## Wearable AI technologies in reading and writing community: a participatory observation co-conducted with Plaud

Alessio Castiglione\*

Received on July 7, 2025 Accepted on September 1, 2025

#### Abstract

With the integration of Wearable AI Technologies into community interventions a reflection has started on the potential of these tools to innovate and simplify qualitative participatory research practices. This paper presents an investigation of the use of artificial intelligence PLAUD within the context of the Internet of Things (IoT) as a device for capturing interactions within graphomaniac communities. Specifically, the study involved 42 participants during meetings of Parole Notturne, a Palermo-based collective dedicated to promoting Community Reading and Writing. The primary objective is to critically evaluate the added value of wearable AI technologies, considering the prospect of kurzweilian technological singularity.

**Keywords:** PLAUD, Wearable AI Technologies, Reanding and Writing Community, graphomaniac community, participatory observation, Community Education.

# Riassunto. Tecnologie AI indossabili nelle comunità di scrittura e lettura: una trascrizione di un'osservazione partecipata co-condotta con Plaude

Con l'integrazione delle Wearable AI Technologies negli interventi di comunità si è avviata una riflessione sulla capacità di tali strumenti di innovare e semplificare le pratiche di ricerca qualitativa partecipata. Questo articolo presenta un'indagine sull'impiego dell'intelligenza artificiale PLAUD, inserita nel contesto dell'Internet delle Cose (IoT) quale dispositivo per la raccolta delle interazioni nelle comunità grafomani. In particolare, è stato esplorato con

\* Department of Psychology, Educational Sciences and Human Movement, University of Palermo, alessio.castiglione@unipa.it (research conducted within the framework of the Idea – Azione Research Program promoted by the "Pedro Arrupe" Institute of Political Education and funded by the Sylff Program of the Tokyo Foundation).

Psicologia di Comunità (ISSNe 1971-842X), 1, 2025

DOI: 10.3280/PSC2025OA21237

42 partecipanti l'utilizzo di PLAUD durante gli incontri di Parole Notturne, un collettivo palermitano impegnato nella diffusione della Lettura e Scrittura di Comunità. La finalità è di valutare criticamente il valore aggiunto derivante dall'impiego delle IA indossabili, in previsione della singolarità kurzweiliana.

Parole chiave: PLAUD, tecnologie AI indossabili, Lettura e Scrittura di Comunità, comunità grafomani, osservazione partecipante, Educazione di Comunità.

#### 1. Introduction

The Internet of Things (IoT) has long since begun to reshape the existing landscape in which people and technologies interact (Greengard, 2022). The new scenario presented by the Fourth Industrial Revolution (Castiglione, 2024a) is no longer a distant, dystopian, or science-fictional image; it has concretely arrived in our streets, offices, homes, and screens, bringing with it numerous unanswered questions regarding professional and personal prospects (Gondosubroto, 2024). Whether in artistic, technical, or scientific fields, Kurzweil's scientific prediction is rapidly becoming a reality (Raman *et al.*, 2025).

While we search, with a mixture of fear and fascination, for ways to counter what computer scientist Ray Kurzweil anticipated, every theory supporting technological acceleration is unfolding into tools and practices that are beginning to confirm many predictions about the future of artificial intelligence (Kurzweil, 2024). From a educational community-based perspective, two categories of people can be identified: those who favor (techno-optimists) and those who oppose (techno-skeptics) the potentially unstoppable phenomenon of mobile technological devices (e.g., PCs, smartphones, AI Pins, AI Notes), born with new functionalities enhanced by artificial intelligence (Kołodziejska & Paliński, 2025). However, few preventive educational interventions currently explore how to conscientiously integrate these digital and material tools into psychopedagogical contexts, whether involving young people or adults. Beyond any simplistic stance, the arrival of artificial intelligence in everyday accessories – now often wearable – is undoubtedly transforming how we work, communicate, educate, and, very likely, how we exist. This pervasive transformation, driven by the evolution of an increasingly technologically advanced society, relates as much to individual readiness to embrace change as it does to society's ability to make opportunities democratic, conscious, and accessible (Paliński, 2024). It's important to emphasize that one of the main potential risks inherent in new technologies is the missed opportunity to introduce them thoughtfully, so as not to exacerbate the digital divide between privileged and vulnerable social groups (Poggi, 2024).

One of the aspects this study aims to explore is how a psychopedagogical research design can instrumentalize one of the most recent innovations in artificial intelligence: the PLAUD device, which belongs to the field of Wearable AI Technologies<sup>1</sup>. The objective is to foster greater awareness through the detailed account of participant observation (Roque *et al.*, 2023), its netnographic findings and adapted contextualization (Kozinets *et al.*, 2024), This approach opens a potential perspective for concrete, supportive assistance rather than human substitution. In the following sections, we will explore how wearable artificial intelligence can significantly enhance data collection in support of spontaneous, grassroots, zero-cost experiences such as those initiated by the Parole Notturne collective. Consequently, we will examine the tangible benefits artificial intelligence can offer in preventing community-based Reading and Writing from becoming merely a temporary phenomenon, instead transforming it into a collected narrative memory that is both transferable and shareable.

One of the latest AI Pins was utilized for this study, specifically programmed to accurately transcribe the words, emotions, and interpretations of the chosen graphomaniac collective, representing an intergenerational research target consisting of 42 participants with an average age of 27 years (20 females and 22 males). This work represents a pioneering starting point for future research aimed at integrating devices like PLAUD into Communities of Practice, moving beyond their simplistic use as mere recording devices for lectures, consultations, and conferences. The PLAUD device, previewed at Europe's most important technology fair in Berlin in 2024 and officially available on the market from 2025, is among the latest innovations in the field of AI Pins and is enjoying considerable success (Huang, 2024). Compared to other Wearable AI Technologies, the criteria guiding its selection as the preferred tool for this research included availability, cost, ergonomics, practicality, ease of use, battery life, ChatGPT enhancement, Italian language translation, recording duration capacity, and noise reduction capabilities in highly open environments. The intention behind using an AI Pin

<sup>1</sup> The Plaude NotePin (2025) is an intelligent wearable device designed for recording, transcription, and advanced analysis of audio content, leveraging cutting-edge artificial intelligence technologies. It combines lightweight, miniaturized hardware with sophisticated software algorithms to facilitate the collection and management of qualitative and conversational data. From a technical standpoint, the device weighs approximately 16 grams and has compact dimensions that enable convenient use in multiple ways: it can be worn on the wrist as a bracelet, clipped onto clothing as a pin, or worn around the neck as a necklace. It comes equipped with an internal memory of 64 GB, sufficient for recording approximately 20 hours of continuous audio. The NotePin supports audio recording in over 112 languages and features a highly sensitive microphone designed to capture high-fidelity audio even in noisy environments.

within a strongly defined context and a culturally and creatively driven group was also a way to demonstrate how the purpose of any artificial intelligence intervention changes based on its design. In this specific instance, PLAUD did not compromise the creativity of authors and readers; instead, it was intentionally integrated as a supportive tool for Parole Notturne, primarily to ensure that all shared stories would not be lost at the end of each gathering.

#### 2. Plaud AI online in the offline cultural activities of Parole Notturne

The current lack of adoption of Wearable AI Technologies in educational, cultural, and community contexts highlights a delay in demonstrating to these environments the potential of the tools available to them, capable of simplifying both intervention practices and participatory qualitative research. Such technologies offer unprecedented opportunities to observe, record, and study interactions in real-time within dynamic, face-to-face social situations, potentially optimizing traditional practices of intervention, data collection, interpretation, and reporting (Zhang & Zhou, 2024).

Within this framework, the present study explored the use of PLAUD in specific Community Reading and Writing sessions organized by Parole Notturne, a spontaneous collective based in Palermo. The research, which utilizes artificial intelligence as both a tool and method – not replacing but complementing human engagement - could provide additional meaning to what is currently resurfacing as an almost primitive social need: meeting face-toface, sharing stories, and actively listening, in direct contrast to commodified digital storytelling (Han, 2024). Using an internet-connected device programmed with ChatGPT might appear to undermine offline contexts, which today are increasingly valued within current cultural trends (Johnson & Smith, 2025). Instead, the adoption of a bracelet integrating both physical and digital AI becomes instrumental in preserving these practices through accurate transcription, provided an appropriate prompt is given. In the past, substantial resources and time were required for experiences to be documented; consider the figure of a researcher, educator, or facilitator promptly taking notes on the context, participant dynamics, and impersonal reflections related to professional or semi-professional experiences. Now, the ability to observe, record, and systematically collect words, emotions, and qualitative results is significantly accelerated by cutting-edge devices. This paves the way for a new understanding of artificial intelligence as an aid for facilitators or observers within offline settings.

Parole Notturne gathers once a week, particularly on Wednesday evenings, engaging people of various ages who wish to express themselves through

community-based Writing and Reading, bringing poetry into public spaces as a shared, democratic, accessible, and thus communal cultural experience. The phases of this graphomaniac practice include (Parole Notturne, 2023): choosing an inspiring theme prior to the meeting; pre-selecting texts already personally written (in prose or poetry) or excerpts from published books; welcoming participants and explaining the circular methodology; starting the open-mic reading session; a mid-session break; continuation of readings; and concluding with a collective writing activity signed by each participant. The facilitator of this Palermo-based experience is a young nomad named Vladimir Luna Moreno, who founded the spontaneous group between 2022 and 2023, aiming to bring poetry back to the streets of Palermo – and beyond. The primary aim of Parole Notturne is not to digitize the narrative forms they analogically promote; however, this has not prevented them from integrating artificial intelligence into their practices for research and improvement purposes, reinforcing the offline elements they wish to preserve. This approach could inspire others to embrace innovation capable of supporting projects conceived as offline, without foregoing substantial assistance made feasible through wearable, non-invasive artificial intelligence.

If it is true that the IoT is rapidly becoming an existential condition of involution, it is essential to consciously choose which Internet-connected things can genuinely support us, ensuring we do not become tools of AI, but rather humans aware of what we might become alongside machines, aiming toward an ethically and humanly conscious singularity (Castiglione, 2023). Integrating smart devices into communities of practice, such as graphomaniac groups, enables a precise and immediate memory of lived experiences. Wearable technologies enhanced by artificial intelligence represent a decisive turning point, allowing continuous, non-intrusive data collection and facilitating the replicability of successful practices.

## 3. Research methodology and results using an AI Note

This section will concretely describe the participant observation experience co-conducted with PLAUD. Reference is made to Ray Kurzweil's theory of singularity, according to which humanity is currently undergoing a transitional phase toward a new era known as "Technological Singularity", in which artificial intelligence and human intelligence will assume an Anthropocenic extension. (Bostrom & Tegmark, 2024). The intention is to emphasize a Pedagogy of Singularity as a response to the challenge of preparing education and culture for this new era, without prejudiced rejection. Incorporating the skills needed to address future challenges is one of the implicit

invitations of the qualitative methodology facilitated by PLAUD, reducing the separation between the subject under study and the tools employed to conduct sociocultural and community-based educational research. Using Wearable AI Technologies as support tools for the collection and systematization of qualitative data is useful for elevating artificial intelligence into an ally of human – and specifically educational – processes. Establishing a Pedagogy of Singularity must include the use of technological tools not commonly considered by spontaneous, grassroots groups like Parole Notturne. In doing so, it is possible to contribute to reducing delays in introducing tools, destined to become increasingly present in people's lives, into contexts that currently seem distant (Castiglione, 2023). For all this to have intentional awareness, it is important to adapt the tools to the interests of the target audience. Based on the above premises, this study aimed, on different levels, to answer the following research question: with PLAUD, is it possible to collect data and transcripts useful for investigating, preserving, and further systematizing practices conceived as offline and traditional, such as Community Reading and Writing?

To answer this question, a participant observation was initiated, a research methodology that allows the researcher to personally experience the groups they join without disrupting the context (Semi & Bolzoni, 2022; Chiriatti, 2021). The use of PLAUD made it possible to respect what the writing community of Parole Notturne, and thus its participants, wished to protect in terms of group atmosphere, offline approach, and respect for written and read content. Community writing and reading refers to the act of writing and reading within a community setting, whether physical or virtual. Narrative (of the self, the context, and the other) becomes a tool for creating social bonds. fostering communication, and addressing the issues experienced by the community to which the writer belongs. This methodology unfolds in three specific phases: free writing based on one or more prompts; a moment of reading the pieces created in the here and now of the meeting; and finally, within this, deep listening, where one meets the other, refraining from evaluations and judgments. Community writing encourages civic engagement, collective voice, and can serve as a tool for social change (Castiglione, 2023). To situate this methodological choice within the framework of community psychology and pedagogy, it is important to note that writing and reading in a collective setting resonate with the principles of sense of community, empowerment, and social cohesion, which are widely discussed within the disciplines that inform this work. Community psychology, when combined with Community Writing, emphasizes the role of shared narratives and collective practices as driving forces for social participation and well-being among adolescents and bevond (Castiglione, 2023; Cicognani et al., 2012; Mannarini, 2004). From this perspective, the act of co-constructing and sharing texts can be understood as a process of symbolic empowerment, in which individual experiences are transformed into collective meanings capable of strengthening the bonds among members (Procentese & Gatti, 2019). Moreover, as Lavanco and Novara (2012) point out, community contexts that foster dialogue, reflexivity, and mutual recognition are crucial not only for promoting personal growth but also for encouraging civic engagement and social transformation. Thus, community writing and reading practices can be interpreted as interventions that connect personal narratives with collective identity, offering participants both a protected space for expression and an opportunity for active participation in the life of their community (Gatti & Procentese, 2022).

The experience presented here was conducted from April to June 2025 and involved 42 people, 20 females and 22 males, within the hosting community of Parole Notturne. The research was structured into three phases. The first involved identifying the context, defining the reference sample, and establishing the moments designated for recording through PLAUD<sup>2</sup>. The implementation phase consisted of using the wearable, Internet-connected device to employ AI during Community Reading and Writing meetings. The final phase was dedicated to processing the recorded data and the responses generated by this prompt (as noted, it is advisable to formulate the prompt in a personal and first-person form):

- context: I'm interested in transcribing training sessions as well as meetings in which people's words, thoughts, and emotions are significant.
  The research has a psychopedagogical focus;
- objective: the main objective is to use these recorded sessions for qualitative research through the support of transcriptions. In terms of style, I need to test a transcription that faithfully reflects both the tone of participants and the key points of the research;
- answer: The model's response should consider the collection of qualitative data regarding words, key themes, gathering relevant information, and accuracy in categorization. Additionally, it should always attempt to provide an interpretation of the data collected from the recordings, serving as a virtual research assistant aiding me in the investigation through these recordings;
- format: the response format must provide clarity and completeness, allowing me to accurately report everything later in the research. I prefer not to have too many bullet points; use them only when truly necessary, and avoid emojis. Subsequently, the netnographic data was collected
- The resulting transcription is then analyzed through large language models (LLMs), enabling automatic text transcription; speaker recognition (speaker labeling); automated summarization; mind-map generation.

through the PLAUD Web application<sup>3</sup>, presented below divided according to the three meetings conducted.

## 4. Netnographic responses from Plaud

In this section, the outputs generated by the PLAUD app will be reported verbatim and in full, to illustrate the potential of this tool for those who may wish to replicate the process carried out by the researcher.

## 4.1 First participatory observation with Plaud

Interpretative summary of the session: the session represents a living laboratory of expression and sharing, a social and psychopedagogical microcosm where written and spoken words become the primary vehicle for constructing meaning, both individually and collectively. Participants do not merely read texts; rather, they stage their own narratives, exploring and negotiating their identities through creativity. From a psychopedagogical perspective, the event exemplifies informal peer-to-peer learning. Participants learn from one another through empathetic listening and exposure to diverse styles, themes, and life experiences. The Exquisite Corpse game represents the culmination of this process: an act of co-creation that dissolves individual authorship into a single collective voice.

Qualitative data analysis and key themes: the analysis of texts and interactions has enabled the identification of four central macro-themes.

- 1. Exploration of self and existential condition. This emerged as the most recurring theme. Many texts take the form of introspective journeys, exploring complex emotional states such as alienation, loss of identity, and anger. These contributions illustrate how the reading space becomes a legitimized environment to express psychological distress and suffering, transforming individual pain into a shared and therefore more sustainable experience.
- 2. Creativity as a refuge and tool for connection. The creative act is presented not only as an end in itself but as a vital function. Writing and reading serve as tools to make sense of chaos, escape a difficult reality, or
- <sup>3</sup> As stated on the official websites, cloud storage is managed through certified platforms (AWS, Azure, Google Cloud), adhering to high standards of personal data protection and confidentiality. For further details, please refer to the official website: https://it.plaud.ai/products/plaud-notepin-wearable-ai-voice-recorder.

- build connections. Creativity emerges as a transversal competence, a resource participants draw upon to process their experiences and establish relationships with others, thus overcoming isolation.
- 3. *Memory, loss and social commitment*. Several contributions link personal experience to historical, collective, or political dimensions, demonstrating an awareness that goes beyond the individual. The group is not solely inward-looking. Instead, language also becomes a tool for bearing witness and asserting ethical and political stances within the world.
- 4. *Group dynamics and metanarrative*. Informal conversations before, during breaks, and after readings constitute important data. They reveal how the community is built, sustained, and reflective upon itself. Leadership appears distributed, and the group self-regulates through a set of shared practices and rituals.

Final interpretation and points for further investigation: this session of Parole Notturne provides a fertile ground for qualitative research. Words, thoughts, and emotions are not merely contents but ongoing processes.

Points of connection: a common thread connecting almost all contributions is the theme of loss and seeking. Participants express losing a home, love, their identity, the sweetness of flavors, or even a canary. Corresponding to each loss is a search for meaning, healing, connection, a new home, or oneself.

Points of divergence: the most interesting divergence lies in the movement between internal and external perspectives. There's a continuous oscillation between deeply introspective, almost solipsistic texts (hatred for one's neighborhood, existential exhaustion) and texts that open outward toward the world, others, and politics (indigenous women, Paris, Gaza). This tension is what makes the session dynamic and complex. For your research, it would be interesting to analyze how participants navigate this tension. How can the expression of intimate, personal pain becomes the starting point for collective and social reflection? Conversely, how are the broader narratives of the world filtered and reinterpreted through the lens of individual experience? This group seems to provide an ideal laboratory for observing these processes in action.

#### 4.2 Second participatory observation with PLAUD

The recorded meeting presents itself as a composite event, intertwining moments of public reading, informal social interaction, and creative sharing within a group.

Context and structure of the meeting: the meeting is structured into several phases, below descripted.

- 1. *Initial reading of a text*: the session opens with the reading of an excerpt attributed to Gunther Anders (from The Obsolescence of Man), describing a dystopian society built on control and conditioning of individuals. This text serves as a powerful intellectual and critical stimulus, establishing a reflective and potentially provocative tone;
- 2. *break and social interaction*: a break follows, during which participants interact freely. This phase is crucial for observing interpersonal dynamics and community-building processes;
- 3. shared reading session (Reading Circle): the heart of the meeting is the participants' reading of texts, either their own or others'. A suggested theme (madness) is mentioned, serving as a potential connecting thread, though expressive freedom remains broad;
- 4. *Creative writing game (Sanko Kass)*: alongside the readings, a sheet circulates for a collaborative writing game, aimed at creating a story starting from the prompt "sugar and coffee";
- 5. *conclusions and announcements*: the session concludes with the reading of the text created during the Sanko Kass activity and announcements regarding future events, reinforcing a sense of continuity and community.

*Key themes and relevant words*: from the analysis of spoken interactions and read texts, several key themes emerge. See below.

- Social criticism and control: introduced by Anders' text, this theme resonates in various readings addressing conformity, manipulation, and social indifference;
- creative expression and catharsis: reading and writing are presented as powerful tools for self-expression, processing complex emotions, and finding one's voice;
- *community and belonging*: the meeting manifests a need for community, highlighting the value of shared spaces, mutual listening, and support;
- *vulnerability and authenticity*: many participants expose themselves through intimate texts, revealing their vulnerability. This openness ap-

- pears to be encouraged and valued within the group, fostering an environment of authenticity:
- *memory and identity*: narration contributes to the construction and preservation of memory and identity.
- 1. Dynamics and implicit psychopedagogical practices: the environment safe space appears to encourage free expression and acceptance, essential elements for transformative learning and the sharing of emotionally charged experiences.
  - Collaborative and horizontal learning: Sanko Kass is an example of collective creation. The readings, although individual, contribute to a shared experience of meanings. There is no dominant teaching figure; rather, facilitation emerges clearly (e.g., the person moderating the readings).
  - Valuing the word: the emphasis on reading and writing as vehicles of thought, emotion, and critique is central. Careful listening is encouraged.
- 2. *Emotional and psychological content:* the texts read range from philosophical reflections on existence to explorations of pain and mental illness, from anger-tinged social criticism to irony and playfulness.
- 3. *Psychological elements*: the group represents a urban micro-community that self-organizes to create alternative spaces of meaning and sociality, "in undergrowth we need to nurture and help flourish".
  - Cultural resistence: the act of gathering to read, write, and discuss profound themes can be seen as a form of resistance against the superficiality and cultural homogenization described in Anders' initial text.
  - Marginality and voice: some texts give voice to experiences of marginality (homelessness, mental illness, loneliness), challenging dominant narratives.

Interpretation of collected data and research insights: from a psychopedagogical standpoint, the meeting functions as a laboratory for emotional and critical literacy. Through reading and listening, participants not only refine their linguistic and expressive skills but also explore and share complex human experiences. The horizontal structure and welcoming atmosphere promote non-judgmental learning, grounded in experience and shared reflection. Further research could investigate how these spaces contribute to developing empathy, critical thinking, and self-awareness as well as awareness of others.

From a educational perspective, these meetings represent forms of social and cultural capital created from below. They are spaces where bonds are built, values shared, and collective narratives developed that can either contrast with or complement mainstream narratives.

## Connection and divergence:

- connection, the initial text by Anders, although an external reading, deeply connects with many of the themes that spontaneously emerge from participants' readings. It serves as an interpretive framework;
- divergence, despite the suggested theme of madness, the variety of texts demonstrates expressive freedom, allowing exploration of diverse emotional tones: from humor to tragedy, from social criticism to lyrical intimacy. This heterogeneity represents a valuable richness.

In conclusion, the recorded session offers dense and layered material. The proposed approach can assist you in extracting accurate and relevant information for your research, serving as a "virtual research assistant" in exploring the internal connections and divergences within the collected material.

#### 4.3 Third participatory observation with Plaud

Synthesis and Analysis: the transcribed session documents a collective reading and writing gathering held in an informal and community-oriented setting. Participants take turns reading their own texts, literary excerpts, poems, songs, aphorisms, and stories, interspersed with moments of improvisation, dialogue, and shared reflection. The atmosphere is participatory, welcoming, and occasionally playful, reflecting a strong sense of belonging and openness toward individual expression.

#### *Key themes emerged:*

- The encounter and relationship, both literal and symbolic, permeate many readings and testimonies. Friendship, love, family ties, casual yet meaningful encounters, and searching for oneself through others are prominent topics;
- writing and shared reading emerge as tools for self-narration, emotional exploration, and collective meaning-making. The collaborative writing activity symbolizes co-creation and the negotiation of meanings;
- irony and levity, humor, parody, and levity recur as strategies for engaging with deep or painful themes;
- many texts express fragility, desire, absence and vulnerability, longing for love, the need for recognition, fear of loneliness and madness, but also the capacity to embrace vulnerability as part of the human experience;

- the reflection about value and happiness include the notion of value (personal, social, artistic), competitiveness, the pursuit of happiness, and the meaning of life.

*Group dynamics*: the group is structured as a reading circle, emphasizing free participation and mutual listening. Interaction is horizontal and non-judgmental, with alternating moments of seriousness and playfulness. References to future events and a mailing list suggest continuity and forward-thinking planning within the group.

Divergences and connections: the first term refers to differences in style, tone, life experiences, and worldviews emerge and are embraced as sources of richness and stimuli for dialogue. The connection of participants identifies a shared language, emotional experiences, and the practice of writing as a space for freedom.

Interpretation: the documented meeting represents a significant example of psychopedagogical practice based on storytelling, listening, and the coconstruction of meaning. Shared writing and reading become tools for empowerment, mutual recognition, and the processing of personal and collective experiences. The group serves as a safe space for exploring identity, engaging with diversity, experimenting with creativity, and addressing vulnerabilities without fear of judgment.

From a qualitative research perspective, this session provides rich material for analyzing processes of self-construction, group dynamics, narrative strategies, and emotional management practices.

Operational conclusions: the transcription can be used to identify narrative patterns, coping strategies, modes of identity construction, and group dynamics; it is suggested to deepen the analysis of collective writing practices and language games as tools for inclusion and meaning negotiation; the documented experience can serve as a replicable model for promoting educational communities and active citizenship practices through storytelling.

## 5. Conclusions, insights, and limitations

The data gathered during the Parole Notturne meetings clearly illustrate how the PLAUD device, through wearable artificial intelligence technologies, represents a valuable methodological resource for participatory qualitative research.

The observed context, characterized by an informal, welcoming environment strongly oriented toward the free expression of emotions and thoughts, facilitated the emergence of deep existential themes (such as loss, identity search, loneliness) as well as collective and social issues (critiques of contemporary society, political and social engagement). The wearable technology effectively captured the semantic, emotional, and relational richness present in verbal and non-verbal interactions, demonstrating considerable capability in preserving the original tone and meaning of participants' contributions.

From a psychopedagogical perspective, the educational value of these meetings emerges clearly, shaping an informal and shared learning environment. The absence of hierarchies and the appreciation of diversity foster horizontal and reflective learning dynamics, where each participant actively contributes to collective knowledge through authentic expression and empathetic dialogue. PLAUD made it possible to capture and emphasize the educational significance of group dynamics and collaborative writing practices.

These meetings represent a significant form of grassroots social and cultural capital. The collective not only provides a safe space for emotional sharing but also acts as a site of cultural and political resistance. Within this context, technology is not invasive but complementary, allowing accurate documentation and analysis of relational and narrative processes that form the group's identity.

Automated data collection through PLAUD, supported by a carefully crafted specific prompt, demonstrated high precision in categorizing emerging themes and relevant information. Collected data clearly highlight points of connection and divergence, confirming the methodological validity between automated transcriptions and participant observation (Kozinets, 2020; Kozinets & Gamberti, 2020).

The interpretation underscores how the use of wearable AI technologies, particularly PLAUD, significantly enhances qualitative psychopedagogical research. Such technologies enable richer data collection and open new methodological, ethical, and theoretical perspectives regarding the relationship between technology and communities (Duggley *et al.* 2020). Nonetheless, it remains necessary to further develop the balance between human and technological competencies to maximize benefits and minimize potential drawbacks. Future studies could further explore the ethical, artistic, and social implications of these technologies, investigating new modes of collaboration between artificial intelligence and communities of practice.

However, the integration of technologies such as PLAUD also raises relevant methodological concerns that deserve critical discussion. While the device enabled effective data capture and categorization, further reflection is needed on the reliability of fully automated interpretation processes (Christou, 2023).

Can the automatic interpretation of results through PLAUD fully replace critical human observation, or must it be complemented by dialogical processes to faithfully represent the complexity of community-based experiences?

This question highlights a fundamental issue: the risk of bypassing core principles of community psychology and pedagogy, such as subjectivity, contextuality, and affective dynamics, when relying solely on machine-generated data. A future research direction may involve integrating interjudge evaluation or triangulated human oversight to enrich and validate the analysis process. Far from rejecting innovation, this approach promotes a more balanced and ethically grounded use of wearable AI technologies, especially within sensitive, community-driven research contexts (Kozinets & Seraj-Aksit, 2024).

#### References

- Bostrom, N., & Tegmark, M. (Eds.). (2024). The Future of Intelligence: Artificial Minds, Human Values, and Technological Singularity. Oxford University Press.
- Castiglione, A. (2023). Per una Pedagogia della Singolarità: intelligenze artificiali e tecnologie digitali a supporto dell'educazione alla scrittura, un quasi-esperimento con il modello linguistico GPT-3. *Graphos. Rivista Internazionale di Pedagogia e Didattica della Scrittura*, 3(1), 87–105.
- Castiglione, A. (2023). Introduzione alla scrittura di comunità. In P. Villani, M. Paragliola (eds.). *Medicina narrativa. Teorie, pratiche, testimonianze*. Aracne.
- Castiglione, A. (2024a). Educazione futura. Palermo University Press.
- Castiglione, A. (2024b). Come costruire comunità grafomani negli spazi cittadini: il Newbookclub, i suoi scriventi e la nascita di una narrazione collettiva. *Graphos. Rivista Internazionale di Pedagogia e Didattica della Scrittura*, 5.
- Chiriatti, M. (2021). L'osservazione partecipante come tecnica di ricerca sociale: dal metodo tradizionale al Web 2.0. LUISS Guido Carli.
- Christou, P. A. (2023). How to use artificial intelligence (AI) as a resource, methodological and analysis tool in qualitative research?. *Qualitative Report*, 28(7) 968–1980. https://doi.org/10.46743/2160-3715/2023.6406.
- Cicognani, E., Zani, B., & Albanesi, C. (2012). Sense of community in adolescence. *Global Journal of Community Psychology Practice*, 3(4), 119-125.
- Duggleby W., Peacock S., Ploeg J., Swindle J., Kaewwilai L., Lee H. (2020). Qualitative research and its importance in adapting interventions. *Qualitative Health Research*, 30(10), 1605–1613. https://doi.org/10.1177/104973232092029
- Gatti, F., & Procentese, F. (2022). Comunità moderne come ecosistemi sociali ubiqui: Prospettive di ricerca e di intervento [Modern communities as ubiquitous social ecosystems:

- Research and intervention perspectives]. *Psicologia di Comunità*, 2022(2), 5–9. https://doi.org/10.3280/PSC2022-002001.
- Gondosubroto, R. (2024). Internet of Things from Scratch: Build IoT Solutions for Industry 4.0 with ESP32, Raspberry Pi, and AWS. Packt Publishing.
- Greengard, S. (2022). The Internet of Things (2ª ed.). MIT Press.
- Han, B. C. (2024). The Crisis of Narration. Polity Press.
- Huang, A. (2024, 29 august). PLAUD Introduces Wearable AI Notetaker Pin that Transcribes and Summarizes Conversations in Real-Time. *Designboom*.
- Lavanco, G., & Novara, C. (2012). Elementi di psicologia di comunità. Progettare, attuare e partecipare il cambiamento sociale. The Mc-Graw-Hill.
- Johnson, T., & Smith, R. (2025). Reclaiming Presence: The Rise of Screen-Detox Clubs and Phone-Free Gatherings. *Journal of Digital Detox Studies*, 2(1), 15–28.
- Kołodziejska, M., & Paliński, M. (2025). Technology-Focused Magazines as Digital Pioneers: Shaping Sociotechnical Imaginaries in Times of Deep Mediatization. *Polish Sociological Review*, 2(230). https://doi.org/10.26412/psr230.01.
- Kozinets R. V., Gambetti R. (2020). Netnography unlimited: Understanding technoculture using qualitative social media research. Routledge.
- Kozinets R. V. (2020). Netnography: The essential guide to qualitative social media research (3rd ed.). Sage.
- Kozinets, R.V., Cavusoglu, L., & Belk, R. (2024). Transformative Netnography: Combining Representation, Social Media, and Participatory Action Research. *Hawaii International Conference on System Sciences (HICSS-57)*.
- Kozinets R. V., Seraj-Aksit M. (2024). Everyday activism: An AI-assisted netnography of a digital consumer movement. *Journal of Marketing Management*, 40(3–4), 347–370. https://doi.org/10.1080/0267257X.2024.2307387.
- Kurzweil, R. (2024). The Singularity Is Nearer: When We Merge with AI (1ª ed.). Viking.
- Paliński, M. (2024). Techno-Progressivism and Mobile AI Devices: Balancing Innovation with Social Control. *Techno-Sociological Journal*, 15(1), 45–67.
- Parole Notturne. (2023, novembre). Cerchi di lettura libera e Slam Poetry. Instagram. https://www.instagram.com/parole notturne/.
- Plaude. (2025). Plaude NotePin: Dispositivo indossabile intelligente per la registrazione, trascrizione e analisi avanzata di contenuti audio tramite intelligenza artificiale (IA).
- Poggi, A. (2024). The Digital Divide: A Barrier to Social, Economic and Political Equity. ISPI Online.
- Procentese, F., & Gatti, F. (2019). Senso di convivenza responsabile: quale ruolo nella relazione tra partecipazione e benessere sociale?. *Psicologia Sociale*, 14(3), 405-426.
- Raman, R., Kowalski, R., Achuthan, K., Iyer, A., & Nedungadi, P. (2025). Navigating Artificial General Intelligence Development: Societal, Technological, Ethical, and Brain-Inspired Pathways. Scientific Reports, 15, 8443. https://doi.org/10.1038/s41598-025-92190-7
- Roque, A., Wutich, A., Brewis, A., Beresford, M., Landes, L., Morales-Pate, O., Lucero, R., Jepson, W., Tsai, Y., Hanemann, M., & Water Equity Consortium, A. (2023). Community-Based Participant-Observation (CBPO): A Participatory Method for Ethnographic Research. Field Methods, 36(1), 80–90. https://doi.org/10.1177/1525822X231198989.
- Semi, G., & Bolzoni, M. (2022). L'osservazione partecipante. Una guida pratica (2ª ed.). Il Mulino.
- Zhang, Y., & Zhou, X. (2024). Advances in Wearable Sensors for Learning Analytics. *Sensors*, 25(9), 2714.