



Beyond Prompting: Community-Mediated Adaptation in Generative AI-Enabled Digital Work Transformation

Widiantoro Sigit Rahardjo

Politeknik Siber Cerdika Internasional, Indonesia

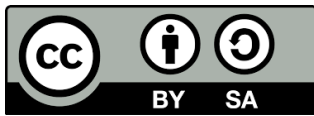
Email: wrahardjo@polteksci.ac.id

Keywords:

generative AI; digital work transformation; technology affordances; netnography; community-mediated adaptation

Abstract

Generative Artificial Intelligence (GenAI) has expanded access to digital-solution creation by enabling users to develop applications through natural-language interaction. However, successful initiation does not always lead to reliable completion because users still encounter technical, contextual, and integration challenges that require further adaptation. This study aims to examine how community-mediated adaptation shapes GenAI-enabled digital work transformation, particularly when prompt-based solution development experiences breakdowns. A process-oriented netnographic approach was employed to analyze naturally occurring interactions within a private Indonesian WhatsApp community of OKEGAS users. The dataset consisted of 10,444 user-generated messages, which were screened to identify 177 relevant conversation episodes comprising 1,419 messages from 190 pseudonymized sender identifiers. The findings reveal a recurring process involving prompt-mediated solution initiation, breakdown, peer diagnosis, and adaptive work reconfiguration. User responses after breakdown occurred through recovery-oriented and redirection-oriented adaptation, including repair attempts, rollback, tool or model switching, infrastructure changes, simplification, and discontinuance. These trajectories resulted in varied outcomes, ranging from reported stabilization and deployment progress to persistent failure or abandonment. The study contributes to Technology Affordance Theory by introducing community-mediated adaptation as a post-breakdown pathway in which peer involvement expands the user-AI relationship into a user-AI-peer configuration. The findings highlight that GenAI accessibility must be complemented by human judgment, peer knowledge, and technical capabilities to achieve dependable digital work transformation.



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright © 2026 by Widiantoro
Sigit Rahardjo. Published by
Publisher Publications

INTRODUCTION

Generative artificial intelligence (GenAI) is becoming part of digital work rather than remaining a stand-alone technical tool. It changes how people specify tasks, create digital artifacts, evaluate outputs, solve problems, and coordinate with others. Digital-work research emphasizes that transformation occurs through changing digital/human configurations and through the configuring work needed to make those arrangements function in practice (Baptista et al., 2020). In GenAI settings, generated outputs still require human judgment and integration into routines, workflows, and surrounding technical environments (Banh et al., 2025). Application building provides a useful setting for observing these changes because work can move rapidly between natural-language specification, generated artifacts, evaluation, troubleshooting, deployment, and practical use.

One visible expression of this shift is citizen development and the growth of low-code/no-code environments. These platforms extend digital-solution creation beyond

conventional software-engineering roles, while raising continuing questions about governance, learning, capability development, and scale (Ajimati et al., 2025; Binzer & Winkler, 2024). GenAI broadens this shift by allowing users to express requirements conversationally and request changes through natural-language instructions (Sodano et al., 2025). The substantive issue, however, is not simply whether users can generate code. It is how work practices change when specifying, evaluating, repairing, and integrating digital solutions become distributed across users, AI systems, and peers.

Accessible initiation should not be confused with dependable completion. Recent research distinguishes rapid ideation, prototyping, and code generation from the more demanding work of reliability, integration, deployment, stabilization, maintenance, and production readiness (Gheventer et al., 2026). AI-assisted development also continues to encounter compatibility, configuration, context, and version-related problems that require testing, repair, and human oversight (Te'eni & Katz, 2026; Zhou et al., 2025). In this article, the term entry-completion gap is used as an empirical interpretive label for the transition from accessible GenAI-enabled initiation to the less visible configuration work required for dependable use; it is not proposed as a separate theoretical construct.

Users often address these problems collectively. Online communities can aggregate distributed expertise and support collaborative problem solving (Faraj et al., 2011; Temizkan & Kumar, 2024). In GenAI settings, communities also provide spaces for experimentation, interpretation, workaround sharing, and collective bricolage around tools whose behavior remains uncertain (da Silva et al., 2026). A closely related study by (Garg et al., 2025) examines user innovation communities as mechanisms for addressing GenAI-related challenges. What remains less directly explained is how peer involvement enters after a GenAI-enabled solution has failed, stalled, or behaved unexpectedly, and how this involvement changes what users do next.

Technology Affordance Theory provides the primary theoretical lens for examining this process. Affordances are relational action possibilities that emerge through interactions among actors, technologies, goals, capabilities, and context rather than deterministic properties of technological features. (Leonardi, 2011) shows how perceived affordances and constraints can redirect routines and technologies, while (Volkoff & Strong, 2013) conceptualize affordances as generative mechanisms involved in organizational change. (Strong et al., 2014) further describe affordance actualization as a nondeterministic process shaped by actor intentions, actions, material conditions, and multilevel context. Later research reinforces the processual character of actualization by showing that affordances can follow non-linear trajectories, require adjustment, and be redirected through feedback or changing conditions (Godé & Brion, 2024; Thapa & Sein, 2018; Zhao et al., 2025). These studies make it inappropriate to frame breakdown or repair themselves as novel phenomena.

A more specific gap concerns what happens when an actualization trajectory stalls. Recovery, rollback, discontinuance, and redirection are less explicitly integrated into affordance-actualization explanations, although adjacent literatures examine information-system discontinuance and digital recovery after failure (Adel et al., 2025; Mehrizi et al., 2019). GenAI-assisted digital-solution work offers a useful empirical setting because prompt-generated artifacts can emerge quickly while remaining unstable, context-sensitive, or

dependent on surrounding infrastructure. The analytical interest is therefore not only whether an affordance is perceived or initially enacted, but how work proceeds when the initial user-AI configuration proves insufficient.

The empirical setting is a private Indonesian WhatsApp community associated with OKEGAS, a Chrome extension that integrates AI assistance into the Google Apps Script editor. Its documented functions include conversational code generation, project-context reading, code review, application of changes, live preview, and several interaction modes (OKEGAS, n.d.). Members discussed application building, debugging, deployment, databases, infrastructure, and external GenAI tools. The archived corpus contains 10,444 user-generated messages from 422 sender labels posted between 23 May and 10 September 2026. Contextual screening and conversation-episode construction yielded a primary analytical corpus of 177 episodes comprising 1,419 messages and 190 pseudonymized sender identifiers.

This study uses the term community-mediated adaptation for a higher-order post-breakdown process in which peer input enters diagnosis and decision making and becomes part of subsequent work reconfiguration. Two forms of adaptation are distinguished. Recovery refers to attempts to restore or stabilize a stalled solution, whereas redirection changes the trajectory through rollback, tool or model switching, infrastructure reconfiguration, simplification, or discontinuance. Stabilization, deployment progress, persistent failure, and abandonment are treated as observed trajectory outcomes rather than additional forms of adaptation. The novelty therefore lies not in claiming that peer support, breakdown, or repair are new, but in specifying their sequence at the point where prompt-mediated actualization stalls and the actor configuration can expand from user-AI to user-AI-peer.

Accordingly, the study examines two questions: RQ1 asks how prompt-mediated GenAI shapes the initiation of digital-solution work within a community-based digital-work setting; RQ2 asks how users respond to breakdowns in prompt-mediated GenAI work and how those responses shape subsequent digital-work trajectories. The objective is to provide a process-level explanation of how prompt-mediated initiation, breakdown, peer diagnosis, and adaptive work reconfiguration become connected. The study contributes to digital-work research by identifying an entry-completion gap and to affordance research by specifying community-mediated adaptation as a bounded post-breakdown pathway within affordance actualization.

METHOD

Research Design and Setting

This study adopted a process-oriented netnographic design to examine naturally occurring interaction in the private OKEGAS WhatsApp community. Netnography was appropriate because the research questions concern digitally mediated social practices, peer problem solving, and situated responses to technological possibilities and breakdowns rather than isolated message content (Discetti & Anderson, 2023; Kozinets, 2015). The researcher was an existing member of the community and a Google Apps Script user. This insider position supported interpretation of technical vocabulary and interactional routines, but contextual familiarity was treated as an interpretive resource rather than independent empirical evidence. To limit overfamiliarity, interpretations were anchored to episode and message identifiers, compared across episodes, tested against negative cases, and bounded by what the archived conversations could support.

The data source was a WhatsApp export covering 23 May to 10 September 2026. Parsing produced 10,444 user-generated messages; 929 system records were excluded. The raw export contained 422 unique sender labels, 1,508 media placeholders, and 526 messages containing URL or domain patterns. Sender labels were replaced with pseudonymized identifiers, and the mapping to original labels was stored separately from the analytical dataset. The source corpus therefore represents the archived interaction during the study period, while the analytical sample consists of conversation episodes retained through the screening procedure described below. Table 1 summarizes the corpus and analytical sample.

Table 1. Corpus construction and analytical sample

Corpus element	Recorded value
Study period	23 May-10 September 2026
User-generated messages	10,444
System records excluded	929
Unique sender labels in raw export	422
Candidate conversation episodes	312
HIGH / MEDIUM / LOW episodes	68 / 109 / 135
Retained HIGH + MEDIUM episodes	177
Messages in retained corpus	1,419
Pseudonymized sender identifiers represented	190

Source: Author's analysis (2026).

Corpus Reduction and Unit of Analysis

Because the full corpus contained both research-relevant and unrelated interaction, machine-assisted screening was used for corpus reduction rather than final interpretation. Candidate anchor messages were identified through six descriptive signal families: AI/GenAI use, application or software building, failure/debugging, peer assistance, deployment/infrastructure, and practical or business use. Each candidate anchor was expanded by up to four surrounding messages on each side when they occurred within a 15-minute interval, and overlapping windows were merged into conversation episodes. The procedure generated 312 candidate episodes. HIGH episodes contained strong combined evidence of explicit GenAI use, application development, and process or interaction; MEDIUM episodes contained explicit GenAI and application-development evidence but required researcher review for process richness; LOW episodes lacked sufficient combined evidence for automatic inclusion in the GenAI-specific primary corpus. All HIGH and MEDIUM episodes were retained, yielding 177 episodes. Screening classes were retrieval and corpus-boundary devices, not inferential measures or prevalence estimates.

The primary unit of analysis was the conversation episode rather than the individual message. An episode was defined as a temporally and substantively connected interaction around a digital-solution need, problem, attempt, troubleshooting exchange, or outcome. Individual messages were interpreted in relation to preceding and subsequent contributions, participant responses, and the practical issue around which the exchange developed. This reduced the risk of assigning meaning to decontextualized fragments. As a boundary check, the 20 LOW episodes with the strongest combined non-AI screening signals were manually reviewed after the mechanism had been developed. They contained adjacent application-

development and troubleshooting activity but no explicit GenAI marker in the screening fields and did not reveal a competing process inconsistent with the main recovery/redirection mechanism. They therefore remained outside the primary GenAI-specific corpus.

Analytical Procedure and Rigor

Microsoft Excel served as the primary analytical workspace for organizing the pseudonymized corpus, screening decisions, conversation episodes, codes, categories, negative cases, and evidence traceability. Analysis proceeded through six linked stages: contextual familiarization; initial process coding; episode-level pattern comparison; negative-case analysis; findings consolidation; and mechanism development. Initial codes captured recurrent actions such as prompt formulation, GenAI-assisted solution creation, failure encounter, peer troubleshooting, iterative repair, tool or model switching, deployment reconfiguration, and practical use. Codes were compared across episodes to identify recurrent sequences rather than only recurrent topics, with particular attention to episodes containing both breakdown and follow-up action. Negative cases such as persistent failure, rollback, platform constraints, simplification, and abandonment were retained deliberately to test and refine the emerging explanation (Hanson, 2017; Saldaña, 2021). Theory was introduced after empirical pattern development rather than used as a preselected coding template.

Every candidate finding was linked to episode and, where necessary, message identifiers, maintaining an audit trail from claims to the underlying digital evidence. Claims were deliberately bounded: a participant's report that a model was switched supports a claim about tool switching, while a report that an application was deployed supports participant-reported deployment, not independently verified productivity, code quality, or business performance. A peer academic reviewer who was not involved in the primary coding conducted a debrief using a purposively selected subset of pseudonymized representative, negative, and borderline episodes together with the provisional coding structure and emerging mechanism. The debrief challenged insider assumptions and identified interpretations requiring clarification; final analytical decisions remained with the researcher.

OpenAI ChatGPT was used as an assistive research tool for corpus-screening support, preliminary code suggestions, clustering of candidate codes, consistency checks, and analytical memo preparation. AI outputs were provisional and were checked against episode-level evidence and conversational context. Human judgment retained control over inclusion and exclusion decisions, contextual netnographic interpretation, code and category decisions, negative-case analysis, mechanism construction, theoretical positioning, and final claims.

Ethics and Data Protection

The study used naturally occurring conversations from a private WhatsApp community in which the researcher was already a member. Written permission to use the archived group conversations for academic research was obtained from the group administrator and documented through WhatsApp correspondence. No separate participant notification or individual informed consent was obtained; administrator permission is therefore reported as permission to use the archived material, not as evidence that participants had waived privacy expectations. Consistent with internet-research and netnographic ethics guidance, direct identifiers were removed or pseudonymized, the restricted identity map was stored separately, only pseudonymized material was used in peer debriefing, searchable verbatim WhatsApp

quotations were not reproduced, and reporting was limited to non-searchable paraphrases and bounded process-level claims (Franzke et al., 2019). Raw message-level data are not publicly released because they contain private communications and create re-identification risk; derived non-identifying analytical materials may be shared on reasonable request subject to privacy and ethical constraints.

RESULTS AND DISCUSSION

The analysis indicates that GenAI-enabled digital work did not follow a simple prompt-to-finished-solution sequence. Prompting initiated solution-creation activity, breakdowns exposed technical and contextual limits, peers participated in diagnosis, and users reconfigured prompts, code, models, deployment strategies, and infrastructure. The resulting trajectories ranged from participant-reported stabilization or deployment progress to rollback, switching, simplification, persistent failure, and abandonment. Empirical identifiers such as EP-005 refer to pseudonymized conversation episodes retained in the research audit trail; they are not bibliographic references.

Prompt-Mediated Initiation and the Entry-Completion Gap

Prompting functioned as an entry point between a practical digital-solution need and the initiation of work. Members translated desired application features, interface requirements, documents, performance problems, and deployment goals into instructions for GenAI systems. EP-005, for example, involved a request to create a scanner with camera access and discussion of how to express the requirement as a prompt. EP-058 showed a member structuring application features as explicit prompt points, while EP-104 used a detailed optimization instruction to request refactoring of a Google Apps Script application. In EP-064, a member was advised to upload a document to ChatGPT, ask it to generate a prompt, and then use that prompt to produce Code.gs and Index.html. These episodes show that prompting was not merely a way to obtain textual answers; it became part of the work interface through which users specified requirements, requested transformations, and directed artifact creation.

This pattern changes the distribution of work. Some effort shifts from direct code production toward requirement articulation, output evaluation, and iterative direction of AI-generated artifacts. Similar research shows that GenAI supports code generation, problem solving, testing, and learning while continuing to require human scrutiny (Sauvola et al., 2024; Zacharias et al., 2026). Citizen-development research likewise shows that accessible development platforms broaden participation without removing governance, learning, or technical challenges (Ajimati et al., 2025; Binzer & Winkler, 2024; Simanjuntak et al., 2026). The OKEGAS evidence adds a process distinction: access to initiation does not guarantee dependable completion. The work becomes more demanding when users must preserve context, test generated artifacts, resolve conflicts, select infrastructure, deploy solutions, and maintain functionality. This is the entry-completion gap identified in the study.

Technology Affordance Theory helps explain why this gap is expected rather than anomalous. Affordances are relational possibilities, not automatic technological effects; actualization depends on actors, intentions, material conditions, and context (Leonardi, 2011; Strong et al., 2014; Volkoff & Strong, 2013). GenAI can therefore widen access to digital-solution possibilities without guaranteeing that these possibilities become stable and usable

artifacts. The evidence suggests that work is redistributed rather than eliminated: the relative burden moves from initial production toward verification, troubleshooting, integration, deployment, and adaptation.

Breakdown and the User-AI-Peer Diagnostic Configuration

Breakdown changed who participated in the work. Failures included quota limits, broken HTML after deployment, missing functions, rendering problems, browser restrictions, performance issues, and code conflicts. In EP-041, a user shared a Gemini quota error and asked the group for help. EP-070 involved a deployment that diverged from a previous working design; peers shifted the response from continuing the AI conversation toward recovering an earlier version through project history. EP-139 showed a PDF-rendering problem for which peers suggested an alternative implementation rather than simply repeating the original prompt. In EP-307, a participant reported being blocked for two days before the code was moved to another AI system for repair and a successful result was subsequently reported.

After breakdown, the community contributed interpretations, prompts, libraries, rollback advice, deployment alternatives, browser-debugging procedures, and infrastructure suggestions. The initial human-AI interaction could therefore expand into a user-AI-peer configuration. This finding is consistent with research on the contextual and coordination problems of AI-assisted development (Te'eni & Katz, 2026) and with research on distributed knowledge collaboration in online communities (Faraj et al., 2011; Temizkan & Kumar, 2024). The contribution is more specific than the general observation that communities provide support. Peer involvement becomes analytically salient after breakdown, when the user must decide whether to continue through another prompt, modify code, roll back, switch tools, change deployment, revise architecture, simplify the solution, or stop. Breakdown thus acts as an activation point for socially distributed diagnosis and subsequent work reconfiguration.

Adaptive Work Reconfiguration and Divergent Trajectories

Adaptation rarely stopped at a single correction. Users moved among prompts, code, models, browser tools, databases, hosting arrangements, and deployment strategies. Three forms of reconfiguration were visible. Representational reconfiguration occurred when users revised prompts, reformulated requirements, restored context, or moved a problem to another AI system. Artifact reconfiguration occurred through code modification, debugging, library changes, and restoration of previous versions. Infrastructural reconfiguration involved deployment modes, hosting, databases, caching, browser constraints, and other environmental dependencies. EP-064 combined document-to-prompt generation with browser-console debugging; EP-076 showed repeated repair attempts and model switching that still failed to restore a lost feature; and discussions in EP-230, EP-231, EP-251, EP-260, and EP-268 extended into iframe strategies, Cloudflare Workers, alternative databases, caching, and runtime constraints.

This process extends beyond prompt engineering. Research on software organizations similarly finds that GenAI use depends on integration with routines and organizational practice rather than code generation alone (Banh et al., 2025; Kemell et al., 2025). Digital-work research emphasizes the configuring work required to stabilize digital/human arrangements (Baptista et al., 2020), while process research treats transformation as continuing adjustment rather than a one-time adoption event (Zimmer & Gierlich-Joas, 2026). In the present data, the closer a

solution moved toward practical use, the more consequential non-prompt work became.

Post-breakdown trajectories did not converge on success. Some episodes contained participant-reported recovery or deployment progress. In EP-185, members reported that an iframe-to-Blogspot workaround worked; in EP-251, a feature update received an 'applied success' status after troubleshooting; and in EP-298, a participant reported deployment of a CBT application while a client-email detection problem remained unresolved. Negative cases followed different paths. EP-234 shifted from blocked client deployment to a simpler spreadsheet-template approach; EP-076 remained unresolved after repeated repair attempts; EP-070 relied on rollback rather than forward repair; and EP-058 exposed browser and iframe permission constraints that prompting alone could not remove. Recovery is therefore only one form of adaptation. Redirection through rollback, switching, simplification, infrastructure change, or discontinuance is equally important because work may be reorganized rather than restored.

Table 2. Representative episode-level evidence for community-mediated adaptation

Episode	Empirical issue	Community input / reconfiguration	Outcome status
EP-005	Camera-related application need	Prompt formula and code/security guidance; Prompt revision and feature specification	Solution initiation
EP-041	Manual edit error and quota problem	Requested screenshot/code context and diagnostic steps; Error/context diagnosis	Peer diagnosis
EP-064	Autofill application and later debugging need	Document-to-prompt workflow plus F12/console inspection; Prompt generation and browser debugging	Adaptive repair
EP-070	Deployment damaged prior design	Recommended project history and rollback; Rollback to prior version	Redirection
EP-076	Haptic feedback lost after bug fixing	Model switching; diagnosis shifted to code conflict; Repeated repair attempts	Persistent failure
EP-185	Iframe/Blogspot implementation problem	Workaround and solution material circulated; Alternative deployment/workaround	Reported recovery
EP-234	Client deployment remained blocked	Discussion shifted to simpler solution; Simplification/project pause	Redirection
EP-298	Application deployed but email detection unresolved	Continued troubleshooting; Post-deployment diagnosis	Partial stabilization
EP-307	User reported two-day blockage	Code reworked with another AI after troubleshooting; Repair attempt	Reported success

Source: Author's analysis (2026).

Table 2 is not intended to quantify prevalence. It demonstrates how the analytical claims remain traceable to concrete episode-level sequences while preserving privacy through close paraphrase. The contrast between reported recovery and negative cases is important because it prevents a deterministic interpretation of GenAI as a straightforward democratizing force: natural-language interaction provided an accessible route into digital-solution creation, but it did not eliminate context loss, platform constraints, integration problems, deployment difficulties, or the need for human and community intervention.

Community-Mediated Adaptation in Affordance Actualization

Cross-episode synthesis produced a sequence from digital-solution need and prompt-

mediated initiation to breakdown, peer diagnosis, and adaptive work reconfiguration. Recovery and redirection emerged as alternative forms of post-breakdown adaptation. Recovery seeks to restore or stabilize the stalled trajectory, whereas redirection changes it through rollback, tool or model switching, infrastructure change, simplification, or discontinuance. Outcomes are analytically distinct from these forms of adaptation and include participant-reported stabilization, deployment progress, persistent failure, and abandonment. Selected experiences can subsequently circulate through a shared problem-solving repertoire and inform later diagnosis and adaptation. Figure 1 summarizes this mechanism.

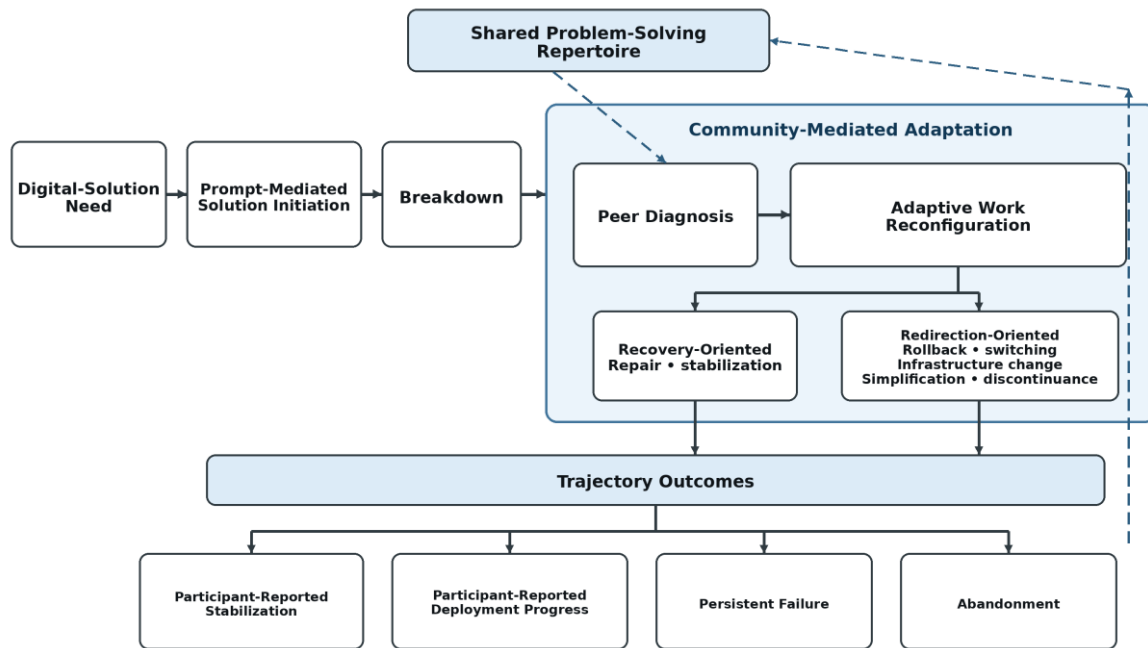


Figure 1. Community-mediated adaptation pathway and trajectory outcomes in GenAI-enabled digital work transformation

Source: Author's analysis (2026).

The theoretical contribution is a community-mediated adaptation pathway within affordance actualization. 'Community-mediated' is used in a processual qualitative sense: peer input becomes part of how breakdown is interpreted and acted upon, not as a claim of statistical mediation. The theoretical move is not to add community as background context, but to specify a change in actor configuration during stalled actualization. Peer diagnosis enters the user-AI relation and becomes part of the subsequent actualization process, shaping whether work proceeds through recovery or redirection. This builds on Strong et al. (2014) by specifying a post-breakdown process that is less explicit in the general affordance-actualization model. It remains a context-bounded mechanism specification rather than a new universal stage model or replacement theory.

The contribution therefore does not lie in peer support, breakdown, or reconfiguration individually; those elements are already established in online-community, GenAI, and affordance research (da Silva et al., 2026; Faraj et al., 2011; Godé & Brion, 2024; Thapa & Sein, 2018; Zhao et al., 2025). It lies in specifying their sequence when prompt-mediated

actualization stalls: breakdown can recruit peer diagnosis, which expands the action possibilities available to the user and supports recovery or redirection toward divergent work trajectories. This mechanism also explains why the entry-completion gap is not simply a technical-quality issue. As solution work moves from generation toward practical use, successful continuation depends increasingly on the coordination of model capability, human judgment, peer knowledge, and supporting infrastructure.

Implications, Boundary Conditions, and Future Research

For GenAI-enabled digital work, accessibility and dependability should not be conflated. Conversational generation can broaden participation in digital-solution creation, but increased accessibility does not remove the need for verification, problem diagnosis, deployment knowledge, security awareness, or governance (Ajimati et al., 2025; Binzer & Winkler, 2024; Binzer et al., 2024). Capability development therefore cannot stop at prompting. The evidence points to the importance of interpreting problems, checking generated changes, using version history and rollback, recognizing context drift, evaluating alternative tools, understanding deployment and data choices, and knowing when to escalate, simplify, redirect, or stop. For digital business, these capabilities matter because AI-generated artifacts create value only when they can be integrated into workflows and operational processes rather than merely produced as prototypes.

Organizationally, the findings support distinguishing low-risk experimentation from dependable operational use. Informal community support can accelerate learning and problem diagnosis, but it should complement rather than substitute for formal review, accountability, and risk controls when applications involve organizational data, authentication, payments, or customer-facing processes. The study does not independently verify software quality, productivity gains, financial performance, or durable capability development; participant-reported stabilization and deployment remain reported outcomes rather than technical validation.

The mechanism should also be interpreted within clear boundaries. The study examines one Indonesian private WhatsApp community associated with a specific GenAI-assisted Google Apps Script environment and is not intended for statistical generalization to all GenAI-enabled work or professional software practice. Occupational biographies were not verified for all participants, some media objects were available only as placeholders in the export, and the mechanism is most relevant when digital work is uncertain enough to require problem solving and an active peer community is available. Future research can compare other digital communities, organizational citizen-development programs, small-business settings, low-code/no-code environments, and professional teams. Comparative and longitudinal designs can test when community-mediated adaptation materially changes affordance-actualization trajectories and whether repeated participation produces more durable individual or organizational capabilities.

CONCLUSION

The study shows that GenAI-enabled digital work does not move in a simple line from prompt to finished solution. Prompting provided an accessible route into digital-solution creation, but breakdowns introduced technical and contextual problems that required diagnosis, coordination, and reconfiguration. The analysis specifies community-mediated adaptation as a

post-breakdown pathway within affordance actualization: peer diagnosis can expand an initial user-AI relation into a user-AI-peer configuration, after which work may proceed through recovery or redirection. The resulting trajectories range from participant-reported stabilization and deployment progress to persistent failure or abandonment. A complementary empirical insight is the entry-completion gap: accessible initiation does not remove the later demands of integration, deployment, stabilization, and continued use. The theoretical contribution lies in specifying the sequence and actor reconfiguration through which stalled affordance actualization can continue or change direction. For practice, prompting skill alone is insufficient; dependable GenAI-enabled work also requires judgment, verification, troubleshooting, version management, deployment awareness, and the ability to simplify, redirect, or stop when necessary. Comparative and longitudinal research can test the mechanism across other communities, organizations, and AI-enabled work settings.

FUNDING

This research received no specific external funding for its conduct or publication.

CONFLICT OF INTEREST

The author declares that this research was conducted without any commercial or financial relationship that could be interpreted as a potential conflict of interest.

AUTHOR CONTRIBUTION

The author was responsible for conceptualization, methodology, investigation, data curation, formal analysis, visualization, writing - original draft, writing - review and editing, and project administration.

GENERATIVE ARTIFICIAL INTELLIGENCE USAGE STATEMENT

OpenAI ChatGPT was used as an assistive research tool for corpus-screening support, preliminary code suggestions, clustering of candidate codes, consistency checks, analytical memo preparation, and language refinement during manuscript preparation. Microsoft Excel remained the primary analytical workspace. AI-generated suggestions were treated as provisional and verified against the underlying episode-level evidence and conversational context. The author retained full responsibility for data selection, contextual netnographic interpretation, analytical decisions, category and theme development, negative-case analysis, mechanism construction, theoretical interpretation, and the final manuscript content.

REFERENCES

- Adel, A., Alani, N. H. S., Jan, T., & Prasad, M. (2025). A review of major ICT failures and recovery strategies: Strengthening digital resilience. *Computers & Security*, 159, 104678. <https://doi.org/10.1016/j.cose.2025.104678>
- Ajimati, M. O., Carroll, N., & Maher, M. (2025). Adoption of low-code and no-code development: A systematic literature review and future research agenda. *Journal of Systems and Software*, 222, 112300. <https://doi.org/10.1016/j.jss.2024.112300>
- Banh, L., Holldack, F., & Strobel, G. (2025). Copiloting the future: How generative AI transforms software engineering. *Information and Software Technology*, 183, 107751. <https://doi.org/10.1016/j.infsof.2025.107751>

- Baptista, J., Stein, M.-K., Klein, S., Watson-Manheim, M. B., & Lee, J. (2020). Digital work and organisational transformation: Emergent digital/human work configurations in modern organisations. *Journal of Strategic Information Systems*, 29(2), 101618. <https://doi.org/10.1016/j.jsis.2020.101618>
- Binzer, B., & Winkler, T. J. (2024). Die vier Phasen von Citizen Development-Initiativen: Treiber, Herausforderungen und Handlungsempfehlungen. *HMD Praxis der Wirtschaftsinformatik*, 61, 1136–1158. <https://doi.org/10.1365/s40702-024-01088-x>
- da Silva, R. C., Rüling, C.-C., Duymedjian, R., & Zejnilovic, L. (2026). Learning about unknowable tools: Bricolage in communities of practice for generative AI. *Technological Forecasting and Social Change*, 230, 124738. <https://doi.org/10.1016/j.techfore.2026.124738>
- Discetti, R., & Anderson, V. (2023). The Value of Netnography for Research in HRD. *Human Resource Development Review*, 22(1). <https://doi.org/10.1177/15344843221137506>
- Faraj, S., Jarvenpaa, S. L., & Majchrzak, A. (2011). Knowledge collaboration in online communities. *Organization Science*, 22(5). <https://doi.org/10.1287/orsc.1100.0614>
- Franzke, A. S., Bechmann, A., Zimmer, M., & Ess, C. M. (2019). Internet Research: Ethical Guidelines 3.0. *Association of Internet Researchers*.
- Garg, J., Singh, A. K., Verma, S., & Chauhan, R. (2025). Identifying and overcoming challenges in generative AI: a user innovation perspective. *International Journal of Innovation Science*. <https://doi.org/10.1108/IJIS-10-2024-0296>
- Gheventer, A., do Amaral Gurgel, P., Henrique Brito, C., Maiani de Mello, R., Rocha, S., Feitosa, R., & Horta Travassos, G. (2026). Generative AI solutions for software quality: Assessing industrial readiness. *Software Quality Journal*, 34(2). <https://doi.org/10.1007/s11219-026-09754-7>
- Godé, C., & Brion, S. (2024). The affordance-actualization process of predictive analytics: Towards a configurational framework of a predictive policing system. *Technological Forecasting and Social Change*, 204. <https://doi.org/10.1016/j.techfore.2024.123452>
- Hanson, A. (2017). Negative case analysis. In J. Matthes, C. S. Davis, & R. F. Potter (Eds.), *The international encyclopedia of communication research methods*. Wiley. <https://doi.org/10.1002/9781118901731.iecrm0165>
- Kozinets, R. V. (2015). Netnography: The Essential Guide to Qualitative Social Media Research (3rd ed.). In *The International Encyclopedia of Digital Communication and Society*.
- Leonardi, P. M. (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS Quarterly: Management Information Systems*, 35(1). <https://doi.org/10.2307/23043493>
- Mehrizi, M. H. R., Modol, J. R., & Nezhad, M. Z. (2019). Intensifying to cease: Unpacking the process of information systems discontinuance. *MIS Quarterly: Management Information Systems*, 43(1). <https://doi.org/10.25300/MISQ/2019/13717>
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.). SAGE.
- Sauvola, J., Tarkoma, S., Klemettinen, M., Riekkki, J., & Doermann, D. (2024). Future of software development with generative AI. *Automated Software Engineering*, 31(1). <https://doi.org/10.1007/s10515-024-00426-z>
- Simanjuntak, M. A., Sriyana, & Sadono, K. W. (2026). Efektivitas Counterweight dalam Mengatasi Rembesan dan Uplift pada Bendungan Sadawarna. *Menara: Jurnal Teknik Sipil*, 21(2). <https://doi.org/10.21009/jmenara.v21i2.62283>
- Sodano, J. T., DeFranco, J. F., & Laplante, P. A. (2025). Citizen development, low-code/no-code platforms, and the evolution of generative AI in software development. *Computer*, 58(5), 101–104. <https://doi.org/10.1109/MC.2025.3547073>
- Strong, D. M., Volkoff, O., Johnson, S. A., Pelletier, L. R., Tulu, B., Bar-On, I., Trudel, J., &

- Garber, L. (2014). A theory of organization-EHR affordance actualization. *Journal of the Association for Information Systems*, 15(2), 53–85. <https://doi.org/10.17705/1jais.00353>
- Te'eni, D., & Katz, A. (2026). Reliable vibe coding: The human-AI context gap in software development. In M. Alimardani, T. Lenaerts, A. Meyer-Vitali, A. Nowé, J. Vennekens, & S. Wang (Eds.), *HHAI 2026: Proceedings of the 5th International Conference on Hybrid Human-Artificial Intelligence* (Vol. 423, pp. 197–211). IOS Press. <https://doi.org/10.3233/FAIA260505>
- Temizkan, O., & Kumar, R. L. (2024). Knowledge transfer to aid social coding: The case of Stack Overflow. *Decision Support Systems*, 179, 114174. <https://doi.org/10.1016/j.dss.2024.114174>
- Thapa, D., & Sein, M. K. (2018). Trajectory of affordances: Insights from a case of telemedicine in Nepal. *Information Systems Journal*, 28(5), 796–817. <https://doi.org/10.1111/isj.12160>
- Volkoff, O., & Strong, D. M. (2013). Critical realism and affordances: Theorizing IT-associated organizational change processes. *MIS Quarterly*, 37(3), 819–834. <https://doi.org/10.25300/MISQ/2013/37.3.07>
- Zacharias, J., Popova, A., von Zahn, M., Chen, J., & Hinz, O. (2026). Developers' dilemma: Opportunities and pitfalls of generative AI for software development. *Business & Information Systems Engineering*. <https://doi.org/10.1007/s12599-026-00998-y>
- Zhao, L., Fu, B., & Bai, S. (2025). Understanding the Influence of Personalized Recommendation on Purchase Intentions from a Self-Determination Perspective: Contingent upon Product Categories. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(1). <https://doi.org/10.3390/jtaer20010032>
- Zhou, X., Liang, P., Zhang, B., Li, Z., Ahmad, A., Shahin, M., & Waseem, M. (2025). Exploring the problems, their causes and solutions of AI pair programming: A study on GitHub and Stack Overflow. *Journal of Systems and Software*, 219, 112204. <https://doi.org/10.1016/j.jss.2024.112204>