

## Interpersonal Communication using Personal Sport Device in Forming Community

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### ABSTRACT

Technologies matched the effectiveness of various health activity strategies, such as exercise monitoring, information, and social support. The purpose is to find out that technology has become part of delivering sports information that is used by the applications and devices, creating communication between individuals and devices they used to plan and record sports and exercise routines, physical performance, and record all the activity. Effective communication can occur if the sender and the recipient have good skills in exchanging messages. This study may provide an overview of verbal and nonverbal that may occur during communication in sports activities. This manuscript analyze whether technology enhances or hinders Interpersonal Communication using George Herbert Mead's Symbolic Interaction Theory. It uses a technique that includes a literature review and interviews with certain users of personal sports equipment to examine three fundamental concepts: mind, self, and society. According to the study, a person's capacity to interpret symbols is what makes up their mind. Therefore, everyone must interact to develop their mind and get that meaning. Then, the self is the ability to accept and adapt based on the judgment of another person's point of view. Moreover, an individual in the surrounding environment will deliver people in the process of taking tasks in society; they even can form a community as the same user of personal sports devices. Using Symbolic Interaction Theory, humans will perform an action based on the meanings attached to the action. Nevertheless, humans can obtain their purpose from social interaction with others.

**Keywords:** *Sport Device, Interpersonal Communication, Community Development, Symbolic Interaction*

## INTRODUCTION

The development of digital innovations and technology has brought new experiences to everyday human life, extending beyond mobility to the evolution of individual cultural habits (Srisathan & Naruetharadhol, 2022). The internet has fundamentally changed how people organize and connect with those around them. These advancements continue to shape our understanding of how emerging technologies, including the internet, which has birthed digital media, are considered to be the killer of traditional media due to its significant and comprehensive development in human life (Praditha & Widodo, 2022). The advent of the internet has transformed nearly every aspect of life, including business, social interactions, shopping, and leisure activities, all profoundly influenced by digitalization. This same transformative process has also fundamentally altered how people follow and engage in sports.

Further, Internet of Things (IoT) and human-computer interface (HCI) as part of advanced digitalization have permitted the successful completion of an array of tasks efficiently and timely. Many intelligent and highly engaging platforms for students' PE-based education can use IoT and HCI. The proposed study examined different methods for recognizing athletes in images and videos captured during practice. Wearable and portable devices can develop to monitor a player's health during physical activity.

Sports have become an integral part of everyday life on an international scale, forming connections at nearly all levels, including diplomatic, cultural, economic, organizational, community, and interpersonal (L'Etang, 2006). This integration is paralleled by the advancement of digital and technological innovations. Modern culture has embraced sports as a way of life, and technology has made it more accessible for people to use sports equipment. One prominent feature of modern urban lifestyles is the emphasis on sports and fitness. As a result, urbanites have access to various amenities that facilitate exercise, leading many investors to view the establishment of fitness centers as a viable business opportunity.

The interplay between sports and lifestyle is evident, with urban environments offering numerous facilities to support physical activity. In Indonesia, the awareness of healthy lifestyles is growing, yet only 1% of the population is a member of a fitness center. This presents a significant opportunity for fitness centers targeting the B-C market segment. According to MarketResearch.com, the Asia Pacific fitness and health center market was valued at \$21.27 billion in 2018. Irawan Amanko, Chief Executive Officer of ReFIT Indonesia, highlighted in an article that the market value of the fitness business in Indonesia is estimated to be around Rp. 2-3 trillion per year (Suhartadi, 2017).

The development of digital innovations and technology has also brought new experiences to everyday life, extending beyond mobility to the evolution of individual cultural habits. The internet has fundamentally changed how people organize and connect with those around them, impacting our understanding of how emerging technologies can enhance social involvement. The transformative influence of the internet is seen in various aspects of life, including business, social interactions, shopping, and leisure activities, all profoundly shaped by digitalization. This same process has fundamentally altered how

people follow and engage in sports, making technology an essential component of modern sports culture.

The rapid development of the fitness center industry is also supported by technological advancements. For instance, a fitness center in Jakarta introduced a bracelet used as a locker lock. Customers attach this bracelet, named the RFID Wristband, to their hand to place and open the locker during visits and exercise sessions. The RFID Wristband connects to scanners placed at each studio door in the fitness center; the machine records the presence of members and connects directly to a mobile application. With the application on their cellphones, fitness center members can access various information, class programs, and personal activity records.

However, since covid 19 hit the world, people have started to do physical restrictions when leaving the house. So that many activities, especially sports, are carried out at home. Social restrictions, do more activities at home, maintain social distance, and avoid crowds are effective ways to reduce the risk of transmitting COVID-19 outside the home. The problem is, self-isolation activities at home tend to have a negative effect on a person's mental health. Self-isolation activities accompanied by fear of contracting COVID-19 and excessive exposure to hoax information can have the effect of anxiety and depression. To reduce the boredom and anxiety caused by self-isolation, many people have started trying to establish a pleasant daily routine. One of them, they start sports activities as part of a healthy lifestyle to boost the body's immune system to be immune from virus attacks.

An online survey conducted by Sitohang, M. Y, 2021 said that in early December 2020 with 321 respondents showed that 1 in 5 people who had not previously exercised started exercising during the COVID-19 pandemic. In addition, almost half of the respondents who had been exercising since before the pandemic changed their sports activities for the better. They increase the duration of exercise and increase the type of exercise performed. Sports activities are indeed proven to reduce the effects of stress to maintain immune function because physical activity can reduce the effects of anxiety which in fact continue to haunt us while staying at home. Long before the COVID-19 pandemic occurred, many people had lived a sedentary lifestyle or lacked physical activity which could have a negative impact on health. During the COVID-19 pandemic, running and exercising at home (home workout) were the most popular types of exercise by respondents (79%).

Exercising at home, such as home workouts, can be a safe, easy, and inexpensive exercise choice for those avoiding social interaction to prevent COVID-19. This program includes aerobics (e.g., walking around the house or neighborhood), strength training, stretching exercises, and a combination of strengthening and stretching muscles. The increasing demand for technology products in sports and health is evident at the industry level, with innovations in sports equipment at fitness centers, sports competitions, health therapy in hospitals and clinics, and individual technologies. One of the most popular individual technologies is smartwatches, which connect to mobile health applications. According to the online magazine menshealth.com, the five best smartwatches of 2019

were the Apple Watch, Fitbit Versa, Samsung Galaxy Watch, Garmin Vivo Active 3, and Matrix Power Watch X (Lane, 2019).

Research in the United States shows that using sports applications on smartphones can provide a "challenging" effect for users. The track record of physical activity in the application features motivates users to increase their physical activity. For example, if the app notes that the user walked 2,000 steps today, the next day, users will challenge themselves to walk further or at least match the previous day's steps (Sitohang, M. Y., 2021).

The habitual practice of independent exercise alongside the use of smartwatches and mobile apps persisted throughout the entirety of the Covid-19 pandemic. This study delves into the satisfaction levels among individuals regarding the utilization of new sports technology to organize their physical activities. Specifically, the study focuses on how technological innovations in sports communication, such as integrating watches with mobile health apps, have impacted user experiences. The research aims to explore various aspects, including how individuals communicate their sports participation through these technologies and how such interactions foster community-building among users.

One of the primary questions this study seeks to answer is: How do advancements in sports technology, particularly in the realm of wearable devices and mobile applications, influence interpersonal communication and community formation among users? This inquiry is crucial as it examines the evolving dynamics of how people engage with sports and fitness activities in a digitally interconnected world.

Technological innovations have not only facilitated personal fitness tracking but have also transformed how individuals interact and share their sporting experiences. By analyzing these dynamics, this study aims to uncover insights into the changing landscape of interpersonal communication within sports communities. It explores whether traditional face-to-face interactions are being supplanted by digital platforms, and how these technologies contribute to the formation of cohesive social groups centered around shared athletic interests.

Moreover, the integration of sport watches and smartphones has intensified digital interactions within internet platforms, fostering new modes of engagement and community-building. By understanding how these technologies shape social behaviors and interactions, researchers can provide valuable insights into optimizing future developments in sports technology and enhancing user experiences.

## LITERATURE REVIEW OR RESEARCH BACKGROUND

### *Interpersonal Communication*

Insancamila, Rizqi, and Norhabiba (2022) said that, when there is direct or face-to-face communication between people, it is called interpersonal communication. Message processing can also be referred to as message recipients, in this process what happens is the interpretation of other people's communicative behavior so that the meaning of their behavior can be understood. Next is interaction coordination, which is the process of aligning message production and message processing to produce a smooth exchange. The

process of interpersonal communication is followed by social perception, namely capturing events or activities of ourselves, other people, social relations, and social institutions.

Gamble and Gamble said communication may come in two ways: interpersonal or intrapersonal. Interpersonal communication happens where there are at least two persons communicating, exchanging and learning information that helps sustain relationships. Intrapersonal communication is communication within the self. It happens if someone thoughts of evaluating within himself; intrapersonal communication does not involve anyone else (Gamble & Gamble, 2022).

The Shannon-Weaver communication model, as seen below, has six elements to transmit how a message is sent and received. There are a source, message, channel, noise, receiver, and feedback (Fulginiti & Bagin, 2017)

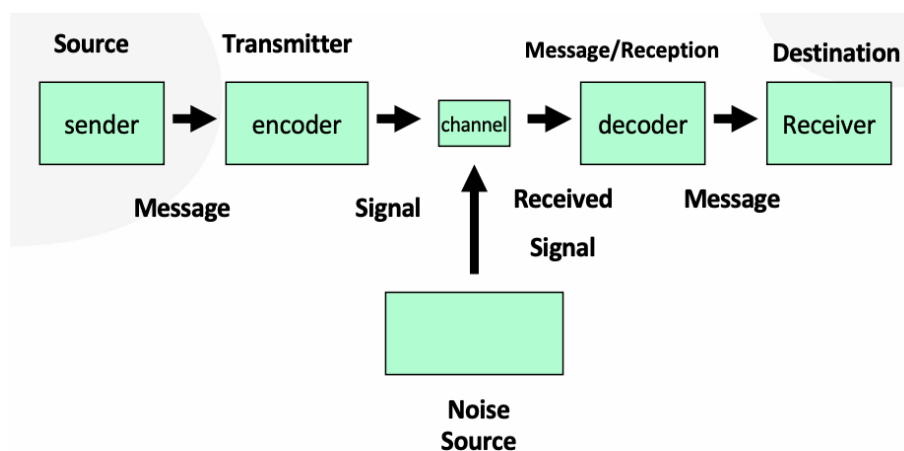


Figure 1 Shannon/Weaver Model (Fulginiti & Bagin, 2017)

The source sends the message; the encoder specifies how to send the message. Then the message will choose the channel. The channel is medium. For example, a tweet would be sent via Twitter to the audience using a computer or a smartphone. The computer or phone is the channel. The next element in the Shannon-Weaver Communication Model is the decoder. It takes the message and arranges it in a proper format. In the example using Twitter, Twitter would be both the encoder and decoder. (Fulginiti & Bagin, 2017). If the communication were one-way, it would stop here. If the communication is two-way, it would have one additional element, feedback. "Feedback is powerful too. Feedback tells the communicator how this message is being received (Broom, 2009, p. 272 in Nelson (2012)).

I.A Richards described that the visual aspect has significant meaning in communication to be able to change one's way of thinking. For example, a person's moment is depicted in a photographic figure, visuals can embody one's interpersonal messages and are reflected in one's cognition. In this view, interpersonal communication is defined as the process of creating something unique, has meaning, and has an impact on the mind of someone who receives the message (Nurdin, 2020).

As interpersonal communication is the basic thing that humans need because humans are social creatures. Humans need other people to exchange thoughts, information, opinions, and feelings. One notable example of successful interpersonal communication with global impact is the work of Nelson Mandela during South Africa's transition from apartheid to democracy. Mandela's ability to communicate effectively across diverse groups and ideologies was pivotal in uniting a fractured nation and garnering international support for the anti-apartheid movement. His speeches and negotiations exemplified empathy, inclusivity, and strategic diplomacy, which were instrumental in bridging racial divides and fostering reconciliation.

One key lesson learned from Mandela's approach to interpersonal communication is the power of empathy and active listening. He demonstrated a deep understanding of the grievances and aspirations of various communities within South Africa, which allowed him to articulate a vision that resonated across racial and cultural lines. Mandela's ability to acknowledge and address historical injustices while advocating for a future built on equality and justice serves as a testament to the transformative potential of empathetic communication in complex socio-political contexts.

Another lesson from Mandela's leadership is the importance of integrity and consistency in communication. Throughout his life, Mandela remained steadfast in his commitment to non-violence and reconciliation, even during times of adversity and political pressure. His unwavering moral compass and consistent messaging earned him credibility both domestically and internationally, facilitating constructive dialogue and cooperation among disparate parties.

Furthermore, Mandela's approach underscores the significance of patience and perseverance in achieving long-term goals through interpersonal communication. He navigated decades of imprisonment, political negotiations, and societal transformation with resilience and determination, emphasizing dialogue over conflict and collaboration over division. His ability to maintain communication channels open and engage in constructive dialogue, even with former adversaries, laid the foundation for a peaceful transition and a more inclusive South Africa.

In essence, Mandela's success in interpersonal communication offers valuable insights into fostering global impact through empathy, integrity, and perseverance. By prioritizing understanding, consistency, and dialogue, individuals and leaders can navigate complex challenges, bridge divides, and cultivate meaningful change on a global scale.

### *Understanding Symbolic Interaction Theory in Social Sciences*

Symbolic interaction theory stands as a cornerstone in the realm of social sciences, focusing on how symbols shape and direct human behavior and social interactions. At its core, this theory emphasizes the significance of meaning-making through symbols within social contexts, highlighting the dynamic nature of human interaction.

Developed primarily by George Herbert Mead during the 1920s and 1930s, symbolic interaction theory delves into how individuals and groups communicate and derive meaning through symbols such as words, signs, and gestures (Rohim, 2016). According to



Rohim (2016), social structures influence behavior, shaping the symbolic interactions that define social life.

Symbolic interaction theory revolves around several foundational concepts articulated by George Herbert Mead, namely Mind, Self, and Society (Siregar, 2016):

- a. Mind: this concept refers to an individual's ability to create and utilize symbols to derive meaning from their experiences. It underscores the essential role of interaction in the development and acquisition of symbolic meanings.
- b. Self: the notion of self in symbolic interaction theory pertains to how individuals perceive themselves based on the feedback and perspectives of others. It explores how the self is constructed through social interactions and perceptions.
- c. Society: symbolic interaction theory posits that society emerges from the ongoing interactions between individuals and their social environments. These interactions contribute to the formation of shared meanings and norms within communities.

In broader terms, Sobur (2016) outlines three fundamental principles of symbolic interaction theory:

- a. Meaning: human actions are fundamentally driven by the meanings attributed to those actions, which are derived from social interactions.
- b. Interaction: meaning-making is a dynamic process that evolves through interactions with others, where symbols play a pivotal role in communication and understanding.
- c. Perfection: the meanings individuals attribute to actions are refined and perfected over time through continued social interactions.

The theory's relevance extends into contemporary contexts, including the integration of personal digital devices like smartwatches and mobile applications. These technologies facilitate new forms of symbolic interaction, where users communicate, share meanings, and engage in virtual communities based on shared interests (Siregar, 2016).

For example, the use of fitness-tracking apps allows individuals to monitor their physical activities and health metrics, engaging in self-reflection and goal-setting based on data provided by these digital tools. This application of symbolic interaction theory demonstrates how technology enhances interpersonal communication and meaning-making in modern society.

Symbolic interaction theory remains a vital framework for understanding how symbols and interactions shape human behavior and social dynamics. From its inception by Mead to its contemporary applications in digital technologies, this theory continues to illuminate the intricate ways in which individuals create, interpret, and share meanings within social contexts. As technology evolves, so too does the application and relevance of symbolic interaction theory in understanding the complexities of human interaction in a digital age.

#### *Sport Technology 4.0*

Understanding the relationship between lifestyle and health has led to significant advancements in Sport and Exercise Medicine (SEM), which encompasses a holistic

approach to health through prevention, diagnosis, treatment, and rehabilitation (Jadon et al., 2024). SEM goes beyond mere physical movement; it integrates sport and exercise into daily routines as both preventive measures against diseases and effective methods of rehabilitation.

Recent developments in wireless technologies have revolutionized the collection of biomechanical, physiological, and performance data in sports. The advent of "big data" analytics has fostered the belief that gathering extensive and precise data can enhance athletes' health and optimize sports performance. Technologies for monitoring athletes have proliferated rapidly, offering new avenues for understanding and improving athletic performance. However, the challenge lies in effectively managing and interpreting the vast amounts of data generated, distinguishing between valuable insights and irrelevant noise.

Sports scientists are increasingly utilizing a variety of commercially available assessment tools to gather comprehensive data. Professional sports organizations invest significant resources—time, finances, and skilled human capital—in adopting these new technologies. Commercial interests also drive the development and promotion of new technologies, enticing practitioners with promises of enhanced performance and injury prevention.

According to Sitohang (2021), most individuals engage in moderate to vigorous exercise sessions lasting 30-60 minutes, one to two times per week. This exercise frequency and intensity align with the World Health Organization's (WHO) recommendations, which advocate for regular physical activity to maintain overall health. Moderate-intensity exercise, in particular, has been shown to stimulate the circulation of various immune cell subtypes between the bloodstream and tissues, thereby bolstering immune function.

The habit of engaging in regular physical activity not only supports physical fitness but also contributes to mental well-being. Amidst technological advancements in sports science and SEM, promoting healthy lifestyles through exercise remains a cornerstone of preventive healthcare strategies. Encouraging individuals to adopt sustainable exercise habits benefits both individual health and public health outcomes.

SEM continues to evolve as a multidisciplinary field integrating cutting-edge technologies and data-driven approaches to enhance athletic performance and promote overall health. By leveraging advancements in data collection and analysis, alongside promoting regular exercise as a lifestyle choice, SEM plays a crucial role in preventive healthcare and rehabilitation strategies globally.

One successful case of sports technology implementation can be seen in the Nike+ Running app. Introduced in 2006, this app revolutionized the running experience by combining GPS tracking with social features and personalized coaching. Users could track their runs, set goals, receive real-time feedback, and share their achievements with friends and online communities. Nike leveraged this technology to build a global community of runners, enhancing user engagement through challenges, leaderboards, and social integration. The app's success lay in its ability to integrate advanced technology seamlessly into everyday fitness routines, fostering motivation and camaraderie among runners worldwide.



Conversely, a notable example of sports technology that faced challenges and struggled to meet expectations is Google Glass in sports applications. Introduced with great fanfare in 2013, Google Glass promised to revolutionize sports training and performance analysis by providing athletes with real-time data and video feedback. However, the device encountered several obstacles, including privacy concerns, usability issues, and resistance from sports organizations. Athletes found the technology distracting during training, and coaches were uncertain about its practical applications in improving performance. Ultimately, Google Glass failed to gain widespread adoption in the sports community due to these challenges.

From these cases, several lessons can be learned. Firstly, successful sports technology implementations prioritize user experience and integration into existing routines. Nike+ Running succeeded by enhancing the running experience with features that appealed to both casual and serious runners, leveraging social dynamics to boost engagement. Secondly, effective sports technology requires thorough testing and consideration of user feedback. Google Glass's failure highlighted the importance of addressing usability concerns and ensuring practical applications in real-world sporting environments before widespread adoption. Lastly, building a community around sports technology can enhance its value proposition. Nike+ Running's community-building features demonstrated how fostering social interaction and friendly competition can motivate users and sustain long-term engagement with the technology. These lessons underscore the importance of user-centric design, practicality, and community building in the successful deployment of sports technology innovations.

### *Forming Community*

Forming communities is a nuanced process that involves establishing connections, shared identities, and sustained engagement among individuals with common interests or goals. Successful community formation often hinges on understanding member needs, fostering meaningful interactions, and leveraging appropriate platforms or mediums. Conversely, unsuccessful attempts may stem from overlooking cultural nuances, inadequate facilitation of engagement, or misalignment with participant expectations.

A notable successful case study in community formation is Reddit, a social media platform known for its diverse range of communities or "subreddits." Reddit's success lies in its ability to empower users to create and moderate communities around specific interests, from niche hobbies to professional networking. Each subreddit fosters a sense of belonging and shared identity among its members through active participation, discussions, and community-driven content curation. The platform's decentralized moderation approach allows communities to self-regulate, ensuring relevance and authenticity.

In contrast, Google+ serves as a cautionary tale of failed community formation. Launched with high expectations to rival Facebook, Google+ struggled to gain traction and eventually shut down in 2019. Despite Google's vast resources and integration attempts across its ecosystem, Google+ failed to differentiate itself sufficiently from established

platforms like Facebook and Twitter. Moreover, its complex interface and initial focus on circles and privacy settings alienated users seeking simpler, more intuitive social networking experiences. The demise of Google+ underscores the importance of user-centric design, clear value propositions, and effective community management in platform adoption and sustainability.

From these case studies, several lessons emerge. Firstly, successful community formation requires aligning platform features with user needs and preferences, ensuring ease of use and relevance. Secondly, empowering community members through moderation tools and participatory governance fosters a sense of ownership and commitment. Thirdly, continuous engagement and adaptation to evolving user expectations are crucial for sustaining community vitality. Lastly, failed attempts highlight the pitfalls of neglecting user experience, overcomplicating interface design, and underestimating established competitors' market dominance.

#### METHODOLOGY

This research utilized a qualitative descriptive approach to investigate the role of personal sports devices in forming communities through interpersonal communication. The study also employed the case study method, a form of qualitative research aimed at uncovering the meanings and processes behind specific activities (Emzir, 2016). By focusing on case studies, the research seeks to gain an in-depth understanding of the impact of human-computer interaction on innovation within personal sports devices.

Primary data analysis was conducted, with human-computer interaction serving as the independent variable and personal sports devices as the dependent variable. Data collection techniques included interviews, documentation studies, literature reviews, and online data searches. In-depth interviews were conducted to gather direct information, allowing for face-to-face interactions with participants either with or without structured interview guidelines. This approach facilitated a deeper exploration of individual experiences and perspectives.

Documentation studies were another key method used, involving the analysis of documents created by the research subjects or others related to the subjects (Herdiansyah, 2014). This method provided additional context and background information, enriching the primary data collected through interviews. Researchers also engaged in library research, examining books and literary works relevant to the research problems. This process helped uncover theoretical frameworks, research methods, and techniques that supported the study's objectives (Sugiyono, 2014). The integration of online data retrieval methods allowed researchers to efficiently gather theoretical information from online media sources, enhancing the academic rigor of the study (Bungin, 2017).

Data was categorized into three main themes: Mind, Self, and Society. The "Mind" category focused on how users recognize and understand symbols within sport applications. Questions in this category explored the users' cognitive processes in interpreting these symbols. The "Self" category investigated how users employ symbols in their interactions and how these symbols aid in self-expression. This category aimed to

understand the personal significance and utility of these symbols in everyday interactions. Lastly, the "Society" category examined how users communicate their conditions, interests, and achievements using the sport application. This section provided insights into how the application facilitates community participation and interpersonal communication.

The questions within these categories were open-ended, allowing researchers to capture a broad range of responses and gain a comprehensive understanding of the role of sport applications in building interpersonal communication and fostering community involvement. Non-categorized answers were set aside, ensuring that the analysis remained focused on the core themes of the study.

By utilizing a combination of qualitative methods, this research provides a nuanced understanding of how personal sports devices and their associated applications influence interpersonal communication and community formation. The in-depth analysis of human-computer interaction within these devices offers valuable insights into the ways technology shapes social dynamics in modern sports culture.

## RESULTS AND DISCUSSION

### *Symbolic Interaction*

Symbolic interaction is a foundational concept in sociology that explores how symbols shape human interactions and social relationships. As individuals acquire symbols, they gain the ability to communicate complex meanings and messages within their social contexts. This process is particularly evident in the realm of digital sports devices, where users engage with symbols as a fundamental mode of communication.

When a user interacts with a sport device, each feature and function introduces new symbols into their cognitive framework. These symbols, ranging from icons representing different activities to notifications and progress indicators, become integral to how users interpret and respond to information provided by the device. Over time, these symbols accumulate in the user's mind, forming a repository of meanings that facilitate interactions both within the device's interface and in broader social settings.

Historically, sports were viewed as primarily individual pursuits aimed at personal health and fitness goals, rather than communal activities. Athletes typically gained public recognition only when representing larger entities such as organizations or countries. However, contemporary trends have reshaped this narrative, integrating sports more deeply into everyday lifestyles. Today, engaging in sports is not just about personal fitness but also serves as a means of social integration and community membership. Digital platforms play a pivotal role in this evolution by connecting individuals with shared sporting interests across various mediums, thereby fostering enhanced interpersonal communication skills and confidence among participants.

In the realm of human communication, symbols are critical tools for conveying meaning and understanding. In the digital age, symbols extend beyond traditional forms like facial expressions or verbal cues to include graphical icons and interactive elements within applications. Application designers leverage these symbols to create intuitive interfaces that resonate with users' habits and preferences, facilitating seamless

interaction and mutual understanding. Users adeptly navigate these symbolic landscapes, swiftly interpreting and employing symbols to express their thoughts, emotions, and achievements in diverse social contexts.

Symbolic interaction within digital sports devices underscores the transformative power of technology in shaping modern interpersonal relationships. By exploring how symbols mediate communication and social dynamics, this study illuminates the profound impact of digitalization on sports culture, where symbols serve as bridges connecting individuals through shared interests and activities.

### *Mind*

In understanding the dynamics of user interaction with sports devices, it's crucial to delve into the concept of the mind, which operates at the intersection of society, symbols, and self-awareness. This triangular relationship, as illustrated in various sociological frameworks, highlights how individuals perceive and utilize symbols within their social contexts.

Within the realm of sports devices, the mind phase involves users filtering symbols based on their comfort and familiarity with communication styles. Symbols here encompass a wide array—from simple icons denoting exercise activities to more complex indicators like progress metrics and achievement badges. These symbols serve as alternative means of interaction for users, enabling them to articulate their fitness goals, track their performance, and engage with others within digital communities.

Users accumulate a diverse array of symbols in their mental repertoire, categorized based on their personal experiences and interactions with the sports application. These symbols form a unique vocabulary that facilitates communication and self-expression through the device. Application designs are increasingly tailored to human emotions and needs, ensuring that symbols resonate intuitively with users' preferences and cultural backgrounds.

The user-friendly design of modern sports devices plays a pivotal role in shaping how symbols are perceived and utilized. Through intuitive interfaces and clear graphical representations, users can quickly grasp the meaning behind each symbol, enhancing their interaction efficiency. Ease of use emerges as a significant factor influencing user engagement, as highlighted in interviews where participants cited simplicity as a key reason for adopting sports devices. These symbols persist in users' minds, evolving and adapting as new symbols are introduced through updates and user feedback.

In the digital era, symbols transcend traditional forms of communication, becoming integral to how individuals express emotions, achievements, and aspirations within virtual communities. Social media platforms, predating sports applications, have pioneered the use of symbols such as likes, thumbs-up, and chat boxes to facilitate interpersonal communication and community engagement. Users adeptly navigate these symbolic landscapes, utilizing icons to convey nuanced messages and connect with peers sharing similar interests.

Data analysis underscores the symbiotic relationship between sports applications and user engagement, where symbols serve as conduits for meaningful interaction and information exchange. Athletes, for instance, leverage these symbols to communicate achievements, share insights, and build fan bases, thereby amplifying their visibility and influence within the sports community. This interconnectedness highlights how symbols not only convey information but also foster camaraderie and collaboration among users, contributing to the vibrant digital sports ecosystem.

In conclusion, the study of symbols within sports devices illuminates their transformative role in modern communication and community-building. By understanding how symbols shape user experiences and interactions, researchers can better optimize application designs and enhance user engagement in digital sports environments.

### *Self (Symbolic Self, Social Self, and the "I" and "Me")*

Symbolic interactionism revolutionized our understanding of the self, challenging previous notions that the self was an autonomous entity defined solely by innate characteristics. Before the advent of this sociological theory, prevailing beliefs held that individuals possessed an intrinsic selfhood independent of social influences. However, theorists like George Herbert Mead argued that the self is intricately linked to social relationships and emerges through interactions with others. In this view, symbols play a pivotal role as they mediate these interactions, shaping how individuals perceive themselves and their place in society.

Symbols, in the context of sports applications, serve as potent tools for self-expression and social connection. Users engage with these symbols not merely as functional indicators but as representations of personal identity and social belonging. For instance, a user may adopt specific symbols within a fitness tracking app to signal their commitment to health or athletic achievement. These symbols become a language through which users communicate their values, goals, and aspirations to their community.

In interviews, participants highlighted their motivation for using sports applications as seeking acknowledgment and validation within their social circles. The symbols they select reflect their desired message and serve as cues for others who share similar interests or goals. This process of symbolic interaction facilitates communication and fosters a sense of community among users, where shared symbols signify shared meanings and mutual understanding.

The concept of the self undergoes dynamic construction during interactions with sports applications. Users navigate through phases of self-expression and social identification as they deliberate over which symbols to adopt and how to interpret them. At the 'I' phase, individuals assert their unique identities by choosing symbols that resonate personally, reflecting their individual circumstances and preferences. Conversely, the 'Me' phase involves conforming to social norms and expectations, where users align their symbol use with community standards to facilitate effective communication and social integration.

The design features of sports applications play a crucial role in facilitating symbolic interaction among users. Intuitive interfaces and customizable symbol sets empower individuals to express themselves authentically and engage meaningfully with their peers. Users leverage these features to interpret and respond to symbols used by others, fostering reciprocity and strengthening social bonds within digital sports communities.

As symbolic interactionism continues to shape our understanding of human behavior in digital environments, the study of symbols in sports applications underscores their role in constructing social selves and facilitating interpersonal communication. By examining how symbols mediate interactions and influence user perceptions, researchers can inform the design of future technologies to enhance user experience and community engagement in digital sports ecosystems.

### *Society*

From a symbolic interaction perspective, society's essence resides in how individuals interact and communicate using symbols. In the realm of sports applications, this concept manifests profoundly as users engage with symbolic representations to express identity, goals, and achievements within digital communities. These applications serve not only as tools for personal fitness tracking but also as platforms for social interaction and community formation.

Users who feel comfortable with specific sports applications often gravitate towards forming communities centered on shared symbolic interactions. For example, within a running app, users may join groups based on mutual fitness goals or interests in specific challenges. These virtual communities transcend geographical boundaries, bringing together individuals who share common objectives and values through symbolic representations like achievement badges, leaderboard standings, and shared workout routines.

Interviews with users highlight how symbolic interaction fosters community dynamics in digital spaces. By interpreting the symbols used by others, such as progress updates or congratulatory messages, users establish meaningful connections and engage in interpersonal communication. These interactions not only validate individual achievements but also cultivate a sense of belonging and support within the community.

In these digital communities, symbols play a crucial role in facilitating communication and collaboration. Users celebrate milestones collectively, set group targets, and track progress together, reinforcing social bonds and motivating each other towards shared fitness objectives. For instance, a group within a cycling app might collectively aim to cover a certain distance or achieve specific fitness metrics, using symbols and metrics as benchmarks of their collective success and camaraderie.

The formation of digital communities around personal sport devices illustrates the transformative power of symbolic interaction in modern society. Beyond mere functionality, these applications enable users to construct and share meaningful narratives about their health journeys, fostering a supportive environment where individuals can thrive and grow together. As technology continues to evolve, understanding the role of



symbols in digital communication becomes increasingly critical in designing inclusive and engaging platforms that promote community well-being and interaction..

### CONCLUSION

Users are well-acquainted with the features of smartwatches and applications, enabling them to efficiently utilize sports functionalities without consulting the manual. However, they primarily engage with features that meet their usual needs. They typically use applications that align with their exercise routines and interests, despite the plethora of available features. Key reasons for their usage include recording activities, synchronization with smartwatches, tracking distance, pace, and time, monitoring exercise progress and achievements (such as heart rate, calories burned), and ease of use and understanding of provided features.

Users also interact with each other, often as members of communities formed around similar applications. While they do not use the application directly for communication, they meet during sports activities and exchange valuable information and knowledge. Social media serves as a broader platform for interaction, facilitating connections beyond the user base of similar applications. The skill in using these applications enhances their activities.

Interpersonal communication within the sports community is evolving due to these applications. The symbols provided by the applications make it easier for users to communicate, shifting interpersonal communication from face-to-face interactions to digital platforms. This study shows that symbols in a digital platform create a comfortable and satisfying interaction, altering traditional communication dynamics. Delayed responses are not an issue, as users focus on how to communicate effectively. The use of symbols fosters a comfortable environment where immediate reactions are unnecessary. Interpersonal communication through digital platforms using symbols can shape unique communities with specific interaction styles, moving beyond physical groups to those formed around specific applications.

### BIODATA

*Dr. Chrisdina* is a full-time lecturer at the LSPR Institute of Communication & Business. She is focusing on teaching Visual Communication Design and Research Methodology. Several papers are concerned with communication using symbols, cultural studies, and inclusivity for disability. She also participated in many activities to support health communication and disability awareness, especially autism. In the future, her ambition is to write a book for practice research in symbols.

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