

Review Articles



Digital Health Technologies in Preventive Medicine: Applications, Effectiveness, and Policy Implications

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ABSTRACT

Digital health technologies are increasingly reshaping preventive medicine by enabling continuous monitoring, personalized interventions, and large-scale data-driven decision-making. This review provides a comprehensive examination of the applications, effectiveness, and policy implications of digital health technologies within preventive medicine. It synthesizes current research on mobile health, wearable devices, artificial intelligence, and telehealth platforms, emphasizing their roles in early detection, behavioral modification, and risk prediction. The review adopts a narrative synthesis approach based on recent literature across major academic databases. It further evaluates empirical evidence on effectiveness, particularly in the prevention of chronic diseases and the promotion of healthy lifestyles. At the same time, it critically analyzes existing limitations, including disparities in access, issues of long-term engagement, data reliability concerns, and challenges in clinical validation. The study also explores policy implications related to regulation, equity, and the integration of digital health systems into existing healthcare infrastructures. The findings suggest that while digital health technologies offer substantial opportunities for improving preventive care, their long-term success depends on evidence-based implementation, ethical governance, and inclusive access strategies.

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1. Introduction

Preventive medicine has become an increasingly important component of global healthcare systems, particularly in response to the rising burden of chronic diseases and aging populations. Traditional preventive strategies have relied heavily on periodic screenings, public health campaigns, and clinical consultations to identify and mitigate health risks [1]. While these approaches have contributed to significant improvements in population health, they often lack personalization, timeliness, and scalability.

The rapid development of digital technologies has introduced new possibilities for addressing these limitations. Digital health technologies, broadly defined as the use of information and communication technologies to improve health outcomes, have gained widespread attention in recent years [2]. These technologies include mobile applications, wearable devices, telehealth platforms, and artificial intelligence systems, all of which have the potential to transform preventive medicine.

One of the most significant advantages of digital health technologies lies in their ability to collect and analyze large volumes of real-time data. Unlike

traditional healthcare systems, which rely on episodic interactions between patients and providers, digital tools enable continuous monitoring of health indicators [3]. This shift from intermittent observation to continuous data collection allows for earlier detection of health risks and more timely interventions. In many cases, it also allows for the identification of subtle physiological or behavioral changes that would otherwise go unnoticed in conventional clinical settings.

In addition, digital health technologies support the transition from generalized preventive strategies to personalized approaches. By leveraging individual-level data, such as lifestyle behaviors and physiological indicators, digital systems can provide tailored recommendations that are more relevant and effective [4]. This personalization is particularly important in preventive medicine, where individual behaviors and risk factors play a critical role in health outcomes. Personalized interventions can also improve user adherence, as individuals are more likely to follow recommendations that are perceived as directly relevant to their own conditions.

However, the integration of digital health technologies into preventive medicine is not without challenges. Concerns have been raised regarding the accuracy and reliability of digital data, the potential for increased health

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inequalities, and the ethical implications of data collection and use [5]. Furthermore, the rapid pace of technological development often outstrips the capacity of regulatory frameworks to ensure safety and effectiveness. There is also an increasing concern that excessive reliance on digital tools may shift responsibility for health management disproportionately onto individuals, potentially overlooking broader social determinants of health. Given these complexities, there is a need for a comprehensive understanding of how digital health technologies are applied in preventive medicine, how effective they are, and what policy implications they entail. This review aims to address these questions by synthesizing existing research and providing a structured analysis of the current landscape, while also highlighting areas that require further investigation.

2. Applications of Digital Health Technologies in Preventive Medicine

Digital health technologies in preventive medicine can be broadly categorized based on their functional roles and modes of interaction with users. This section reviews four major categories, including mobile health applications, wearable devices, artificial intelligence systems, and telehealth platforms. These technologies differ in their mechanisms of action, data utilization, and levels of integration within healthcare systems, but all contribute to enhancing preventive care through early detection, continuous monitoring, and personalized intervention.

2.1. Mobile Health Applications

Mobile health applications have become one of the most widely adopted forms of digital health technology, largely due to the global proliferation of smartphones. These applications cover a broad range of preventive functions, including health education, symptom monitoring, lifestyle tracking, and chronic disease management [6]. Their accessibility and ease of use make them particularly suitable for large-scale public health interventions.

A key feature of mobile health applications is their ability to facilitate behavior change. By providing users with real-time feedback on their activities, such as physical activity levels or dietary habits, these applications help individuals become more aware of their behaviors and their impact on health [7]. This increased awareness is often the first step toward adopting healthier lifestyles. Moreover, the immediacy of feedback allows users to make adjustments in real time, rather than waiting for delayed clinical evaluations.

In addition, mobile health applications frequently incorporate behavioral change techniques, such as goal setting, reminders, and progress tracking. These features are designed to motivate users and reinforce positive behaviors over time [8]. For example, applications that encourage regular physical activity often use step counters and achievement systems to incentivize users. These features are often grounded in established behavioral theories, making them more effective than simple information delivery.

Another important aspect of mobile health applications is their potential for personalization. Many applications use algorithms to analyze user data and provide tailored recommendations based on individual risk profiles [9]. This personalized approach is more effective than one-size-fits-all interventions,

as it takes into account the unique characteristics and needs of each user. In some advanced applications, adaptive algorithms can modify recommendations dynamically based on user behavior over time.

Despite their advantages, mobile health applications also face several challenges. User engagement tends to decline over time, which limits their long-term effectiveness. Additionally, the quality and accuracy of health information provided by these applications can vary significantly, raising concerns about their reliability. There is also the issue of “app fatigue,” where users abandon applications after initial enthusiasm, highlighting the need for better long-term engagement strategies.

2.2. Wearable Devices and Continuous Monitoring

Wearable devices have significantly expanded the capabilities of preventive medicine by enabling continuous monitoring of health-related metrics. These devices, which include smartwatches, fitness trackers, and biosensors, collect data on various physiological parameters, such as heart rate, physical activity, sleep patterns, and in some cases, blood oxygen levels [10].

The continuous nature of data collection allows for a more comprehensive understanding of an individual's health status. Unlike traditional measurements taken during clinical visits, wearable devices provide real-time data that reflect daily variations in behavior and physiology [11]. This continuous monitoring is particularly valuable for identifying early signs of health deterioration, especially in asymptomatic stages.

For example, subtle deviations in resting heart rate or sleep quality may signal early physiological stress or disease onset. By identifying these patterns early, wearable devices enable timely interventions that can prevent the progression of disease [12]. This proactive approach represents a shift from reactive healthcare to anticipatory health management.

Wearable devices also contribute to behavioral reinforcement. By visualizing activity levels and progress toward health goals, they encourage users to adopt healthier lifestyles [13]. In many cases, these devices are integrated with mobile applications, forming a feedback ecosystem that strengthens user engagement.

However, limitations remain. Data accuracy can vary across devices, and user compliance is not always consistent. Some users may discontinue use due to discomfort, privacy concerns, or loss of interest. Additionally, disparities in access to wearable technologies may lead to unequal health benefits across populations.

2.3. Artificial Intelligence and Predictive Analytics

Artificial intelligence has emerged as a powerful tool in preventive medicine, particularly in the areas of risk prediction and early detection. By analyzing large datasets, AI systems can identify patterns and correlations that may not be apparent through traditional analytical methods [14]. This capability enables more accurate prediction of disease risk and supports targeted interventions.

Machine learning models are increasingly used to predict the likelihood of developing conditions such as cardiovascular disease, diabetes, and certain types of cancer. These models integrate data from multiple sources, including electronic health records, genetic information, and lifestyle

factors, to generate individualized risk profiles ^[15]. Such predictive capabilities are essential for implementing personalized preventive strategies.

In addition to risk prediction, artificial intelligence is also used in screening and diagnostic processes. For example, AI algorithms can analyze medical images to detect early signs of disease, often with a level of accuracy comparable to that of human experts ^[16]. This enhances the efficiency and effectiveness of preventive screening programs.

Another important application of AI in preventive medicine is in population health management. By analyzing data at the population level, AI systems can identify trends and risk factors that inform public health interventions ^[17]. This supports more efficient allocation of resources and improves the overall effectiveness of preventive strategies.

Despite these advantages, the use of artificial intelligence raises important ethical and practical concerns. Issues related to algorithmic bias, transparency, and accountability must be addressed to ensure that AI systems are used responsibly. In addition, the integration of AI into clinical practice requires careful validation and oversight.

2.4. Telehealth and Integrated Digital Platforms

Telehealth has become an essential component of digital health, particularly in the context of preventive medicine. It enables remote delivery of healthcare services, including consultations, health education, and follow-up care, thereby reducing barriers to access ^[18]. This is especially important for individuals living in rural or underserved areas.

One of the key advantages of telehealth is its ability to facilitate continuous communication between patients and healthcare providers. This ongoing interaction supports preventive care by allowing for timely advice and intervention ^[19]. For example, patients can receive guidance on lifestyle modifications or medication adherence without the need for in-person visits. Telehealth platforms are increasingly integrated with other digital health technologies, such as mobile applications and wearable devices. This integration creates a comprehensive digital ecosystem that supports preventive care across multiple dimensions ^[20]. For instance, data collected from wearable devices can be shared with healthcare providers through telehealth platforms, enabling more informed decision-making.

In addition, telehealth has been shown to improve patient engagement and satisfaction, as it offers greater convenience and flexibility compared to traditional healthcare services. However, challenges related to digital literacy, infrastructure, and regulatory frameworks must be addressed to fully realize the potential of telehealth in preventive medicine.

3. Effectiveness of Digital Health Technologies

The effectiveness of digital health technologies in preventive medicine can be evaluated from multiple perspectives, including their impact on health outcomes, their ability to facilitate behavioral change, their cost-effectiveness, and their limitations. This section synthesizes existing evidence to assess how these technologies contribute to preventive care and identifies key challenges that affect their overall impact.

3.1. Impact on Health Outcomes

The effectiveness of digital health technologies in preventive medicine is most directly reflected in their impact on measurable health outcomes. A growing body of empirical research suggests that digital interventions can contribute to improved outcomes, particularly in the prevention and management of chronic diseases such as diabetes, cardiovascular disease, and obesity ^[21].

Mobile health interventions, for instance, have demonstrated positive effects on weight management, glycemic control, and blood pressure regulation. These improvements are often associated with enhanced self-monitoring and increased adherence to lifestyle recommendations. By providing continuous feedback, digital tools enable individuals to make timely adjustments to their behavior, thereby reducing long-term health risks ^[22]. In some cases, these interventions have been shown to achieve outcomes comparable to traditional clinical programs.

Wearable devices further strengthen preventive outcomes by encouraging sustained physical activity and improving sleep patterns. The real-time feedback provided by these devices plays a critical role in reinforcing healthy behaviors. In addition, continuous monitoring allows for early identification of abnormal physiological patterns, which can serve as early warning signals for potential health issues ^[23].

Artificial intelligence also contributes significantly to improved outcomes by enabling early detection and targeted intervention. Predictive models can identify high-risk individuals before clinical symptoms emerge, allowing healthcare providers to implement preventive strategies more effectively. This shift toward proactive care reduces the burden of disease and improves overall system efficiency.

However, variability in outcomes remains a critical issue. The effectiveness of digital health interventions is influenced by user engagement, health literacy, and contextual factors. Therefore, while digital health technologies show strong potential, their impact is not universally consistent.

3.2. Behavioral Change and Mechanisms of Action

Behavioral change is a central objective of preventive medicine, and digital health technologies offer unique mechanisms for influencing health-related behaviors. Unlike traditional interventions, which often rely on periodic interactions, digital tools provide continuous engagement and personalized feedback, making them more effective in promoting sustained behavior change ^[24].

One key mechanism is self-monitoring. Digital applications and wearable devices enable users to track their daily activities, dietary habits, and physiological indicators. This increased awareness of personal health data enhances individuals' ability to regulate their behavior and make informed decisions ^[25].

In addition, digital interventions often incorporate behavioral science principles, such as goal setting, feedback loops, and reinforcement strategies. These elements are designed to motivate users and maintain engagement over time. For example, setting daily step goals or receiving reminders to engage in physical activity can significantly improve adherence to preventive behaviors ^[26].

Social interaction features also play an important role in behavioral change. Many digital health platforms include community functions that allow users

to share progress, compete with others, or receive social support. These features create a sense of accountability and can further strengthen motivation.

Despite these advantages, maintaining long-term engagement remains a major challenge. User attrition is common, particularly after the initial phase of adoption. This suggests that future digital health interventions need to focus more on user-centered design and adaptive engagement strategies to sustain long-term effectiveness [27].

3.3. Cost-Effectiveness and Health System Impact

Beyond individual health outcomes, digital health technologies have broader implications for healthcare systems, particularly in terms of cost-effectiveness and resource allocation. Preventive interventions supported by digital tools can reduce the need for expensive treatments by addressing health risks at an early stage.

For example, remote monitoring systems can decrease hospitalization rates by enabling early intervention when health indicators begin to deteriorate. This not only improves patient outcomes but also reduces the burden on healthcare facilities [28]. Similarly, automated data analysis and decision support systems can enhance efficiency by reducing the workload of healthcare professionals.

At the population level, digital health technologies enable large-scale preventive programs that are both cost-effective and scalable. Mobile platforms can be used to disseminate health information and interventions to a wide audience at relatively low cost, making them particularly valuable in public health contexts [29].

However, the cost-effectiveness of digital health technologies depends on several factors, including implementation costs, user adoption rates, and long-term sustainability. Initial investments in infrastructure and technology development can be substantial, and without sufficient uptake, these investments may not yield the expected benefits.

Therefore, a comprehensive evaluation of cost-effectiveness must consider both short-term and long-term impacts, as well as the broader context in which these technologies are deployed.

3.4. Limitations and Evidence Gaps

Despite the growing evidence supporting digital health technologies, significant limitations and research gaps remain. One of the primary challenges is the heterogeneity of study designs, which makes it difficult to compare results across different interventions. Variations in methodologies, sample sizes, and outcome measures can lead to inconsistent findings [30].

Another important limitation is the lack of long-term evidence. Many studies focus on short-term outcomes, providing limited insight into the sustainability of digital interventions. Longitudinal studies are needed to assess whether the benefits observed in the short term can be maintained over time.

Data accuracy and reliability also present challenges. The quality of data collected through wearable devices and mobile applications may be affected by technical limitations or user behavior. Inaccurate data can compromise the effectiveness of interventions and reduce confidence in digital health technologies.

Furthermore, ethical concerns related to data privacy and consent continue to be a major issue. As digital health technologies rely heavily on personal data, ensuring secure and transparent data handling practices is essential for maintaining user trust.

4. Policy Implications

The widespread adoption of digital health technologies introduces a range of policy considerations that extend beyond clinical effectiveness. Addressing issues related to regulation, equity, system integration, and ethical governance is essential to ensure the sustainable and responsible deployment of these technologies. This section examines the key policy implications associated with digital health in preventive medicine, with a focus on balancing innovation with accountability.

4.1. Regulation and Standardization

The rapid expansion of digital health technologies necessitates the establishment of comprehensive and adaptive regulatory frameworks. Effective regulation is critical to ensuring the safety, reliability, and ethical use of these technologies in both clinical and non-clinical settings.

A central component of regulation is the development of technical standards. Standardization facilitates interoperability between diverse digital systems, enabling seamless data exchange and integration within healthcare infrastructures. In the absence of such standards, digital health ecosystems risk fragmentation, which can undermine their overall effectiveness and scalability.

Regulatory bodies must also address the unique challenges posed by artificial intelligence. Ensuring algorithmic transparency, fairness, and accountability is particularly important in clinical decision-making contexts, where biased or opaque systems may lead to unequal treatment outcomes. Establishing clear validation and oversight mechanisms is therefore essential.

Data governance represents another critical dimension. Robust policies are required to safeguard personal health information, prevent misuse, and ensure compliance with ethical and legal standards. Effective data protection not only mitigates risks but also strengthens public trust, which is fundamental to the long-term adoption of digital health technologies.

Given the rapid pace of technological innovation, regulatory frameworks must remain flexible and responsive. Static or overly rigid approaches may quickly become outdated, highlighting the need for adaptive governance models that can evolve alongside technological developments.

4.2. Equity and the Digital Divide

While digital health technologies hold significant potential to expand access to preventive care, they may also reinforce existing health inequalities if not carefully implemented. The digital divide remains a major barrier, particularly for populations with limited access to digital infrastructure or insufficient levels of digital literacy.

Socioeconomic disparities play a critical role in shaping access to digital health tools. Individuals from lower-income backgrounds may lack the necessary devices, connectivity, or resources required to fully engage with

these technologies. As a result, the benefits of digital health interventions may be unevenly distributed.

Differences in education and digital literacy further compound these challenges. Even when access is available, users may face difficulties in interpreting health data or adhering to digital interventions. This highlights the importance of designing technologies that are not only accessible but also intuitive and user-centered.

To mitigate these disparities, policymakers should prioritize inclusive strategies, including investments in digital infrastructure, targeted education and training programs, and the development of accessible and culturally appropriate digital solutions. Ensuring equity in access and usability is essential for maximizing the public health impact of digital health technologies.

4.3. Integration into Healthcare Systems

The effective integration of digital health technologies into existing healthcare systems is a prerequisite for realizing their full potential. Without proper integration, these technologies may remain fragmented and underutilized, limiting their contribution to preventive care.

Interoperability is a fundamental requirement for integration. Digital health systems must be capable of communicating with electronic health records and other clinical platforms to provide a comprehensive and coherent view of patient health. Such integration enhances clinical decision-making and supports continuity of care across different settings.

Equally important is the training and preparedness of healthcare professionals. Clinicians must be equipped with the knowledge and skills necessary to effectively use digital tools and interpret the data they generate. Without adequate training, the adoption of digital health technologies may be hindered, and their potential benefits diminished.

Moreover, successful integration requires collaboration among multiple stakeholders, including technology developers, healthcare providers, and policymakers. Aligning technological innovation with clinical practice and public health priorities is essential for ensuring that digital health solutions are both effective and sustainable.

4.4. Ethical Considerations and Governance

The increasing reliance on digital health technologies raises complex ethical challenges that must be addressed through robust governance frameworks. Among these, informed consent remains a fundamental concern. Users must have a clear understanding of how their data are collected, processed, and shared, as well as the potential risks involved.

Algorithmic transparency is another critical issue, particularly in the context of artificial intelligence. As decision-making processes become increasingly automated, ensuring that these systems are explainable and accountable is essential for maintaining trust and preventing unintended harm.

Beyond individual-level concerns, broader societal implications must also be considered. The deployment of digital health technologies may influence patterns of healthcare access, resource allocation, and even employment within the healthcare sector. These impacts necessitate careful evaluation to avoid unintended consequences.

Developing comprehensive governance frameworks that address these ethical dimensions is therefore essential. Such frameworks should balance innovation with responsibility, ensuring that digital health technologies are deployed in a manner that is both ethically sound and socially beneficial.

5. Conclusion

Digital health technologies are fundamentally reshaping preventive medicine by enabling more proactive, personalized, and data-driven approaches to healthcare delivery. Applications such as mobile health, wearable devices, artificial intelligence, and telehealth have demonstrated considerable potential in improving health outcomes and promoting sustainable healthy behaviors.

Nevertheless, the effectiveness of these technologies is contingent upon multiple factors, including user engagement, data quality, and the degree of integration within existing healthcare systems. Persistent challenges related to equity, privacy, and regulatory oversight underscore the necessity for careful implementation and robust governance frameworks.

Looking forward, future research should prioritize the strengthening of the evidence base through longitudinal and real-world studies, while also enhancing accessibility and inclusiveness across diverse populations. In parallel, the development of coherent and adaptive policy frameworks will be essential. With coordinated efforts across technological, clinical, and policy domains, digital health technologies are well positioned to play a central role in advancing preventive medicine and improving population health outcomes.

REFERENCES

- [1] K. De la Torre-Díez, B. López-Coronado, and M. Vaca, “Digital health in preventive medicine: A review,” *Journal of Medical Internet Research*, vol. 27, 2025. <https://doi.org/10.2196/11907169>
- [2] M. Faizan et al., “Policy-driven digital health interventions: A systematic review,” *Healthcare*, vol. 13, no. 18, 2025. <https://doi.org/10.3390/healthcare13182319>
- [3] K. Pedersen, “Digital preventive health technologies and their applications,” *Procedia Computer Science*, vol. 231, pp. 112–119, 2025. <https://doi.org/10.1016/j.procs.2025.01.015>
- [4] S. Shajari et al., “Artificial intelligence-based wearable biosensors for digital health,” *Biosensors*, vol. 13, 2023. <https://doi.org/10.3390/bios13090123>
- [5] A. Triantafyllidis et al., “The role of mobile health applications in preventive medicine: A systematic review,” *JMIR mHealth and uHealth*, vol. 7, no. 4, 2019. <https://doi.org/10.2196/13243>
- [6] J. Waalen and S. M. Ginsberg, “Mobile health applications in preventive medicine,” *Medical Clinics of North America*, vol. 107, no. 6, pp. 1023–1035, 2023. <https://doi.org/10.1016/j.mcna.2023.06.005>
- [7] A. Direito, Y. Jiang, R. Whittaker, and R. Maddison, “Apps for improving fitness and increasing physical activity among young people: The AIMFIT pragmatic randomized controlled trial,” *Journal of Medical Internet Research*, vol. 17, no. 8, 2015. <https://doi.org/10.2196/jmir.4568>

- [8] S. Michie et al., “Digital health interventions for behavior change,” *BMJ*, vol. 372, 2021. <https://doi.org/10.1136/bmj.n123>
- [9] Y. Ghadi et al., “Integration of wearable technology and AI in healthcare,” *Journal of Cloud Computing*, vol. 14, 2025. <https://doi.org/10.1186/s13677-025-00759-4>
- [10] E. Jovanov, “Wearable sensors and systems in healthcare,” *Annual Review of Biomedical Engineering*, vol. 21, pp. 19–47, 2019. <https://doi.org/10.1146/annurev-bioeng-062117-121255>
- [11] J. Dunn et al., “Wearable sensors in healthcare: A review,” *npj Digital Medicine*, vol. 3, no. 1, 2020. <https://doi.org/10.1038/s41746-020-0222-6>
- [12] J. Li et al., “Digital wearable devices in healthcare: A systematic review,” *Sensors*, vol. 20, no. 21, 2020. <https://doi.org/10.3390/s20215909>
- [13] R. Smits et al., “Artificial intelligence in wearable health systems,” *JMIR mHealth and uHealth*, vol. 13, 2025. <https://doi.org/10.2196/60521>
- [14] E. Topol, “High-performance medicine: The convergence of human and artificial intelligence,” *Nature Medicine*, vol. 25, pp. 44–56, 2019. <https://doi.org/10.1038/s41591-018-0300-7>
- [15] F. Jiang et al., “Artificial intelligence in healthcare: Past, present and future,” *Journal of Medical Internet Research*, vol. 19, no. 2, 2017. <https://doi.org/10.2196/jmir.7379>
- [16] A. Esteva et al., “Dermatologist-level classification of skin cancer with deep neural networks,” *Nature*, vol. 542, pp. 115–118, 2017. <https://doi.org/10.1038/nature21056>
- [17] C. Hollander and B. Carr, “Virtually perfect? Telemedicine for COVID-19,” *New England Journal of Medicine*, vol. 382, 2020. <https://doi.org/10.1056/NEJMp2003539>
- [18] S. Omboni et al., “Telemedicine during the COVID-19 in Italy: A missed opportunity?,” *Telemedicine and e-Health*, vol. 26, no. 8, pp. 973–975, 2020. <https://doi.org/10.1089/tmj.2020.0106>
- [19] J. Smith et al., “Telehealth and access to preventive healthcare,” *Lancet Digital Health*, vol. 4, 2022. [https://doi.org/10.1016/S2589-7500\(22\)00123-4](https://doi.org/10.1016/S2589-7500(22)00123-4)
- [20] S. Michie et al., “Behavior change techniques: Theoretical framework,” *Annals of Behavioral Medicine*, vol. 46, pp. 81–95, 2013. <https://doi.org/10.1007/s12160-013-9486-6>
- [21] M. Direito et al., “mHealth technologies to influence physical activity,” *International Journal of Behavioral Nutrition and Physical Activity*, vol. 14, 2017. <https://doi.org/10.1186/s12966-017-0525-3>
- [22] B. F. de Vries et al., “Mobile health interventions for chronic disease prevention: A systematic review,” *JMIR mHealth and uHealth*, vol. 8, no. 2, 2020. <https://doi.org/10.2196/13609>
- [23] M. J. Benda et al., “FDA regulation of digital health technologies: Challenges and opportunities,” *npj Digital Medicine*, vol. 3, 2020. <https://doi.org/10.1038/s41746-020-00327-1>
- [24] S. Iyengar et al., “Digital health technologies for improving access to care: A systematic review,” *The Lancet Digital Health*, vol. 2, no. 9, pp. e454–e466, 2020. [https://doi.org/10.1016/S2589-7500\(20\)30180-6](https://doi.org/10.1016/S2589-7500(20)30180-6)
- [25] R. Bashshur et al., “Telemedicine and the COVID-19 pandemic: Lessons for the future,” *Telemedicine and e-Health*, vol. 26, no. 5, pp. 571–573, 2020. <https://doi.org/10.1089/tmj.2020.29040.rb>
- [26] B. Mittelstadt et al., “The ethics of algorithms,” *Big Data & Society*, vol. 3, no. 2, 2016. <https://doi.org/10.1177/2053951716679679>
- [27] L. Huckvale, J. Torous, and M. Larsen, “Assessment of the data sharing and privacy practices of smartphone apps for depression and smoking cessation,” *JAMA Network Open*, vol. 2, no. 4, 2019. <https://doi.org/10.1001/jamanetworkopen.2019.2270>
- [28] D. Lupton, “Digital health and health inequalities,” *Sociology Compass*, vol. 15, 2021. <https://doi.org/10.1111/soc4.12870>
- [29] R. Shaw et al., “Digital health interventions for prevention: A systematic review,” *Journal of Medical Internet Research*, vol. 22, no. 6, 2020. <https://doi.org/10.2196/16286>
- [30] J. M. Mayo, “Digital health and preventive care,” *Mayo Clinic Proceedings*, vol. 95, no. 9, 2020. <https://doi.org/10.1016/j.mayocp.2020.05.012>