

Institutional Design for Collaborative Digital Governance in Tlemang Cultural Tourism Village

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ABSTRACT

Digital tourism platforms frequently begin as externally supported innovations but struggle to become routine local institutions. This study analyses the institutional design required to sustain EthnoGring, a village-based platform for cultural documentation, tourism communication and local-service integration in Tlemang, Indonesia. A qualitative case study combined document analysis, platform observation and stakeholder material from 21 participants representing government, tourism organizations, university teams, cultural communities and media. The findings identify five institutional gaps: unclear authority, concentrated administrative capacity, incomplete cultural-content rules, project-dependent finance and weak outcome monitoring. The paper proposes a four-layer governance architecture linking policy legitimacy, steering and accountability, content and service operations, and data-based learning. A responsibility matrix assigns accountable, responsible, consulted and informed roles across the Pentahelix actors. The study argues that collaborative digital governance becomes sustainable when a platform is embedded in village rules, recurring budgets, distributed capabilities and an evidence chain that connects digital outputs with verified public value. The proposed design offers an operational model for rural governments seeking to institutionalise community-centered digital innovation.

Keywords: collaborative governance; digital government; institutional design; cultural tourism; village innovation

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INTRODUCTION

Digital innovation in local government is often assessed through the availability of a platform, application or online service. This technology-centred view is incomplete. Public value depends on whether actors can maintain the service, define authority, update information, protect rights, finance operations and learn from evidence after the initial project ends. Digital transformation therefore involves institutional change rather than the simple adoption of technical tools (Janowski, 2015; Mergel et al., 2019). In rural and village settings, this distinction is especially important because innovations are frequently initiated through short-term university, donor or government programmes while long-term responsibility remains ambiguous.

EthnoGring is a digital platform developed for Tlemang Village, Lamongan Regency, Indonesia. It integrates cultural documentation, information on the

Mendhak Sanggring tradition, public communication, tourism promotion and prospective links to village enterprises and services. The platform emerged from a university-community engagement programme in 2025 and subsequently became the subject of a governance evaluation. Its early implementation illustrates a recurring public-administration problem: collaborative actors can produce an innovative output, but the output may not become a durable local institution. When platform administration is concentrated in a small team, content is updated mainly around major events, and financing is tied to projects, continuity depends on personal commitment rather than organisational rules.

Collaborative governance provides a useful lens for understanding this transition. It refers to arrangements in which public agencies and non-state actors engage in collective decision-making or implementation across organisational boundaries (Ansell & Gash, 2008; Emerson et al., 2012). Collaboration can pool knowledge and resources, increase legitimacy and develop shared solutions, yet it also creates questions about accountability, power and coordination. Network arrangements require appropriate modes of governance, role clarity and mechanisms for resolving tensions between flexibility and control (Provan & Kenis, 2008). In a digital setting, these questions extend to data authority, content moderation, access rights, technical dependence and the interpretation of performance metrics.

The Pentahelix configuration of government, academia, community, business and media is widely used in Indonesian tourism development to describe the actors needed for destination collaboration. However, actor mapping alone does not specify how responsibilities should be institutionalised. Listing participants does not determine who approves cultural narratives, who maintains hosting, who answers enquiries, who audits content, or who is accountable when the platform becomes inactive. Institutional design translates participation into rules, routines and decision rights. It determines the boundaries of membership, decision procedures, transparency, oversight and resource commitments that make joint action possible (Bryson et al., 2006; Thomson & Perry, 2006).

Digital government scholarship also emphasises public value. Technology creates value when it improves services, transparency, participation, capability or equitable outcomes, rather than when it merely increases online activity (Bannister & Connolly, 2014; Cordella & Bonina, 2012). For EthnoGring, page views can indicate access to information but cannot independently demonstrate more tourists, higher enterprise income or stronger cultural transmission. Institutional design must therefore include an evidence chain from inputs and activities to digital outputs, local outcomes and public value. Without this chain, visibility may be confused with impact.

This study addresses two questions: (1) What institutional gaps constrain the sustainable management of EthnoGring? and (2) What institutional arrangement can strengthen collaborative digital governance at village level? The paper contributes by connecting collaborative-governance theory with operational digital-government design. Rather than proposing another general actor model, it develops a layered architecture, responsibility matrix and monitoring framework that can be applied by village institutions. The case also broadens digital government research by showing how cultural authority and living-heritage validation become integral governance concerns in local platforms.

METHOD

The study adopted a descriptive qualitative case-study design. Tlemang Village was selected because it combines a recognised living cultural tradition, an emerging cultural-tourism agenda and the early adoption of a locally oriented digital platform. The case allows institutional design to be examined while roles and routines are still forming, rather than after they have become fixed. Data collection was undertaken between February and June 2026 within a wider Research Group project evaluating collaborative governance for sustainable digital cultural tourism.

The empirical material comprised project and village documents, observation of the public EthnoGring platform, platform-access summaries and stakeholder interview material. Twenty-one participants were selected purposively based on direct knowledge of the platform or the cultural-tourism ecosystem. They included three government actors; three representatives of Pokdarwis, the village enterprise and micro-enterprises; four university team members; six cultural-community actors; and five media actors. This composition provided perspectives on formal authority, technical development, cultural legitimacy, business linkage and public communication.

Analysis followed an interactive process of data reduction, display and interpretation. Initial codes were organised around authority, participation, content governance, capability, financing, service integration and monitoring. The findings were then mapped against collaborative-governance dimensions starting conditions, institutional design, principled engagement, shared motivation and capacity for joint action and digital-government requirements for accountability and public value. Triangulation compared role-level interview findings with visible platform features, project documentation and access records. The study reports aggregated actor categories and does not disclose personal identifiers. Page views were analysed as an access indicator only and were not treated as evidence of physical visits or economic impact.

Table 1. Distribution of stakeholder material

Actor group	Number	Primary institutional perspective
Government	3	Legitimacy, policy alignment, coordination and village budgeting
Pokdarwis/BU MDes/UMKM	3	Tourism operations, local services and economic linkage
University team	4	Platform design, training, research and capability transfer
Cultural community	6	Cultural authority, narrative validity and community ownership
Media	5	Editorial practice, multichannel dissemination and audience engagement
Total	21	Cross-actor assessment of emerging governance arrangements

FINDINGS AND DISCUSSION

Findings

Project-Based Collaboration Without Full Institutionalisation

EthnoGring was initiated under favourable collaborative conditions. Tlemang possessed strong cultural assets, existing community organisation and a shared interest in protecting Mendhak Sanggring. The village government facilitated access and coordination, the university team provided platform development and training, cultural actors supplied and validated knowledge, tourism organisations connected the platform with destination activities, and media actors expanded dissemination. These contributions demonstrate principled engagement and shared motivation in the sense described by Emerson et al. (2012). The platform became a visible common project around which different interests could be aligned.

However, collaboration was strongest during development activities, training and major cultural events. Routine management was less institutionalised. The platform had administrative access and identifiable content sections, but no fully operationalised village management board, recurring meeting schedule, performance-reporting procedure or comprehensive standard operating procedure. Collaboration therefore remained partly event-based and person-dependent. This gap reflects the difference between collaborative activation and collaborative institutionalisation. Actors may be willing to cooperate, but willingness alone does not create durable authority or predictable routines.

The finding supports network-governance research that identifies tensions between flexibility and accountability. Informal arrangements facilitate rapid experimentation, especially in the early stage of innovation, but become vulnerable when tasks are repetitive or when participants change (Provan & Kenis, 2008). For EthnoGring, the transition requires a formal local mandate that preserves collaborative input without turning the platform into a purely bureaucratic information channel.

Five Institutional Gaps

The analysis identified five connected gaps: legal and organisational authority, distributed administrative capacity, cultural-content governance, operational finance and outcome monitoring. Table 2 summarises the evidence, risks and design responses.

Table 2. Institutional gaps and proposed responses

Institutional dimension	Current condition	Governance risk	Design response
Authority and accountability	Support exists, but a permanent management mandate and reporting line are incomplete.	Responsibility becomes unclear when updates, complaints or technical failures occur.	Village decree or formal assignment; named accountable lead; quarterly steering forum.
Administrative capacity	Technical and editorial work is concentrated in a small number of	Inactive content and external dependence when key people are unavailable.	Multiple trained local administrators; task rotation; documented

	administrators and university partners.		credentials and handover.
Cultural-content rules	Community validation occurs, but categories, consent and approval procedures are not fully standardised.	Misinterpretation, inappropriate disclosure or commodification of living heritage.	Content classification; community approval workflow; correction and withdrawal procedure.
Operational finance	Hosting, maintenance, production and promotion are linked mainly to project support.	Service discontinuity and inability to replace tools or produce content.	Annual village allocation; cost plan; partnership rules; transparent expenditure reporting.
Monitoring and learning	Page views are available, but links to enquiries, visits, services and enterprise outcomes are weak.	Visibility is reported as impact without sufficient evidence.	Indicator chain, named data owners, periodic review and corrective-action log.

A Four-Layer Institutional Architecture

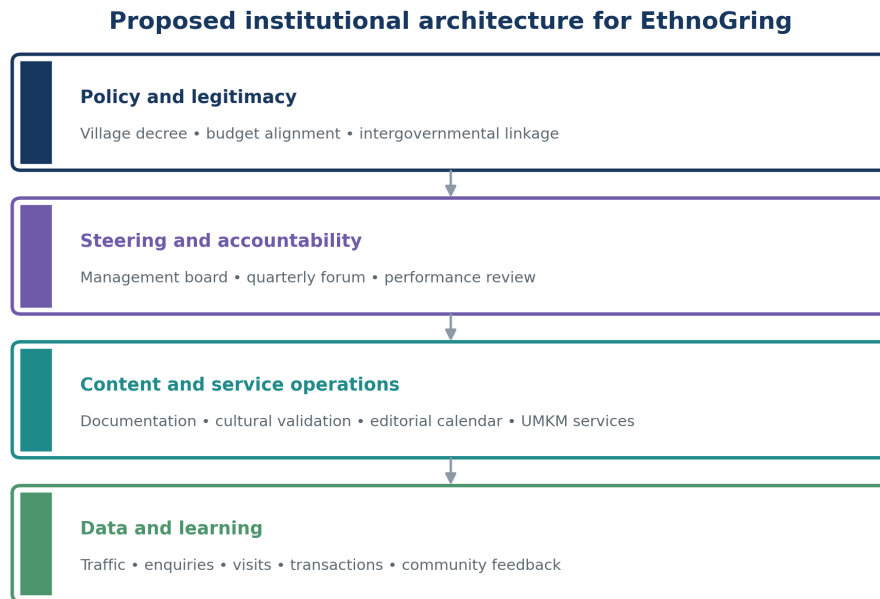
The proposed architecture links four layers that are often separated in village innovation. The first layer is policy and legitimacy. A formal village instrument should establish the platform's purpose, ownership, oversight and relationship with village tourism and development programmes. It should also recognise cultural-community authority over sensitive or interpretive content. Formalisation is not intended to centralise every decision in the village government; rather, it clarifies who is accountable for ensuring that collaborative decisions are implemented.

The second layer is steering and accountability. A compact management board should include the village government, Pokdarwis or the village enterprise, cultural representatives, a local administrator and relevant youth or media contributors. The board should approve annual priorities, review performance, authorise major partnerships and resolve conflicts. University partners can participate as advisers during the transition period, but should not remain the permanent accountable operator. This arrangement combines participant governance with a modest lead-organisation function, reducing the risk of both fragmentation and over-centralisation.

The third layer is content and service operations. Operational routines include documentation, cultural validation, editorial planning, technical maintenance, public responses and the integration of local services. Each routine requires a named responsible actor and a back-up actor. Editorial work should use a monthly calendar rather than depending on the annual ritual. Cultural content should pass through a classification system: open public information, content requiring cultural

approval, and restricted material that should not be published. Service information such as enterprise contacts, packages or homestays—requires separate accuracy and update procedures.

The fourth layer is data and learning. Digital records should be combined with administrative and community evidence. A quarterly review can compare platform access, published content, enquiry response, verified visits, participating enterprises, service use and community feedback. Learning requires not only collecting data but also recording decisions and follow-up actions. This converts monitoring from a reporting exercise into a governance routine.



Local ownership is operationalised through linked policy, steering, operations and learning layers.

Figure 1. Proposed institutional architecture for collaborative digital governance

Responsibility Allocation Across Pentahelix Actors

A Pentahelix model becomes operational only when responsibilities are assigned. The responsibility matrix in Table 3 uses four categories: accountable (A), responsible (R), consulted (C) and informed (I). Accountability should be singular wherever possible, while operational responsibility may be shared. The village government is accountable for legal mandate and public accountability; cultural representatives are accountable for cultural validation; a local platform team is responsible for daily operation; the village enterprise or tourism organisation is accountable for service information; media actors are responsible for dissemination; and the university team is primarily consulted for training, evaluation and system development.

The matrix reduces two common risks. The first is symbolic participation, where actors are named as partners but have no recurring task. The second is responsibility diffusion, where everyone is involved but no one is answerable. By separating accountability from consultation, the design recognises that broad

participation does not require every actor to control every function. It also creates an explicit transition pathway: tasks currently led by the university can move to trained local actors while academic partners retain a supporting and evaluative role.

Table 3. Proposed RACI matrix for EthnoGring governance

Governance function	Village government	Pokdarwis/B UMDes	Cultural community	Local admin/m edia	University
Legal mandate and annual priorities	A/R	C	C	I	C
Cultural documentation priorities	C	C	A/R	R	C
Validation of cultural narratives and images	I	C	A/R	R	C
Website maintenance and access control	A	C	I	R	C
Editorial calendar and publication	C	A	C	R	C
UMKM and visitor-service information	C	A/R	I	R	C
Analytics and quarterly reporting	A	C	C	R	C
Training, evaluation and model development	C	C	C	R	A/R during transition

Monitoring Digital Outputs and Public Value

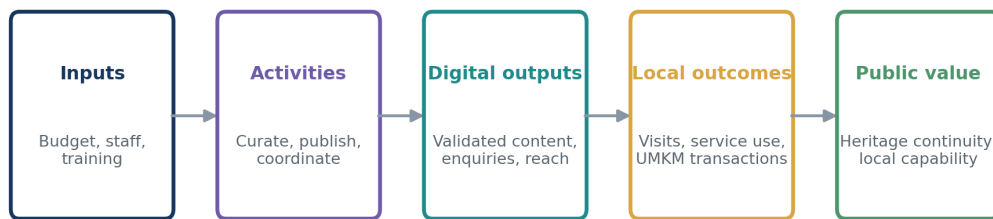
The existing access record is a useful starting point. EthnoGring recorded 86,623 page views from May to December 2025, with the highest access during the ritual period and a gradual increase toward the end of the year. These data show that the platform was accessed beyond a single event, but they do not identify unique users, motivation, learning, physical visits or expenditure. Public-value evaluation therefore needs an evidence chain rather than a single headline metric.

The proposed chain begins with inputs, including budget, staff time, equipment and training. Activities include documentation, validation, publication, coordination and response to enquiries. Digital outputs include validated content, reach, returning users and contact actions. Local outcomes include verified enquiries, visits, service use, enterprise participation and youth involvement. Public value concerns longer-term cultural continuity, local capability, equitable opportunity and trusted public information. Each stage should have a data owner, reporting period and decision rule. For example, falling content frequency should trigger editorial support; inaccurate enterprise information should trigger verification; and high access without enquiries should lead to a review of calls to action and service design.

This model aligns digital-government evaluation with collaborative governance. Data are not produced only by the platform administrator. Tourism

groups contribute visitor and service records, enterprises contribute transaction or enquiry summaries, cultural actors assess representational quality, and government consolidates accountability. Joint interpretation of evidence supports the shared learning necessary for adaptive collaboration.

Monitoring beyond page views: an evidence chain for digital governance



Each stage requires a named data owner, reporting frequency and review forum.

Figure 2. Evidence chain for monitoring digital outputs and public value.

Table 4. Minimum governance indicators

Domain	Indicator	Frequency	Primary data owner
Institutional activity	Steering meetings held; decisions completed	Quarterly	Village government
Content continuity	Updates published; inactive months; content backlog	Monthly	Local administrator/media
Cultural accountability	Content reviewed; corrections; restricted-content decisions	Quarterly	Cultural community
Digital engagement	Unique users, returning users, traffic sources, contact actions	Monthly	Platform administrator
Service linkage	Verified enquiries, packages requested, enterprise participation	Monthly/quarterly	Pokdarwis/BUMDs
Capability	Active trained administrators; tasks completed without external support	Six-monthly	Management board/university adviser
Public value	Documented cultural use, local service uptake, community feedback	Annual	Collaborative evaluation forum

Implications for Collaborative Digital Governance

The EthnoGring case shows that institutionalisation should not be equated with government takeover. A purely hierarchical model could reduce community authority and the adaptability that enabled the innovation. Conversely, an entirely informal network leaves maintenance and accountability exposed. The proposed design uses formal public accountability to support, rather than replace, distributed contribution. This reflects the argument that collaborative governance requires

both relational processes and structural capacity for joint action (Ansell & Gash, 2008; Emerson et al., 2012).

The case also extends digital-government analysis into cultural governance. Content is not simply administrative information; it carries identity, historical interpretation and potentially sensitive knowledge. The right to approve, correct or withhold content is therefore an institutional matter. Cultural validation must be treated with the same seriousness as access control, data accuracy and financial accountability. This adds a cultural-rights dimension to local digital transformation.

Finally, the design highlights the role of capability transfer. Externally supported innovation can create value, but sustainable value requires the external partner to reduce operational centrality over time. A planned transition should identify which tasks will be transferred, who will receive them, what standards apply and how performance will be reviewed. This approach turns a project exit into an institutional-development process rather than an abrupt withdrawal.

For ease of reading and comprehension, findings are presented first, followed by discussion. It should provide a concise and precise description of the experimental results, the interpretation, and the conclusions that can be drawn. The Findings subtitle and Discussion subtitle are presented separately. This section should occupy a minimum of 60% of the whole body of the article.

DISCUSSION

The findings indicate that EthnoGring was developed through strong initial collaboration among the village government, university partners, cultural communities, tourism organisations, local enterprises and media actors. This collaboration reflects the importance of shared motivation, trust and stakeholder engagement in collaborative governance (Ansell & Gash, 2008; Emerson et al., 2012). However, cooperation was strongest during platform development, training and major cultural events, while routine management remained dependent on a limited number of individuals. This condition shows that collaborative activation has not yet fully developed into collaborative institutionalisation.

The absence of a permanent management board, regular coordination, clear reporting procedures and formal task distribution creates risks for platform continuity. Collaborative networks require continuous management, clear responsibilities and institutional support, rather than relying solely on informal commitment (Agranoff, 2006; Thomson & Perry, 2006). In line with Provan and Kenis (2008), EthnoGring needs a hybrid governance model that maintains stakeholder flexibility while establishing a recognised centre of accountability through the village government and a multi-actor management board.

The five institutional gaps identified in the study—authority, administrative capacity, cultural-content governance, operational finance and monitoring—demonstrate that digital transformation is not limited to technological adoption. It also requires changes in organisational structures, skills, procedures and public-service relationships (Janowski, 2015; Mergel et al., 2019). The proposed four-layer institutional architecture is therefore intended to clarify legal legitimacy, steering arrangements, operational responsibilities and data-based learning.

Cultural-content governance is particularly important because EthnoGring presents living cultural heritage rather than ordinary administrative information. Cultural communities should therefore have formal authority to validate, correct,

restrict or withdraw content to prevent misrepresentation and inappropriate disclosure (Calvi et al., 2022). The involvement of several trained local administrators is also necessary to reduce external dependence and support more inclusive digital co-production (Kirklies et al., 2024).

Finally, the recorded 86,623 page views between May and December 2025 demonstrate substantial digital visibility, but they cannot by themselves confirm public value. Evaluation should also examine enquiries, visits, service use, enterprise participation, local capability and community feedback. A public-value perspective requires digital platforms to be assessed according to their cultural, social, economic and institutional contributions, not merely technical outputs (Alford & O'Flynn, 2009; Bannister & Connolly, 2014; Panagiotopoulos et al., 2019). Therefore, EthnoGring's long-term sustainability depends on formal governance, recurring financing, cultural protection, outcome monitoring and the gradual transfer of operational capacity from university partners to local actors.

CONCLUSION

EthnoGring has created a shared digital space for cultural documentation, tourism communication and prospective local-service integration in Tlemang Village. Its early collaborative development involved government, university, community, business and media actors, but the governance arrangement remains partly project-based. The principal constraints are not the absence of cultural assets or stakeholder interest. They are incomplete authority, concentrated administrative capacity, insufficiently formalised cultural-content procedures, uncertain operational finance and weak links between digital traffic and verified public value.

The study proposes a four-layer institutional architecture: policy and legitimacy; steering and accountability; content and service operations; and data and learning. A RACI matrix translates Pentahelix participation into specific responsibility, while an evidence chain connects inputs and digital outputs with local outcomes and public value. The model suggests that village digital innovation becomes sustainable when collaboration is embedded in formal mandates, recurring resources, distributed skills, community authority and routine evaluation.

The findings are based on one early-stage platform and should not be generalised without attention to local political, cultural and technical conditions. Future research should evaluate the model longitudinally, compare governance arrangements across villages and examine how residents and visitors experience platform content. For immediate practice, Tlemang should establish a formal management board, adopt cultural-content and access-control procedures, integrate operational costs into village planning, train multiple local administrators and review a minimum indicator dashboard each quarter.

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