number English

5. Time limit: 6 to 8 minutes

6. Reliability test-retest reliability 0.82

Ryff’s scale measures six theoretically constructed dimensions- Autonomy, Environmental mastery, personal growth, positive relation with others, the purpose of life, and self-acceptance of psychological well-being. Ryff’s Psychological Well-Being Scale had 120 items (120 Items per dimension) at one time; however, it was later broken down into smaller versions. Small version included-The correlation coefficient of psychological well-being with Self-esteem, Satisfaction with Life, and happiness was also found to be: 0.46, 0.58, and respect which was also significant (P42 items < 7 items per dimension) and 18 items (3 items per dimension)

Psychological well-being has a test-retest reliability coefficient of 0.82. The subscales of autonomy, environmental mastery, self-acceptance, positive relation with others, personal growth, and purpose in life were found to be 0.78, 0.77, 0.71, 0.77,0.78, and 0.70, respectively.

IV.IV. DATA COLLECTION

A cohort of 150 young adults, encompassing a variety of academic disciplines, including but not limited to science, arts, and commerce, as well as individuals employed in diverse corporate and non-corporate environments, was purposively selected for this study. Initially, a selection of institutions and corporate/non-corporate entities was made for data collection convenience. Subsequently, authorisation for data collection was obtained from the administrative bodies of these establishments. The researcher then directly engaged with the participants during their official hours, providing a comprehensive explanation of the research objectives and questionnaire methodology while ensuring the confidentiality of all acquired information. Prior verbal consent was secured from each participant. Subsequently, participant responses were gathered, evaluated, and analysed using the designated assessment tool, with strict adherence to data confidentiality protocols.

T-TEST

- A t-test is an inferential statistic used to determine if there is a statistically significant difference between the means of two variables.
- The t-test is a test used for hypothesis testing in statistics.
- T-tests can be dependent or independent.
- This calculated t-value is then compared against a value obtained from a critical value table called the T-distribution table. Higher values of the t-score indicate that a large difference exists between the two sample sets. The smaller the t-value, the more similarity exists between the two sample sets.

T-Score: A large t-score, or t-value, indicates that the groups are different, while a small t-score suggests that the groups are similar. Degrees of freedom refer to the values in a study that are free to vary and are essential for assessing the importance and validity of the null hypothesis. The computation of these values typically depends on the number of data records available in the sample set.

IV.V. CORRELATION (r)

Correlation is a very useful statistic is the Pearson product-moment correlation coefficient, or "Pearson's correlation." They are obtained by dividing the two variables by the standard deviation; Karl Pearson developed coefficients with a similar but slightly different view of Francis Galton. A relation is a single number that describes the degree of relation between the two variables. The correlation coefficient is a numerical value that indicates the degree and direction of two variables. The coefficient shows the correct positive affinity of +1.00 values, 0.00 does not show any relation, and -1.00 shows the perfect negative or inverse relationship between the two variables.

V. RESULTS OF THE STUDY

The present analysis was conducted to examine whether Internet addiction, as measured by the Internet Addiction Test (IAT), can significantly predict psychological well-being (PW). A dataset comprising 150 respondents was analysed using simple linear regression, with PW as the dependent variable and IAT as the independent variable. The results provide both descriptive insights into the sample and confirm a statistically meaningful negative association between excessive Internet use and psychological health outcomes.

Table 1.1

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	82.813	3.580		23.130	.000	75.738	89.888
	IAT	-.384	.055	-.500	-7.033	.000	-.492	-.276

a. Dependent Variable: PW

b. Independent Variable IAD

Table 1.2

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	**.500[a]**	**.250**	**.245**	**7.661**

a. Predictors: (Constant), Internet Addiction Test.

b. Dependent Variable: Psychological well-being.

The descriptive statistics provide an important foundation for interpretation. The mean IAT score of the sample was 64.49 (SD = 11.48), with scores ranging from 41 to 89. This distribution indicates that most respondents fell within the moderate addiction category, with a considerable proportion approaching severe addiction levels. In terms of psychological well-being, the mean score was 58.02 (SD = 8.82), with values spanning from 36 to 88. The median was 58, and the interquartile range extended from 54 to 62, suggesting that most respondents reported average or slightly below-average psychological health, with relatively fewer individuals at the high vitality end of the scale. The correlation analysis revealed a Pearson's r = –0.50, indicating a moderately strong negative relationship between the two constructs: higher Internet addiction is associated with lower psychological well-being.

The regression model confirmed this association in a predictive framework. The R value was 0.50, reflecting the correlation between observed and predicted PW scores, while the R^2 value was 0.25, meaning that Internet addiction accounted for 25% of the variance in physical well-being. The adjusted R^2 of 0.245 indicates the model's stability, confirming that the explanatory power of IAT is not merely due to chance or sample size. The standard error of the estimate was 7.9, implying that, on average, predicted well-being scores deviated by about eight points from actual observed values. Although this error is not negligible, it is within a reasonable range, considering the variability of health outcomes. The coefficients table provides the clearest insight into the nature of the predictive relationship. The unstandardized regression equation is: $PW=82.81–0.38\times IAT$

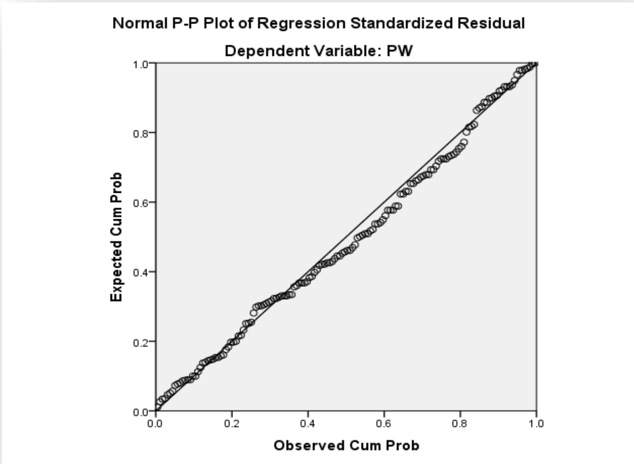
Table 1.3

ANOVA						
Model		**Sum of Squares**	**D f**	**Mean Square**	**F**	**Sig.**
1	**Regression**	**1624.2**	**1**	**1624.2**	**49.464**	**.000[b]**
	Residual	**4862.8**	**148**	**32.85**		
	Total	**6487.0**	**149**			

Dependent Variable: Psychological well-being.

Predictors: (Constant), Internet Addiction Test.

The ANOVA results reinforced the model's statistical significance. The regression sum of squares was 1624.2, while the residual sum of squares was 4862.8, yielding a total sum of squares of 6487.0. With df = 1 and 148, respectively, the mean square for regression was 1624.2, compared to 32.85 for the residual. The resulting F statistic was 49.46, with a significance level of $p < 0.001$. This clearly demonstrates that the regression equation significantly predicts psychological well-being scores and that Internet addiction is a meaningful explanatory variable in this context.



The intercept of 82.81 represents the theoretical level of physical well-being when Internet addiction is zero. While such a score is unlikely in practice, it provides a useful baseline from which to calculate changes. The slope of –0.38 indicates that for every one-point increase in Internet addiction, physical well-being decreases by approximately 0.38 points. This effect is statistically significant, with a t-value of –7.03 and $p < 0.001$. The standardised beta coefficient was –0.50, meaning that a one standard deviation increase in IAT corresponds to a half standard deviation decrease in PW. The 95% confidence interval for the slope ranged from –0.49 to –0.28, excluding zero and confirming the robustness of the finding.

Table 1.4

Residuals Statistics					
	Minimum	**Maximum**	**Mean**	**Std. Deviation**	**N**
Predicted Value	**48.60**	**67.05**	**58.02**	**4.414**	**150**
Residual	**-17.597**	**23.944**	**.000**	**7.635**	**150**
Std. Predicted Value	**-2.134**	**2.046**	**.000**	**1.000**	**150**
Std. Residual	**-2.297**	**3.125**	**.000**	**.997**	**150**

Std. Residual	**-2.297**	**3.125**	**.000**	**.997**	**150**

VI. DISCUSSION

The present analysis provides strong empirical evidence that Internet addiction is a significant and negative predictor of psychological well-being. The descriptive statistics revealed that a large proportion of respondents were situated in the moderate to high range of internet addiction, with psychological well-being scores clustering around average to slightly below-average levels. The correlation analysis demonstrated a moderately strong inverse relationship. At the same time, the regression model confirmed that nearly one-quarter of the variance in psychological well-being could be explained by internet addiction alone.

The statistical results were highly significant across all indicators, correlation, ANOVA, and regression coefficients, underscoring the reliability of the findings. The regression equation clearly showed that as internet addiction increases, psychological well-being systematically declines, with each incremental rise in internet dependency eroding health outcomes measurably. The negative slope, substantial standardised beta, and narrow confidence intervals collectively confirm the robustness of this effect.

VII. CONCLUSION

The analysis affirms that higher levels of internet addiction significantly compromise psychological well-being. The strength and consistency of the evidence highlight the urgency of addressing internet-related behaviours within both clinical and public health frameworks, to promote healthier, more sustainable patterns of technology use.

REFERENCES

1. Anderson EL, Steen E, Stavropoulos V (2017). International Journal of Adolescence and Youth. 430–454. "Internet use and Problematic Internet Use: A systematic review of longitudinal research trends in adolescence and emergent adulthood". doi:10.1080/02673843.2016.1227716. S2CID 152003110.
2. Anderson KJ, 2001, 'Internet use among college students: an exploratory study', Journal of American College Health, vol. 50, pp. 21-26. US National Library of Medicine.
3. Beard, Keith W.; Wolf, Eve M. (June 2001). "Modification in the Proposed Diagnostic Criteria for Internet Addiction". Cyber Psychology & Behaviour. 377–383. doi:10.1089/109493101300210286. PMID 11710263. S2CID 40907675
4. Chida, Y., & Steptoe, A. (2008). Positive psychological well-being and mortality: a quantitative review of prospective observational studies. Psychology and Health, 309-321.
5. Dhanabhakyam, M., & Sarath, M. (2022). Impact of Occupational Stress on Job Satisfaction and Psychological Well-being. International Journal of Advanced Research in Science, Communication and Technology (IJARSCT), 270-275
6. Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: three decades of progress. Psychological Bulletin, 125(2), 276-302.
7. Ko CH, Yen JY, Chen CS, Chen CC, Yen CF (February 2008). "Psychiatric comorbidity of internet addiction in college students: an interview study". CNS\Spectrums 147-53 .doi:10.1017/S1092852900016308. PMID 18227746. S2CID 3101800.
8. Lam LT, Peng ZW (October 2010) Effect of pathological use of the internet on adolescent mental health: a prospective study"
9. Lavin MJ, Yuen CN, Weinman M, & Kozak K, 2004, 'Internet dependence in the collegiate population: the role of shyness', Cyberpsychology and Behaviour 379-383.

US National Library of Medicine.

10. Love, Todd; Laier, Christian; Brand, Matthias; Hatch, Linda; Hajela, Raju (September 2015). Addictive Behaviours: Assessment and Treatment 388-433.
    Neuroscience of Internet Pornography Addiction: A Review and Update" Behavioural Sciences. MDPI. doi:10.3390/bs5030388. eISSN 2076-328X. PMC 4600144. PMID 26393658. S2CID 16085514.
11. Lucas R, Diener E & Suh E. (1996). Discriminant validity of well-being measures. Journal of Personality and Social Psychology 616-628.
12. Park, N., & Peterson, C. (2006). Character strengths and happiness among young adults. Journal of Happiness Studies 293-310.
13. Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: A handbook and classification. Oxford University Press.
14. Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology, 1069-1081.
15. Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. Annual Review of Psychology, 52, 141-166.
16. Sarath, M., & Dhanabhakyam, M. (2022). Analysing the role of psychological capital on the challenges of work from home. ACADEMICIA: An International Multidisciplinary Research Journal, 12(9), 167-171
17. Rosen, Larry D., et al. "Social Networking Is Addictive and Can Lead to Psychological Disorders." Are Social Networking Sites Harmful, edited by Noah Berlatsky, Greenhaven Press, 2015.
18. Scherer K, 1997. 'College life online: healthy and unhealthy Internet use' Journal of College Student Development, vol. 38, 655-665
19. Snyder & S. J. Lopez (Eds.), Handbook of positive psychology, 3-9
    Oxford University Press.
20. Wallace P (January 2014). EMBO Reports 12–6
    "Internet addiction disorder and youth: There are growing concerns about compulsive online activity and that this could impede students' performance and social lives".
    doi:10.1002/embr.. 201338222. PMC 4303443. PMID 24398129.
21. Young, Kimberly S. (1 January 1998). "Internet Addiction: The Emergence of a New Clinical Disorder". Cyberpsychology & Behaviour. 237–244.
    doi:10.1089/cpb.1998.1.237
22. Yuan K, Qin W, Liu Y, Tian J (November 2011). Communicative & Integrative Biology 637-9
    doi:10.4161/cib.17871. PMC 3306323. PMID 22448301