

**How to Cite**

Susilo, C. B., Jayanto, I., & Kusumawaty, I. (2021). Understanding digital technology trends in healthcare and preventive strategy. *International Journal of Health & Medical Sciences*, 4(3), 347-354.  
<https://doi.org/10.31295/ijhms.v4n3.1769>

# Understanding Digital Technology Trends in Healthcare and Preventive Strategy

**Catur Budi Susilo**

Politeknik Kesehatan Yogyakarta, Indonesia  
Corresponding author email: [catursusilo44@gmail.com](mailto:catursusilo44@gmail.com)

**Imam Jayanto**

Universitas Sam Ratulangi, Manado, Indonesia  
Email: [jaywisnu3@gmail.com](mailto:jaywisnu3@gmail.com)

**Ira Kusumawaty**

Politeknik Kesehatan Kemenkes Palembang, Indonesia  
Email: [irakusumawaty@poltekkespalembang.ac.id](mailto:irakusumawaty@poltekkespalembang.ac.id)

**Abstract---**Current technological trends are not only the result of the lifestyle choices of technology users and the benefits and advantages provided by this technology but also as what technology provides. One of these changes is that jobs and services in healthcare and prevention are now dominated by technology in all its forms. This study looks at various scientific articles published in reputable journals, including Elsevier, Medpub, Google Books, Taylor & France, and other national magazines. We will concentrate on publications published between and to keep the data more up to date. Our review approach includes data coding, in-depth evaluation, and high interpretation systems to capture data and answer research questions using high standards of validity and reliability. This research is in the form of descriptive qualitative research. We found all our data using an online search engine and followed the previous research guidelines. The result is that technological excellence has now been able to renovate and transform medical work into medical tasks, including services and convenience for patients.

**Keywords---**digital technology, healthcare, internet support, patients, preventive strategy

**Introduction**

Health care and digital technology have been proven to go hand in hand, but it needs a proper understanding of how they can match the digital health trend as we know telemedicine on the internet (Vaughn et al., 2016). Online training on health is becoming very attractive and has even received recognition as an investment in advancing health sciences and has also helped a lot in the health industry, including medicine around the world. For example, who understands gives an understanding that health belongs to all humans. If health services are not evenly distributed, this is unfair because some people do not understand the importance of digital technology, undoubtedly having a socio-economic impact (Filkins et al., 2016). This has an impact on the population as well as for each country. In order for health to become a commodity that must be fair in obtaining health services and data that many people can access, this is something that must be given to every citizen where digital technology-based health trends have become an essential part of life health equity (Agarwal et al., 2010).

Of course, it is not an easy thing how to achieve this goal of health equity with all health stakeholders both in government and non-government even in the community how they can get data about health how they analyze and even share data with the use of digital technology (Dover & Belon, 2019). The reason why digital health has become a trend that has become a phenomenon lately, especially in 2001. First of all, since this kind has become a threat to human health in this world, the healthcare industry has been bold enough to invest its focus on the digital sector,

which they understand is an innovation because new technologies exist so that the findings or trends are so robust this year along with the momentum of the mic signal and also predictions of future medical changes (Backholer et al., 2021). For example, the trend called telehealth is the latest technology, which is related to digital communication, for example involving computers, cell phones, and other types of substances intended to provide or serve health services: Since the government implemented social dispensation policies, digital trends have started to increase where the health service providers (Macmillan et al., 2016). The world has experienced extraordinary changes in innovation, for example in 2020 it is estimated that more than 40% of people who need primary health services provide telehealth services, meaning that they have started to feel the technology they use. All physiological assistance to obtain data because of the ease of not needing to meet medical professionals (Carey et al., 2014).

Today's global COVID-19 vaccination event is beneficial. Various studies from Fortune's businesspeople predict the market will continue to grow in the coming years (Harris & Jones, 2020; Putra et al., 2020; Manullang et al., 2021; Nugraha et al., 2021). Of course, some ask why this is important; this is because the benefits provided are extraordinary, for example, the benefits of access to how the public or fashion patients can access everything related to health services, they used to have to go to a doctor, now they can take advantage of the facilities available so that medical services are certainly for people who cannot possibly go to a doctor, but can access existing information without having to go all the way to find paramedics in urban areas (Ozili & Arun, 2020). This is following the national policy where the application of socialite is expected to reduce human contact. The presence of digital technology is not only a trend for ordinary things but has led to health services where doctors and patients can take advantage of the various facilities available so that the fear of spreading the disease from the puskesmas can be cured (Verhoeven et al., 2020).

Another advantage, perhaps, is the condition of people who are not infected with the covid virus, for example, patients with chronic diseases who require regular checkups with a very tight schedule, but with the presence of this technology, it can make it easier for them (Atangana & Atangana, 2020). One of the advantages and other advantages, for example, being able to continue health care because they can communicate intensely, maintain excellent relationships between patients and people who are potentially exposed to the virus, but because they can communicate this remotely, a perfect opportunity. Both provide enormous bona fide hope with the advent of technology (Ziebland & Wyke, 2012). The next trend is number two, namely the internet of things and access medicine; in this case, the internet of things has proven to be an extraordinary addition with various sensors, software, and other technologies that allow the connection and exchange of information and data. With the use of existing tools and systems in internet applications, things are developing very quickly where users of this technology can easily access monitors and integrate existing devices for health care (Dimitrov, 2016).

With this artificial intelligence and health learning technology, internet technology for everyone's health offers a very progressive vision compared to the tools used in the medical world in traditional times but now helping patients and using various applications in systems such as laptops, smartphones, and the like (Ransbotham et al., 2017). Suppose we want to understand it, of course (Khosravi et al., 2020; Castro et al., 2002). In that case, this foreign internet certainly has various benefits and advantages for both parties, both health providers and patients who need health services, so that the presence of the internet becomes a kind of convenience, namely being able to control monitoring remotely so that patients with this facility can continue to monitor their health while health workers can also monitor patients remotely and at the same time with critical data to reduce face-to-face meetings as before have to carry anything (Waller et al., 2020). Another advantage may be that this digital technology provides convenience or a combination where this intelligent technology is integrated into health services that allow patients to have and be able to meet the conditions and health they need, e.g., with smart insulin pen they can monitor, e.g., glucose can make people not have to go to the elevator which requires very long application, but they can quickly check with straightforward technology (Robinson et al., 2014).

Another reason is that the convenience of this technology; it automatically provides financial convenience. If previously treatment was costly, maybe the presence of this technology will improve health and reduce costs because it is a sophisticated technology provided is beneficial for the patient is beneficial for medical services (Kremer & Glennerster, 2011). In addition to Lukas for patients, health providers such as hospital clinics and community services have also made it easier to work; yes, everything has been done with complex medical equipment such as an X water machine, then a scanner, then everything it has saved money because these machines have been able to be integrated and quickly succeeded and reduced human fatigue. Again, it has proven that saving is an advantage over the internet of things, which has made it possible for humans to be cheap and easy to provide services for public health needs. The next advantage is the technology's application to serve health (Nasajpour et al., 2020).

Mari (2019), says anything on blocked on without you William liberates come American men's team adaptation drop then you guys. This is an essential issue because it increases job satisfaction rather than medical where

approximately 50% of workers say that the presence of today's technology and with very sophisticated equipment has made it easier for medical professionals To serve patients as well as the health care industry, the presence of digital technology has helped this in serving their market demands, all ending inconvenience and low cost, the cost is not burdensome for both hospital patients and other medical service industries. Another person is also significant, so if previously every health problem in a patient had to go to a doctor or a service center, but with the presence of this technology, many people can use it at home. Just check at home; for example, there is a digital alarm and a calorie counter. Some people check such as sugar levels and can check cholesterol and can also check hypertension independently. They do not have to go to people to doctors and medical experts, and this is all a very personal thing, another thing that just with people's fingers it will be easy to control their health this is what makes the world of health even easier with data and with very excellent services by technology that has never been thought of before (Marr, 2015).

The fourth is the ongoing innovation where infectious disease management can be assisted by technology (Haleem & Javaid, 2020). Since the COVID-19 of this pandemic hit the world of some things are not prepared, for example in the health care sector, there are times when it is tough with this new situation in the first week the trend of digital health is forcing those who help and can fight against the spread of the virus, the point is that many countries are competing to invest in applications that will help instead of the government in providers with digital tracking and monitoring checking equipment. Management of infectious diseases that are contagious (Budd et al., 2020). It is an extraordinary thing that health experts have not imagined with this technology in the past two decades so that progress from the foundation of health care, especially vaccines, allows continuous development guided by technology. For example, with this technology, this is the first vaccine based, which is limited to tracking the COVID-19, and researchers continue to make many other patients for treatment at meager prices. Cheap with a speedy time and a method compared with previous methods; for example, this Mr vaccine can be used with protein codes and simulations to respond to this specific pathogen, which immediately creates new conditions for other diseases, including symptoms of malaria, Hepatitis b tuberculosis fibrosis (Tian et al., 2020; Cigarroa et al., 1989). Hence, researchers continue to work to develop vaccine treatments that can be used for other diseases, such as diluted semen and some experimental advances (Kitchin, 2020).

The fifth is virtual and reality, where this virtual is suitable for handling video games that have now become virtual. Likewise, in the matter of technology that is very effective in preventing disease, especially the Coronavirus, stopping technological developments that are increasingly advanced in the region has a positive impact in preventing the fight against diseases that are spreading (Nadeak et al., 2021). Perhaps the statistics have shown how the transmission is, that is why the role of technology is becoming increasingly important because technological assistance can help many users whose daily activities on users and logs can reduce pain In interacting with each other, the community becomes more accessible with the help of their elephants, they can get social entertainment, friendship and other logistical needs. With digital media, it is easier for the wider community to get information and knowledge related to dangerous diseases that are infectious diseases using digital means. The public can also read and find out information about the dangers of each disease so that the public can anticipate it from the symptoms knowing how the process (Casadevall & Pirofski, 2020). Especially now that more and more people are gathered in this social network, this becomes a place to get the latest information distributed and distributed from the community so that the movement of infectious diseases can be easily stopped when controlled. Because with the help of digital technology, with more and more citizens on social media, it becomes a place to share information so that no one is left behind by information, and this is one of the advantages owned by technology devices (Fichman et al., 2011).

## Method and Material

Today's technology trends are due to the lifestyle reasons of technology users and indeed because of the benefits and advantages that this technology has. This has been increasingly seen since the world has been preoccupied with the onset of a pandemic and its impact on all aspects of life (Campbell et al., 2011). One of these trends is that healthcare and prevention jobs and services are now dominated by technology in all its capacities. This study has reviewed many scientific findings of health experts and digital technology published in well-known journals such as Elsevier, Medpub, Google Books, Taylor & France, and other national publications (Ridder, 2014). For the data to be more updated, we will focus on journals published between 2010 and 2021. Our review process involves a data coding system, in-depth evaluation, and high interpretation to understand the data to answer the questions of this study with the principles of high validity and reliability. We design this study is a descriptive qualitative form such as a literature review. All of our data was found using an online search system and following the directions of previous studies (Connolly et al., 2018).

## Result and Discussion

Responsive and feasible medical care [Chib \(2010\)](#), health care associations and frameworks appear to benefit the reception and execution of advancement driven by innovations for looking for authenticity and building entrust with patients. New advancements foster medical care as an interaction development driven and patient-focused by working on quality and proficiency of medical care administrations. Arrangements will, in general, assist for dispersion and spread of development to help execute innovations in medical care administration conveyance. Lessen shortcomings, [Van de Wetering et al. \(2012\)](#), cost-viability examination expects that creation advancements are curved and that measures consistently perform at steady re-visitations of scale. In the short run, these presumptions are probably going to be disregarded. We present a model that can address the run steady net advantage (INB) for short-run failures since quite a while ago. This furnishes chiefs with a more reasonable perspective on the average proficiency gains ([Whitelaw et al., 2020](#); [Pagani & Pardo, 2017](#)).

Developing a further understanding of access, [Hollis et al. \(2015\)](#), studied how digital innovation can innovate medical care for mental development by connecting patients, management, and health education with the latest methods. The latest internet applications and devices can help patients have complete access to data access and management to improve clinical services and early care through access points to information patients who need information. However, a significant gap exists in the evidence underlying these findings. More significant patient and medical associations are expected to assess the existence of digital technology and guarantee them on neglected requirements, follow public truths, and work on the results of medical studies. In addition, the application also reduces costs, as proven ([Laurenza et al., 2018](#)). Their study analyzed an illustrative contextual analysis for Medical in Italy, an Italian government partner company of Merck and Co., Inc. The study results show that technology acceptance is a sophisticated innovation that can work in primary medical care activities. So, these computerized innovations in medicine can expand efficiency and productivity and consider the delivery of higher quality services and save time in medical services in times of crisis ([Moazzami et al., 2020](#); [Chudasama et al., 2020](#)).

Increment quality [Torous et al. \(2020\)](#), as interest in telehealth during the COVID-19 worldwide pandemic increment, computerized wellbeing's capability to expand access and nature of emotional wellbeing is turning out to be precise. We contend that this moment is the opportunity to "speed up and twist the bend" on computerized wellbeing. Expanded interests in computerized wellbeing today will yield exceptional admittance to excellent emotional wellness care. Make medication more customized for patients. [Paranjape et al. \(2020\)](#), medicine has entered the computerized time, driven by information from new modalities, particularly genomics and imaging, just as new sources like wearables and the Internet of Things. We acquire a more profound comprehension of illness science and what sicknesses mean to individuals; we create designated treatments to customize therapies. There is a requirement for innovations like Artificial Intelligence (AI) to have the option to help forecasts customized medicines. To standard AI in medical care, we should resolve issues like logic, responsibility, and protection. Creating logical calculations and incorporating AI preparation in clinical training is a significant number of the arrangements that can ease these worries ([Glasgow et al., 2012](#); [Winefield, 2006](#)).

Likewise, in the matter of technology that is very effective in preventing disease, especially the Coronavirus, stopping technological developments that are increasingly advanced in the region has a positive impact in preventing the fight against diseases that are spreading ([Agarwal et al., 2020](#)). Perhaps the statistics have shown how the transmission is, that is why the role of technology is becoming increasingly important because technological assistance can help many users whose daily activities on users and logs can reduce pain In interacting with each other, the community becomes more accessible with the help of their elephants, they can get social entertainment, friendship and other logistical needs. With digital media, it is easier for the wider community to get information and knowledge related to dangerous diseases that are infectious diseases using digital means; the public can also read and find out information about the dangers of each disease so that the public can anticipate it from the symptoms knowing how the process ([Nettleton, 2020](#)). Especially now that more and more people are gathered in this social network, this becomes a place to get the latest information distributed and distributed from the community so that the movement of infectious diseases can be easily stopped when controlled. Because with the help of digital technology, with more and more citizens on social media, it becomes a place to share information so that no one is left behind by information, and this is one of the advantages owned by technology devices ([Mustafa & Hamzah, 2011](#)).

### *Prevention before treatment*

If people think about the advantages of digital head soccer, the easiest thing is that digital makes the quality even more to increase the quality of the reason with the presence of an internet connection where everyone can reach the

services connected to the player's health professionals to solve (Brabazon, 2016). Another advantage, for example, is that health professionals can store data and information quickly and access it when and where necessary and the ease of sharing information with patients and other health professionals. Health data is possible through digital assistance with more accurate reports monitoring progress than patients and more health decision-making. On the other hand, this digital technology also empowers larger patients, allowing treatment to get feedback with digital assistance to have more freedom to understand the patient's actual condition (Ianculescu et al., 2017). In other words, this digital is a resolution and a solution for rehabilitation therapists and patients. Also, normal adults can do various checks and monitor getting information to monitor health conditions and carry out treatment after (Afyouni et al., 2017). Another convenience might be the excellent coordination between medical and patient methods. In this case, a digital system that makes it easy for patients to maintain their health history stories, whether good or not, will provide this information to make it easier to coordinate with professionals. This digital technology also gives a task rather than administration which is angry this time is a form of difficulty than the health planner in planning and implementation. However, patient doctors can join or be connected to the health record system electronically (Cusack, 2008).

This never happened in the period before this digitalization became a trend in the lives of both the health business and the health sector (Engelhardt, 2017). Another benefit, perhaps this technology allows communication between many parties in this health project, such as doctors and other industries, allowing them to continue to interact continuously to communicate to get an excellent treatment plan. On the other hand Pfleeger & Pfleeger (2012), it also allows safe and comfortable data because digital is indeed many attacks than but this is easy if the files stored are well protected. Hence, it is possible to lose it very difficult because it is stored in a perfect system; for example, in the event of a fire, flood, and the like, all data is recorded and stored in a digital system. Where the villain might be accurate Time information where patients have on smartphones and also have various hardware that can be obtained today, just so that information on monopoly chord data on health reports can immediately This is achieved because it no longer uses a manual system as before, so in modern times, smartphones have been used as recording tools, for example, how many steps do we need in 1 day on a trip, maybe some other requirements that need to be considered so that health information reports can be obtained (Mosa et al., 2012).

## Conclusion

In this section, we summarize the data findings and discuss the study's conclusions with the theme that contemporary technology trends are the outcome of technology users' lifestyle choices and the benefits and advantages that technology provides. This is becoming increasingly apparent as the world has been worried about the emergence of a pandemic and its influence on all aspects of life. One of these shifts is that technology, in all of its manifestations, increasingly dominates occupations and services in healthcare and preventive. This research examines a variety of scientific findings from health specialists and digital technologies published in renowned journals such as Elsevier, Medpub, Google Books, Taylor & France, and other national publications. To keep the data more up to date, we will focus on articles published between and. To capture data and answer research questions utilizing high standards of validity and reliability, we use data coding, in-depth examination, and high interpretation methods. This study is descriptive qualitative research in the form of a literature review. We used an online search engine to find all of our data and followed the previous research instructions. As to conclude that technological advancements, medical work can be renovated and transformed, including services and patient convenience. Another outcome is that technology had made all medical matters easier, making medical and patient care better than before digital pervaded every element of human existence, from commerce to health. Hopefully, the findings of this study will be beneficial to a variety of parties and the advancement of health science and medical technology (Rusmini & Hastuti, 2021; Widjaja, 2021).

## Acknowledgments

Authors put a highly appreciative of supporting academically and financially. Without this support, this project would not have done as expected.

## References

- Afyouni, I., Rehman, F. U., Qamar, A. M., Ghani, S., Hussain, S. O., Sadiq, B., ... & Basalamah, S. (2017). A therapy-driven gamification framework for hand rehabilitation. *User Modeling and User-Adapted Interaction*, 27(2), 215-265.
- Agarwal, R., Gao, G., DesRoches, C., & Jha, A. K. (2010). Research commentary—The digital transformation of healthcare: Current status and the road ahead. *Information systems research*, 21(4), 796-809.

- Agarwal, S., Pun, N. S., Sonbhadra, S. K., Tanveer, M., Nagabhushan, P., Pandian, K. K., & Saxena, P. (2020). Unleashing the power of disruptive and emerging technologies amid COVID-19: A detailed review. *arXiv preprint arXiv:2005.11507*.
- Atangana, E., & Atangana, A. (2020). Facemasks simple but powerful weapons to protect against COVID-19 spread: Can they have sides effects?. *Results in physics*, 103425.
- Backholer, K., Baum, F., Finlay, S. M., Friel, S., Giles-Corti, B., Jones, A., ... & Demaio, S. (2021). Australia in 2030: what is our path to health for all?. *Medical Journal of Australia*, 214, S5-S40.
- Brabazon, T. (2016). *Digital dieting: From information obesity to intellectual fitness*. Routledge.
- Budd, J., Miller, B. S., Manning, E. M., Lampos, V., Zhuang, M., Edelstein, M., ... & McKendry, R. A. (2020). Digital technologies in the public-health response to COVID-19. *Nature medicine*, 26(8), 1183-1192.
- Campbell, F., Johnson, M., Messina, J., Guillaume, L., & Goyder, E. (2011). Behavioural interventions for weight management in pregnancy: a systematic review of quantitative and qualitative data. *BMC public health*, 11(1), 1-13.
- Carey, G., Crammond, B., & Keast, R. (2014). Creating change in government to address the social determinants of health: how can efforts be improved?. *BMC Public Health*, 14(1), 1-11.
- Casadevall, A., & Pirofski, L. A. (2020). The convalescent sera option for containing COVID-19. *The Journal of clinical investigation*, 130(4), 1545-1548.
- Castro, L. J., Arcidi Jr, J. M., Fisher, A. L., & Gaudiani, V. A. (2002). Routine enlargement of the small aortic root: a preventive strategy to minimize mismatch. *The Annals of thoracic surgery*, 74(1), 31-36. [https://doi.org/10.1016/S0003-4975\(02\)03680-9](https://doi.org/10.1016/S0003-4975(02)03680-9)
- Chib, A. (2010). The Aceh Besar midwives with mobile phones project: Design and evaluation perspectives using the information and communication technologies for healthcare development model. *Journal of Computer-Mediated Communication*, 15(3), 500-525.
- Chudasama, Y. V., Gillies, C. L., Zaccardi, F., Coles, B., Davies, M. J., Seidu, S., & Khunti, K. (2020). Impact of COVID-19 on routine care for chronic diseases: a global survey of views from healthcare professionals. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14(5), 965-967. <https://doi.org/10.1016/j.dsx.2020.06.042>
- Cigarroa, R. G., Lange, R. A., Williams, R. H., & Hillis, D. (1989). Dosing of contrast material to prevent contrast nephropathy in patients with renal disease. *The American journal of medicine*, 86(6), 649-652. [https://doi.org/10.1016/0002-9343\(89\)90437-3](https://doi.org/10.1016/0002-9343(89)90437-3)
- Connolly, S. L., Miller, C. J., Koenig, C. J., Zamora, K. A., Wright, P. B., Stanley, R. L., & Pyne, J. M. (2018). Veterans' attitudes toward smartphone App use for mental health care: qualitative study of rurality and age differences. *JMIR mHealth and uHealth*, 6(8), e10748.
- Cusack, C. M. (2008). Electronic health records and electronic prescribing: promise and pitfalls. *Obstetrics and gynecology clinics of North America*, 35(1), 63-79.
- Dimitrov, D. V. (2016). Medical internet of things and big data in healthcare. *Healthcare informatics research*, 22(3), 156-163.
- Dover, D. C., & Belon, A. P. (2019). The health equity measurement framework: a comprehensive model to measure social inequities in health. *International journal for equity in health*, 18(1), 1-12.
- Engelhardt, M. A. (2017). Hitching healthcare to the chain: An introduction to blockchain technology in the healthcare sector. *Technology Innovation Management Review*, 7(10).
- Fichman, R. G., Kohli, R., & Krishnan, R. (Eds.). (2011). Editorial overview—the role of information systems in healthcare: current research and future trends. *Information systems research*, 22(3), 419-428.
- Filkins, B. L., Kim, J. Y., Roberts, B., Armstrong, W., Miller, M. A., Hultner, M. L., ... & Steinhubl, S. R. (2016). Privacy and security in the era of digital health: what should translational researchers know and do about it?. *American journal of translational research*, 8(3), 1560.
- Glasgow, R. E., Kurz, D., King, D., Dickman, J. M., Faber, A. J., Halterman, E., ... & Ritzwoller, D. (2012). Twelve-month outcomes of an Internet-based diabetes self-management support program. *Patient education and counseling*, 87(1), 81-92. <https://doi.org/10.1016/j.pec.2011.07.024>
- Haleem, A., & Javaid, M. (2020). Medical 4.0 and its role in healthcare during COVID-19 pandemic: A review. *Journal of Industrial Integration and Management*, 5(04), 531-545.
- Harris, A., & Jones, M. (2020). COVID 19—school leadership in disruptive times.
- Hollis, C., Morriss, R., Martin, J., Amani, S., Cotton, R., Denis, M., & Lewis, S. (2015). Technological innovations in mental healthcare: harnessing the digital revolution. *The British Journal of Psychiatry*, 206(4), 263-265.

- Ianculescu, M., Alexandru, A., & Tudora, E. (2017, July). Opportunities brought by big data in providing silver digital patients with ICT-based services that support independent living and lifelong learning. In *2017 Ninth International Conference on Ubiquitous and Future Networks (ICUFN)* (pp. 404-409). IEEE.
- Khosravi, P., Rezvani, A., & Ashkanasy, N. M. (2020). Emotional intelligence: A preventive strategy to manage destructive influence of conflict in large scale projects. *International Journal of Project Management*, 38(1), 36-46. <https://doi.org/10.1016/j.ijproman.2019.11.001>
- Kitchin, R. (2020). Civil liberties or public health, or civil liberties and public health? Using surveillance technologies to tackle the spread of COVID-19. *Space and Polity*, 24(3), 362-381.
- Kremer, M., & Glennerster, R. (2011). Improving health in developing countries: evidence from randomized evaluations. In *Handbook of health economics* (Vol. 2, pp. 201-315). Elsevier.
- Laurenza, E., Quintano, M., Schiavone, F., & Vrontis, D. (2018). The effect of digital technologies adoption in healthcare industry: a case based analysis. *Business process management journal*.
- Macmillan, A., Davies, M., Shrubsole, C., Luxford, N., May, N., Chiu, L. F., ... & Chalabi, Z. (2016). Integrated decision-making about housing, energy and wellbeing: a qualitative system dynamics model. *Environmental Health*, 15(1), 23-34.
- Manullang, S. O., Mardani, M., & Aslan, A. (2021). The Effectiveness of Al-Quran Memorization Methods for Millennials Santri During Covid-19 in Indonesia. *Nazhruna: Jurnal Pendidikan Islam*, 4(2), 195-207.
- Mari, D. (2019). *Breakfast with the Centenarians: The Art of Ageing Well*. Atlantic Books.
- Marr, B. (2015). *Big Data: Using SMART big data, analytics and metrics to make better decisions and improve performance*. John Wiley & Sons.
- Moazzami, B., Razavi-Khorasani, N., Moghadam, A. D., Farokhi, E., & Rezaei, N. (2020). COVID-19 and telemedicine: Immediate action required for maintaining healthcare providers well-being. *Journal of Clinical Virology*, 126, 104345. <https://doi.org/10.1016/j.jcv.2020.104345>
- Mosa, A. S. M., Yoo, I., & Sheets, L. (2012). A systematic review of healthcare applications for smartphones. *BMC medical informatics and decision making*, 12(1), 1-31.
- Mustafa, S. E., & Hamzah, A. (2011). Online social networking: A new form of social interaction. *International Journal of Social Science and Humanity*, 1(2), 96.
- Nadeak, B., Naibaho, L., Sunarto, S., Tyas, E. H., & Sormin, E. (2021). Learning Management in Suburban Schools During the Midst of COVID-19. *Psychology and Education Journal*, 58(2), 1131-1139.
- Nasajpour, M., Pouriyeh, S., Parizi, R. M., Dorodchi, M., Valero, M., & Arabnia, H. R. (2020). Internet of Things for current COVID-19 and future pandemics: An exploratory study. *Journal of healthcare informatics research*, 1-40.
- Nettleton, S. (2020). *The sociology of health and illness*. John Wiley & Sons.
- Nugraha, M. S., Liow, R., & Evly, F. (2021). The Identification of Online Strategy Learning Results While Students Learn from Home During the Disruption of the COVID-19 Pandemic in Indonesia. *Journal of Contemporary Issues in Business and Government*, 27(2), 1950-1956.
- Ozili, P. K., & Arun, T. (2020). Spillover of COVID-19: impact on the Global Economy. Available at SSRN 3562570.
- Pagani, M., & Pardo, C. (2017). The impact of digital technology on relationships in a business network. *Industrial Marketing Management*, 67, 185-192. <https://doi.org/10.1016/j.indmarman.2017.08.009>
- Paranjape, K., Schinkel, M., & Nanayakkara, P. (2020). Short Keynote Paper: Mainstreaming Personalized Healthcare—Transforming Healthcare Through New Era of Artificial Intelligence. *IEEE journal of biomedical and health informatics*, 24(7), 1860-1863.
- Pfleeger, C. P., & Pfleeger, S. L. (2012). *Analyzing computer security: A threat/vulnerability/countermeasure approach*. Prentice Hall Professional.
- Putra, P., Liriwati, F. Y., Tahrim, T., Syafrudin, S., & Aslan, A. (2020). The Students Learning from Home Experience during Covid-19 School Closures Policy in Indonesia. *Jurnal Iqra*, 5(2).
- Ransbotham, S., Kiron, D., Gerbert, P., & Reeves, M. (2017). Reshaping business with artificial intelligence: Closing the gap between ambition and action. *MIT Sloan Management Review*, 59(1).
- Ridder, H. G. (2014). Book Review: Qualitative data analysis. A methods sourcebook.
- Robinson, H., MacDonald, B., & Broadbent, E. (2014). The role of healthcare robots for older people at home: A review. *International Journal of Social Robotics*, 6(4), 575-591.
- Rusmini, R., & Hastuti, P. (2021). Local awareness based midwifery care in basic level service in the digital era . *International Journal of Health & Medical Sciences*, 4(1), 69-73. <https://doi.org/10.31295/ijhms.v4n1.1150>

- Tian, S., Hu, W., Niu, L., Liu, H., Xu, H., & Xiao, S. Y. (2020). Pulmonary pathology of early-phase 2019 novel coronavirus (COVID-19) pneumonia in two patients with lung cancer. *Journal of thoracic oncology*, *15*(5), 700-704. <https://doi.org/10.1016/j.jtho.2020.02.010>
- Torous, J., Myrick, K. J., Rauseo-Ricupero, N., & Firth, J. (2020). Digital mental health and COVID-19: using technology today to accelerate the curve on access and quality tomorrow. *JMIR mental health*, *7*(3), e18848.
- Van de Wetering, G., Woertman, W. H., & Adang, E. M. (2012). A model to correct for short-run inefficiencies in economic evaluations in healthcare. *Health economics*, *21*(3), 270-281.
- Vaughn, A. E., Ward, D. S., Fisher, J. O., Faith, M. S., Hughes, S. O., Kremers, S. P., ... & Power, T. G. (2016). Fundamental constructs in food parenting practices: a content map to guide future research. *Nutrition reviews*, *74*(2), 98-117.
- Verhoeven, V., Tsakitzidis, G., Philips, H., & Van Royen, P. (2020). Impact of the COVID-19 pandemic on the core functions of primary care: will the cure be worse than the disease? A qualitative interview study in Flemish GPs. *BMJ open*, *10*(6), e039674.
- Waller, G., Pugh, M., Mulken, S., Moore, E., Mountford, V. A., Carter, J., ... & Smit, V. (2020). Cognitive-behavioral therapy in the time of coronavirus: Clinician tips for working with eating disorders via telehealth when face-to-face meetings are not possible. *International Journal of Eating Disorders*, *53*(7), 1132-1141.
- Whitelaw, S., Mamas, M. A., Topol, E., & Van Spall, H. G. (2020). Applications of digital technology in COVID-19 pandemic planning and response. *The Lancet Digital Health*. [https://doi.org/10.1016/S2589-7500\(20\)30142-4](https://doi.org/10.1016/S2589-7500(20)30142-4)
- Widjaja, G. (2021). Impact of human resource management on health workers during pandemics COVID-19: systematic review. *International Journal of Health & Medical Sciences*, *4*(1), 61-68. <https://doi.org/10.31295/ijhms.v4n1.850>
- Winefield, H. R. (2006). Support provision and emotional work in an Internet support group for cancer patients. *Patient Education and Counseling*, *62*(2), 193-197. <https://doi.org/10.1016/j.pec.2005.07.002>
- Ziebland, S. U. E., & Wyke, S. (2012). Health and illness in a connected world: how might sharing experiences on the internet affect people's health?. *The Milbank Quarterly*, *90*(2), 219-249.