

Inclusion and Psychological Well-Being: Does the Internet Access Gap Contribute to Differences in Mental disorders

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Abstract: Digital inclusion is increasing considered important in development society, but its impact on mental health and well-being psychological Still show big difference between regions and groups social. Limitations no internet access only show difference in technology used, but also can make things worse problem psychological Because lack of information, support social and services mental health that can accessible digitally. Research This aim For see How digital divide, in particular in internet access, affects difference in welfare psychological and mental problems with use theory Digital Divide. Study This use method qualitative with combine analysis of existing data There is from Our World in Data and Information related documentaries with internet access , gadget ownership, mental health , and report about mental problems. In addition, research this is also added with interview in-depth and discussion group focus . The qualitative method used from Our World in Data aims For explaining big data with a better way in accordance with experiences and stories everyone , so that We Can understand with more Good connection between digital engagement and conditions psychological . Result of study This show that regions and groups communities that have more internet access Good as well as many digital devices usually feel satisfaction life and well-being more psychological high . On the other hand , the lack of internet access becomes reasons that hinder effort For reduce exclusion social and improve risk to stress , anxiety , and problems mental health . Discovery this also emphasizes that only own digital access is not enough ; quality access , ability understand technology , and methods use technology in a way effective become factor important thing that determines whether digital technology can become source welfare psychological or precisely become source pressure psychological . Study This give donation thinking with develop the use of Digital Divide Theory in studies about mental health . Research this also connects various size from digital inclusion worldwide with condition psychological and problems mental health . In terms of policy , results study This show that is very important For own method digital inclusion that is not only focus on development infrastructure , but also on the way increase digital capabilities and combining service digital- based mental health . Limitations from study This is use of aggregated data and manner qualitative that makes difficult For interesting conclusion extensive statistics . Therefore that , for study next recommended For use method mixed and continuous data in time For learn deeper relationship deep between digital divide and mental health.

Keywords: Digital inclusion, Digital Divide, Internet Acces, Well-being psychology, Mental disorders

Introduction

Transformation Digital inclusion means how much good somebody or a group of people can get equal access to digital technology. This includes get internet, digital tools, skills usage, and capabilities use technology that in life everyday. Everything this become part important from method We participate in society and the economy in the information age now. Meanwhile that, welfare psychological is about good mental condition. It's like ability somebody for face challenge live, have a useful life, and feel like with self Alone as well as connection they with other people. Now, research start see more far from just "access" technology. They want to know How digital inclusion can help repair quality a person's mental life, especially when There is change fast in society and technology. During ten year lastly, the number of digitalization show that the internet is not only tools, but also places social which greatly influences mental well-being. This is through chance social, welfare economy, and also risks psychosocial like feel isolated or stress Because use technology (Haniko et al., 2023).

Various study previously has inspect connection between digital engagement and mental health in general. Some studies find that There is connection positive between digital use and a sense of happiness, especially for parents or older adults old, because digital engagement helps they participate in activity social and supportive mental health through social media. However, there are also other studies that show that connection this enough complicated, where the role of digital can give different effects. For example, internet access can helping people take care of connection social and reduce feelings of loneliness, but uncontrolled digital use evenly or lack of skills use technology can increase stress psychological, especially for those who are less fortunate educated or more groups vulnerable. Research others also show that lack of access (digital divide) is related with better mental health bad, and internet access is not evenly make gap in get service digital mental health is increasingly big. In addition, the study about digital interventions such as application mental health shows existing benefits For reduce level stress, anxiety, and depression If used in a way broad and precise, but also shows challenge in matter ability use technology and data protection as obstacle (Ardhiyansyah & , Camelia Bakker, 2023).

Although study show existence connection between digital inclusion and mental well-being, many studies previously Not yet fully linking difference in internet access with problem mental health or symptom more psychological clear. Most of study more focus on access general or internet use, for example in older people or students, but still little that is number evaluate whether gap in internet access such as devices, internet speed, and digital skills in general direct influence amount case certain mental problems like anxiety, depression, or prolonged stress in society. In addition, many study still use a simple indicator, namely only see there is or whether or not access without see aspect more access complicated like internet quality, digital skills, or beneficial use. The gap This become important, especially in context

economic and social, where people with income low or who live in the area remote often less involved in research that uses method more statistics complicated (Naura et al., 2024).

Study This give a number of new donations For field science: first, research this use various ways for explain digital inclusion is not only from aspect physical internet access, but also digital capabilities, quality usage, and meaningful digital engagement. Second, research this will in a way special evaluate connection between parts digital inclusion and signs mental problems that can measured (for example scale anxiety or depression), not only see welfare in a way general. Third, the study this will use method more analysis sophisticated (such as regression multivariate or modeling equality structural) for check whether lack of digital access significant influence on variation in this mental problem aim for strengthen proof about connection cause and effect that has been this still debated. Uniqueness this expected can answer criticism to study previously too simple in discuss digital inclusion as only existing access or no, and ignore factor like support online social (Salsabila & Anshori, 2025).

This study aim for evaluate connection between various aspect digital inclusion, such as internet access, digital tools, and skills use technology, with level problem mental health, such as depression, anxiety, and stress, in a group of adults representing various background back. Main goal from study this is for look for know whether difference in real internet access influence the difference problem mental health after notice factors economics and demographics other. Questions main in study this is: what is the level of digital inclusion is related with variation symptom problem mental health in society general, and how much big influence difference internet access to variation the research method used? is design quantitative which takes data from survey standardized national for measure various aspect digital inclusion and issues mental health (for example use DASS-21 scale or SDQ), which then analyzed use regression multivariate and techniques modeling cross dimensions For understand possibility connection cause and effect approach this add trust to the results obtained and their relevance in policy about digital inclusion as well public mental health moment this (Abas & Sukihananto, 2023).

Literature Review

The Digital Divide Theory is a theory main thing that helps We understand problem injustice in access and use technology information and communication, such as the internet, as well as the impact to various related matters with welfare social and economic. In general basically, the digital divide shows difference between people or groups that have good access to digital technologies and those without, as well difference in ability, way use, and the benefits they provide get from technology the (Dimas et al., 2024).

This theory no only speak about access physique only, but also the importance skills and proper use, which results in existence division more social in today 's digital society this. Modern definitions of the digital divide include motivation, sources existing power, digital skills, and how much people

often use technology, all of which needed so that people can participate in a way active in the digital world. Understanding this is very important because study this not only see internet availability, but also how gap in access can influence condition psychology of people with different ways (Don et al., 2024).

Various study from the whole world shows that existence access to Digital technology has a significant impact on mental health. Numerous studies have been conducted in both developed and developing countries. Study How digital technology can give support psychological or ways for overcome problem mental health. Research this show that with use technology, people can get benefit for their mental health through various digital services such as application mental health, online consultations, or programs for enable self. For example, intervention mental health that is carried out via the internet can help reduce level stress, depression, and anxiety in people who feel depressed, as long as done with appropriate and sensitive manner to the needs of the people who use it (Ardhiyansyah & , Camelia Bakker, 2023).

Besides the benefits positive, writings around the world also show how the complexity connection between use technology and mental health. Using gadgets without limitation can cause mental problems, such as fatigue from too lots use technology or stress because too lots information. Research show that things like support from friend online and capabilities adapt with the digital world is very important for see how the internet affects mental health, especially among young people who often interacting in cyberspace. Studies such as this show that how we experienced in the digital world, incl method we interact social and coping problem , can repair or even damage mental health, depending on the method and situation we use it (Nidaussa & Nuqul, 2025).

A number of studies in indonesia begin see how use digital technology related with mental health in appropriate context. For example, research about method use technology for help mental health of parents show that access to digital platforms, such as social media and telehealth, can reduce loneliness, increase participation social, and strengthen independence in parents. However, research this also found problem big like low ability use technology and limitations physique or mental barriers, which ultimately add problem digital inequality that requires inclusive solutions. This shows challenges faced by indonesia to ensure that digital access is not only there, but also relevant and delivering impact positive for mental health (Poerwanti et al., 2025).

In the situation intervention psychologically, research in indonesia shows that online counseling can give much needed mental support, especially in the midst of change social issues that occur in digital cities. For example, using digital services for counseling can helping people understand and cope with anxiety as well as uncertainty consequence many information circulating nowadays. These results confirm that digital technology can become sufficient tools important in steps mental health, although still there is challenge like equitable access and capabilities use technology that remains become problems across the country (Listiyandini, 2023). Although there is lots study about how digital inclusion is related with mental health, still there is lack big in scientific writing that

tests with clear whether difference in internet access can explain difference in certain mental disorders. Most study still more interested in how use digital technology as tool for mental health or problem psychological in a way general, without research connection strong direct between various aspect digital access (such as infrastructure, quality connections, and digital skills) with signs clinical mental disorders like depression, anxiety heavy, or prolonged stress. This important because lack of fair access can make things worse inequality in mental problems in various group communities in developing countries like indonesia (Abas & Sukihananto, 2023).

Study this give contribution new with use diverse approaches from the digital divide theory and make it base for measure influence lack of internet access to problem mental health that can measured. Research this not only focus on internet use, but will also see things like quality network, capabilities use technology, and how people use it technology, connected with problem serious mental health use method sophisticated statistics. So, research this not only expand understanding theory, but also provide proof real that can used for compile policy related digital engagement direct with mental health (Sikumbang et al., 2024).

Based on studies theories and findings from lots places, both abroad and in Indonesia, the framework study this made with digital divide theory as base main. This theory see digital inclusion as various things that include internet access, digital skills, and ways quality use. Within the framework this, various matter the considered as factor affecting mental health, such as anxiety, depression, or stress. In addition, there is also attention to factors social and demographic like age, education, and place stay. This model expected can evaluate connection because consequences and methods work behind the scenes gap access that influences differences in mental health. This is also expected can provide strong advice for policy digital inclusion that focuses on well-being psychological at the level national (Amir, 2024).

Method

This study use method qualitative because the goal not only for see connection between digital inclusion and mental health, but also to understand meaning, experience, and culture involved in phenomenon that. The gap in internet access is complex and involved problem aspect social, economic, cultural, services public, and experience related individuals with mental health. Quantitative methods of course can show pattern in a way general, but not can dig experience personal, views , and interaction social contexts that shape the meaning of digital inclusion and its impact to welfare psychological (Salsabila & Anshori, 2025). Approach qualitative allows researchers for investigate complexity this in a way in-depth and comprehensive, incl factor difficult structural measured with numbers, such as stigma views, barriers in use technology and support digital social in life everyday. With thus, the method qualitatively very suitable for give deep and contextual understanding about how people

feel and deal with with related digital divide with their mental health (Adam et al., 2025).

Approach study this adapted from qualitative Our World in Data philosophy, namely approach qualitative which places experiential and narrative data individual as source main understanding phenomenon social approach this emphasizes the meaning of data in context welfare psychological and digital inclusion in holistic, not solely number statistics. Qualitative Our World in Data integrates life data real (life-world data) with theory social for highlight connection between experience individual with structure more social wide, including policy digital access, differences environment geographical, as well as factor social economy that forms digital experiences and mental health. Approach this also places narrative participants as source valid insights for understand how the digital divide is felt varies by individual in context welfare psychological them, and how narrative the contribute to understanding more phenomena big (Waruwu2024).

Stage beginning involving sharpening focus study with dig question qualitative main: *How experience individual about internet access in life them? How experience the impact on welfare psychological they?* Researchers choose representative location variation level digital access, for example urban areas with good digital infrastructure and rural areas with limitations access. Instrument interview in-depth and guide discussion group focused on digital experiences, barriers access, experience psychological, as well as adaptation strategies individual to gap access digital. Done observation participants and interviews field for obtain rich empirical data, accompanied notes documenting field context social culture. Qualitative Analysis done in a way thematic with open, axial, and selective coding approaches for map themes main thing that reflects experience participants. Data triangulation was carried out through comparison between interview in-depth and discussion group focused For increase validity findings (Herman & Permadi, 2025).

This study using two types data sources, namely: data obtained direct from experiences and narratives subject through interview in-depth and discussion group focused group discussions (FGD). Subjects study chosen purposive sampling for represent variation background behind social, economic, age, and level digital access. Participants covers individual from various regions, starting from users who have stable internet access until those who face limitations access, including group prone to like elderly, students, and informal workers. Data derived from from source documentary like report policy government, statistics official related internet penetration, report institution research about digital inclusion, as well as literature relevant academics. Secondary data this used as context addition for understand trend digital social and policy digital inclusion that applies at the level national and local (Aqil & Indrawan, 2025).

Subject study chosen with consideration variation digital experience for ensure representative understanding on the

phenomenon studied. Criteria participants covers age adults (18 years) to above, has experience use or face constraint internet access, as well as willing share experience. Interview is technique main for get narrative subjective and experiential personal participants related internet access and well-being psychological. Interview semi structured with guide question flexible that allows exploration issue in a way in-depth, including perception about digital barriers, feelings accompanying psychological, adaptation strategies, as well as hope to policy digital inclusion. This technique allows researchers understand nuances experience life that is not Possible revealed through instrument quantitative solely (Ramdhani, 2016).

Results

This section presents the findings of the study based on the analysis of key indicators related to digital inclusion, digital divide, internet access, psychological well-being, and mental health disorders. The results are organized systematically by integrating visual data and descriptive analysis to provide a comprehensive understanding of the relationship between digital technology development and the socio-psychological conditions of society. Each subsection highlights major trends and patterns at the global level while also emphasizing existing inequalities in access and their implications for individual well-being. Therefore, these findings serve as an important foundation for understanding how digitalization can function both as an opportunity and a challenge in improving quality of life and mental health across different regions.

Digital Inclusion

Refers to the situation in which people and groups in society can get equal access, affordable and beneficial to digital technology, especially the internet, as well as ability for use technology the with good in life everyday. In the discussion study this, digital inclusion is not only means existence infrastructure or ownership devices, but also quality access, ability use technology, and digital knowledge for fulfil need social and psychological, such as get information about mental health, maintaining connection social, and can access service help psychological. So from that, digital inclusion becomes very important thing for determine whether digital technology becomes reason for increase welfare psychological or rather enlarge inequality and make people more prone to to mental problems (K. Suryoadji, Najmah Ali, Reynardi Larope Sutanto, Christopher Christian, Elza Nur Warsa Putra, M. Faruqi, Kevin Tadeus Simanjuntak, Ilham Qurrota A'yun, Dhanis Adrianto Setyawan, 2024).

International finance received for clean energy, 2018 to 2023

International financing to developing countries in support of clean energy research and development and renewable energy production. This data is expressed in US dollars. It is adjusted for inflation but does not account for differences in living costs between countries.

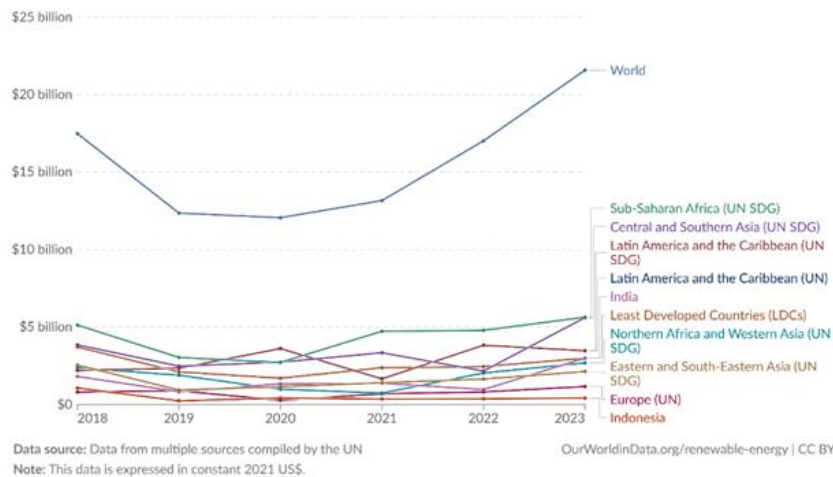


Figure 1. Data International finance received for clean energy, 2018-2023

Show pattern international funding receipts for energy clean in temperate countries develop between 2018 to 2023, with clear differences in various regions of the world. In general overall, looks that global fund flows are visible increase in a number of year lastly, but distribution no balanced between areas. Some regions, such as sub-saharan africa and asia, are gaining sufficient funding increase big, whereas area others, including some developing countries like indonesia, shows more numbers low and slow growth.

Distribution financing that is not evenly, as illustrated in chart this, can analogized with phenomenon digital inclusion, where the availability and quality access to source power strategic (in context this, financing energy clean) no enjoyed in a way evenly distributed across all regions. From the perspective of digital inclusion, situation similar happen when internet infrastructure, quality connectivity and support policy more concentrated in a region or group certain people, while others are left behind. Inequality this no only reflect difference capacity economy but also has implications more social wide, including opportunity for development human and welfare psychological.

Chart this show that access to source global power is cumulative, with areas that have capacity and support established structure tend in a way consistent get benefit more big. In the context of digital inclusion, patterns this in harmony with argument that individual or group with quality internet access and adequate digital literacy more capable utilise technology for fulfil need social and psychological, such as access information mental health maintaining connection online social, and access service support psychological. In contrast, groups in areas with access limited risky experience various exclusion.

In a way conceptually, this strengthen argument that unauthorized access evenly to source power strategic, good

financing energy clean and digital technology, can widen gap welfare. In the context of study this, digital inclusion is factor key in determine whether digital technology works as source improvement welfare psychological or become mechanism new deepening vulnerability to mental disorders. Therefore that, the effort for expand digital inclusion is necessary understood as part from development strategy sustainable justice - oriented social and mental health of the community.

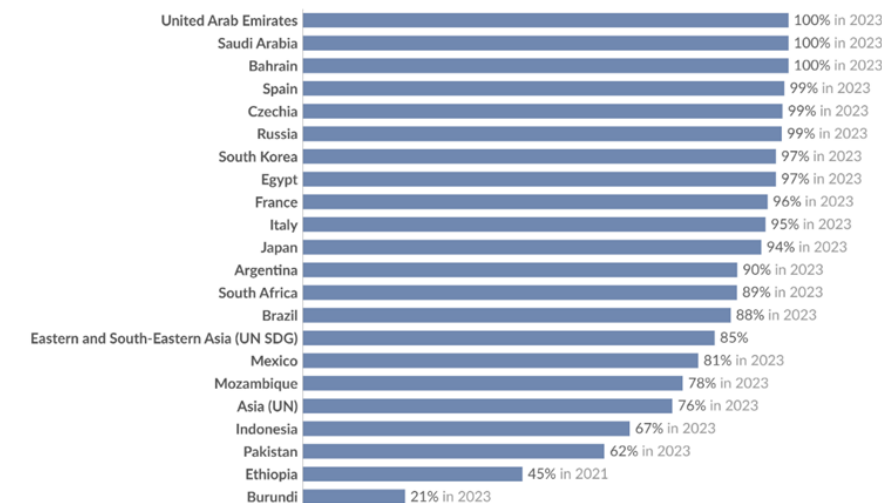
Digital Divide

Access, use and utilization digital technology, especially the internet, among individual, group social, and different areas in a way geographical. This is no only highlight difference in availability infrastructure and technology, but also highlights aspects like quality access, costs affordability, digital literacy, and capabilities use technology in a way effective. In the context of research context this, digital is understood as phenomenon potential structural increase tension social and psychological because of the people involved in digital activities have chance more a little for access information, building network brave social, and use service mental health. From in the study this, digital is understood as phenomenon potential structural increase tension social and psychological because of the people involved in digital activities have chance more a little for access information, building network brave social, and use service mental health. By this, that digital becomes draft key for understand how to technology digital how digital technology can used as tool for study psychological or, conversely, to overcome problem mental health in society general. can used as tool for study psychological or, conversely, to overcome problem mental health in society general (Ginting et al., 2025) .

Share of the population that owns a mobile phone, 2024

Share of the population that has a mobile phone device with at least one active SIM card for personal use.

Our World
in Data



Data source: International Telecommunication Union

OurWorldinData.org/technological-change | CC BY

Figure 2. GDP Share of the population that owns a mobile phone

Image “percentage residents who have telephone mobile, 2024” shows gap ownership digital devices in various countries and regions, a indicator main from digital divide. Low-income countries tall like uni united arab emirates, saudi arabia, bahrain, spain and the czech republic have level ownership telephone mobile approaching 100%, which reflects very easy access evenly and relatively affordable to digital devices for all segment society. This is show a more digital environment ready for support participation social and economic as well as access to services online, including service mental health.

Chart it also shows that in a number of developing and low-income countries low level ownership telephone mobile still left behind far. Countries such as indonesia (67%), pakistan (62%), ethiopia (45%), and especially burundi (21%) show significant limitations in access to basic digital devices. The gap this no only reflect difference infrastructure and purchasing power, but are also related with quality access, affordability services, and levels digital literacy among population. The low ownership device directly limit opportunity individual for connect to the internet and take advantage of optimal digital technology.

According to visualization studies this, digital is problem structural obstacles progress technology. visualization studies this show that digital crisis is problem structural obstacles progress technology. Individuals and communities with access limited to technology digital access device digital devices have more opportunities small for access information, creating network innovative social, and get benefit from service mental and psychological health digital. have more

opportunities limited for access information, creating network brave social, and get benefit from service digital mental and psychological health. As a result, inequality in ownership cell phone potential increase chaos social and psychological as well as increase stress and disturbance mental. The result is a graph this strengthen argument that digitalization is draft key in understand how digital technology can used as tool for study psychological or just for increase mental health in society general.

Internet Access

Access refers to the ability someone and something community for connected to the internet properly time, efficient, and quality high, good through network personal and public. In the context of studies this, internet access is not only understood as connection only, but also as size quality network, stability, cost, affordability, and convenience use in life everyday. Access that allows the internet so that people can get information, participate in interaction digital social, and access service important, interaction social such as and access service important, such as service mental health and support brave psychological service mental health and support psychologically brave. Access can be create obstacle weakening structures bond social and improve resistance to theories psychological, so that internet access becomes wrong one factor key in understand digital inclusion and disruption psychological (Ruth, 2013) .

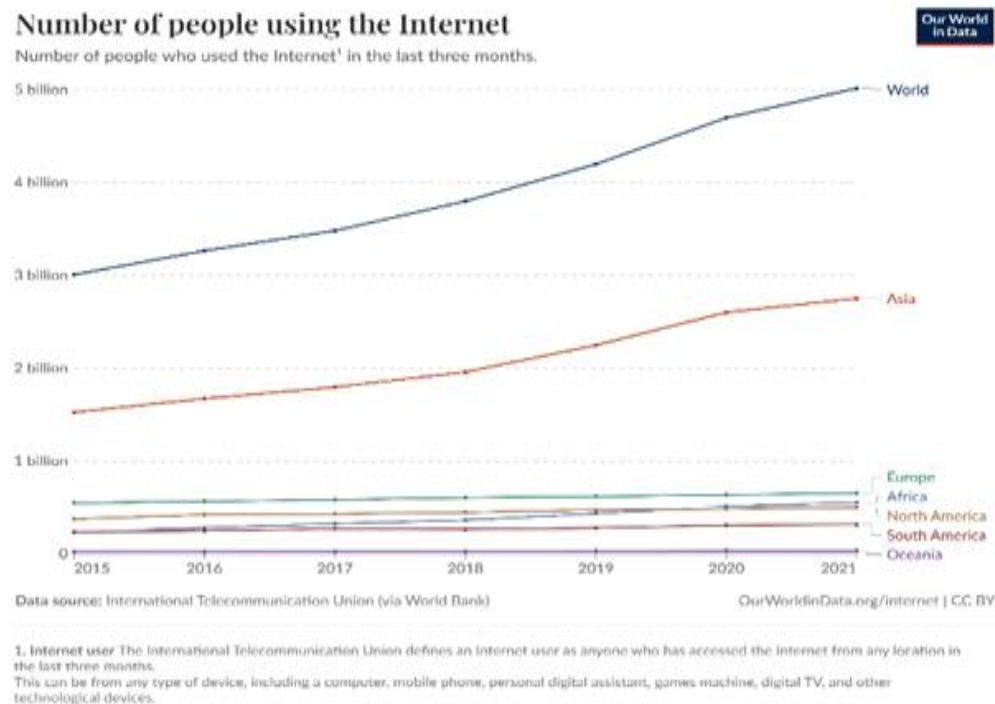


Figure 3. Number of people using the internet

Growth amount internet users globally and regionally during the period 2015–2021 shows improvement significant in amount individuals connected to the internet all over the world. Globally, the number of internet users are increasing from around 3 billion in 2015 to nearly 5 billion in 2021. This trend reflect expansion internet access as part from global digital transformation and demonstrate the increasing role of the internet in life social, economic, and psychological public modern.

This graph also disclose gap access internet between region. Asia recorded largest absolute increase in amount users internet, in line with population big and digital infrastructure that progress in the region on the other hand, africa shows growth which relatively more slow and amount users which far more low compared to with region other. Difference this confirm that access internet no grow in a way evenly and still very influenced by structural factors such as availability infrastructure, affordability, capacity economy, and digital policies in every region.

In context study this, graph this strengthen understanding that access internet no only just existence connection, but more reflect ability individual and group for connected in a way sustainable and meaningful. Region with amount users internet which tall tend own opportunity more big for its citizens for get information, participate in interaction digital social, and access service important, including mental health and support psychological online. On the other hand, the region with amount users which low show existence structural barriers that limit digital participation of society.

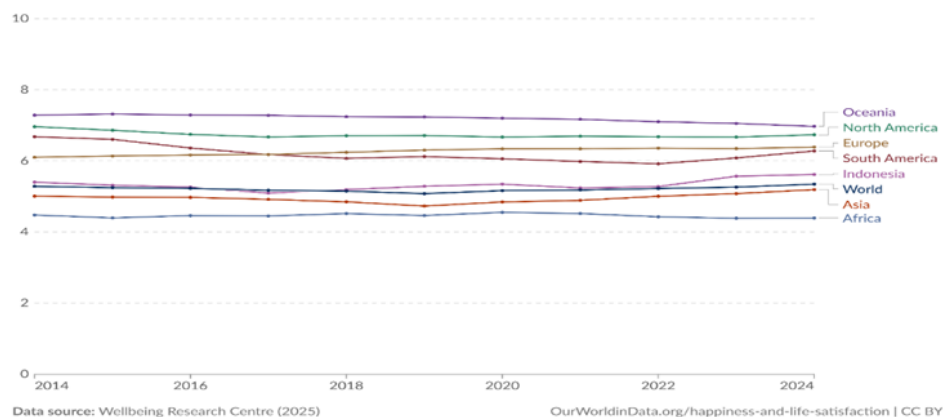
Inequality access which depicted in chart this potential impact on welfare psychological. Individual without access internet which adequate risky experience isolation social, limitations information, and difficulty access service support digital psychology. Conditions this can increase pressure psychological and deepen inequality social. Therefore that, graph this confirm that access internet is factor key in discussion about digital inclusion, as well as determinant important welfare psychological and vulnerability to mental disorders in various regions of the world.

Welfare Psychological

Welfare psychological referring to on condition individual which marked by feeling positive, ability manage emotions, satisfaction live, and functionality self optimally in face demands life everyday. Concept this no only related with absence mental disorders, but also covers ability individual for build relation social which healthy, have objective live, and maintain balance emotional and mental. In the context study this, welfare psychological understood as condition which influenced by individual factors at once factor social and structural, including access to digital technology and internet. Utilization digital technology that inclusive and meaningful potential support welfare psychological through access information, support social, and service mental health, while limitations access can increase risk pressure psychological and inequality welfare in society (Humaidah et al., 2024).

Self-reported life satisfaction, 2014 to 2024

Average of survey responses. The survey question asks respondents their current position on a hypothetical ladder¹, where the best possible life for them is a 10, and the worst possible life is a 0.



1. Cantril Ladder The Cantril Ladder is a metric used to determine individuals life satisfaction, based on the following question: "Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?"

Figure 4. Self-reported life satisfaction 2014-2024

Chart "satisfaction" graph reported life itself, 2014–2024" describes how welfare psychological population global based on on level satisfaction measured life use ladder cantril, where a score of 0 indicates situation life " reported "alone" is bad and a score of 10 indicates situation good life. "satisfaction life, 2014–2024" describes how welfare psychological resident global based on on level satisfaction measured life use ladder cantril, where a score of 0 indicates situation bad life and a score of 10 indicates situation good life. In speaking, general chart describe it existence psychological differences psychological between a relatively small country consistent during one decade certain differences between relatively countries consistent during one decade. Because oceania, america, and europe own more position tall in satisfaction average life, conditions more psychological stable, skills arrangement more emotions good, and bond more social and structural strong in life daily.

Africa and asia show score satisfaction a better life lower and higher stagnant, which indicates challenge sustainable in reach welfare psychological. This is no only related with individual factors but also influenced by limitations structural like access to service health, education, and digital technology. Indonesia, which is featured in a way separate, ranked middle with relative trend fluctuating, reflecting progress in welfare psychological but still face challenge inequality social and digital in various segment public.

Chart this strengthen understanding that welfare psychological is phenomenon multidimensional influenced by

interaction factor personal and socio-structural. Access to digital technology and the internet play a role important in form satisfaction life through convenience get information, maintaining connection social, and access service health mental online. Region with level satisfaction a better life tall generally also own level greater digital inclusion high, while area with limited internet access tend experience pressure greater psychological impact. With thus, visualization this confirm relevance welfare psychological as indicator key in research connection between digital inclusion, inequality internet access, and quality life public.

Disturbance Mental

Disturbance health mental referring to on condition health that affects the way individuals think, feel, and behave, so that impact on ability they for functioning in a way social, on the spot work, and in life everyday. In context study this, disturbance health mental no understood solely as problem individual clinical, but more as phenomena that are influenced by factor social and structural, including access to source digital power. Limitations in access information, services health mental and support social online can increase individual vulnerability to stress, anxiety, and depression. By because that, disturbance health mental in study this positioned as indicator welfare related psychology close with dynamics digital inclusion and inequality internet access in society (Aurel Sulthon Hakim S, Aji Mulyana, 2024).

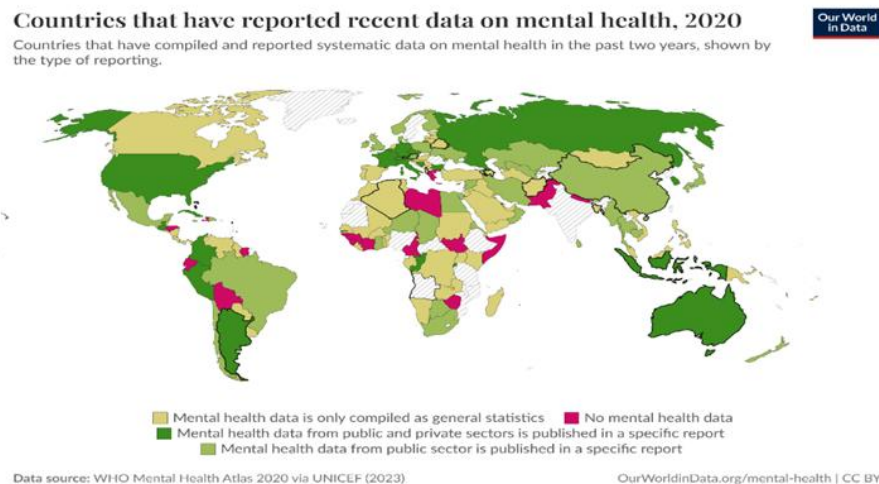


Figure 5. Countries that have reported recent data on mental health 2020

Showing map global countries reporting health data mental on 2020, categorized based on level and type data reporting. Visualization this show clear variations between country in availability, completeness, and systematization of health data mental. The countries marked with color green old generally own report specifically combining health data mental from sector public and private, whereas color green young show countries that only report data from sector public. Countries colored yellow only serve statistics general, and color red show lack of health data reported mental in a way systematic.

Difference in reporting of this data reflect that disturbance mental no only related with condition individual clinical, but also very influenced by capacity structural something country for manage information health. Countries with system more reporting proceed tend own infrastructure health, sources power human beings, and support more policies strong for recognize, monitor, and treat disturbance mentally. Rather, nothingness or data limitations in a number of countries, especially in some parts of africa and asia south, showing existence obstacle structural that can make things worse vulnerability public to problem health mental.

The map confirm that disturbance mental is phenomenon socially influenced by access to source power, including access to digital technology and the internet. Limitations in system reporting health mental is often correlated with low internet access and technology information, which has an impact on limited distribution information health mental, service counseling online, as well as support social digital- based. Conditions this can increase risk of stress, anxiety, and depression, especially for group marginalized communities digitally.

Strengthen position disturbance mental as indicator welfare psychological that is not let go from dynamics digital inclusion. The gap no internet access only limit individual participation in digital space, but also influence ability state and society in detect, document, and respond disturbance mental in a way effective. By because that, understanding to disturbance mental in study this placed in more framework area, namely as results interaction between condition

individual psychology and factors socio-structural, in particular gap internet access and digital inclusion.

Discussion

Results study this show that operationalized digital inclusion through internet access, ownership digital devices, and capabilities its utilization own significant relationship with welfare psychological and level vulnerability to disturbance mental. Findings this strengthen argument main in *digital divide theory* that states that inequality access and use digital technology does not nature neutral , but rather implications on inequality social and health , including health mental (van dijk, 2020) . In context global, regional and group public with level more internet access tall tend show level satisfaction life and well-being more psychological good compared to region with access limited.

In a way special, analysis against the data our world in data shows that countries and regions with internet penetration and ownership high digital devices like europe, north america, and oceania also show level satisfaction relative life stable and high.find that internet access contributes positive to welfare psychological through improvement access information, convenience communication social, and expansion support social online. Deep digital technology context this functioning as *coping resources* that help individuals manage stress, maintain relation social, and access service health mental based online (nawangsih, 2020) .

Study this also reveal that benefit digital inclusion is not distributed in a way evenly distributed. In the region with level low internet access, such as part countries in africa and asia south, welfare psychological tend more low and stagnant. The digital divide is widening risk exclusion social and psychological, because individuals who do not connected digitally lost opportunity for access information health, services support and networking social online. With thus , the limitations internet access can understood as factor structural improvements vulnerability against stress, anxiety, and depression (v. Petrov, xavier dubois, 2024) .

In Indonesian context, results study show position that is ambivalent. On one side, increase internet penetration and ownership cell phone in one decade final open opportunity for public for access digital information and services, including service health mental based applications and social media. That digital platforms in Indonesia are starting to play a role in increase literacy health mental and broaden access service psychological. On the other hand other, internal digital divide between region urban and rural areas, as well as between group social economy still enough sharp and impactful on inequality welfare psychological (putri et al., 2023).

Findings study this also show that digital access that is quantitative (merely connected to the internet) no always compared straight with welfare more psychological good. Some study previously precisely show contrasting results. (candice l. Odgers1, 2021) find that excessive use of the internet and social media, especially without adequate digital literacy, can increase risk anxiety, depression, and feelings loneliness. Findings contrast this show that quality use digital technology becomes factor the key to success whether technology functioning as source welfare or precisely as a psychological stressor.

In framework *digital divide theory*, phenomenon this can explained through draft *second-level* and *third -level digital divide*. The digital divide does not only happen on level access, but also on ability use technology in a way effective and on results (outcomes) obtained from use those. Individuals with low digital literacy tend more prone to to impact negative use technology, such as exposure information information overload, cyberbullying, and disinformation related health mental. With thus, digital inclusion is not accompanied by with improvement literacy and support social potential widen inequality welfare psychological (rahmawati, 2023).

Discussion this also highlight importance see disturbance mental as phenomenon socio-structural, not solely problem individual or clinical. Limitations internet access and digital devices are limited individual ability to look for help, share experience, and build flavor connectedness social, which is factor protective important for health mental. Findings this consistent with approach *social determinants of mental health* that place access to source power including digital technology as determinant main welfare psychological (nasution et al., 2025).

Results study this confirm that connection between digital inclusion and well-being psychological nature complex and contextual. Pro findings show that inclusive and meaningful internet access can increase welfare psychological, while findings contrast remind that without quality access, digital literacy, and support adequate social, digital technology is actually can enlarge pressure psychological. By because that , research this expand discourse academic with put digital divide as determinant important in studies health mental , especially in the country develop like Indonesia (dewi indriani 1, wini anggraeni1, 2025).

Implications from findings this is the need policy digital inclusion that is not only focus on development infrastructure, but also on improvement digital literacy,

affordability costs, and integration service health mental digital- based. With approach said, digital technology can functioning as instrument empowerment welfare psychological, not just symbol progress technology that expands inequality social and mental in society.

Conclusion

This study conclude that gap internet access and level digital inclusion contributes in a way significant to difference welfare psychological and vulnerability to disturbance mental. Findings study show that individuals and groups communities that have more internet access good marked by availability device, quality connectivity, and capabilities utilization technology tend own level satisfaction life and well-being more psychological high. On the other hand, the limitations internet access is working as factor structural reinforcement exclusion digital social, limiting access to information and services health mental, as well as increase risk of stress, anxiety, and disorders mental. With thus, research this answer question study with confirm that digital divide no only is problem technology, but also determinant important welfare psychological.

Based on findings said, research this give a number of contribution important. First, in theoretical, research this strengthen and expand implementation of the digital divide theory with link it in a way direct with issue health mental and well-being psychological, which during this relatively not enough explored in digital studies. Second, in empirical, research this integrate indicator macro from *our world in data* with findings qualitative, so that give greater understanding comprehensive about how digital inequality at work at the structural and experiential levels individual. Third, in Indonesian context and state developing, research this contribute in highlight that improvement digital access yet of course produce welfare psychologically even without accompanied by quality adequate digital access and literacy.

With thus, research this give base scientific for development policy greater digital inclusion oriented on health mental and justice social although thus, research this own a number of limitations. First, the use of approach qualitative and secondary data global limit ability study for do generalization statistics in a way wide. Second, the *our world in data* data used nature aggregate national and regional, so that not yet fully catch dynamics digital divide at the micro level, such as gender, age, and group differences social certain. By because that, research furthermore recommended for combine approach qualitative and quantitative (*mixed methods*), using longitudinal data, and expand focus on experience group prone to in a way more specific. Research in the future front also need explore role digital literacy, types internet use, and interventions digital policy in increase welfare psychological, so that digital technology is truly functioning as means empowerment, not source inequality new in health mental public.

Reference

- Abas, R., & Sukihananto, S. (2023). *Jurnal kesehatan*. 16(1), 60–66.
<https://doi.org/https://doi.org/10.32763/b3s44y47>
- Adam, A., Alim, A., Kesehatan, P. M., Mega, U., & Palopo, B. (2025). *Krisis Identitas Remaja di Era Digital: Studi Kualitatif tentang Dampak Media Sosial terhadap Kesehatan Mental dan Relasi Sosial*. 5(1), 255–266.
<https://doi.org/https://doi.org/10.56799/joongki.v5i1.10886>
- Amir, L. A. (2024). *Jurnal Ilmu Kesehatan Karya Bunda Husada Vol. 10 No. 2, Nov 2024*. 10(2), 34–60.
<https://doi.org/https://doi.org/10.56861/jikkbh.v10i2.140>
- Aqil, A., & Indrawan, W. (2025). *Menuju Inklusi Digital: Peluang Dan Tantangan Digitalisasi Di Pesantren*. September, 115–130.
<https://doi.org/https://doi.org/10.59841/ihsanika.v3i3.2862>
- Ardhiyansyah, A., & , Camelia Bakker, S. G. S. (2023). *Dampak Teknologi Digital terhadap Kesejahteraan Mental* : 1(04), 181–188.
<https://doi.org/https://doi.org/10.58812/jpkws.v1i04.651>
- Aurel Sulthon Hakim S, Aji Mulyana, M. A. (2024). *Modern Aurel Sulthon Hakim S, Aji Mulyana, Mia Amalia*. 04(01), 48–54.
<https://doi.org/https://doi.org/10.53337/jhki.v4i1.108>
- Candice L. Odgers¹, M. J. (2021). *Adolescent Mental Health in the Digital Age: Facts, Fears and Future Directions*. 61(3), 336–348.
<https://doi.org/10.1111/jcpp.13190> Adolescent
- Dewi Indriani¹, Wini Anggraeni¹, A. H. M. (2025). *Pengaruh Komunikasi Digital dan Prokrastinasi Akademik terhadap Kesejahteraan Psikologis Siswa SMAN 78 Jakarta*. 8(01), 50–61.
<https://doi.org/https://doi.org/10.25008/wartaiski.v8i1.341>
- Dimas, M., Fahlevvi, M. R., & Sumbawa, P. K. (2024). *Pengentasan Digital Divide dalam Penerapan E-Government di Kabupaten Sumbawa*. 6(2), 194–215.
<https://doi.org/https://doi.org/10.33701/jtkp.v6i2.4504>
- Don, S. T. P., Tomohon, B., St, S., & Penginjil, Y. (2024). *Transformasi Sosial di Era Digital dan Implikasinya pada Masyarakat Zaman Now (Suatu Kajian Dalam Perspektif Sosiologi Digital) Marianus Muharli Mua Antonius Heatubun Abstract : Abstrak : Pendahuluan Masyarakat zaman now atau masyarakat jaman sekarang (*. 2(1), 48–64.
<https://doi.org/https://doi.org/10.59975/ecce.v2i1.28>
- Ginting, L. R., Alfarizi, F., Sri, G., Sitorus, R., Situmeang, E. V., & Putri, S. D. (2025). *Psikologi Digital : Dinamika Generasi Z dalam Era Media Sosial Universitas Prima Indonesia , Indonesia*. 5(3), 132–141.
<https://doi.org/https://jurnal.permapendis-sumut.org/index.php/edusociety>
- Haniko, P., Sappaile, B. I., Gani, I. P., & Wilson, J. (2023). *Menjembatani Kesenjangan Digital: Memberikan Akses ke Teknologi , Pelatihan , Dukungan , dan Peluang untuk Inklusi*. 02(05), 306–315.
<https://doi.org/https://doi.org/10.58812/jpws.v2i5.371>
- Herman, M., & Permadi, A. S. (2025). *Kesenjangan Akses Internet Dan Dampaknya Terhadap Kualitas Pendidikan Di Desa Tampelas Kecamatan Kamipang Kabupaten Katingan*. 10(2), 85–92.
<https://doi.org/https://doi.org/10.33084/bitnet.v10i2.9971>
- Humaidah, A., Nihayah, Z., & Sumiati, N. T. (2024). *Edukatif: Jurnal Ilmu Pendidikan Scoping Review : Faktor-Faktor yang Mempengaruhi Kesejahteraan Psikologis pada Mahasiswa*. 6(5), 5931–5938.
<https://doi.org/https://doi.org/10.31004/edukatif.v6i5.7479>
- K. Suryoadji, Najmah Ali, Reynardi Larope Sutanto, Christopher Christian, Elza Nur Warsa Putra, M. Faruqi, Kevin Tadeus Simanjuntak, Ilham Qurrota A'yun, Dhanis Adrianto Setyawan, R. F. S. (2024). *Kesehatan mental di era digital: tinjauan naratif dampak media sosial dan teknologi digital pada kesehatan mental dan upaya untuk mengatasinya*. 23.
<https://doi.org/https://doi.org/10.33221/jikes.v23i1.3115>
- Listiyandini, R. A. (2023). *Layanan kesehatan mental digital : 10, 1–4*. <https://doi.org/10.24854/jpu789>
- Nasution, I. S., Susilo, M. C., Azizah, N., & Tengku, H. (2025). *Kesehatan mental remaja dan tantangan sosial- digital : analisis literatur untuk rekomendasi*. 6, 8555–8564.
<https://doi.org/https://doi.org/10.31004/jkt.v6i2.44866>
- Naura, A., Evanny, S., Intan, S., Midori, W., Yossi, R., & Sara, R. (2024). *Kesenjangan digital dan akses internet di kabupaten katingan : studi kasus pada masyarakat pedesaan digital gap and internet access in katingan district : a case study in a rural community*. 8(1).
<https://doi.org/https://doi.org/10.33369/jkaganga.8.1.65-73>
- Nawangsih, E. (2020). *I* :
<https://doi.org/https://doi.org/10.35760/PSI.2020.V1>

312.3130

- Nidaussa, R., & Nuqul, F. L. (2025). *Sistematik Literatur Review : Dukungan Sosial Online Berdampak Positif Pada Kesehatan Mental*. 3(1), 1–11. <https://doi.org/https://doi.org/10.61994/jpss.v3i1.887>
- Poerwanti, S. D., Paramitha, N. A., Kusumaningrum, N. D., & Makmun, S. (2025). *Jurnal Intervensi Sosial (JINS)*. 4(1), 21–31. <https://doi.org/https://doi.org/10.32734/intervensisosial.v4i1.21243>
- Putri, M. A., Bimantoko, I., Hertton, N., & Arruum, R. (2023). *Gambaran Kesadaran , Akses Informasi , dan Pengalaman terkait Layanan Kesehatan Mental pada Masyarakat di Indonesia An Overview of Mental Health Awareness , Information Access , and Experience of Mental Health Services in*. 11(1), 14–28. <https://doi.org/https://doi.org/10.24854/jps.v11i1.1961>
- Rahmawati, A. Z. (2023). *Peningkatan Literasi Digital untuk Masyarakat Berbasis Era Teknologi Informasi Info Artikel Abstrak sama terhadap teknologi informasi . Terdapat kesenjangan digital Kurangnya Pengetahuan dan Keterampilan Digital : Banyak anggota masyarakat yang masih kura*. 01(1), 12–20. <https://doi.org/https://doi.org/10.54396/mjd.v1i1.968>
- Ramdhani, I. N. & N. R. N. & N. (2016). *Keterampilan Sosial Menjaga Kesejahteraan Psikologis*. 43, 183–193. <https://doi.org/https://doi.org/10.22146/JPSI.22139>
- Ruth, E. (2013). *Deskripsi Kualitas Layanan Jasa Akses Internet di Indonesia dari Sudut Pandang Penyelenggara Description of Internet Quality of Services (Qos) in Indonesia From the Providers ' Point of View*. 137–146. <https://doi.org/https://doi.org/10.17933/bpostel.2013.110204>
- Salsabila, A., & Anshori, I. (2025). *Dampak Digitalisasi dan Media Sosial terhadap Interaksi Sosial di Masyarakat*. 5(2), 1873–1880. <https://doi.org/https://doi.org/10.54082/jupin.1059>
- Sikumbang, E. S., Faiza, M., Naufal, A. F., & Purba, S. H. (2024). *Penggunaan aplikasi kesehatan dalam pengelolaan stress dan kecemasan pada mahasiswa: tinjauan literatur*. 5, 12459–12467. <https://doi.org/https://doi.org/10.31004/jkt.v5i4.37465>
- V. Petrov, Xavier Dubois, R. A. (2024). *T RANSFORMASI S OSIAL : c*, 1–7. <https://doi.org/https://doi.org/10.34306/adimas.v4i2.1093>
- van Dijk, J. (2020). *The Digital Divide*. Polity Press.
- Waruwu, M. (2024). Pendekatan Penelitian Kualitatif: Konsep, Prosedur, Kelebihan dan Peran di Bidang Pendidikan. *Afeksi: Jurnal Penelitian Dan Evaluasi Pendidikan*, 5(2), 198–211. <https://doi.org/10.59698/afeksi.v5i2.236>