

Research Article

Teaching and Learning Innovation in Management of Technology and Innovation: HealthView X1 Pro

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Abstract: HealthView X1 Pro is an AI-powered smartwatch developed to address modern health challenges such as obesity, diabetes, and physical inactivity. It integrates health monitoring, real-time food recognition, nutritional analysis, BMI tracking, sleep assessment, and personalized lifestyle coaching into a single wearable device. Using artificial intelligence and machine learning, the smartwatch provides continuous feedback, tailored exercise and diet recommendations, and wellness reminders to encourage healthier habits. In addition, it offers communication and entertainment features similar to smartphones, improving convenience and efficiency. With growing demand for smart healthcare solutions, HealthView X1 Pro demonstrates strong commercialization potential in the wearable health technology market.



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1. INTRODUCTION

Modern lifestyles are increasingly marked by extended sedentary behavior, irregular physical activity, poor food habits, and insufficient time for formal health management. As a result, people frequently use numerous mobile apps to track various elements of their health, including calorie consumption, exercise routines, weight management, and medical indicators. This reliance on several platforms results in fragmented data, unreliable tracking, and lower user engagement. Furthermore, manual data entry, particularly for food consumption and nutritional information, can be time-consuming and prone to errors, discouraging long-term adherence and reducing motivation.

The HealthView X1 Pro is specifically developed to address these restrictions by providing an integrated, AI-powered smartwatch that enables comprehensive lifestyle management inside a single

ecosystem. Unlike other smartwatches, which primarily focus on activity and basic health indicators, the HealthView X1 Pro effortlessly integrates health monitoring, nutrition tracking, intelligent lifestyle coaching, communication, and entertainment features. By combining these capabilities into a single device, the wristwatch reduces the need for different applications, resulting in a more unified and user-friendly health management experience.

The device uses advanced artificial intelligence and real-time data analytics to provide personalized insights and suggestions based on each user's activity, preferences, and health goals. HealthView X1 Pro can uncover patterns and trends affecting overall well-being by continuously monitoring physiological markers and everyday activities. Its AI-powered technology converts raw data into actionable advice, such as individualized nutritional ideas, adaptive exercise recommendations, and frequent reminders to encourage physical activity and healthy eating habits.

HealthView X1 Pro promotes educated decision-making and long-term lifestyle improvements by simplifying daily health monitoring and offering real-time, personalized feedback. This comprehensive strategy not only increases user engagement and motivation, but it also addresses the growing demand for preventative healthcare solutions and smart health technologies. As such, HealthView X1 Pro is a forward-thinking innovation that tackles the drawbacks of current wearable devices while empowering users to take proactive control of their health and wellness.

2. LITERATURE REVIEW

Wearable technology has dramatically changed how people monitor, manage, and enhance their health and well-being (Deloitte, 2023; Statista, 2024). Smartwatches have recently become popular instruments for monitoring physical activity, heart rate, sleep patterns, and basic fitness markers. These gadgets raise users' awareness of their daily habits and physiological states, resulting in increased health consciousness and preventive care practices. Despite these advances, the rapid evolution of modern lives has created new health-related concerns that existing wearable gadgets are not entirely suited to solve.

Despite the widespread availability of smartwatches and mobile health applications, a substantial proportion of people still struggle to maintain a healthy lifestyle due to fragmented health information and a lack of individualized, real-time coaching (WHO, 2022; Lee & Kim, 2021). While existing digital health tools have raised awareness of physical activity and basic physiological markers, they sometimes fail to provide comprehensive assistance with daily lifestyle management. Users frequently encounter obstacles such as low dietary knowledge, difficulty accurately tracking calorie consumption, irregular exercise routines, and a lack of specialized health suggestions that match their own needs, preferences, and health concerns.

One of the biggest drawbacks of modern smartwatches is their narrow functional emphasis. Most gadgets prioritize step counting, heart rate tracking, and general fitness measures, providing just surface-level information about users' overall health. Advanced capabilities like real-time food recognition, automated portion size estimation, extensive nutrient analysis, and adaptive diet planning are either missing or require third-party software. As a result, users must manually register meals or rely on separate nutrition applications, which is time-consuming, error-prone, and discouraging for long-term use.

In addition to functional limitations, the lack of system integration has a substantial impact on user efficiency and engagement. Individuals frequently have to switch between many applications to manage diet tracking, fitness monitoring, health data analysis, and daily communication. This

fragmented approach causes cognitive stress, degrades the user experience, and results in uneven data synchronization across platforms. Over time, this difficulty leads to decreasing motivation, lower adherence to healthy routines, and complete abandonment of health-tracking technologies.

The absence of a comprehensive and intelligent health management solution has far-reaching public health consequences. Individuals who do not receive continuous monitoring, actionable feedback, or individualized instruction are more likely to acquire lifestyle-related disorders such as obesity, type 2 diabetes, cardiovascular disease, and high cholesterol. These chronic illnesses not only decrease quality of life, but they also place a significant load on the world's healthcare systems.

As a result, there is an increasing demand for a wearable device that is comprehensive, intelligent, and user-friendly, capable of combining health monitoring, nutrition analysis, personalized lifestyle suggestions, and everyday communication on a single platform. Such a solution would enable users to make real-time health decisions, promote long-term habit change, and support a comprehensive approach to health and lifestyle management. Addressing these shortcomings is critical for moving wearable technology beyond basic tracking and into truly preventive and personalized digital healthcare.

3. METHODOLOGY

The HealthView X1 Pro is a next-generation AI-powered smartwatch that serves as a comprehensive personal health assistant, keeping up with current advances in artificial intelligence-driven healthcare solutions (Topol, 2019). The gadget is designed to enable proactive and preventive health management by combining advanced sensing technologies, cognitive data analytics, and seamless connectivity into a single wearable platform.

HealthView X1 Pro is a sleek, ultra-slim, and lightweight design that ensures comfort for extended everyday usage. The smartwatch features a high-resolution AMOLED display that provides vibrant colors, clear images, and outstanding reading in a variety of lighting conditions, including direct sunlight. Its ergonomic design, adjustable watch faces, and long-lasting materials make it ideal for both professional and casual settings.

HealthView X1 Pro offers a variety of health monitoring sensors, including heart rate, blood oxygen (SpO₂), sleep tracking, activity monitoring, and body movement analysis. One of its standout features is its AI-powered food recognition system, which uses an integrated camera and machine learning algorithms to detect food items, estimate portion sizes, and deliver real-time nutritional analysis. This capability considerably minimizes the need for human data entry while increasing dietary tracking accuracy.

The smartwatch also includes microweight detection technology, which allows for seamless integration with suitable smart scales or sensors to track body weight and calculate health indicators like Body Mass Index (BMI). The embedded AI algorithms produce personalized health, nutrition, and activity recommendations based on specific user objectives, behaviors, and health problems by collecting and evaluating these data points on an ongoing basis. These recommendations are dynamically changed in response to real-time data, encouraging long-term habit change and wellbeing.

Beyond health and fitness features, the HealthView X1 Pro provides complete smartphone functionality with built-in eSIM compatibility. Users can make and receive calls, text messages, surf the internet, and use GPS navigation directly from the smartwatch, minimizing their reliance on smartphones for daily tasks. This function improves mobility and convenience, especially for people who lead active or on-the-go lifestyles.

To increase user engagement, the gadget has a number of entertainment functions like music and movie streaming, social media access, and app notifications. These features contribute to a more engaging and interactive user experience, establishing HealthView X1 Pro as more than just a health-focused device but also a versatile lifestyle companion.

Overall, HealthView X1 Pro is intended for ongoing, everyday usage by people who value ease, efficiency, and intelligent health management. HealthView X1 Pro is a significant advancement in smartwatch technology that combines advanced health monitoring, AI-driven nutritional insights, personalized recommendations, communication tools, and entertainment features in a single wearable device.

4. FINDINGS

HealthView X1 Pro incorporates multiple advanced functionalities supported by recent developments in AI, sensor technology, and wearable systems (Guk et al., 2019; Patel et al., 2020). The HealthView X1 Pro is a complete lifestyle smartwatch that smoothly incorporates entertainment into daily living rather than just being a wearable with a health focus. The smartwatch's high-resolution AMOLED display, which offers vibrant colors and clear images allows users to surf websites like YouTube, TikTok, and movie streaming straight from their wrist without sacrificing viewing quality. Both extended videos playing and short-form digital content are supported by the advanced display technology, which guarantees constant clarity and visual comfort. The HealthView X1 Pro has built-in speakers that provide clear audio to improve the multimedia experience. Bluetooth connectivity enables easy pairing with external speakers or wireless earphones for a variety of listening options. The HealthView X1 Pro offers itself as a multifunctional smartwatch that improves convenience, engagement, and overall digital lifestyle by integrating high-quality displays, dependable audio performance, and contemporary connection features.

The HealthView X1 Pro Weight Detection System incorporates micro weight sensors right into the smartwatch strap, allowing for accurate and continuous weight monitoring without the use of external equipment. This integrated technology automatically detects weight changes throughout the day, notably before and after meals, and provides users with immediate feedback on how their food intake impacts their bodies. The device gives users useful information about their eating habits and energy balance by tracking changes in weight in real time. It assists in spotting patterns like inconsistent serving sizes, over eating, or shifts in eating patterns according to time and activity levels. This ongoing feedback encourages more conscious eating and raises user knowledge of daily nutritional behavior. The Weight Detection System's real-time data promotes better and more consistent eating habits by increasing users' awareness of their dietary choices. Immediate feedback on weight changes helps to reinforce positive behavior, improve portion control, and promote long-term weight management through informed lifestyle choices.

The HealthView X1 Pro's BMI Monitoring & Alerts function uses automatic daily Body Mass Index (BMI) computations to deliver ongoing and simple health awareness. The smartwatch provides a new BMI reading every day without the need for human input by utilizing the user's most recent height and weight data. This makes it simple for users to monitor changes in their body composition over time and have a better knowledge of their general state of health. Users may maintain accountability, spot early weight trends, and make well-informed lifestyle choices before little changes turn into major health problems with regular daily updates. In addition, the HealthView X1 Pro promptly notifies the user of any health issues when their BMI exceeds the healthy range. These alerts are accompanied by useful and doable health recommendations, such as modifying daily calorie consumption, boosting physical exercise, enhancing nutritional balance, or better handling stress. Over

time, this continuous monitoring and early warning system helps minimize the long-term risks related with obesity, diabetes, high cholesterol, and other diseases allowing users to live a healthier and more balanced life.

The HealthView X1 Pro's Daily Menu Suggestions feature is intended to help customers maintain balanced and sustainable nutrition by providing intelligent, AI-driven recommendations. By analyzing individual health goals, daily calorie requirements, BMI trends, and activity habits, the system delivers personalized meal ideas tailored to each user's lifestyle. Whether the objective is weight loss, muscle gain, or overall wellness maintenance, the recommendations are carefully aligned to ensure nutritional needs are met without being overly restrictive. This personalized approach allows users to enjoy practical and realistic meal options that fit into their daily routines while supporting long-term health outcomes. Furthermore, the AI continuously modifies its suggestions in response to real-time data gathered from the user's dietary intake and habits. For example, the system will recommend meals that are high in the necessary nutrients to fill in any gaps if it finds poor protein consumption, vitamin inadequacies, or imbalanced nutrients. This guidance enhances dietary consistency, encourages greater nutritional balance, and gives people the power to make educated food choices. The HealthView X1 Pro helps consumers maintain their commitment to their wellness objectives and adopt healthier eating habits.

The AI-driven system provides highly customized fitness suggestions based on each user's particular daily routine and health profile. The program guarantees that users participate in exercises that meet their fitness level and lifestyle by providing a well-balanced combination of HIIT, walking, stretching, and strength training. Walking and stretching exercises promote active recuperation and mobility, while high-intensity workouts are recommended for enhancing cardiovascular endurance and fat loss. A comprehensive and long-lasting fitness strategy is created by including strength training to increase muscle mass, boost metabolism, and boost general physical resilience. These suggestions are intelligently developed based on crucial parameters such as BMI, calorie intake, sedentary time, and individual fitness requirements. The AI analyses this data and adjusts training intensity, duration, and frequency to guarantee that exercises are safe, realistic, and effective. Users who spend a lot of time sitting may receive modest exercise or stretching reminders, whilst those who consume more calories may be directed to more active routines. This data-driven customisation reduces overexertion, promotes consistency, and prioritizes long-term health improvement over short-term results.

Moreover, the HealthView X1 Pro acts as a small smartphone made for contemporary, mobile lives. With integrated 4G/5G eSIM technology, users can stay connected, send and receive messages, and make and receive calls without carrying a smartphone. With the device's support for famous messaging services like Telegram and WhatsApp, users can easily reply and get notifications instantaneously. It is perfect for daily commuting, travel, and exercise because it has built-in GPS navigation that allows users to get directions in real time. Beyond communication, the HealthView X1 Pro improves digital independence with powerful connectivity options. Users can browse the internet, access critical online services, and use hotspot mode to share their connection with other devices as needed. This smartwatch is intended for people who appreciate freedom, mobility, and efficiency, providing continuous connectivity at all times and from any location. By eliminating the need for a phone, the HealthView X1 Pro enables users to stay productive, informed, and connected.

4.1 Product Innovation



Figure 1. Front view of HealthView X1 Pro smartwatch.



Figure 2. Food Recognition AI screen display.



Figure 3. BMI Alert screen display.



Figure 4. Weight Detection System Display.

5. DISCUSSION

5.1. *Novelty and Uniqueness of Product Innovation*

HealthView X1 Pro differs from previous smartwatches in that it takes a comprehensive approach to health and lifestyle management, solving gaps in current wearable health technology (Seneviratne et al., 2017). AI-powered food recognition, real-time nutrient analysis, and weight detection technology are unique in the wearable industry. Unlike traditional activity trackers, the HealthView X1 Pro offers full nutrition monitoring as well as individualized health coaching.

The HealthView X1 Pro demonstrates by delivering a fully integrated, AI-powered health and lifestyle management ecosystem within a single smartwatch. Unlike traditional smartwatches, which primarily focus on step counting, heart rate monitoring, and basic fitness metrics, the HealthView X1 Pro combines health monitoring, nutrition analysis, weight detection, BMI tracking, and intelligent lifestyle coaching in a single device. The integration of AI-powered food recognition and real-time nutritional analysis sets it apart from other wearables, as most competitors rely on manual meal tracking or third-party apps. This integration decreases data fragmentation while increasing user comfort, making health management more easy, accurate, and engaging.

Another feature of HealthView X1 Pro is its ability to convert raw health data into useful, tailored insights. The smartwatch uses artificial intelligence to continuously assess user behavior, dietary intake, and activity patterns, rather than only collecting physiological data. Based on this research, the system generates real-time alerts, adaptive health advice, and individualized daily dietary ideas. This feedback encourages long-term habit modification over short-term tracking, establishing HealthView X1 Pro as a proactive health tool rather than a passive monitoring gadget. The automated BMI alerts and timely health suggestions improve early intervention and preventive care.

5.2. *Benefits to Mankind*

HealthView X1 Pro provides major benefits to individuals and society by promoting preventative healthcare and continuous self-monitoring, both of which have been proved to improve long-term health outcomes (WHO, 2022; Patel et al., 2020). The device reduces the risk of lifestyle diseases by encouraging improved eating habits, frequent physical activity, and continuous health monitoring. Users become more aware of their dietary consumption and physical state, allowing for proactive health management. The HealthView X1 Pro provides major benefits that go beyond individual users and affect society as a whole. The smartwatch promotes healthy lifestyle choices by integrating advanced health monitoring and personalized wellness features, potentially lowering long-term health concerns such as obesity, cardiovascular disease, and diabetes. Users obtain insight into their daily routines by constantly monitoring variables like BMI, calorie intake, and physical activity. Over time, this proactive strategy promotes preventative healthcare by lowering the need for costly medical treatments and encouraging a culture of self-care and wellness. In this approach, HealthView X1 Pro does more than just track health; it actively helps people to improve their well-being and live a sustainable, healthy lifestyle.

Furthermore, HealthView X1 Pro promotes community development and long-term engagement by offering referral programs and incentives to encourage customers to share the device with friends and family. The smartwatch helps to build a proactive community focused on well-being by connecting people who are concerned about their health. Individual health monitoring, public awareness initiatives, and social involvement work together to make the population healthier as a whole. This, in turn, may lessen the overall healthcare load, put less demand on medical systems, and encourage a better, more educated attitude to modern living. In summary, HealthView X1 Pro acts as a link between personal health, social responsibility, and technology progress, benefiting humanity on many levels.

5.3. Potential of Commercialization

To further add to the commercialization potential of Healthview X1 Pro, a more detailed strategy ought to be taken on that of localized promotion, the development of the digital ecosystem, strategic partnerships and data-driven solution services. Due to the increase in health consciousness and the need to increase use of AI-enabled smart devices (Statista, 2024; Deloitte, 2023), the market of wearable technologies is developing at a high pace across the world. In this positive climate, the Healthview X1 Pro has a high market preparedness and business feasibility among college students, working classes, fitness lovers, elder citizens as well as techno persons. The multitasking capabilities of the device, with health monitoring, nutrition intelligence and tailored lifestyle coaching built in, are seen to address current gaps in the existing smartwatch market which generally lacks any built-in wellness and dietary guidance. Therefore, Healthview X1 Pro is competitive because it is an AI-driven holistic wellness platform, as opposed to a health tracker.

Local promotional activities in Malaysia should focus on the mission of the product to create awareness of health promotion and proactive lifestyle to the population, especially among the B40 income group, youth, and the elderly. The campaigns can involve testimonial based narratives, including university students who are using Healthview X1 Pro to deal with stress and sleep during exams or the elderly who are using the product to monitor their diet and activity levels to enhance mobility and independence. These efforts may be supported by partnership with health organizations and non-governmental organizations and wellness promotion organizations like the Malaysian Healthy Lifestyle Society organization or the local fitness organizations to make sure that the product launch is not only socially aware but also contextual.

Messaging used worldwide should make Healthview X1 Pro a luxurious AI-driven health companion that helps maintain physical activity, mental stability and nutrition in busy schedules. There is high commercialization potential in target markets like the United States, Japan, South Korea and the United Kingdom where preventive health and digital fitness ecosystems are well-developed. The messages about Healthview X1 Pro could emphasize the features of this product in improving productivity at work, alleviating stress among remote employees and ensuring safe and data-driven wellness among urban residents and frequent passengers.

To distribute, it is necessary to partner with large e-commerce channels like Shopee, Lazada and Amazon to expand regionally and internationally. At the same time, physical presence in terms of partnering with healthcare and wellness retailers like Watsons and Guardian Malaysia would also be credible and accessible. Health practitioners, nutritionists and fitness influencers should be endorsed with evidence-based testimonials and help to demystify the technology, which will help build consumer confidence. Sharing of content through online platforms such as YouTube, TikTok and Instagram will also have the potential to attract younger, more technological segments of the population with lifestyle-oriented content.

6. CONCLUSION

The HealthView X1 Pro offers a significant advancement in wearable technology by providing a comprehensive, AI-powered solution for health, nutrition, and lifestyle management. By solving the constraints of current smartwatches, the product enables users to make informed health decisions based on real-time data and personalized suggestions. With a large market potential and societal benefits, the HealthView X1 Pro has the potential to change the future of smart wearables. Furthermore, the device has a strong commercial viability due to the increasing global demand for smart health solutions and preventive healthcare technology. Its versatile design, which integrates health intelligence with

communication, navigation, and entertainment capabilities, offers a competitive advantage in the smartwatch market.

Overall, HealthView X1 Pro is an invention that is currently at the conceptual and prototype development stages. Overall, HealthView X1 Pro is a promising breakthrough that is now in the conceptual and prototype development stages. It has the potential to revolutionize the future of digital health and lifestyle management. With additional system refinement, user testing, and adequate intellectual property protection, the product can be fully commercialized. HealthView X1 Pro promotes preventative healthcare, continuous self-monitoring, and individualized lifestyle recommendations, which not only helps individual users but also contributes to the broader societal goals of enhanced public health and lower healthcare burden.

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