# Dampak Teknologi Digital terhadap Kesejahteraan Mental: Tinjauan Interaksi, Tantangan, dan Solusi

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#### **ABSTRAK**

Temuan penelitian ini menekankan hubungan yang rumit antara teknologi digital dan kesehatan mental di Jakarta. Teknologi digital memainkan peran ganda, meningkatkan sekaligus menantang hasil kesehatan mental. Interaksi positif, seperti peningkatan akses ke sumber daya kesehatan mental dan jaringan pendukung, berpotensi memberdayakan penduduk Jakarta dalam mengelola kesehatan mental mereka secara efektif. Namun, interaksi negatif, seperti kecanduan digital, perbandingan sosial, dan gangguan tidur, menimbulkan tantangan yang cukup besar. Kesenjangan digital, rendahnya literasi digital, masalah privasi, dan stigma terkait kesehatan mental yang masih ada semakin memperumit situasi. Untuk mengatasi tantangan-tantangan ini, penelitian ini mengusulkan pendekatan multifaset. Program literasi digital dapat membekali individu dengan keterampilan yang dibutuhkan untuk menavigasi ruang digital secara bertanggung jawab. Aplikasi mindfulness dan inisiatif manajemen waktu di depan layar menawarkan alat praktis untuk mengurangi stres dan mencapai penggunaan teknologi yang seimbang. Komunitas online yang mendukung dapat memberikan rasa memiliki dan dukungan emosional. Studi kasus ini menggarisbawahi pentingnya kolaborasi antara pemerintah, entitas sektor swasta, LSM, dan upaya masyarakat akar rumput dalam mempromosikan kesejahteraan mental melalui sarana digital. Kampanye kesadaran publik, program kesehatan karyawan, dan inisiatif berbasis komunitas merupakan langkah penting menuju Jakarta yang inklusif secara digital dan sehat secara mental.

# **ABSTRACT**

The study's findings highlight the complex relationship between digital technology and mental health in Jakarta. Digital technology plays a dual role, improving and challenging mental health outcomes. Positive interactions, such as increased access to mental health resources and support networks, have the potential to empower Jakartans to manage their mental health effectively. However, negative interactions, such as digital addiction, social comparison, and sleep disturbances, pose considerable challenges. The digital divide, low digital literacy, privacy concerns, and lingering stigma related to mental health further complicate the situation. To address these challenges, the study proposes a multifaceted approach. Digital literacy programs can equip individuals with the skills needed to navigate the digital space responsibly. Mindfulness apps and screen time management initiatives offer practical tools to reduce stress and achieve a balanced use of technology. A supportive online community

can provide a sense of belonging and emotional support. This case study underscores the importance of collaboration between governments, private sector entities, NGOs, and grassroots community efforts in promoting mental well-being through digital means. Public awareness campaigns, employee wellness programs, and community-based initiatives are important steps towards a digitally inclusive and mentally healthy Jakarta.

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### 1. PENDAHULUAN

In recent decades, digital technology has become an integral part of everyday life, impacting the way individuals communicate, work, access information, and engage in leisure activities. This technological revolution has brought many benefits, including increased efficiency and convenience. However, it has also raised concerns over its potential impact on mental well-being, especially in densely populated urban areas such as Jakarta, Indonesia. The use of digital technology can lead to behavioral addiction, negatively affecting a person's social and academic life (Aloufi et al., 2022). Research has linked increased technology use to physical and psychological problems such as reduced attention span, risk of depression, obesity, and bullying (Aloufi et al., 2022). On the other hand, digital technology can also provide support and benefits for individuals, such as access to information, social interactions, self-development, and improved well-being (Bitto Urbanova et al., 2023). In urban areas, digital technology has influenced the design and function of urban spaces (Nyaigoti et al., 2013). The growing use of digital technology in various sectors of the economy has led to increased demand for energy carriers (Galperova & Mazurova, 2020). Moreover, digital technology has been shown to play a crucial role in older people's lives, helping them maintain social networks, intellectual growth, and physical well-being (Gales & Loos, 2020). In the context of education, digital technology has been used to support children's mental health and well-being in primary schools (Davies et al., 2021). Additionally, digital technology has been employed to assess reading ability and provide support for children at risk of developing mental health problems (Davies et al., 2021). In summary, while digital technology has brought numerous benefits to society, it has also raised concerns about its potential impact on mental well-being, particularly in densely populated urban areas. It is essential to strike a balance between the advantages and potential risks associated with digital technology use and to develop strategies to mitigate its negative effects on mental well-being.

Digital technology has both positive and negative impacts on the mental health of Jakarta residents. On the positive side, digital technology can provide accessible mental health support, information, and resources to a large number of people. Smartphone apps, social media, and webbased resources are commonly used to support mental health and well-being (Rifkin-Zybutz et al., 2023). These technologies can offer affordable access to psychological therapies, help people stay connected with peers, and provide valuable information on mental health (Ball & Keegan, 2022). On the negative side, the ubiquity of digital technology can lead to negative experiences and increased

anxiety levels among young people (Rifkin-Zybutz et al., 2023). Problematic smartphone use has been associated with depression and anxiety (Marciano et al., 2022). Moreover, the rapid development of digital technologies has outpaced the evaluation of rigorous digital mental health interventions and strategies to prevent mental illness (Balcombe & De Leo, 2021). To overcome the challenges posed by the interactions between digital technology and mental health, several potential solutions can be considered: Develop and implement evidence-based digital mental health interventions that are effective, user-centered, and clinically validated (Wies et al., 2021). Invest in research, policy changes, training, and infrastructure to enhance the progress of digital mental health innovations (Balcombe & De Leo, 2021). Encourage the use of wearable technology to monitor mental well-being and provide assistive solutions (Alhejaili & Alomainy, 2023). Implement nudge-based interventions to reduce problematic smartphone use (Olson et al., 2022). Promote digital literacy and responsible use of technology among Jakarta residents.

#### Rationale

This study has several different justifications. First, it's important to comprehend the effects of digital technology use on mental health in Jakarta given its exponential expansion. While some people gain from greater connectivity and informational accessibility, others could experience problems with digital addiction, cyberbullying, and social comparison, all of which have a negative impact on mental health.

Second, the distinctive metropolitan setting of Jakarta offers unique opportunities and problems in terms of the interplay between digital technology and mental health. The city provides a rich backdrop for investigating how different demographic groups are affected by digital technology in various ways due to its high population density and varying socioeconomic origins.

Thirdly, this research aims to add to the growing body of knowledge on the relationship between digital technology and mental health, particularly in the context of Southeast Asia's rapidly expanding metropolitan centers. This project aims to offer useful insights for policymakers, health professionals, educators, and the general public by examining the relationships between digital technology and mental health, highlighting issues, and suggesting solutions.

# 2. TINJAUAN PUSTAKA

## 2.1 Evolution of Digital Technologies

The digital technology landscape has indeed evolved rapidly over the past few decades, significantly impacting everyday life. Some key technological advancements include. These devices have become essential tools for communication, information access, and entertainment. They have transformed the way people interact with each other and access services, making it possible to stay connected and informed at all times (Etoh, 2005; Widdicks et al., 2017). Platforms like Facebook, Twitter, and Instagram have changed the way people communicate, share information, and stay connected with friends and family. They have also influenced how news and information are disseminated and consumed, as well as how businesses and organizations engage with their audiences (Bosch, 2020). IoT refers to the network of interconnected devices and sensors that collect and exchange data. This technology has led to the development of smart homes, cities, and industries, enabling greater efficiency, convenience, and automation in various aspects of life (Moresi et al., 2023). These advancements have reshaped the way individuals interact with the world and each other, making it easier to stay connected, access information, and manage daily tasks. However, they have also raised concerns about privacy, security, and the potential negative effects of excessive technology use on mental health and social relationships (Wulandari & Alfan, 2022).

#### 2.2 Mobile Devices and Smartphones

The widespread adoption of mobile devices, especially smartphones, has revolutionized communication and access to information. These pocket-sized devices offer constant connectivity and access to a wide range of applications, allowing users to perform a variety of tasks, from communication to entertainment, anywhere. Jakarta, with its high smartphone penetration rate, exemplifies how these devices have become ingrained in urban life. Social media platforms have become an essential part of modern life, allowing individuals to connect, share experiences and engage with content from around the world (Gupta, 2021; Panse & Chaskar, 2023). These platforms allow users to curate their digital identities and maintain relationships, but they also expose individuals to curated representations of others' lives, potentially leading to social comparison and self-esteem issues. The Internet of Things (IoT) refers to a network of interconnected devices and objects that can communicate and share data over the internet. This technology has brought convenience and automation to various aspects of life, from household appliances to transportation. However, concerns about data privacy and security have emerged as IoT devices are increasingly integrated into daily routines (Kim & Kim, 2011; Pramodhani et al., 2022; Sweetser, 2010). Understanding the implications of IoT on mental health is crucial, especially in urban environments like Jakarta, where smart home technology is becoming increasingly common.

#### 3. METODE PENELITIAN

This study utilized a comprehensive review methodology, also known as a systematic literature review. This approach involves a rigorous and systematic examination of relevant academic research, reports and literature to provide an in-depth analysis of the topic. A systematic review was chosen to ensure a range of perspectives were covered and to synthesize existing knowledge on the impact of digital technology on mental well-being in Jakarta.

#### 3.1 Data Collection

The data collection process consisted of two main components: secondary data collection and primary data collection.

#### 3.1.1 Secondary Data

Secondary data collection involved retrieving and analyzing existing literature and information related to the research topic. The following sources were used for secondary data collection:

- Academic journals and articles: A systematic search of academic databases, including PubMed, Google Scholar, and JSTOR, was conducted to identify peer-reviewed articles and research related to digital technology and mental well-being in Jakarta.
- Reports and publications: Government reports, non-governmental organization (NGO) publications, and industry reports related to digital technology use and mental health in Jakarta were reviewed.
- 3. Books and monographs: Relevant books and monographs that address the impact of digital technologies on mental health, particularly in an urban context, were consulted.
- 4. Online sources: Websites of relevant organizations, such as the Indonesian Ministry of Health and local mental health initiatives in Jakarta, were reviewed for relevant information.

### 3.1.2 Primary Data

While the main focus of this study was on synthesizing existing knowledge, limited primary data collection was conducted to complement the findings. This included:

Surveys: A structured survey was administered to a sample of 150 Jakarta residents to gather their perceptions and experiences of the impact of digital technology on their mental well-being. The survey was designed to capture both positive and negative aspects of this impact.

Interviews: Semi-structured interviews were conducted with mental health experts, policy makers, and representatives from relevant NGOs operating in Jakarta. These interviews aimed to gain insights from experts and gather information on existing initiatives and solutions.

#### 3.2 Data Analysis

Data analysis was conducted in several stages to provide a comprehensive understanding of the research questions. The process included the following steps:

Literature review and synthesis: Academic literature and secondary sources were systematically reviewed and synthesized to identify key themes, findings, and trends related to the impact of digital technology on mental well-being in Jakarta.

Quantitative analysis: Survey data were analyzed using statistical software to identify trends and correlations between patterns of digital technology use and mental well-being outcomes.

Qualitative analysis: Interview data was transcribed and thematically analyzed to identify common themes, challenges, and potential solutions discussed by experts and stakeholders.

Comparative analysis: Findings from secondary and primary data sources were compared and integrated to provide a holistic view of the research topic.

#### 4. HASIL DAN PEMBAHASAN

This section presents the results of the study, providing an analysis and discussion of the interactions between digital technologies and mental well-being, the challenges posed by this relationship, and potential solutions identified through the review of existing literature and primary data collection.

## 4.1 Interactions between Digital Technology and Mental Wellbeing

# 4.1.1 Positive Interactions

The existing literature review and primary data analysis revealed several positive interactions between digital technology and mental well-being in Jakarta: Many Jakartans (58%) use digital technologies to access mental health information and resources. Websites, apps and online forums are commonly used to seek information on stress, anxiety and depression management. This ease of access to information has the potential to empower individuals to take control of their mental health. Social media platforms and online communities were identified as valuable sources of social support for individuals experiencing mental health challenges. Jakarta's diverse population often finds solace in connecting with others who have similar experiences, helping to reduce feelings of isolation. Various NGOs and government agencies in Jakarta are leveraging digital technology to raise awareness about mental health issues and promote destigmatization. These campaigns utilize social media and online platforms to reach a wide audience.

#### 4.1.2 Negative Interactions

Conversely, this study also found negative interactions between digital technology and mental health:

Most survey respondents (78%) admitted to spending long hours on digital devices, including smartphones and computers. This addiction-like behavior often results in escapism, where individuals attempt to escape real-world problems by immersing themselves in the digital world. This habit can decrease productivity and exacerbate mental health issues. Social media platforms, while offering social connections, are often cited as a source of social comparison. Jakarta residents

report feelings of inadequacy when comparing their lives to the seemingly perfect lives portrayed by others on social media. Such comparisons can contribute to decreased self-esteem and increased anxiety. A large number (68%) of respondents reported using digital devices late into the night, which negatively impacts their sleep quality. Sleep disturbances are associated with increased stress, irritability and decreased overall mental well-being. Cases of cyberbullying and online harassment were reported by a minority of survey respondents. These experiences led to increased levels of anxiety and depression, highlighting the potential harm that digital technology can cause to mental health.

## 4.1.3 Challenges posed by Digital Technology

The challenges posed by digital technology to mental wellbeing in Jakarta are multifaceted: Despite the widespread adoption of digital technologies, a digital divide exists in Jakarta, where marginalized communities have limited access to digital devices and the internet. This gap exacerbates social inequality, which impacts access to mental health resources and opportunities for social support. A large proportion of Jakarta's population lacks adequate digital literacy, making them vulnerable to misinformation and online scams. This knowledge gap prevents individuals from effectively utilizing digital resources for mental health support. Concerns about data privacy and misuse of personal information were prevalent among survey participants. These concerns can lead to increased stress and anxiety, especially as individuals become more aware of the potential risks associated with online activities. Stigmatization of mental health issues remains a challenge in Jakarta, hindering individuals from seeking help and support. While digital platforms have been used to combat stigma, further efforts are needed to create a supportive and non-judgmental online environment.

#### 4.1.4 Solutions to Improve Mental Wellbeing

Based on the findings from this study, several potential solutions and initiatives can be considered to improve mental wellbeing in the digital age in Jakarta: Implementing digital literacy programs targeted to different demographics in Jakarta can empower individuals to navigate digital spaces safely and responsibly. These programs could cover topics such as online safety, identifying trustworthy health information, and critical thinking. Promoting the use of mindfulness and mental health apps can provide Jakartans with easily accessible tools to reduce stress and regulate emotions. Collaboration with app developers to create culturally relevant content is essential. Educational campaigns and workplace policies that encourage screen time management and digital detox can help individuals reduce their reliance on digital devices, especially during late night hours. Creating and fostering supportive online communities and forums that prioritize mental health awareness and positive discussions can reduce the negative impact of social media. These communities can serve as platforms to share experiences and seek help.

## 4.2 Case Study Findings

The case study on digital wellbeing initiatives in Jakarta revealed some important findings:

- The Jakarta government has launched public awareness campaigns that address mental health issues, often by utilizing social media platforms and partnering with NGOs. However, there is a need for continued investment in mental health infrastructure and services.
- Private companies in Jakarta, especially in the tech sector, have started employee wellness programs that address digital addiction and mental health. These initiatives reflect a growing awareness of the importance of employee mental health.
- NGOs in Jakarta play an important role in providing mental health support and education, often
  utilizing digital platforms to reach a wider audience. Community-based efforts, including peer
  support groups, also play an important role in addressing mental health challenges.

## 5. KESIMPULAN

The findings of this study emphasize the intricate relationship between digital technology and mental wellbeing in Jakarta. Digital technology offers a dual role, both enhancing and challenging mental health outcomes. Positive interactions, such as improved access to mental health resources and support networks, hold the potential to empower Jakarta's residents in managing their mental health effectively. However, negative interactions, including digital addiction, social comparison, and sleep disturbances, present formidable challenges. The digital divide, low digital literacy, privacy concerns, and ongoing stigma associated with mental health further complicate the landscape. To address these challenges, this research proposes a multifaceted approach. Digital literacy programs can equip individuals with the skills needed to navigate digital spaces responsibly. Mindfulness apps and screen time management initiatives offer practical tools for stress reduction and balanced technology use. Supportive online communities can provide a sense of belonging and emotional support. The case study underscores the importance of collaboration among government, private sector entities, NGOs, and grassroots community efforts in promoting mental wellbeing through digital means. Public awareness campaigns, employee wellness programs, and community-driven initiatives represent crucial steps toward a digitally inclusive and mentally healthy Jakarta.

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