

Distracted Pedestrians: Motivations and Consequences of Phone Walking

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Introduction

Across three distinct urban sites, pedestrian movement in late October reflected a consistent integration of mobile device engagement into everyday walking practices. Although geographically dispersed with Chicago's central pedestrian corridors, San Francisco's Stonestown Galleria, and Minneapolis' Mill City River District, the observed behaviors converged into a shared pattern characterized by reduced physical awareness, intermittent pacing, and digitally mediated navigation of public space. Across all locations individuals appeared to negotiate the simultaneous demands of the physical environment and digital engagement, revealing that mobile phone use had become a habitual, socially accepted component of pedestrian behavior rather than an exceptional occurrence.

Along Chicago's Michigan Avenue, Millennium Park perimeter walkways, and the Riverwalk, steady volumes of commuter and tourist traffic revealed the extent to which phone use had become embedded in locomotion. Individuals frequently maintained continuous mobile interaction while walking, including texting, navigation consultations, asynchronous messaging, and live video communication. These interactions produced noticeable interruptions in the pedestrian flow: slowed gait, abrupt lateral drifting, and momentary standstills in areas of concentrated movement. Surrounding pedestrians consistently adjusted by rerouting or reducing pace, which indicated a broader normalization of distracted movement rather than active resistance to it. Bystanders appeared to anticipate disruption and responded with accommodation rather than confrontation.

In San Francisco's Stonestown Galleria, the pattern was observed within an enclosed, commercially structured environment. Adolescents, university students, and family groups moved through retail corridors while engaged primarily with personal devices rather than co-present companions. Individuals who walked in pairs or clusters were frequently oriented toward screens rather than toward one another, which suggested that co-location no longer required shared attention. Common circulation zones, including the main entrance corridor, exhibited periodic pedestrian clustering not driven by store displays but by sudden pauses triggered by incoming notifications. The controlled indoor environment appeared to further support unrestrained mobile immersion, as spatial predictability and reduced external risk enabled prolonged attention to digital activity while in motion.

The Mill City River District in Minneapolis presented a contrasting spatial context with open-air paths, mixed-use recreational trails, and scenic pedestrian routes along the Mississippi River. Despite the availability of visual and historical stimuli, mobile engagement remained prevalent. Individuals routinely paused mid-path to respond to messages, capture photographs, or participate in video communication, which required cyclists, runners, and other pedestrians to decelerate or shift course. Unlike indoor circulation, this environment introduced competing demands, such as shared trail usage, variable speeds, and uneven terrain. However, mobile attention persisted with minimal self-regulation.

Literature Review

Researchers have found that there are many risks associated with multitasking movement with cell phone usage. Mwakalonge and colleagues (2015) found that distracted walking, especially cellphone and headphone usage, was found to be associated with both unsafe walking behaviors, such as failing to look both ways before crossing the street, and reduced situational awareness. Similarly, Crowley and colleagues (2019) found that walking while texting produced significant decreases in gait velocity, stride length, and cadence. More than just physical effects, research has shown phone usage to decrease accuracy in visual and auditory detection tasks (Haga et al. 2015). Different forms of phone interaction introduce varying levels of risk. Shahidian and colleagues (2022) discovered that dual-task walking and cell phone conversation may present greater fall risk than texting or reading. They suggested that this may be due to more rapid information processing and cognitive demand at the expense of motor control of joint stability.

Past research has uncovered several motivations for phone walking. Appel (2019) identified a link between greater feelings of FOMO and more distracted walking, more virtual social interactions, and more dangerous incidents. This suggests that lonely pedestrians use phones to compensate for the lack of real-world company. Adding to this, Hunter and colleagues (2018) explored the use of smartphones in social exclusion experiments and found that participants felt less excluded when they had access to a phone during the experiment, compared to participants who were excluded without access to their phones, suggesting that the phones act as a buffer to the negative feelings of being left out. Additionally, even those who are not actively using their phones have a strong desire to keep them close. Schaposnik & (2018) highlighted a few potential reasons for passive phone usage, such as promotion of status, security of keeping others in contact, and to mitigate anxiety. However, they also indicated reasons to avoid phone walking, such as being in the presence of love interests.

Previous research has also identified patterns in types of phone walkers. Arginin and colleagues (2020) observed the gaze and walking behaviors of pedestrians in the historical market, Korenmarkt Square in Ghent, Belgium, over seven days to identify patterns that reveal different user figures: “post-flâneur” and “smartphone zombie.” Post-Flâneur move through their surroundings with devices but maintain more environmental awareness than smartphone zombies, who are more screen-focused, have minimal environmental gaze, and are path-driven. Social attitudes around phone usage have also been revealed to be complex and situational, according to past research. Rainie, L. and Zickuhr, K (2015) discovered in their study that the majority of Americans find that the use of cell phones in group settings to have a negative effect on the gathering itself; however, they also found that the majority of Americans also said that they used a phone in their last social gathering and that they do not believe their own usage harms their attention within the group. Gordon's (2007) study additionally revealed that those who use a phone in public are less likely to ask for help, are more distracted from their social responsibilities, and are more neglectful of the environment.

Research Question

Although previous studies contribute valuable findings to this topic, none of them observed phone walking behavior in natural settings. They also lack valuable insights that can be gained from interviewing phone walkers while observing them in a typical setting where the behavior would occur. Additionally, while prior research has frequently framed phone use while walking as a safety concern or cognitive distraction, less attention has been paid to how this behavior is motivated, experienced, and carried out in everyday public life. This study asks what motivates people to use their phones while walking and how this practice impacts both individual users and their surrounding environments. This paper argues that phone usage while walking is a habitual and socially normalized practice shaped by social circumstances and perceived control over divided attention. As a result, technology and the surrounding pedestrians continue to adapt.

Methods

The project team used a hybrid ethnographic approach combining both participant observation and contextual inquiry in order to better understand how and why people use smartphones while walking in everyday public spaces. The goal was to capture both observable behaviors and participants' thought processes in context. Each team member conducted their own participant observations at a predetermined field site accessible from their respective locations. At each site, individual team members took on an embedded observational role, performing behaviors expected within the chosen environment, while avoiding actions that could draw attention and interfere with the natural behaviors of others. Field notes were recorded on each team member's mobile device both during and immediately after observation sessions, wherever appropriate. To ensure the privacy of those we observe, no identifying images or videos were taken. Using the data observed in observation, team members later engaged in contextual inquiry with participants. Participants were recruited from a convenience sample of those willing to speak to us about their phone usage while walking. The project team conducted unstructured interviews in walking contexts to encourage participants to behave naturally. During both observation and contextual inquiry, the team paid close attention to variations in behavior across different environmental conditions, such as crowded versus less crowded areas, intersections versus open sidewalks, and weekday versus weekend patterns. Special focus was placed on identifying risk-prone behaviors, such as inattentive crossing, sudden stops, or collisions with other pedestrians, as well as strategies pedestrians use to navigate while engaged with their devices. The combination of direct observation and participant insights allowed the team to capture not only what people do but also why they make certain choices in real-world settings.

Researcher, Sanam Firouzikermanshahi, is an online graduate student studying human-computer interaction at Iowa State University, conducted field observations in downtown Chicago with a focus on three primary pedestrian corridors: Michigan Avenue, Millennium Park's perimeter walkways, and the Chicago Riverwalk. These areas were selected due to their steady volume of diverse foot traffic, including office workers, tourists, students, and daily commuters. The concentration of movement and the range of purposes for walking—transit, leisure, and sightseeing—made these sites particularly suited for examining how individuals engage with their

phones while navigating public space. Observations were completed on October 14, 21, and 28, each session lasting between one and two hours during peak activity periods.

Research conducted at Stonestown Galleria in San Francisco, California, was led by researcher Erin King, who is also part of Iowa State University's distance human-computer interaction master's program. Erin lives in San Francisco and was comfortably familiar with the field observation site prior to beginning research at the location. Stonestown Galleria, located at 3251 20th Ave in San Francisco, California, is a large indoor shopping mall adjacent to both San Francisco State University and Lowell High School. Its proximity to both schools attracts not only young students but also residents looking to enjoy the mall's variety of popular cafes, restaurants, retail stores, grocery stores, recreational spaces, and entertainment options. Erin has visited the mall several times in the past to shop, dine, and spend time with friends. Erin's prior contextual knowledge of the location helped decide when and where observations were held. The mall draws crowds that peak on weekends and in the late afternoons on weekdays, which is when fieldwork took place for this site. Visitors, both alone and in groups, gather in common areas and walk between shops while using their phones. This made the location ideal for capturing observational data on how individuals and groups navigate while engaged with their phones. On the dates of Sunday, October 19, Monday, October 20th, and Thursday, October 23rd, Erin conducted field observations ranging from one to two hours in length around the main entrance area of the mall, which experiences high volumes of pedestrian traffic. Erin also led contextual inquiry sessions with two participants, one on Friday, October 31st, and the other on Sunday, November 2nd, which expanded observations into additional, internal areas of the mall. Erin is a young adult woman and a frequent mobile phone user, although not always an active phone user in public spaces. While she is digitally fluent and never leaves anywhere without her phone, she tends to avoid using it while walking or around others, preferring to be aware of her surroundings and present with the people she is with. In certain shared public settings, phone use serves multiple functions. At times, it operates as a form of involvement shielding (Goffman 1963), especially on public transportation, where looking at a screen can signal disinterest in unsolicited interactions and provide a sense of security. As a woman accustomed to commuting in a dense, urban environment, Erin is highly attuned to the possibility of harassment and to the ways eye contact, attention, and body language are read by others. In this context, her phone serves not only as a tool for communication and entertainment but also as a means to maintain social boundaries. Outside of these situations, Erin generally prefers to be present in public spaces without active phone use, especially when walking or spending time with others. This preference initially shaped how she interpreted the presence of phones during fieldwork. She became aware of an underlying assumption that most people were carrying phones, even when devices were not visible, an expectation influenced by both her own habits and by the norms of the environment in which she lives. For the contextual inquiry portion of the study, Erin worked with two participants with whom she had established relationships: one a close friend, the other a family member. This familiarity supported a high level of rapport, allowing participants to speak openly and reflectively about their behaviors. At the same time, Erin remained aware that shared social context could influence how participants framed their responses,

and reflexive notes were used to capture these dynamics. Additionally, attention was paid to how relationships, expectations, and comfort shaped the data collected.

The final researcher, Jordan McWilliams, is an online graduate student studying human-computer interaction at Iowa State University. She conducted her field research at the Mill City River District in Minneapolis, Minnesota. She has lived in Minneapolis for almost three years and regularly goes on walks, so she is comfortable with the field site location. The Mill City River District is a historic area in downtown Minneapolis along the Mississippi River, near the Mill City Museum and Guthrie Theater. It consists of numerous walking paths and recreational spaces, dining, and shopping. This space was chosen because it presented many opportunities to observe pedestrians navigating crowded paths, dodging bikers and runners, and crossing streets while using cellular devices. It is the home of the Stone Arch Bridge and the hosting space of a farmers market and a variety of seasonal festivals. The area attracts a diverse population of walkers, runners, bikers, shoppers, and tourists. Jordan observed two observation sessions in the Mill City River District and contextual inquiry with one participant in October of 2025.

Analysis

Data collected from observations and interviews were systematically reviewed after each session. Field notes were evaluated and coded to identify recurring patterns, contextual factors, and behavioral themes. Additionally, the team compared observations across different sites to examine how social context, environmental cues, and pedestrian density influence phone use behaviors. Findings from this hybrid approach were triangulated to provide a comprehensive understanding of phone walking behavior, linking observed actions with participants' reported motivations and perceptions. Themes were determined and agreed upon by all contributing researchers.

Findings

Thematic analysis of field notes and contextual inquiry across field study locations revealed insights that enhanced understanding of contemporary phone-walking behavior. The following themes emerged from repeated patterns observed across all three sites.

Group vs. Individual Usage

Pedestrians walking alone were consistently more likely to be on their phones than those walking with others. Some participants explicitly linked this behavior to desired feelings of connection and companionship: "She also mentioned that using her phone gives her 'a sense of connection' while moving alone. The act of texting or scrolling makes the walk feel less lonely, even though it divides her attention." This contextual inquiry was consistent with what was observed across field sites. This could indicate either compensation for loneliness, or using phones to fit in among others who are also using their phones or have other physical partners to engage in conversation with. This specific issue was addressed in a Minneapolis field note: "All pedestrians walking solo seemed most likely to be on their phones. This observation immediately caught my

attention, suggesting that loneliness or social norms may be strong motivators for using a cell phone in public.” Motivations are harder to determine through observation, but it was clear across all sites that those on their phones were often either walking alone or not speaking with anyone around them.

In comparison, those walking with others were either less engaged with their phones or used them periodically depending on times of communication with others. In one particular example, “...what appeared to be a family with mom who’s arm was looped with a teenage girl, perhaps her daughter, pushed a toddler in a stroller as she laughed and made conversation with her, while a man of similar age to the mom, likely her partner, walked closely on the woman’s side, staring with his phone held out in front of him, at approximately chin level. He did not join in the laughter or conversation, although he occasionally looked up at the building, as if to orient himself.” The person who was not engaged in conversation was using their phone. Was he using the phone because he was not engaged in conversation, or was the phone a barrier to being socially available? In another contextual inquiry, a participant stated, “I think I’d be on my phone slightly more alone than when I’m with [partner] because I would not have anyone to talk to. I think part of it is that it’s a little more rude to be on my phone when I’m trying to walk with [partner] than if I am by myself.” This person was making an active decision to not use their phone when with their partner.

Phone usage was even observed to change as social circumstances actively changed. For example, “I witnessed a young woman walking with an older man who could have been her father, and neither used phones while they were walking together. But, they eventually split when the man had to use the restroom and entered the porta potty at the park. Once the man was gone, even though it was brief, the young woman immediately started using her phone while she stood waiting. Once the man exited the porta potty, the woman put her phone away and they continued to walk and chat.” The woman was only using her phone when she did not actively have a social partner available to speak with. This could indicate a need to compensate with phone use when alone, which would also explain why phone users are more likely to be on their cell phones overall.

Risk-calculated Attentional Regulation

Observations across each field site of phone-walking pedestrians revealed a practice of intentional, risk-assessed attentional regulation behaviors. Pedestrians seemed to be at least partially aware of the state of their distraction, and simultaneously made calculated assessments to determine when they needed to be more attentive to their surroundings, and when they could safely return their focus to their screens. Fieldwork offered several examples of this pattern of behavior, as participants consistently mediated their desire to maintain constant digital availability with the demands of their environment.

One recurring behavior our research team observed involved the temporary suspension of phone use during moments of heightened perceived risk, be that physical or social. In addition to pausing phone use near traffic or obstacles, pedestrians were frequently seen adjusting their attention when others got closer in range. In one observation, a man walking while periodically

checking in phone put his phone away and looked ahead when he noticed a woman approaching in his direction. Immediately after they passed each other, the man returned his attention to his phone. This happened again with a woman who was observed looking up from her screen to pass one of our researchers. These moments indicate a possible awareness of social norms surrounding phone use in shared spaces, where more direct encounters warrant expectations of attentiveness or mutual acknowledgment. Alternatively, the behavior might have occurred to avoid collisions with the other person. In both instances, individuals seem to strategically set aside their attention to their phone, just long enough to navigate the situation before returning again to their devices.

For more high-risk scenarios, like crossing the street safely, our team identified a pattern of individuals reducing or fully pausing device engagement when approaching or crossing traffic. Often, phone walking behavior was swiftly resumed after reaching the sidewalk. Several instances in observation witnessed pedestrians scanning their surroundings when in proximity of cars, and then shifting their attention back to their screens. This likely marks an ingrained habit, checking both ways before crossing the street, or an even implicit understanding of the phone as a situational hazard to be managed, not necessarily eliminated. In contextual inquiry, this logic was made explicit. When asked why they put their phone away before crossing, one participant responded, “Because I don’t wanna get hit by a car. It is a big city. I try not to have it out when crossing the crosswalk, you know, just in case a driver wasn’t paying attention.”

In some cases, pedestrians avoided the cognitive load of switching attention by delegating the responsibility of their awareness to others. One researcher watched a young child exiting a mall, “clinging to the adult’s arm and following her guidance as he used the phone in his hand. He did not look up once while in [the researcher’s] eyesight, relying entirely on the guidance of the adult who remained with her head up and looking left to right before walking away.” By relying on the adult to monitor the environment, navigate, and scan for hazards, the child was able to follow without looking up once.

This example represents one end of the spectrum, where the responsibility of awareness falls entirely on a proxy; however, similar behavior at varying degrees was noticed throughout observations. Often, this looked like groups where not all members are on their phones, and the ones off their devices appeared to lead pace and direction to some extent. Other times, individual phone walkers allocated attention to both their surroundings and their phones by strategically holding their phone higher in front of them, so that more of their surroundings entered their field of vision. Knowledge of the associated risk was acknowledged by participants during contextual inquiry, as reported by one researcher, “Her attention switched from her surroundings to her phone when she took out her phone to open TikTok, but she was confident that she wouldn’t run into people because she could see things in her periphery. She expressed that running into others was a concern, and she compensated by walking more slowly and keeping partial attention on her peripheral surroundings.”

Despite these strategies, it was clear that attentional regulation was not foolproof. Even when pedestrians appeared confident, device engagement frequently continued to shape behaviors in ways that disrupted the surrounding flow of their environment. Across all field sites, phone-

walkers often moved at slower paces than nearby pedestrians, they meandered, and made untimely stops even within high-traffic areas. These actions occasionally required others to adjust their speed or path, or even stop short to avoid collision. Clear miscalculation was apparent when phone-walkers relying on peripheral vision or delayed look-ups were observed stopping suddenly to avoid obstacles and narrowly missing others. These corrections often prevented direct impacts, but they often introduced micro-disruptions like traffic snakes that accumulated within spaces. The cost of distraction gets redistributed onto the surrounding pedestrians who accommodate slowed pacing and sudden stops.

Passive Phone Usage

One of the patterns of interaction our team noticed through contextual inquiry and field observations was passive phone usage, where walkers kept devices present and ready, without using them for a specific task. In these moments, devices didn't assist walkers with navigation, communication, entertainment, or information retrieval; instead, they served as default companions. For example, phones helped fill gaps when users are in periods of transition. At the market location, our researcher observed a large number of individuals taking out their phones immediately after exiting the market. Phones appeared to be utilized in response to uncertainty or pause, whether that be to determine the next destination, fill a transitional moment, or even just because the previous activity (navigating the market) had finished, and that's where attention settles.

In contextual inquiry, participants gave us further insight into this behavior. When asked, one participant explained that she took her phone out simply because she no longer had a clear objective, having completed her errand, and the phone was "something to do". Another participant referenced their phone use on walks as "just passing the time." Habit seems to drive this behavior, as users hop on their phones by reflex. Similarly, another participant was witnessed pacing in front of a store display, refreshing his email. When asked about why he had opened the app, he responded with "I don't know, I just check it sometimes."

In other cases, individuals were seen walking with their phone up, thumb poised over the screen in anticipation of use while the walker attends to their environment. Groups also exhibited similar patterns, with members holding their phones out and ready, but remaining engaged with others and their environment. The presence of the phone itself was shown to have value, as it offered users digital availability and comfort even when it wasn't being used.

Across all three sites, brief contextual conversations with pedestrians reinforced a central thematic interpretation: phone use while walking was experienced not as deliberate disruption but as a habitual extension of mobility. Participants characterized their device engagement as routine, automatic, and embedded within transitional time, which supported observational evidence that mobile immersion functioned as a normalized expectation within public movement rather than an exception. Together, these observations demonstrated that contemporary walking practices unfolded not solely through physical space but through a parallel, continuous digital layer.

Pedestrians navigated environments with sustained mobile engagement and expected the surrounding bodies to adjust accordingly, signaling that digital priority had become a central condition of urban pedestrian experience rather than a situational behavior.

Discussion

Design Implications

In 1988, Mark Weiser, a computer scientist working at Xerox Corporation, coined the term “ubiquitous computing” (Ubicomp). His vision for the next phase of computing was born from recognizing the tension between what he referred to as a “paradoxical intersection” between the growing desire for technology to be less obtrusive and the intrusive quality of the information boom. According to Weiser, this would lead to nonlinear development. The conclusion, Ubicomp: nonintrusive, omnipresent computing technology, will integrate information into the user's environment to the point where it's practically unnoticeable (Weiser 1993). Subsequently, the adoption of smartphones has delivered pervasive connectivity; however, it's the opposite of unobtrusive. Being designed to maximize engagement, smartphones direct user attention to a single screen and away from their environments. We have observed this screen-centered model to be a detriment to user attention with the phenomenon of phone walking. This behavior highlights the technology's failure in context awareness and heavy attention demand. The persistence of phone-walking across varied environments suggests that users are not seeking less information, but rather less friction between digital engagement and physical navigation. Spatial computing offers a compelling solution. Through technologies like augmented and virtual reality, spatial computing is well-positioned to be the realization of Ubicomp's vision. Spatial computing affords a shift in interaction by transforming the digital layer from the handheld screen to the user's environment. Ambient interfaces, aware of users' context and surroundings, deliver relevant information seamlessly and without demanding distraction. This approach has the potential to succeed as it doesn't try to suppress our modern desire for access, but rather integrate content more smoothly into our focus. Additionally, multimodal functionalities offer greater flexibility in how information is provided.

There are additional safeguards that could be implemented to promote safety when users are distracted by their phone usage. For example, warning notifications that detect when a device is being used during walking movement could remind the user to pay attention to their surroundings. Also, some participants mentioned their phone usage depending on the importance of notifications they receive. Because of this, maybe phones can be personalized and set to only let important notifications through, via either audio or haptic methods. Many participants self-recognized their own capabilities of phone usage while walking, and we witnessed many who used voice text or calls so they could focus on their physical endeavors. Catering to such features that have already been gradually integrated into people's daily lives could be an effective way to keep pedestrians safe.

Social Implications

Partially inferred from the observable patterns of phone-walking, and then revealed as an underlying motivation in contextual inquiry, the fear of missing out (FOMO) serves as a significant social driver of phone-walking behaviors. Users habitually check their phones, without specific functional goals, especially during transitional periods, in the behavioral manifestation of a compulsion to maintain continuous digital connectivity. This compulsion reflects an implicit anxiety of social or informational exclusion. As participants noted, the phone is used to provide a “sense of connection” while moving alone. The continuous need for a digital presence is exacerbated by the attention economy, engineered to maximize user engagement, pulling their focus to the screen. While technological design interventions can provide alternative modes of access or mitigate the obtrusiveness of these alerts, they fail to remedy the fundamental, socially driven fear that compels users to engage in the first place. Consequently, one of the most ambitious implications of our findings is that the solution to phone dependence requires a societal shift in its norms and expectations. We anticipate that reducing the desire for digital availability and the associated FOMO will require a broader cultural re-evaluation of the demand for perpetual responsiveness. When social systems accept periods of digital unavailability, then technological solutions, like the unobtrusive access afforded by spatial computing, will translate into more honest freedom from the device.

Limitations

The contextual inquiry portion of this research study relied on convenience sampling. With this method, participants were recruited based on availability and willingness to engage with researchers in the field. Specifically, participants had to be open to both discussing and demonstrating their phone-walking behaviors at one of our predetermined field site locations. While this approach allowed for rich, in-context discussion, particularly where rapport already existed, our small, non-random sample is unlikely to reflect the full diversity of pedestrian experiences and motivations. Furthermore, the nature of this method is likely to introduce some level of bias, as participant-researcher familiarity may have influenced how participants' behaviors and motivations were communicated. Additionally, data collection across sites was conducted by different researchers, introducing variability in observational focus and interaction style. As such, our contextual inquiry findings are not intended to be representative but instead to provide illustrative depth that complements the broader observational patterns.

Conclusion

This study examined phone use while walking as an everyday, socially embedded practice rather than solely as a problem of safety or individual distraction. Across three distinct urban environments, Chicago’s central pedestrian corridors, San Francisco’s Stonestown Galleria, and Minneapolis’ Mill City River District, mobile device engagement emerged as a stable and normalized feature of pedestrian movement. Despite variations in spatial layout, crowd density, and environmental risk, individuals consistently navigated public space through a layered

experience that combined physical locomotion with continuous digital engagement. The recurrence of similar behaviors across these sites suggests that phone-walking is not contingent on a particular setting but is instead a pervasive condition of contemporary urban mobility.

Findings from observation and contextual inquiry indicate that pedestrians are not passively absorbed by their devices but actively manage their attention through situational judgment. Individuals demonstrated an ability to calibrate awareness based on perceived risk, temporarily disengaging from their phones during moments such as street crossings, close interpersonal encounters, or navigation through dense crowds. This pattern of risk-calculated attentional regulation complicates dominant narratives that frame phone-walking as careless or unconscious behavior. Instead, pedestrians appear to view distraction as a manageable state—one that can be adjusted, paused, or delegated to others when necessary. In this way, phone-walking reflects not a lack of awareness, but a redefinition of what “enough” awareness looks like in shared public spaces.

At the same time, much of the observed phone use was passive and habitual, particularly during transitional moments such as waiting, walking familiar routes, or moving alone. Participants often described phone engagement as something done without intention, driven by boredom, routine, or a desire to maintain a sense of connection. These findings reinforce the role of the smartphone as both a social companion and a temporal filler, particularly in moments of solitude. Importantly, this habitual use does not occur in isolation. Surrounding pedestrians routinely adjusted their pace, direction, and expectations to accommodate distracted walkers, signaling a collective adaptation to digital mediated movement. Public space, therefore, functions as a negotiated environment where responsibility for navigation and safety is distributed across both attentive and inattentive actors.

The implications of this behavior extend beyond individual interaction and into the realm of design and societal norms. From a human-computer interaction perspective, the persistence of phone-walking highlights a fundamental tension between screen-centered interaction models and embodied navigation through physical space. Smartphones, designed to maximize engagement and visual attention, are poorly aligned with the demands of movement in shared environments. The prevalence of phone-walking suggests that users are not seeking to disengage from digital content, but rather to access it with less cognitive and physical friction. Emerging paradigms such as spatial computing, ambient interfaces, and multimodal interaction offer promising avenues for addressing this tension by integrating information into the environment in ways that reduce visual dominance and attentional strain. In this sense, phone-walking exposes the limits of current mobile interaction paradigms and underscores the need for more context-aware, unobtrusive systems.

Socially, the fear of missing out (FOMO) emerged as a powerful motivator underlying habitual phone engagement. Participants’ desire to remain continuously reachable reflects broader cultural expectations around responsiveness, availability, and social presence. While technological interventions can mitigate some aspects of distraction, they cannot fully resolve the social pressures that compel constant connectivity. Addressing phone-walking at its root may therefore

require a cultural shift in how digital presence is valued, including greater acceptance of partial attention and periods of intentional unavailability.

This study is limited by its reliance on convenience sampling, a small number of contextual inquiry participants, and variability in observational practices across researchers and sites. These constraints limit generalizability but do not diminish the value of the insights gained. Rather than offering representative claims, this research provides interpretive depth into how phone-walking is experienced, rationalized, and normalized in everyday life. By foregrounding lived practices and social negotiation, this study contributes to a more nuanced understanding of mobile interaction in public space and invites designers, researchers, and policymakers to reconsider what it means to move and be attentive in an increasingly connected world.

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