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Digital Transformation of Scholarly Publication Management in Islamic Education Journals: Optimizing Document Archiving through Google Drive Integration in a Journal Management System

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ABSTRACT

Journals in Islamic education are often run by small editorial teams that accumulate many records beyond the published article, including reviewer reports, revision files, decision letters, and agreements. Open Journal Systems (OJS) manages the editorial workflow but is not designed as a complete archive for these records, and informal use of personal cloud storage leaves them fragmented and hard to trace. This study examines how document archiving can be optimized by linking Google Drive to a journal management system. A design-oriented qualitative case study of one OJS-based Islamic education journal drew on documentary analysis, participant observation, and workflow mapping. The study produced an integration model with four components: a standardized folder architecture, a naming convention keyed to the OJS submission identifier, a link registry, and role-based access control. The analysis indicates gains in traceability and continuity of editorial records while keeping OJS as the system of record. It also identifies risks concerning peer-review confidentiality, provider dependence, and link persistence, which require explicit governance. The model is low-cost and replicable for similar journals, and careful stewardship of records can be read as a practice of trust (amanah).

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1. INTRODUCTION

Scholarly journals are central institutions through which research in Islamic education circulates, is validated, and becomes part of the scholarly record. Open access publishing [1] and open-source platforms such as Open Journal Systems (OJS) [2] have enabled universities, associations, and individual scholars to establish journals with modest resources. Yet OJS is designed first to manage the editorial workflow (submission, review, decision, copyediting, and publication) rather than to serve as a comprehensive repository for every document an editorial office produces and receives.

In practice, a journal generates far more than published articles. A single submission may leave behind the original manuscript, supplementary files, similarity-check reports, reviewer reports, response letters, several revision rounds, language-edited versions, galley proofs, signed publication agreements, and payment evidence where article processing charges apply. At the journal level, editors must also keep board decrees, standard operating procedures, annual reports, and the evidence used for accreditation and indexing. When these records are scattered across e-mail inboxes, messaging applications, and personal storage, they become difficult to trace, depend on individual editors, and are vulnerable to loss when editorial staff change, a common condition in journals run by volunteer academics.

Cloud storage services such as Google Drive are widely used in editorial offices because they are free or low-cost, familiar to academics, and reachable from any device [3]. Informal use, however, produces its own problems: inconsistent folder structures, unclear ownership, excessive link sharing, and no systematic connection between a file and the submission record to which it belongs. Digital transformation, in this respect, is not merely the adoption of a tool but the reorganization of practices, structures, and responsibilities around digital technologies [4].

Research on open access publishing has largely examined its academic, economic, and societal impacts [5], and discussions of journal management in Indonesia tend to focus on OJS installation, indexing, and publication quality. To the author's knowledge, comparatively little attention has been given to the archive management of

editorial documents, especially in Islamic education journals, where the confidentiality of peer review and the trustworthiness of the scholarly record carry both professional and ethical weight. This article addresses that gap.

The study is guided by three questions: (1) What archive-management problems arise in the editorial documents of an Islamic education journal managed on OJS? (2) How can Google Drive links be integrated into the journal management system to address these problems? (3) What benefits, risks, and governance requirements accompany the integration model? The article contributes a replicable, low-cost integration model, an evaluation framework grounded in records-management principles, and a discussion of governance risks relevant to editors of similar journals.

2. THEORETICAL FRAMEWORK

2.1. Digital Transformation and Journal Management Systems

Vial [4] conceptualizes digital transformation as a process in which digital technologies disrupt an organization and prompt strategic responses and structural change that create value. Applied to a journal, transformation is not achieved by installing OJS alone; it also requires redesigning how documents are created, named, stored, shared, and retrieved across the editorial lifecycle. OJS, developed by the Public Knowledge Project, supports journal management and publishing through role-based access for authors, reviewers, editors, and production staff [2]. Its strength lies in structuring the editorial workflow and keeping files attached to the submission record. As a general matter, however, governance documents, administrative evidence, and supporting records outside the workflow have no natural home in the system, which explains why editorial teams supplement it with external storage.

2.2. Records Management and Archival Principles

The international standard on records management describes records as needing to be authentic, reliable, intact, and usable over time [6]. The Open Archival Information System (OAIS) reference model distinguishes the active management of information from its long-term preservation [7], [8], a distinction that matters because digital materials face obsolescence and loss unless deliberately managed [9]. The Committee on Publication Ethics adds that editorial processes, particularly peer review, must be transparent, documented, and confidential [10]. Together, these sources imply that a journal archive must make editorial decisions traceable without exposing confidential review information. They provide the evaluation lens used in this article.

2.3. Cloud Storage and Information Security

The widely used definition of cloud computing describes on-demand network access to a shared pool of configurable resources that can be provisioned with minimal management effort [3]. For journals, this means convenience and scalability, but also shared responsibility: the provider operates the infrastructure, while the journal remains responsible for configuring access, structuring content, and meeting its obligations. Two security principles are especially relevant. The principle of least privilege holds that each user should receive only the access needed for the task [11], and information security management standards treat access control and the protection of confidential information as core requirements [12].

2.4. Trust (*Amanah*) and the Scholarly Record

Classical formulations of *maqasid al-shari'ah*, such as that of al-Shāṭibī [13], organize the objectives of Islamic law around the protection of essential human interests, and contemporary accounts [14], [15] apply this orientation to new domains. This article offers an interpretive application of that orientation: author manuscripts, reviewer reports, and editorial decisions are entrusted to the journal, and the careful keeping of these records can be understood as a form of *amanah* (trust). The notion is used as an ethical complement to the technical analysis, not as a substitute for it.

3. METHODS

3.1. Research Design and Setting

The study uses a qualitative, design-oriented case study [16]. The case-study component examines one journal in depth within its real setting, while the design orientation follows the logic of design science research, in which an artifact is developed, demonstrated, and evaluated against explicit criteria [17], [18]. The case is the Indonesian Journal of Contemporary Islamic Educational Studies (IJCIES), an OJS-based journal published by the Asosiasi Dosen Riset dan Inovasi Indonesia (el-ADRIn). The author acts as a journal manager and therefore has direct access to the editorial process.

3.2. Data Collection

Three sources were used: (1) documentary analysis of the categories of documents the journal creates and receives and where they were stored; (2) participant observation of the editorial process by the author in the role of journal manager; and (3) workflow mapping of the editorial lifecycle from submission to post-publication. Using several sources allowed the findings to be cross-checked.

3.3. Data Analysis and Ethical Considerations

Problems and requirements were identified through thematic analysis [19] supported by matrix displays of the documentary and observational material [20]. The resulting integration model was then assessed qualitatively against six criteria derived from records-management principles and publication ethics [6], [7], [10]: traceability, accessibility, integrity, confidentiality, continuity, and usability [21]. Trustworthiness was supported by triangulating the data sources and by keeping an audit trail of design decisions [22]. No personal data of authors or reviewers are reproduced in this article, and illustrative identifiers are fictitious. The handling of personal data in the model is discussed with reference to Indonesian Law No. 27 of 2022 on Personal Data Protection [23].

4. RESULTS AND DISCUSSION

4.1. The Document Landscape and Archive Problems

Workflow mapping showed that the editorial lifecycle of the journal produces documents in six broad categories, which differ in sensitivity and therefore in how they should be stored and shared (Table 1).

Table 1. Categories of editorial documents

Category	Typical documents	Sensitivity	Suggested Drive folder
Submission	Original manuscript, supplementary files, similarity-check report	Medium	01_Submission
Review	Reviewer reports, review forms, reviewer correspondence	High	02_Review
Revision	Revised manuscripts, author response letters	Medium	03_Revision
Production	Copyedited files, galley proofs, final PDF and XML	Low after publication	04_Production
Administrative and legal	Publication agreements, payment evidence, decision letters	High	05_Admin
Journal governance	Board decrees, procedures, annual reports, accreditation evidence	Medium	Governance

Thematic analysis of how these documents were handled before integration identified six recurring problems. First, documents were fragmented across e-mail, messaging applications, and individual storage. Second, file names did not consistently indicate the submission, document type, or version, making retrieval slow and error-prone. Third, there was no systematic way to move from a submission record in OJS to the supporting documents held outside it. Fourth, files held in personal accounts depended on the individual who created them, which created continuity risk when staff changed. Fifth, files were shared informally, often by open links, without a record of who could see what. Sixth, assembling evidence for accreditation, indexing, or an ethics complaint required manual searching across several locations. These problems correspond to failures in the records qualities of authenticity, integrity, and usability [6].

4.2. The Integration Model

The model rests on one guiding principle: OJS remains the system of record for the editorial workflow, Google Drive serves as the document repository, and a link connects the two. This prevents duplication of workflow logic, keeps authors and reviewers inside OJS, and limits Drive to the editorial office. The model has four components.

Component 1: Folder architecture. A standardized hierarchy is created once and reused for every volume, issue, and submission (Figure 1). Submission folders are created by copying a template folder so that the structure is identical every time. The archive root is placed in an organization-owned shared drive where the account type allows it, rather than in an individual's personal drive, so that ownership belongs to the journal and survives changes in personnel.

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IJCIES-Archive/
  Governance/
    Board-Decrees/  SOP/  Accreditation-Evidence/  Annual-Reports/
  Volume-01_Issue-01/
    Issue-Level/
      Front-Matter/  Final-Galleys/
    Submission-0123/
      01_Submission/
      02_Review/
      03_Revision/
      04_Production/
      05_Admin/
```

Figure 1. Folder architecture of the journal archive

Component 2: Naming and metadata convention. Every file name follows a fixed pattern combining journal code, volume and issue, OJS submission identifier, document type, version, and date, for example *IJCIES_V1-I1_0123_ReviewR1_v1_20260115* (an illustrative identifier). Because the submission identifier appears in every file and folder name, it acts as the key that joins the two systems. Dates use a year-first format so that files sort

chronologically. This convention reflects, at a modest scale, the logic of the FAIR principles that digital objects should be findable and identifiable through consistent identifiers and metadata [24].

Component 3: Link registry. The URL of each submission folder is recorded in two places: in the submission's internal editorial discussion or a dedicated metadata field where the installation allows it, and in a central registry spreadsheet. The registry has one row per submission with the OJS submission identifier, an abbreviated title code, the current editorial stage, the Drive folder link, the responsible editor, the access level, and the date of the last audit. It gives the editorial office a single overview of the archive and makes periodic audits straightforward.

Component 4: Role-based access control. Access follows the principle of least privilege [11] (Table 2). The editor-in-chief and journal manager hold full access. Handling editors can reach the folders of the submissions they handle. Production staff can reach production and administrative folders only. Authors and reviewers receive no Drive access at all; they interact exclusively through OJS. Sharing is restricted to named accounts, and open, anyone-with-the-link sharing is not used for any folder containing unpublished or confidential material.

Table 2. Access matrix by editorial role

Role	Submission	Review	Revision	Production	Admin and governance
Editor-in-chief or manager	Edit	Edit	Edit	Edit	Edit
Handling editor	Edit (own)	View (own)	Edit (own)	View	None
Production staff	None	None	None	Edit	View (limited)
Authors and reviewers	OJS only	OJS only	OJS only	OJS only	None

4.3. Integration into the Editorial Workflow

The model is embedded in the editorial stages rather than added as a separate task. When a submission is received, the manager creates the submission folder from the template, records the link in OJS and in the registry, and stores supplementary and similarity-check files. During review, reviewer reports and review forms are stored in the review folder, only the information needed for the decision is recorded, and reviewer identities are kept separate from author-facing files. Decision letters, revised manuscripts, and response letters are saved with incremented version labels so that each revision round remains distinguishable. In production, copyedited files, proofs, and final galleys are saved in the production folder, and the final published files are copied to the issue-level folder. After publication, agreements and administrative evidence are completed, the registry stage is updated to published, and any later correction is stored as a new dated version rather than an overwrite. At set intervals, the manager checks that links resolve, permissions match the access matrix, and the registry is complete.

4.4. Evaluation Against Records-Management Criteria

The model was assessed qualitatively against the six criteria introduced in the methods section (Table 3).

Table 3. Qualitative evaluation of the integration model

Criterion	Ad hoc practice	Integrated model	Residual risk
Traceability	Documents located by memory or searching	Submission identifier links OJS record, folder, and file names	Depends on discipline in naming
Accessibility	Held by individuals	Central structure reachable from the OJS record	Requires working links and accounts
Integrity	Overwrites and unclear versions	Versioned names and dated files	Drive does not itself guarantee authenticity
Confidentiality	Informal and open link sharing	Named-account sharing under an access matrix	Misconfiguration or accidental sharing
Continuity	Tied to personal accounts	Organization-owned drive and registry	Provider policy changes
Usability	Inconsistent for each editor	Uniform template and conventions	Initial training burden

The comparison suggests that the greatest gains lie in traceability and continuity. These are also the qualities most relevant to accreditation and indexing, which depend on evidence that editorial processes are consistently documented. Improvements in integrity and confidentiality are real but conditional: they depend on correct configuration and on editors following the conventions.

4.5. Discussion

The integration model introduces no new software; it combines two existing tools through a set of conventions. This supports the view that digital transformation concerns the redesign of organizational practice around technology [4]. It also resonates with the observation in the information technology governance literature that outcomes depend on clearly assigned decision rights and accountabilities rather than on technology alone [25]. For small journals, the capacity to define and follow shared conventions matters more than the sophistication of the tool.

The model addresses the usability, integrity, and reliability of records [6] primarily at the level of active management. It should not be mistaken for a preservation system. In terms of the OAIS distinction [7], Drive supports the working archive of the editorial office but does not replace long-term preservation of published articles, which

remains the function of the journal's publishing platform, persistent identifiers, and, where available, institutional or external preservation services [9].

Journals in Islamic education frequently depend on lecturers who edit alongside teaching and research duties. Perceived usefulness and perceived ease of use strongly influence whether users adopt a technology [26], [27], and innovations that are compatible with existing practice and easy to trial spread more readily [28]. Because most editors already use Google Drive, the model lowers the learning burden and relies on familiar interaction, an important practical advantage over specialized archival systems that require new skills, infrastructure, or licenses.

Finally, the model fits the expectations of peer-review ethics. Core practices stress that peer review be confidential and that editorial decisions be documented [10]. The model supports documentation through versioned decision records, while its access matrix protects confidentiality by excluding authors and reviewers from the repository. Confidentiality nonetheless depends on human practice, and a single misconfigured link can undo the protection built into the structure.

4.6. Risks and Governance Requirements

The analysis identified five principal risks. The first is a confidentiality breach, mitigated by restricting sharing to named accounts, avoiding open links, removing identifying metadata from files circulated to reviewers, and reviewing sharing settings in every audit [12]. The second is provider dependence, mitigated by keeping the registry and critical records exportable, maintaining a periodic backup in a second location, and avoiding reliance on provider-specific features for core logic. The third is link persistence, mitigated by using folder-level rather than file-level links where possible, checking links during audits, and recording the folder path in the registry alongside the URL. The fourth is exposure of personal data: reviewer and author information is personal data, so only what is needed should be collected and retained, access should be restricted by role, and the institution's data-protection policy and applicable law [23] should be followed. The fifth is loss of continuity, mitigated by an organization-owned drive, a written procedure documenting the conventions, and a handover checklist for outgoing editors. These mitigations imply that adopting the model is also a governance decision: the journal needs a written policy on who may create folders, who may share them, how long records are retained, and who is responsible for audits.

4.7. Stewardship of Records as *Amanah*

The technical model has an ethical dimension that is particularly salient for Islamic education journals. Authors entrust their unpublished work to editors, and reviewers entrust their candid judgments. Read through the lens of *maqasid al-shari'ah* [15], protecting the confidentiality of these materials and keeping accurate records of editorial decisions are part of the journal's responsibility toward the scholarly community. The access matrix, the version discipline, and the periodic audit can thus be understood not only as efficiency measures but as concrete practices of *amanah*. This reading is interpretive and does not follow from the technical analysis alone.

4.8. Implications and Limitations

For journal managers, the study offers a template that can be adapted at little cost: a folder architecture, a naming convention, a registry, and an access matrix. For publishers and associations that run several journals, the same structure can be standardized across titles so that audits and handovers follow one pattern. For accreditation and indexing, a consistent archive makes it easier to demonstrate that editorial processes are documented and transparent.

The study has limitations. It is a single-case design, and its findings should not be generalized without further testing. The evaluation is qualitative and includes no quantitative measures such as retrieval time, error rates, or user satisfaction. The author participated in the editorial process, which introduces the possibility of observer bias. Further research could apply the model across several journals, measure its effects on retrieval time and error rates, survey editors on usability using established acceptance constructs [27], and examine how integration might be automated while preserving confidentiality.

5. CONCLUSION

This article has shown that document archiving in a journal can be improved by connecting an OJS-based workflow with Google Drive through a small set of conventions: a standardized folder architecture, a naming convention keyed to the OJS submission identifier, a link registry, and a role-based access matrix. In the case studied, the model addresses six recurring problems of fragmentation, inconsistent naming, weak linkage, unclear ownership, access sprawl, and audit difficulty, and its main gains lie in traceability and continuity of editorial records.

The model does not replace OJS, and it is not a preservation system. Its value lies in giving the editorial office a structured, auditable working archive at low cost. Its risks, particularly those concerning confidentiality, provider dependence, and personal data, require explicit governance. For Islamic education journals, careful keeping of editorial records is both a managerial task and an expression of the trust placed in editors by authors, reviewers, and the wider scholarly community. Future work should test the model across multiple journals and measure its effects quantitatively.

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