

The Role of Citizen Journalism in Disaster Risk Communication

Evidence from Central Sulawesi

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ABSTRACT

Purpose – This study investigates the effectiveness of digital storytelling as a public relations strategy to promote tourism destinations in Yogyakarta. It aims to understand how narrative-based content influences audience engagement and destination branding. **Design/methods/approach** – Using a qualitative case study approach, the research analyzed 15 digital storytelling campaigns published by the Yogyakarta Tourism Board across Instagram, YouTube, and TikTok. Semi-structured interviews were conducted with five PR practitioners and content creators involved in these campaigns. Content analysis was applied to identify key narrative elements and engagement metrics. **Findings** – Results indicate that campaigns using authentic local narratives, visual aesthetics, and interactive storytelling formats generated 35% higher engagement rates compared to conventional promotional content. Storytelling elements such as character-driven plots, emotional appeal, and cultural symbolism significantly enhanced destination image perception. **Research implications/limitations** – The study focuses on a single regional tourism board, which may limit generalizability to other cultural or geographical contexts. Further comparative research across different tourism destinations is recommended. **Originality/value** – This research contributes to public relations and tourism marketing literature by demonstrating the measurable impact of narrative-driven digital strategies on audience engagement and brand positioning, particularly in promoting cultural tourism destinations.

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Introduction

Disasters represent complex social phenomena that can significantly disrupt communities and strain institutional capabilities. Effective disaster communication is essential for community survival and resilience, as it directly impacts the capabilities of affected populations to respond to crises (Wang et al., 2023; , Kessel et al., 2025; , Vandrevalla et al., 2024). Traditional channels, such as state agencies and professional media, have historically dominated information dissemination during emergencies. However, the advent of digital technologies has altered this landscape by enabling ordinary citizens to engage in citizen journalism, becoming active participants in the dissemination of information (Cohen et al., 2020).

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The critical importance of effective disaster risk communication lies in its ability to provide timely, accurate, and trustworthy information, which can facilitate informed decision-making among affected populations (Wang et al., 2023; , Lee et al., 2023). Research indicates that social media and mobile connectivity have transformed the methods by which communities engage during crises, allowing for rapid sharing of information and crucial updates when official communication may falter (Gerges et al., 2021). This is particularly evident in public health emergencies, where community engagement and collaborative networks are integral to maintaining resilience and recovery efforts (Alonge et al., 2019; , (Pfefferbaum et al., 2016; .

Evidence from recent studies highlights that successful citizen involvement in information sharing during crises can foster a sense of community cohesion, thereby reinforcing resilience (Pfefferbaum et al., 2016; , Cohen et al., 2019). Notably, effective communication strategies are linked not only to enhanced resilience but also to the overall governance of disaster risk within communities (Houston & Buzzanell, 2020). Conversely, the failure of communication can exacerbate vulnerabilities and hinder recovery, emphasizing an urgent need for integrated communication approaches involving both official sources and citizen initiatives.

In conclusion, as disasters evolve in complexity, integrating citizen journalism into disaster risk communication becomes imperative for strengthening community resilience and ensuring effective crisis management. The shared responsibility in communication can empower communities, enhancing their ability to withstand and recover from the multifaceted impacts of disasters (Adekola & Clelland, 2019).

Citizen journalism refers to the phenomenon where individuals without formal training in journalism utilize digital tools to produce and disseminate news and information to the public. This practice is particularly significant during crises, where timely and accurate information can mean the difference between life and death, highlighting the essential role of citizen journalists in such situations Prahassacitta (2017). One primary reason for the importance of citizen journalism in disaster contexts is its ability to provide immediate, on-the-ground insights that traditional media may lack due to logistical or bureaucratic constraints (Apuke & Ayih, 2020; , Nusantara et al., 2024).

Evidence suggests that citizen journalists often emerge as the first responders in documenting disasters. Their proximity to the crisis allows them to report real-time events, relay casualty information, and identify urgent community needs swiftly, thus aiding in rapid response efforts (Apuke & Ayih, 2020; , Nusantara et al., 2024). For example, studies have shown that during crises, citizen-generated content on platforms like social media can play a crucial role in countering misinformation, which is vital for effective

disaster management (Ugbo et al., 2022; , Novak & Vidoloff, 2011). The flexibility and immediacy afforded by digital platforms enable ordinary individuals to act as critical information conduits, disseminating life-saving knowledge and updates (Ugbo et al., 2022; , Novak & Vidoloff, 2011).

In conclusion, citizen journalism not only complements traditional media but acts as a crucial component of crisis communication. It empowers communities by enabling immediate information sharing and participatory engagement in disaster response efforts. As the role of citizen journalism continues to evolve, its integration into formal disaster management strategies holds significant potential for enhancing community resilience and preparedness (Syahputra & Ritonga, 2019; , Mncina et al., 2023). The digital age, by facilitating this grassroots engagement, has transformed the landscape of crisis communication, making citizen journalism an indispensable element in the unfolding narrative of disaster response.

Citizen journalism has assumed a transformative role in crisis contexts, significantly impacting disaster response dynamics globally. This practice allows individuals, who may lack formal journalistic training, to leverage digital tools for reporting and disseminating information in real-time during emergencies Chun & Artigas (2012). The shift towards citizen journalism in crisis situations is mainly driven by its ability to provide rapid, localized updates that enhance situational awareness and operational responses by humanitarian organizations (Mulder et al., 2016).

For instance, during the catastrophic 2010 Haiti earthquake, citizen-generated updates on platforms like Twitter and Ushahidi were pivotal in expediting humanitarian aid (Mulder et al., 2016). Similarly, in the aftermath of Typhoon Haiyan in the Philippines, localized reports from citizens proved essential in helping international relief organizations prioritize their resources effectively (Wu et al., 2016). In Indonesia, a nation frequently affected by disasters due to its Pacific Ring of Fire location, citizen journalism has also proven invaluable. Local reporters played critical roles during the 2018 Lombok earthquakes by providing timely information on ground realities, compensating for overloaded formal communication systems (Pamuji et al., 2020).

In conclusion, the advent of citizen journalism has redefined the landscape of disaster communication. The ability of ordinary citizens to document their experiences and convey urgent information during crises not only aids immediate disaster response efforts but also fosters community resilience (Schmidt et al., 2017). As digital platforms evolve, integrating citizen journalism into formal disaster management strategies and

promoting community participation could further enhance responsiveness and recovery outcomes in disaster-prone areas (Ibrahim & Mishra, 2021).

The 2018 earthquake and tsunami in Central Sulawesi serves as a significant case study illustrating the critical role of citizen journalism in disaster risk communication. On September 28, 2018, a powerful 7.5 magnitude earthquake struck the region, unleashing a devastating tsunami and causing extensive liquefaction in areas such as Palu, Donggala, and Sigi. This disaster resulted in approximately 4,300 fatalities, widespread displacement, and extensive damage to infrastructure Widiyanto et al. (2019)(Song et al., 2022). The immediate aftermath saw a catastrophic failure of formal communication systems: electricity outages, downed telecommunication networks, and obstructed transport routes greatly limited access to affected areas by professional media teams (Widiyanto et al., 2019; Handayani et al., 2023).

In this environment of disrupted communication, local residents utilized mobile devices and social media platforms to relay real-time updates, photos, videos, and urgent requests for aid (Nusantara et al., 2024; . Their grassroots efforts were crucial in breaking the information vacuum, providing not only valuable local insights but also captivating national and international attention that expedited emergency responses (Nusantara et al., 2024; Handayani et al., 2023). For example, citizen journalism efforts attracted assistance from various humanitarian organizations, showcasing how local voices can be instrumental in mobilizing relief efforts when traditional media falls short (Song et al., 2022).

In conclusion, the Central Sulawesi disaster underscores the transformative power of citizen journalism in crisis situations. By empowering local citizens to share their narratives and essential information, disaster response can improve drastically, bridging gaps left by formal communication systems (Chari et al., 2019)Miyajima et al., 2019). As such, fostering citizen participation in future disaster risk communication frameworks could enhance community resilience and preparedness, ultimately saving lives during catastrophic events (Chari et al., 2019).

Citizen journalism plays a crucial role in disaster risk communication, particularly due to its immediacy, proximity, and authenticity. Ordinary citizens, often present at the disaster scene, serve as "first informers," providing timely information well before official responders can act (Chen et al., 2019). The ability of these individuals to utilize social media platforms—like Facebook, Twitter, Instagram, and WhatsApp—enables them to swiftly disseminate information, thereby circumventing bureaucratic delays inherent in traditional media systems (Chen et al., 2019).

The participatory nature of citizen journalism fosters a sense of agency among community members affected by disasters. As they contribute their insights and observations, citizens cultivate social cohesion, which is vital for community resilience during recovery efforts (Zeng et al., 2019). During significant disasters, citizen journalists share on-the-ground accounts, vital updates, and urgent pleas for assistance, informing local populations and potentially mobilizing national and international aid efforts (Watson, 2013). This dual function of providing critical information and empowering communities highlights the transformative impact of citizen journalism in crisis situations.

Evidence from recent studies further illustrates this dynamic. Following the 2015 Tianjin blasts in China, citizen journalists utilized Weibo to fact-check rumors, demonstrating that citizen-led initiatives can effectively complement traditional news reporting (Zeng et al., 2019). Moreover, research indicates that efficient information sharing, driven by citizen involvement, enhances coordination among various stakeholders during emergencies (Chen et al., 2019).

In conclusion, the integration of citizen journalism into disaster risk communication frameworks can significantly strengthen community responses to crises. By combining immediate access to information with a participatory approach, citizen journalism not only fills critical gaps left by traditional media but also enhances communal resilience in the face of disasters (Middleton et al., 2014).

Nevertheless, the integration of citizen journalism into disaster risk communication frameworks remains contested. While its speed and reach are undeniable, questions arise regarding accuracy, verification, and the ethical implications of unfiltered reporting. Studies have documented instances where unverified information shared by citizen journalists exacerbated panic or diverted resources from genuine emergencies (Starbird et al., 2014). In Indonesia, the rapid spread of hoaxes and misinformation during disasters—ranging from false tsunami warnings to fabricated casualty figures—has prompted government agencies to caution the public about the risks of relying solely on unofficial sources. This tension between the democratic openness of citizen journalism and the need for reliable, verified information is central to ongoing debates in crisis communication scholarship.

From a theoretical perspective, the role of citizen journalism in disaster communication can be understood through the lens of participatory communication and resilience theory. Participatory communication emphasizes the agency of communities in shaping the flow of information, challenging top-down, one-way models of dissemination (Servaes, 2008). In disaster contexts, participatory approaches recognize that affected

communities are not merely passive recipients of aid and information but active agents in their own recovery. Resilience theory, on the other hand, highlights the capacity of communities to absorb shocks, adapt, and recover from adverse events. Citizen journalism, by enabling communities to communicate their needs, share coping strategies, and coordinate mutual aid, can contribute to building both social and informational resilience.

The Central Sulawesi case also invites a consideration of Indonesia's broader media ecosystem and digital landscape. With over 210 million internet users and a rapidly expanding mobile phone market, Indonesia has one of the largest and most active online populations in Southeast Asia. Social media penetration is particularly high, with platforms like WhatsApp, Facebook, and Instagram playing a central role in daily communication. This digital infrastructure provides fertile ground for the growth of citizen journalism, but it also amplifies the challenges of information verification, particularly in rural or remote areas where digital literacy levels vary widely.

This study situates itself within a growing body of literature that examines the interplay between grassroots communication, disaster management, and community resilience. Previous research has demonstrated that citizen journalism can complement formal communication channels by providing hyperlocal content, humanizing disaster narratives, and mobilizing community-based responses (Gillmor, 2004; Hermida, 2012). However, empirical studies on the Indonesian context remain limited, particularly with regard to how citizen journalism functions in the aftermath of large-scale disasters and how affected communities perceive its credibility and utility. The Central Sulawesi earthquake and tsunami, with its complex mix of infrastructural collapse, humanitarian urgency, and digital citizen engagement, offers an opportunity to address this gap.

This research seeks to answer two central questions: (1) How did citizen journalists in Central Sulawesi contribute to disaster risk communication following the 2018 earthquake and tsunami? (2) What challenges and best practices emerged from their experiences in disseminating information to affected communities? By focusing on these questions, the study aims to deepen understanding of the operational realities, strengths, and limitations of citizen journalism in high-stakes crisis environments.

The significance of this study is multifold. First, it provides empirical evidence on the functional role of citizen journalism in disaster communication, contributing to scholarly debates on the integration of grassroots reporting into formal disaster management systems. Second, it highlights the lived experiences of citizen journalists themselves, whose narratives are often marginalized in media studies that privilege institutional actors. Third, it offers practical insights for policymakers, humanitarian organizations, and media practitioners seeking to design more inclusive and resilient communication strategies.

Finally, it adds to the global comparative literature on citizen journalism by offering a case from Indonesia—a nation that, due to its geographic and geological conditions, will continue to face significant disaster risks in the future.

While the study focuses on a single disaster event, its implications extend to broader considerations of how societies can harness the power of citizen-generated content while safeguarding against its potential harms. As climate change increases the frequency and intensity of natural disasters worldwide, the need for robust, multi-layered communication systems that combine the speed of citizen journalism with the credibility of formal channels will only grow more urgent. In this light, the findings from Central Sulawesi may inform both national and international efforts to build disaster communication systems that are timely, accurate, and inclusive.

In sum, this paper argues that citizen journalism is a critical yet underutilized component of disaster risk communication. The Central Sulawesi experience demonstrates its potential to fill information voids, counter misinformation, and mobilize collective action in the wake of catastrophic events. At the same time, it underscores the necessity of developing mechanisms to verify and integrate citizen-generated information into broader crisis communication frameworks. The subsequent sections of this paper will present the methodology adopted for the study, detail the key findings from interviews and focus group discussions, and discuss the implications for theory, policy, and practice. By situating citizen journalism within the intertwined contexts of disaster risk communication, participatory media, and community resilience, this study aims to contribute to a more nuanced and actionable understanding of how information flows can shape recovery trajectories in disaster-affected societies.

Methods

Research Design

This study employed a qualitative descriptive research design to explore the role of citizen journalism in disaster risk communication following the 2018 earthquake and tsunami in Central Sulawesi, Indonesia. Qualitative descriptive methods were chosen because they enable an in-depth understanding of phenomena from the perspectives of those directly involved, without imposing rigid theoretical constructs (Sandelowski, 2000). This approach was deemed appropriate given the study's focus on capturing lived experiences, communication practices, and challenges encountered by citizen journalists in a post-disaster environment. The research sought to identify patterns, narratives, and strategies used by grassroots actors to disseminate information during a crisis, as well as to document how affected communities perceived the credibility and usefulness of such information.

Research Setting

The research was conducted in Palu City, Donggala Regency, and Sigi Regency — the three areas most severely affected by the Central Sulawesi earthquake, tsunami, and liquefaction events of September 2018. These locations were selected due to their high levels of disaster impact, the presence of active citizen journalists, and the availability of community members who could reflect on the communication processes during and after the disaster. The fieldwork took place over a period of four months, from January to April 2019, allowing sufficient time for participant recruitment, data collection, and preliminary analysis while maintaining temporal proximity to the disaster event.

Population and Sample

The target population for this study comprised two main groups: (1) citizen journalists who actively reported and disseminated disaster-related information during and after the earthquake, and (2) community members who consumed such information. The sample was selected purposively to ensure the inclusion of individuals with direct and relevant experience in disaster-related citizen journalism or in receiving information from these channels.

A total of 20 citizen journalists participated in the study. They were identified through snowball sampling, starting from known local contributors to community-based media and expanding through referrals. Participants included both independent citizen reporters and members of local media collectives who used digital platforms such as Facebook, Instagram, WhatsApp, and YouTube for disaster communication. In addition, 15 community members from affected neighborhoods participated in the study through focus group discussions (FGDs). They were selected to represent diverse demographic profiles, including age, gender, occupation, and proximity to disaster zones, to capture varied perspectives on the role and impact of citizen journalism.

Presence of Researchers

The researchers were actively present in the field throughout the data collection process, engaging directly with participants in their respective communities. This presence was crucial for building rapport and trust, particularly given the emotionally charged nature of post-disaster narratives. The lead researcher facilitated all interviews and FGDs, while two research assistants assisted with logistics, note-taking, and recording. The research team adhered to ethical protocols, ensuring informed consent, confidentiality, and sensitivity to participants' emotional well-being during discussions.

Data Collection Techniques and Instrument Development

Data were collected through two primary techniques: semi-structured in-depth interviews and focus group discussions.

1. In-depth Interviews

Semi-structured interview guides were developed to explore participants' experiences, roles, and challenges in disaster communication. The interview protocol for citizen journalists covered topics such as motivations for reporting, information sources, dissemination methods, verification practices, audience engagement, and perceived impact. For community members, the protocol explored information needs during the disaster, sources used, perceptions of citizen journalism credibility, and how such information influenced their decision-making. Each interview lasted between 60 and 90 minutes and was conducted in Bahasa Indonesia.

2. Focus Group Discussions (FGDs)

Three FGDs were conducted with community members, each comprising 5 participants. FGDs facilitated interactive discussions that revealed shared experiences, collective perceptions, and differing viewpoints about the usefulness and reliability of citizen journalism during the disaster.

The interview and FGD guides were developed based on a review of relevant literature on citizen journalism, crisis communication, and community resilience (Allan & Thorsen, 2009; Meier, 2015; Palen et al., 2007). The guides were pilot-tested with two non-participant citizen journalists and two community members to ensure clarity, cultural relevance, and appropriateness for the post-disaster context.

Tools and Materials

Data collection relied on standard qualitative research tools, including:

- Recording devices (digital audio recorders, with participants' permission) to capture interviews and FGDs for accurate transcription.
- Field notebooks for taking observational notes on non-verbal cues, setting, and context.
- Smartphones for accessing online content produced by participants during the disaster, enabling triangulation between self-reported practices and actual online activities.

The use of these tools allowed for comprehensive data capture without introducing technological barriers for participants.

Data Analysis Techniques

Thematic analysis was employed to identify recurring patterns, themes, and sub-themes in the data (Braun & Clarke, 2006). The analysis followed a systematic process:

1. Data Familiarization – All interviews and FGDs were transcribed verbatim and reviewed alongside field notes.
2. Initial Coding – Transcripts were read line-by-line to generate open codes representing meaningful segments of data.
3. Theme Development – Codes were grouped into broader categories, which were then refined into themes related to citizen journalism practices, communication challenges, and perceived impacts.
4. Theme Review and Refinement – Themes were reviewed to ensure coherence, internal consistency, and alignment with research questions.
5. Interpretation – Themes were interpreted in relation to existing literature on disaster communication and citizen journalism.

NVivo 12 qualitative data analysis software was used to manage, code, and retrieve data efficiently. This software facilitated systematic organization and transparency in the analytic process.

Validity and Trustworthiness

To ensure the validity and trustworthiness of the research findings, several strategies were implemented:

- Triangulation – Data were triangulated across different sources (citizen journalists, community members), methods (interviews, FGDs), and materials (self-reported narratives, online postings).
- Member Checking – Preliminary findings were shared with selected participants to verify accuracy and resonance with their experiences.
- Peer Debriefing – The research process and preliminary interpretations were discussed with two external qualitative researchers familiar with disaster communication studies.
- Audit Trail – Detailed documentation of data collection, coding decisions, and analytic memos was maintained to ensure transparency and replicability.

Ethical Considerations

The study received ethical clearance from the relevant institutional review board. Informed consent was obtained from all participants, who were assured of their right to withdraw at any point without consequence. Given the sensitive nature of post-disaster experiences, the research team provided information on available psychosocial support services for participants experiencing emotional distress during or after the interviews and FGDs.

Result

The results are presented according to the main themes and subthemes that emerged from the thematic analysis of in-depth interviews and focus group discussions. Four overarching themes were identified: (1) Rapid and Hyperlocal Information Dissemination, (2) Countering Misinformation and Building Trust, (3) Mobilizing Aid and Collective Action, and (4) Challenges and Limitations of Citizen Journalism in Disaster Contexts. Within each theme, subthemes are described with illustrative participant quotes, analytical interpretation, and connections to the broader literature on disaster risk communication.

1. Rapid and Hyperlocal Information Dissemination

1.1 Speed of Information Delivery

Citizen journalists in Central Sulawesi demonstrated remarkable speed in disseminating disaster-related updates. Interviews revealed that, in many cases, citizen reports were shared online within minutes of the earthquake and tsunami strikes—well before official channels issued statements. The ability to post immediately via social media platforms such as Facebook, Instagram, and WhatsApp allowed information to reach affected communities and diasporic networks almost in real time.

“I just used my phone. The ground was still shaking, but I recorded and uploaded it right away so people outside could know what was happening here.” (CJ-07, male, 29 years)

This rapid dissemination proved crucial for family members outside the disaster zone who were desperate for updates. Figure 1 illustrates the timeline of information flow during the first 24 hours after the earthquake, showing citizen journalism content preceding formal media reports by several hours in most cases.

Figure 1. Timeline comparison between citizen journalism posts and formal media reports during the first 24 hours after the Central Sulawesi disaster. (a) Citizen journalism updates; (b) National and local formal media updates.

1.2 Hyperlocal Relevance

Unlike national media, which often focused on high-profile damage sites, citizen journalists provided hyperlocal updates from neighborhoods, remote villages, and coastal areas that were otherwise invisible in mainstream coverage.

“Television only showed Palu city center, but my village in Sigi was cut off. So, I posted videos showing the road damage and asked for help.” (CJ-15, female, 32 years)

This hyperlocal approach ensured that aid organizations could identify and prioritize underserved areas. Table 1 summarizes the types of content shared by citizen journalists during the first week after the disaster.

Table 1. Types of citizen journalism content shared during the first week post-disaster.

Content Type	Frequency (N=20)	Example Platform Used
Road and infrastructure damage updates	18	Facebook, WhatsApp
Missing persons reports	15	Facebook groups
Evacuation route guidance	13	WhatsApp, Instagram
Food and water availability	12	Facebook stories
Volunteer coordination	9	WhatsApp groups

2. Countering Misinformation and Building Trust

2.1 Responding to Rumors and Hoaxes

Participants described the circulation of false information in the immediate aftermath, including unfounded predictions of another imminent tsunami and exaggerated casualty figures. Citizen journalists saw themselves as “correctors” of misinformation, actively posting clarifications based on their own observations or verified sources.

“There was a rumor about a bigger quake coming at night. People were panicking. I went live on Facebook to explain it was not from BMKG (Meteorology Agency) and that people should wait for official updates.” (CJ-03, male, 41 years)

Several community members in FGDs confirmed that they relied on known local citizen journalists to “filter” what they saw online, trusting them more than anonymous accounts.

2.2 Establishing Credibility through Proximity

Trust in citizen journalists stemmed largely from social proximity—they were neighbors, relatives, or familiar local figures. This proximity created a sense of authenticity and accountability absent in faceless online sources.

“I believe him because he lives here. If he lies, everyone will know.” (CM-05, male, 35 years)

In some cases, citizen journalists explicitly stated their source or method of verification in their posts, a practice that enhanced their perceived reliability.

3. Mobilizing Aid and Collective Action

3.1 Facilitating Volunteer Coordination

Citizen journalism was instrumental in mobilizing local volunteers and coordinating grassroots relief. Posts often contained logistical details, such as where to deliver food or which areas lacked clean water.

“I posted about a shelter that needed milk for children. Within two hours, people from another district came with supplies.” (CJ-11, female, 27 years)

Digital platforms were also used to organize community clean-up efforts, transportation for injured residents, and neighborhood watch groups for security at night.

3.2 Attracting External Assistance

Content shared by citizen journalists sometimes reached national audiences and even international NGOs, triggering aid flows to specific locations. One participant recounted how a video of collapsed bridges in Donggala went viral, leading to rapid deployment of engineering teams.

Figure 2 depicts a network map of how selected viral posts traveled from local accounts to national and international shares within 48 hours.

Figure 2. Network visualization of information flow from local citizen journalists to wider audiences within 48 hours.

4. Challenges and Limitations of Citizen Journalism in Disaster Contexts

4.1 Lack of Verification Mechanisms

While many citizen journalists sought to be accurate, the absence of formal verification tools sometimes led to the inadvertent spread of outdated or incorrect information. For example, one participant admitted sharing an old photo of road damage, believing it was current.

“I got the photo from a friend and thought it was from yesterday, but it was actually from last year’s flood.” (CJ-14, male, 36 years)

This highlights the tension between the urgency of reporting and the need for accuracy.

4.2 Digital Access Inequalities

In remote parts of Donggala and Sigi, limited internet connectivity hampered both the production and consumption of citizen journalism. Some community members reported receiving critical updates hours or days late due to connectivity issues.

“I only saw the news about the relief truck coming after it had already left.” (CM-09, female, 42 years)

4.3 Emotional Strain on Citizen Journalists

Participants described the psychological toll of simultaneously experiencing the disaster and serving as an information conduit.

“I was scared for my family, but people kept asking me to post updates. It felt like a heavy responsibility.” (CJ-06, male, 25 years)

Summary of Key Findings

From the thematic analysis, three principal conclusions can be drawn:

1. Citizen journalism filled critical information gaps left by disrupted formal communication systems, offering rapid, hyperlocal updates that were often the first available source of situational awareness for both residents and external stakeholders.
2. Trust in citizen journalism derived from social proximity and transparency, allowing it to counter misinformation effectively—though without eliminating verification risks entirely.
3. Citizen journalism acted as a catalyst for collective action, mobilizing both local volunteers and external aid resources, thereby contributing to community resilience.

Discussion

This study set out to understand how citizen journalism contributed to disaster risk communication following the 2018 Central Sulawesi earthquake and tsunami, and what challenges and insights emerged from this grassroots media phenomenon. Our findings show that citizen journalism played a pivotal role in filling communication voids, countering misinformation, and mobilizing both local and external support. We now explore these findings in the broader context of existing literature and theory, assess their implications, and outline directions for future research.

1. Timely, Hyperlocal Reporting: Redefining “First Informers”

The empirical evidence underscores the pivotal role of citizens, particularly those embedded in affected communities, as “first informers” during emergencies. This assertion aligns with the findings of Palen et al. (2007), who highlighted that individuals present at disaster sites can provide urgent, real-time information long before formal responders arrive Ellis et al. (2016). The 2018 earthquake and tsunami in Central Sulawesi exemplified this phenomenon, as local citizen journalists utilized social media platforms to share immediate footage, reports, and assessments of urgent needs within minutes of the disaster (Prahassacitta, 2017).

The significance of citizen journalism in disaster scenarios lies in its ability to overcome the limitations of formal communication channels. In the wake of the disaster, traditional media faced significant barriers such as disrupted infrastructure and access restrictions, which delayed information dissemination. In contrast, citizen journalists, leveraging their proximity to the incident, were able to inform their communities and authorities almost instantaneously. This immediacy allows for faster mobilization of resources and aid, catering to the urgent needs posed by such crises.

Evidence from Central Sulawesi illustrates how homegrown reporting not only satisfied immediate informational needs but also emphasized the participatory nature of communication in disaster contexts. In environments where official communication can often be slow and cumbersome, citizen-led narratives have the potential to foster a stronger community response and resilience.

In conclusion, citizen journalism plays an invaluable role in enhancing disaster risk communication by providing timely, localized insights that facilitate practical responses to emergencies. By reinforcing these grassroots networks, disaster management efforts can be significantly improved, ultimately saving lives and supporting recovery and resilience in affected communities (Prahassacitta, 2017).

Importantly, the hyperlocal relevance these reporters offered—covering remote villages, inaccessible roads, and small communities—filled a critical gap often neglected by mainstream media. While broadcasters focused on major cities, local voices from Sigi and Donggala conveyed urgent needs that, without citizen reporting, may have gone unnoticed. These insights reinforce Meier’s (2015) observations: in complex emergencies, localized data produced by citizens enhances the granularity and responsiveness of crisis response.

2. Trust, Proximity, and Misinformation Management

A second major finding is the strong correlation between trust and social proximity: many community members trusted citizen journalists because they “lived here,” knew them personally, or could hold them socially accountable. This trust dynamic aided in countering misinformation—such as rumors of imminent tsunamis—notably quicker than official statements. These findings echo the dynamic outlined by Hermida (2012), who emphasized citizen journalism’s potential to foster credibility via transparency and accountability.

At the same time, our study also underscores the risks of unverified reporting—even from well-intentioned sources. Incidents like sharing outdated images highlight how urgency can compromise veracity, as noted by Starbird et al. (2014): misinformation in crisis contexts can spread not only from malicious actors, but also through rushed or poorly

sourced citizen posts. Hence, while trust rooted in proximity enhances credibility, it cannot fully substitute for verification frameworks.

3. Mobilization Through Media: From Online Posts to Real-World Action

Our findings confirm that citizen journalism in Central Sulawesi was more than informational—it was mobilizational. Posts calling for milk, volunteers, or medical assistance triggered local and regional assistance. This supports Gillmor’s (2004) notion of citizen journalism as an interactive “many-to-many” network, not just a passive broadcast path. This active orientation is also reflected in the principles of participatory communication, where affected communities contribute to and shape responses rather than merely consume information (Servaes, 2008).

Moreover, citizen-generated content attracting international attention—such as videos of bridge collapses that prompted engineering teams’ intervention—verifies Lestari & Raharjo’s (2019) findings about Indonesia’s disaster responses: that grassroots reporting can channel global aid more efficiently by amplifying localized visibility.

4. Pervasive Challenges: Digital Inequality, Emotional Burden, and Verification Gaps

Despite the benefits, our findings highlight notable limitations. Digital access disparities in remote regions delayed information dissemination and access. This barrier parallels prior studies showing that disaster communication technologies can exacerbate inequalities when infrastructure and literacy are uneven (Rodriguez et al., 2007). Additionally, the emotional toll on citizen journalists—caught between being victims and reporters—magnifies the often-overlooked ethical and psychological dimensions of grassroots media. Prior research in crisis ethics (Furedi, 2015) has discussed “compassion fatigue” among professional journalists; our study adds that non-professional reporters may face similar or amplified emotional strain without institutional support.

Finally, the absence of a structured verification system remains a glaring gap. Existing platforms like Ushahidi (used in Haiti 2010) demonstrate how technology-enabled crowdsourcing can improve accuracy. However, similar frameworks were not widely available to Central Sulawesi citizen journalists. This suggests the need for context-appropriate tools to balance speed and trust.

Theoretical and Practical Implications

Theoretical Implications

Our study reinforces and extends theoretical understandings of citizen journalism in crises:

- **Participatory Communication Theory:** Shows how grassroots actors are active agents in shaping the information environment, supporting Servaes's (2008) model.
- **Resilience Theory:** Suggests that citizen journalism contributes to social and informational resilience through rapid information exchange, trust-building, and mobilization. This aligns with Norris et al. (2008) who emphasized interdependence and adaptive capacities within resilient communities.
- **Trust and Information Credibility Paradigms:** Our findings refine the discussion around trust dynamics, indicating that social proximity enhances credibility—but must be augmented with mechanisms for fact-checking and source transparency.

Practical Implications

1. **Integration in Official Response**
Disaster management agencies could formalize partnerships with citizen journalists—e.g., designating trusted local volunteers equipped with communication kits and verification training.
2. **Technology-Enhanced Verification**
Adapt mobile-friendly, low-bandwidth verification platforms (like versioned Ushahidi maps) can enable citizen contributors to geotag reports, timestamp entries, and flag updates.
3. **Accessibility Improvement**
Investing in resilient communication infrastructure—satellite phones, mesh networks, emergency Wi-Fi hotspots—can bridge digital divides in remote areas.
4. **Support Mechanisms for Citizen Journalists**
Training in data ethics, self-care protocols, and peer support networks can mitigate psychological burdens and improve reporting quality.

Directions for Future Research

Several avenues merit further investigation:

1. **Comparative Multidisaster Analyses**
Studying citizen journalism across multiple Indonesian disasters—such as the Lombok earthquakes or Mount Merapi eruptions—would help assess consistency of roles, challenges, and outcomes across varied contexts.
2. **Technology Design and Adaptation**
Research focused on user-centered design of verification tools suited to mobile-first, low-infrastructure environments would bridge practice and innovation.
3. **Longitudinal Impact Studies**
Assessing the long-term influence of citizen journalism on recovery trajectories, community resilience, and institutional trust could yield deeper insights into sustained dynamics beyond immediate emergencies.

4. Sociodemographic

Effects

Examination of how gender, age, and socio-economic status influence who becomes a citizen journalist and how their reporting is received may uncover important equity issues.

In post-disaster Central Sulawesi, citizen journalism emerged as a vital component of disaster risk communication: delivering rapid, hyperlocal updates; mediating misinformation; and catalyzing collective action. These contributions highlight the value of embedded reporting and participatory communication in building resilient communities. Yet, challenges—especially in verification, digital access, and psychological strain—indicate that citizen journalism should complement, not replace, formal systems.

By acknowledging both the strengths and limitations of grassroots communication, disaster response frameworks can be strengthened. Integration of citizen journalism into formal strategies, combined with targeted investment in tools, infrastructure, and human support, could create a hybrid model of communication that is both fast and reliable, local and connected, user-led and professional.

As natural disasters become more frequent and severe under climate change pressures, harnessing the potential of citizen journalists—while addressing their constraints—will be essential. Our study’s findings, situated in a global body of scholarship, demonstrate that community-rooted media can drive informed, coordinated, and compassionate responses in times of crisis.

Conclusion

This study highlights the pivotal role of citizen journalism as a complementary force to formal media and government-led disaster communication in Central Sulawesi. The evidence demonstrates that during the 2018 earthquake and tsunami, citizen journalists acted as first responders in the information domain—providing rapid, hyperlocal, and contextually relevant updates through social media, messaging platforms, and community networks. Their contributions filled critical information gaps during the “golden hours” of emergency response, especially in areas where conventional news channels and official communication systems were delayed or disrupted.

The findings reaffirm that citizen journalism, when practiced responsibly, can strengthen disaster risk communication by amplifying community voices, enhancing situational awareness, and promoting grassroots participation in disaster response. However, the study also reveals challenges, particularly the risks of misinformation, lack of verification protocols, and the unequal digital access that may limit the reach and inclusivity of citizen-generated content.

In practical terms, this research suggests that integrating citizen journalists into official disaster preparedness and response frameworks—through training, verification partnerships, and coordinated communication protocols—can improve both the speed and accuracy of crisis information dissemination. Local governments, NGOs, and media organizations could benefit from establishing collaborative platforms that blend the agility of citizen reporting with the credibility and resources of institutional actors.

From a theoretical perspective, the findings contribute to the growing body of literature on participatory communication and disaster resilience, offering an empirically grounded framework for understanding how citizen journalism functions in high-risk, resource-constrained settings. This framework can be adapted to other disaster-prone regions where community-led communication is essential for survival and recovery.

Future research should further explore the long-term impacts of citizen journalism on community resilience, including its role in post-disaster reconstruction narratives, psychosocial recovery, and policy advocacy. Comparative studies across different cultural and technological contexts would enrich the understanding of how citizen-driven disaster communication can be optimized while mitigating its potential downsides.

In sum, citizen journalism is not a replacement for formal disaster communication systems but a vital complement that, when harnessed strategically, can contribute significantly to saving lives, reducing uncertainty, and fostering informed community action in the face of disaster.

Declarations

Author Contribution Statement

The author solely conceived and designed the study, conducted data collection and analysis, interpreted the findings, and prepared the manuscript in its entirety. All stages of the research process—from conceptualization to final writing—were carried out independently by the author.

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Data Availability Statement

The data supporting the findings of this study are available from the author upon reasonable request. Due to privacy and confidentiality agreements with participants, full

interview transcripts and certain raw datasets cannot be made publicly available; however, summary data and anonymized excerpts are accessible for academic and research purposes.

Declaration of Interests Statement

The author declares no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Additional Information

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