

CONNECTING MINDS AND SCREENS: THE MEDIATING INFLUENCE OF CYBERLOAFING ON COGNITIVE ABSORPTION AND SOCIAL WELL-BEING

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Submitted: 2024-06-14

Published: 2024-06-26

DOI: 10.24036/rapun.v15i1.129318

Accepted: 20xx-06-19

Abstract: Social well-being is a part of subjective well-being used to measure mental health as a measurement of mental health, which is an indicator of quality of life. People can achieve social well-being when they have a good and deep quality relationship with others. However, people use technology almost daily, impairing their social well-being. Moreover, they also tend to do cyberloafing, which makes them spend more time on their gadget. This project's principal objective was to investigate cyberloafing's effect on cognitive absorption and social well-being. A quantitative method using three questionnaires (cognitive absorption scale, cyberloafing questionnaire, and social well-being) involving 178 respondents was employed. The data was analyzed using Mediation Analysis in JASP software. The findings indicated a partial mediation in cyberloafing on the relationship between cognitive absorption and cyberloafing.

Keywords: Social well-being; Cognitive absorption; Cyberloafing

Abstrak: *Social well-being* merupakan bagian dari *subjective well-being* yang mengukur kesehatan mental yang merupakan indikator dari kualitas hidup seseorang. Pada umumnya setiap orang yang memiliki *social well-being* yang baik akan memiliki kualitas hubungan yang baik juga dengan orang lain. Namun, belakangan ini, banyak orang yang menggunakan teknologi dalam kehidupan sehari-harinya, sehingga hal ini bisa saja berdampak pada *social well-being*. Terlebih lagi, dengan melakukan *cyberloafing* membuat individu semakin sering menggunakan teknologi. Tujuan dari penelitian ini adalah untuk melihat efek mediasi dari *cyberloafing* pada hubungan *cognitive absorption* dan *social well-being*. penelitian kuantitatif menggunakan tiga instrument (*cognitive absorption scale, cyberloafing questionnaire, and social well-being*) dilakukan pada

penelitian ini dengan jumlah sampel sebanyak 178 orang. Data dari penelitian ini dianalisis menggunakan mediation analysis pada JASP. Temuan dari penelitian ini adalah terdapat efek mediasi Sebagian oleh *cyberloafing* pada *cognitive absorption* dan *social well-being*.

Kata kunci: *Social well-being*; *Cognitive absorption*; *Cyberloafing*

INTRODUCTION

The model quality of life introduced by Felce & Perry (1995) consists of three elements: objective life conditions, subjective feelings of well-being, and personal values and aspirations. Felce & Perry (1995) define well-being as one of the definitions of quality of life. Well-being is a complex construct for psychology. Research on well-being has been conducted in different contexts and subjects. Most of the research regarding well-being is around three domains: subjective well-being (regarding life satisfaction that one's experiences (Diener et al., 1985)), psychological well-being (regarding happiness in individuals (Ryff, 1989)) and social well-being (where it measures people's well-being in a social context (Keyes, 1998)).

Well-being is a subjective phenomenon experienced by individuals. Although well-being is a personal experience, humans will not be separated from their social structure and community. They will also encounter many tasks and social challenges (Keyes, 1998). He defines social well-being as an assessment of an individual's condition and function in society. According to Felce and

Perry (1995), social well-being is linked to the quality and depth of interpersonal connections an individual maintains with others.

Previous research that has examined social well-being has found several things related to technology. Several studies have shown that social well-being has a positive relationship with learning performance and social presence (Gunawardena & Zittle, 1997; Samad et al., 2019). According to Samad et al. (2019), social presence is a situation in which an individual is considered "there" or "real" in mediated communication, such as communication using technological assistance. In addition, not only in student groups but the social well-being of older adults has also become a concern. A study by Sen et al. (2022) states that the use of applications on mobile phones can improve social well-being in these communities. Using mobile phone applications can reduce the social isolation of older adults because it can help them stay connected with their families and also help them get good health facilities quickly.

This research shows that in the current era, technology has become something that cannot be avoided anymore. Information and communication technology (ICT) is a common thing for every individual because almost every community group has used this ICT technology. A survey from the Association of Indonesian Internet Service Providers (APJII) in 2022 regarding penetration and behavior of internet users found that 39.8% of these users were in the 19–34-year age category, which is an early adult. Then, in terms of work, the majority are housewives (24.9%), followed by students as much as 14.8%. In addition, Indonesia's current internet penetration rate is 77.02%, which has increased by almost 4% from 2019-2020 (APJII, 2022). This data shows that more Indonesian people are starting to use technology.

In the fast-paced digital landscape of the 21st century, the intersection between work, technology, and personal well-being has become increasingly complex. The dynamics between cognitive experiences, social connections, and the subtle allure of online distractions create a captivating narrative. As we navigate this interconnected landscape, the interplay between cognitive absorption and social well-being emerges as a central theme—underscored by the intriguing role of cyberloafing as a mediator.

Cognitive absorption is a deep attachment experienced by individuals when using information technology, be it computers, cell phones, or the Internet (Agarwal et al., 1997; Agarwal & Karahanna, 2000; Weniger & Loebbecke, 2011). Cognitive absorption depends on intrinsic motivation for pleasure and satisfaction. This desire and drive have several components: temporal dissociation, focused immersion, heightened enjoyment, control, and curiosity (Agarwal & Karahanna, 2000). When the individual is absorbed, the individual will tend to ignore other information around him. One example related to this phenomenon is when we are working on a task on a laptop, the task takes little time to do. However, since there is an absorption between this technology and its users, we have spent much time in front of the computer and have yet to realize it.

Likewise, we tend to see students in class using laptops, tablets, cell phones, and other gadgets during lectures. This situation makes individuals spend more time in front of their gadgets so that, without realizing it, they are no longer involved in lecture activities. This condition can then worsen when followed by other activities unrelated to the lesson or work being done. This condition is called cyberloafing. Cyberloafing is defined as using the Internet for personal activities unrelated to the work being done at that time

(Akbulut et al., 2016; Lim, 2002). This cyberloafing behavior is like activities related to browsing something unrelated to work and activities related to checking. A study found that the more time individuals spend with their gadgets, the more cyberloafing behavior can increase (Baturay & Toker, 2015).

Furthermore, it was also found that if individuals engage in cyberloafing activities, it also increases the cognitive absorption involved in these activities (Hayit & Donmez, 2016; Sevinç & Dogusoy, 2022; Tanriverdi & Karaca, 2018). Both of these phenomena can undoubtedly affect the social well-being of individuals. This phenomenon is because when individuals are absorbed with gadgets and even cyberloafing, they can ignore their social lives. This study investigates the relationship between cognitive absorption and social well-being and whether cyberloafing mediates the relationship between cognitive absorption and social well-being.

METHODS

Research Design

The non-experimental quantitative design was employed with the questionnaire as data collecting media. This research uses the mediation regression method to examine the role of Cyberloafing in mediating Cognitive

Absorption and Social Well-being in emerging adulthood. The data

Research Participant

A total of 178 respondents consisted of 35 men and 143 women. The average age of the respondents was 21 years, with a standard deviation of 1.66. The age range of respondents is from 17 years to 28 years. The respondent has used the internet daily for an average of 8 hours per day., with a standard deviation of 6.55. As for education level, most students are studying in a bachelor's program (90.5%), and others have a diploma program (9.5%).

Research Instruments

The research used three measurements: The Cognitive Absorption Scale (CAS), Cyberloafing questionnaire, and the social well-being scale. The three instruments were adapted into Bahasa using the Backward-Forward Translation method (Koller et al., 2012).

The Cognitive Absorption Scale (CAS)

The cognitive absorption scale was developed by Agarwal & Karahanna (2000) and consists of five dimensions: temporal dissociation, focused immersion, heightened enjoyment, control, and curiosity. The scale contains 20 items that measure the deep attachment that individuals experience when using information technology (e.g., Waktu berlalu begitu cepat saat saya sedang berselancar di dunia maya). The respondents

can choose the answer using a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale has a Cronbach's alpha value of = .89.

The Cyberloafing Questionnaire

The cyberloafing questionnaire was developed by Akbulut et al. (2016) and consisted of five dimensions: sharing, shopping, real-time updating, accessing online content, and gaming/gambling. The cyberloafing questionnaire consists of 29 items with five answer choices ranging from 1 (never) to 5 (always). The items on this scale consist of statements regarding the objective of people's internet use behavior in academic settings (e.g., “Saya menandai teman-teman pada foto yang saya posting di media sosial.” and “Saya mengecek profil media sosial teman saya”). This scale has a Cronbach's alpha value of = .66.

The Social Well-being Scale

The social well-being scale was developed by Keyes (1998). This scale consists of 33 items that contain statements about an individual's assessment of the individual's condition and function in society (e.g., “Anda merasa dekat dengan orang-orang di dalam komunitas Anda”). This scale consists of 7 answer choices ranging from 1 (strongly disagree) to 7 (strongly agree). This scale has a Cronbach's alpha value of = .88.

RESULTS AND DISCUSSION

Results

Table 1 describes the descriptive data of three variables that were measured in this study: cognitive absorption, cyberloafing, and social well-being. The findings in Table 2 show a significant positive relationship between cognitive absorption and cyberloafing ($r = .48, p < .01$). Interestingly, a significant positive was also found in the relationship between cognitive absorption and social well-being ($r = .35, p < .01$) as well as cyberloafing and social well-being ($r = .37, p < .01$).

Mediation analysis within the structural equation model in JASP was used to test the hypothesis. The mediation analysis presents that cognitive absorption can predict cyberloafing ($\beta = .43, SE = .06, z = 7.37, p < .01$ [95% confidence interval (.32; .55)]) along with cyberloafing on social well-being ($\beta = .22, SE = .07, z = 3.37, p < .01$ [95% confidence interval (.10; .36)]). Together these results provide the information that there was a partially mediated effect since the cognitive absorption also shows a significant positive result with social well-being ($\beta = .17, SE = .06, z = 2.88, p < .01$ [95% confidence interval (.06; .29)]). While indirect effect also shows similar result ($\beta = .10, SE = .03, z = 3.06, p < .01$ [95% confidence interval (.04; .16)]).

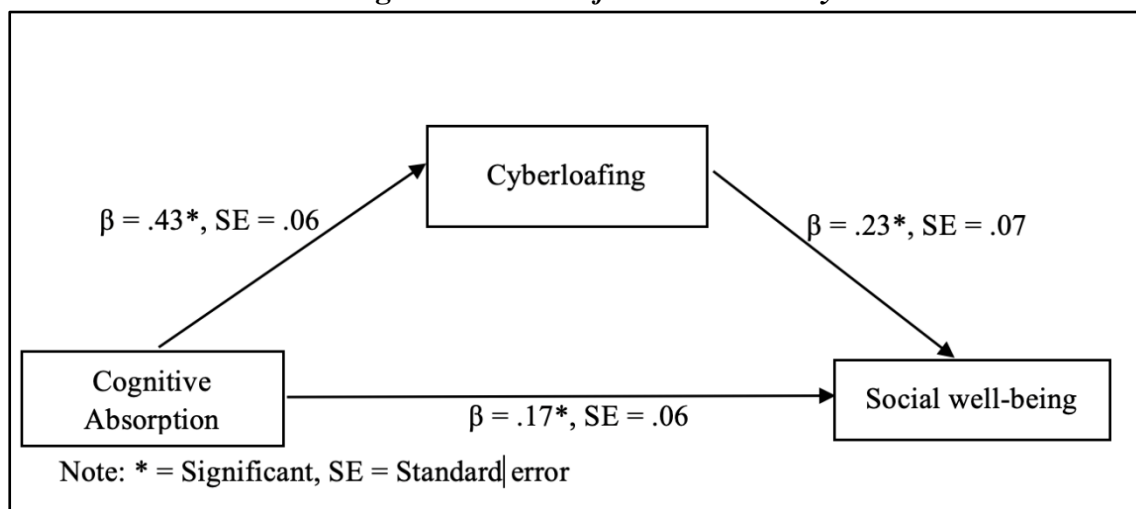
Table 1. Summary of Descriptive Data

Variable	Cognitive Absorption	Cyberloafing	Social Well-being
Mean	91.44	88.74	103.64
Deviation Standard	16.12	14,42	12.53
Minimum	42	41	72
Maximum	140	139	165

Table 2. Result of Correlation Analysis between The Cognitive Absorption, Cyberloafing and Social Well-Being

Variable	Cognitive Absorption	Cyberloafing
Cognitive Absorption		
Cyberloafing	.48**	
Social Well-Being	.35**	.37**

Note: ** = $p < .01$, * = $p < .05$

Figure 1. Results of Mediation Analysis

Discussion

The present study was designed to investigate the relationship between cognitive absorption and social well-being and the effect of cyberloafing in mediating

the relationship between cognitive absorption and social well-being. According to Figure 1, there was a positive significant correlation between cognitive absorption and social well-being. Social

well-being is a part of subjective well-being used to measure mental health as a part of quality of life (Büchi et al., 2018). Cognitive absorption refers to the deep engagement and immersion in a particular activity involving information technology (Agarwal et al., 1997; Agarwal & Karahanna, 2000). These findings suggest that the more people absorb or immerse themselves while using the technology, the more likely they will have higher social well-being. This finding broadly supports the work of other studies in the area linking social well-being and internet use.

Contarello & Sarrica (2007) reported that since the Internet entered their life, they have a feeling of being able to contribute to society personally, they can experience a developing sense of actualization, and they perceive a higher level of coherence and understanding of what is happening in the world. Another study mentioned that by investigating the intention of using social network sites (SNS), they found that online people who experience high enjoyment in using SNS tend to keep using the site. It means they will always want to connect to the online world to experience more positive experiences with their friends on SNS (Hou et al., 2013). Those findings in several studies have shown a shift in interaction patterns since we use the

internet regularly. The Internet helps them meet and interact with their friends (Mustafa & Hamzah, 2011).

In college students, engaging in interaction via SNS that can foster cognitive absorption can be a catalyst for enhancing social well-being. For instance, they can collaborate on projects that demand cognitive absorption, such as creative projects or teamwork, contributing to a sense of achievement and strengthening their social bonds. In addition, social interaction mediated by technology can lead to cognitive absorption and provide the opportunity for meaningful connection and shared experiences (Büchi et al., 2018). Furthermore, some people who are afraid to have offline interaction can benefit from online interaction, which can also improve their social well-being (Kowert et al., 2014; Li et al., 2014) since it will make it easier for them to start a conversation without the feeling of shyness or nervousness. However, face-to-face interaction is known as a primary determinant of socio-emotional development. When they use SNS in their interaction, it makes the quality of direct interaction decreases and resulting in decreasing the quality of socio-emotional aspect that they have (Pea et al., 2012).

To the best of our knowledge, no study has directly considered the effect of

cyberloafing on the relationship between cognitive absorption and social well-being. However, some research shows a positive significant relationship between cognitive absorption and cyberloafing (Bombaes et al., 2023; Sevinç & Dogusoy, 2022). They tend to move in the same direction, which means that when people engage in technology, they become addicted, which can alter their sense of time and lead them to cyberloaf. Cyberloafing itself can sometimes be both beneficial and detrimental. Numerous studies have shown that cyberloafing can be detrimental to learning or other activities that need more concentration (Bombaes et al., 2023; Cahya et al., 2023; Sevinç & Dogusoy, 2022). However, other research has found that sometimes people can benefit from cyberloafing (Hayıt & Donmez, 2016). A possible explanation regarding the result of this study is that cyberloafing serves college students as a positive mental break, which means that when they take a short break from engaging in online activities that require deep attachment, it can serve as a beneficial mental break that can help alleviate stress and enhance social well-being. An earlier study says cyberloafing can help deal with stress and boredom (Nurhidayah & Wahyanti, 2021; Pindek et al., 2018).

Additionally, cyberloafing can enhance social connections and facilitate social interaction, especially online communication. Getting absorbed while cyberloafing in online communication can enhance social well-being by fostering connections with others, even in a virtual context. Despite the promising results, questions remain. Further research should be undertaken to investigate the cognitive absorption, social well-being, and other variables that may affect the relationship.

CONCLUSION AND SUGGESTION

Conclusion

This investigation has found that cognitive absorption has a significant positive relationship with social well-being. Cognitive absorption, particularly in activities that individuals find enjoyable or meaningful, can contribute to positive experiences. Immersive engagement can lead to accomplishment, satisfaction, and personal fulfillment.

Suggestion

Earlier research suggests that cyberloafing negatively affects cognitive absorption, while current research suggests otherwise. Taken together, this study's results suggest that cyberloafing's effect on predicting cognitive absorption and social well-being is helpful for people to have some breaks to reduce stress and enhance their social interaction.

ACKNOWLEDGMENTS

The author would like to thank Lembaga Penelitian dan Pengabdian Masyarakat

Universitas Negeri Padang for funding this work with contract number 1087/UN35.15/LT/2023.

DAFTAR RUJUKAN

- Agarwal, R., & Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS Quarterly*, 665–694.
- Agarwal, R., Sambamurthy, V., & Stair, R. M. (1997). Cognitive Absorption and the Adoption of New Information Technologies. *Academy of Management Proceedings*, 1997(1), 293–297.
- Akbulut, Y., Dursun, Ö. Ö., Dönmez, O., & Şahin, Y. L. (2016). In search of a measure to investigate cyberloafing in educational settings. *Computers in Human Behavior*, 55, 616–625.
- Baturay, M. H., & Toker, S. (2015). An investigation of the impact of demographics on cyberloafing from an educational setting angle. *Computers in Human Behavior*, 50, 358–366. <https://doi.org/10.1016/J.CHB.2015.03.081>
- Bombaes, A., Cosico, M. T., Pimentel, F., Cabig, M. A., Leron, A., Hoñez, S., Cada, L. R., & Laguna, M. J. (2023). College Student's Cognitive Absorption, Cyberloafing, Psychological Capital and Academic Procrastination: An Empirical Perspective from Capiz Province. *Psychology and Education: A Multidisciplinary Journal*, 13(3), 255–264.
- Büchi, M., Festic, N., & Latzer, M. (2018). How social well-being is affected by digital inequalities. *International Journal of Communication*, 12, 3686–3706.
- Cahaya Ningtias, Y., & Magistarina, E. (2023). Hubungan Antara Stres Akademik Dengan Perilaku Cyberloafing Pada Mahasiswa Universitas Negeri Padang. *Innovative: Journal Of Social Science Research*, 3(5), 10054–10062. <https://doi.org/10.31004/innovative.v3i5.5761>
- Contarello, A., & Sarrica, M. (2007). ICTs, social thinking and subjective well-being—The Internet and its representations in everyday life. *Computers in Human Behavior*, 23(2), 1016–1032.
- Felce, D., & Perry, J. (1995). Quality of life: Its definition and measurement. *Research in Developmental Disabilities*, 16(1), 51–74.
- Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *American Journal of Distance Education*, 11(3), 8–26.
- Hayıt, T., & Donmez, O. (2016). Investigation of the relationship between cyber-loafing profiles and cognitive absorption of university students. *Journal of Research in Education and Teaching*, 5(16), 146–150.
- Hou, A., Shang, R.-A., & Huang, C.-C. (2013). An Optimal Experience for People Social Online: The Perspective of Cognitive Absorption. *Effective, Agile and Trusted EServices Co-Creation*, 79.

- Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, 121–140.
- Koller, M., Kantzer, V., Mear, I., Zarzar, K., Martin, M., Greimel, E., Bottomley, A., Arnott, M., Kulić, D., & TCA-SIG, I. (2012). The process of reconciliation: evaluation of guidelines for translating quality-of-life questionnaires. *Expert Review of Pharmacoeconomics & Outcomes Research*, 12(2), 189–197.
- Kowert, R., Domahidi, E., & Quandt, T. (2014). The relationship between online video game involvement and gaming-related friendships among emotionally sensitive individuals. *Cyberpsychology, Behavior, and Social Networking*, 17(7), 447–453.
- Li, C., Shi, X., & Dang, J. (2014). Online communication and subjective well-being in Chinese college students: The mediating role of shyness and social self-efficacy. *Computers in Human Behavior*, 34, 89–95.
- Lim, V. K. G. (2002). The IT way of loafing on the job: cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior*, 23(5), 675–694.
<https://doi.org/https://doi.org/10.1002/job.161>
- Mustafa, S. E., & Hamzah, A. (2011). Online Social Networking: A New Form of Social Interaction. *International Journal of Social Science and Humanity*, 96–104.
<https://doi.org/10.7763/IJSSH.2011.V1.17>
- Nurhidayah, D., & Wahyanti, C. T. (2021). Cyberloafing: Minimalizing Work Stress on Millennial Generations Employee. *International Journal of Social Science and Business*, 5, 384–391.
<https://ejournal.undiksha.ac.id/index.php/IJSSB/index>
- Pea, R., Nass, C., Meheula, L., Rance, M., Kumar, A., Bamford, H., Nass, M., Simha, A., Stillerman, B., Yang, S., & Zhou, M. (2012). Media use, face-to-face communication, media multitasking, and social well-being among 8- to 12-year-old girls. *Developmental Psychology*, 48(2), 327–336. <https://doi.org/10.1037/a0027030>
- Pindek, S., Krajcevska, A., & Spector, P. E. (2018). Cyberloafing as a coping mechanism: Dealing with workplace boredom. *Computers in Human Behavior*, 86, 147–152. <https://doi.org/https://doi.org/10.1016/j.chb.2018.04.040>
- Samad, S., Nilashi, M., & Ibrahim, O. (2019). The impact of social networking sites on students' social wellbeing and academic performance. *Education and Information Technologies*, 24, 2081–2094.
- Sevinç, M., & Dogusoy, B. (2022). Exploring the relationship between Secondary School Students' Smartphone Addiction, Cognitive Absorption, and Cyber loafing activities. *Participatory Educational Research*, 9(5), 414–429.
- Tanrıverdi, Ö., & Karaca, F. (2018). Investigating the relationships between adolescents' levels of cognitive absorption and cyberloafing activities according to demographic characteristics. *Addicta: The Turkish Journal on Addictions*, 5(2), 285–315.
- Weniger, S., & Loebbecke, C. (2011). Cognitive absorption: Literature review and suitability in the context of hedonic IS usage. *Department of Business, Media and Technology Management, University of Cologne, Germany*, 1–19.