

APPLYING OJS TO DIGITALIZE THE EDITORIAL WORKFLOW: A CASE OF THE UNIVERSITY OF PHAN THIET JOURNAL OF SCIENCE

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Abstract: *This study reports the implementation of Open Journal Systems (OJS) to digitalize the editorial and publishing workflow of the University of Phan Thiet Journal of Science (UPTJS), Vietnam. Using an institutional implementation–evaluation design, the study combined workflow re-engineering, OJS 3.4 configuration, operational assessment, surveys of authors (n = 15) and peer reviewers (n = 21), and open-ended feedback. The findings show that OJS transformed a semi-manual process based on email and spreadsheets into a more structured digital workflow, with centralized manuscript tracking, automated communication, clearer role-based responsibilities, and improved record retrieval. User evaluations were generally positive, although authors still reported difficulties related to ease of use, login/access stability, system speed, and non-intuitive operations, while reviewers identified review completion time as the least satisfactory aspect of the workflow. Reviewer responses also showed limited and cautious use of specific AI tools, mainly ChatGPT, Perplexity, and Scopus AI/Scholar, raising the need for clear policy guidance and responsible integration. Overall, the study offers a practical implementation–evaluation model for resource-constrained university journals seeking to improve editorial governance, user experience, and digital transformation in scholarly publishing.*

Keywords: *AI-assisted peer review, editorial workflow digitalization, Open Journal Systems (OJS), peer review, scholarly publishing, university journals*

1. INTRODUCTION

Across the global open-science movement, higher educational institutions increasingly seek cost-effective digital infrastructure to improve the quality, transparency, and accessibility of scholarly communication (UNESCO, 2021). A widely adopted pathway is the use of open-source journal management platforms

that standardize editorial workflows and improve metadata exposure for indexing and discovery (Public Knowledge Project, 2024). In this context, Open Journal Systems (OJS) has become a major end-to-end platform for journal operations, with widespread adoption globally, particularly in the Global South (Public Knowledge Project, 2026).

In Vietnam, many university journals—especially newly established or resource-constrained titles—continue to rely on email and spreadsheets for editorial coordination, creating recurring operational risks (e.g., delayed communication, limited traceability of decisions, and inconsistent archiving). Within this setting, the University of Phan Thiet Journal of Science (UPTJS) initiated an institutional project to implement OJS as a practical digital-transformation intervention.

This study addresses two objectives. First, it documents how OJS can be configured and localized to reconstruct and automate a university scientific journal’s editorial–publishing workflow. Second, it evaluates the operational and user-experience outcomes of this transition using system evidence, quantitative satisfaction measures, and qualitative feedback (including emerging AI practices in peer review).

The paper makes three contributions. It provides (i) a step-by-step implementation blueprint for OJS-based workflow transformation, (ii) a mixed-methods evaluation design emphasizing measurement reliability and role-specific assessment of user experience, and (iii) an extended lens on AI-assisted peer review as an emerging dimension of digitally mediated editorial practice.

2. LITERATURE REVIEW AND RESEARCH METHODS

2.1. Literature Review

OJS is frequently discussed as open infrastructure enabling standardized

submission, peer review, editorial decision tracking, and production management within a single platform. As the official PKP (2026) documentation emphasizes, OJS functions as an end-to-end scholarly publishing system that supports the full researcher-to-reader workflow, from submission and peer review to publication, indexing, and dissemination. This makes OJS especially relevant to journals seeking not only to digitize isolated tasks but to reorganize editorial coordination as an integrated digital process.

OJS is frequently discussed as open infrastructure enabling standardized submission, peer review, editorial decision tracking, and production management within a single platform (Public Knowledge Project, 2026). Evidence also suggests that adoption of standardized metadata and identifier infrastructure (e.g., Crossref DOI usage) is strongly associated with improved downstream indexing and discoverability for OJS-based journals (Chavarro et al., 2025).

Empirical studies on OJS adoption often report benefits in workflow efficiency and usability from author and reviewer perspectives, while noting adoption barriers related to user training, local policies, and infrastructure constraints (Mwantimwa & Wema, 2022; Rohman et al., 2024). At the journal-strategy level, case work on small journals emphasizes that digital platforms alone are insufficient unless matched by editorial policies and practices that maintain quality and visibility (Malvić et al., 2022).

Alongside platform transformation, AI tools are increasingly used to support publishing and peer review tasks (e.g., screening, reviewer matching support, drafting feedback), while raising concerns about misuse, bias, and integrity—implying the need for human oversight and clear journal policy (Kousha & Thelwall, 2024). The present study integrates these strands into a single institutional case evaluation. Including AI in this study is justified because the digitalization of editorial workflow through OJS does not simply automate journal operations; it also creates the conditions under which peer review becomes embedded in a wider ecosystem of digital tools, making questions of AI use, confidentiality, and responsible governance increasingly relevant to editorial practice.

2.2. Methods

2.2.1. Research Design

The study used an institutional implementation-research design with

sequential integration of (i) system deployment and workflow re-engineering and (ii) mixed-methods outcome assessment.

2.2.2. Research Site

The case site was UPTJS (Vietnam). The implementation used OJS 3.4 and required a minimum server environment consistent with OJS requirements (e.g., PHP \geq 8.0, Apache/IIS, MySQL/MariaDB or PostgreSQL, and essential PHP modules).

2.2.3. Intervention

The journal's editorial workflow was reconstructed from a manual coordination model based on email and spreadsheets into a fully integrated OJS-based workflow. The implemented workflow introduced structured role separation between editorial staff, authors, and peer reviewers; dashboard-based manuscript tracking; and automated communication and archival functions. The operational structure of the implemented workflow is illustrated in Figure 1, which presents the end-to-end editorial process configured within OJS.

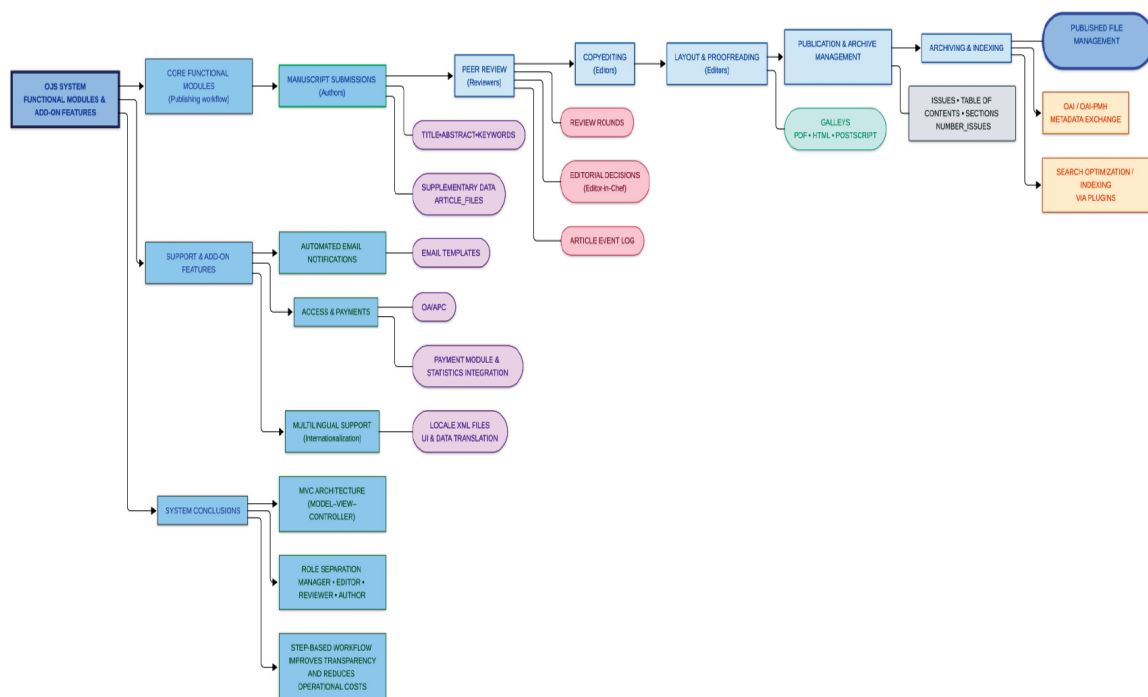


Figure 1. Scholarly Publication Process and Add-on Features of OJS

System configuration included the activation of core scholarly publishing integrations and interoperability features, such as OAI-PMH metadata harvesting, usage statistics, and integrated PDF viewing. Server and software prerequisites required for OJS 3.4 deployment are summarized in Appendix A.

2.2.4. Questionnaire development and pilot validation

To capture stakeholder-specific experiences with the OJS platform, separate structured questionnaires were developed for authors and peer reviewers. The instruments combined closed-ended Likert-scale items with open-ended questions, allowing the study to collect both structured evaluative data and user-generated feedback on practical difficulties and expectations for system improvement. While both

questionnaires focused on user experience with the OJS-based editorial workflow, they were designed to reflect the distinct roles and task sequences of each respondent group.

Before the main survey, the instruments underwent a multi-stage refinement process. Initial items were derived from the study objectives and from key constructs related to system usability, workflow quality, and digital interaction in scholarly publishing. The research team also consulted survey structures used by international academic publishers, including *Journal of Molecular Graphics and Modelling*, to inform item development. The draft items were then reviewed and reorganized by construct to improve conceptual coherence. Content validity was subsequently assessed by two experts in scholarly publishing, peer review,

survey design, and educational measurement using the Item–Objective Congruence (IOC) approach. Based on their feedback, ambiguous wording was revised, several items were reassigned to more appropriate constructs, and conceptually unclear items were further refined.

A pilot test with five participants was then conducted to evaluate clarity, comprehensibility, item sequencing, and possible overlap or misinterpretation. Because the pilot sample was very small, the resulting data were used only for instrument refinement rather than for internal-consistency estimation; reliability analysis was therefore conducted only on the full survey dataset.

In addition to the shared items on OJS-related user experience, the reviewer questionnaire included a dedicated AI module covering frequency of use, types of tools used, and perceptions of benefits, risks, usefulness, bias, and privacy in peer review. This module was included because the digitalization of editorial workflow through OJS creates the conditions under which reviewers may increasingly encounter adjunct AI tools during review-related tasks. Capturing this dimension helped situate OJS implementation within the broader transition from platform-based workflow digitalization to digitally mediated editorial practice. No parallel questions on AI use in manuscript writing were included in the author questionnaire, as the present study focused on authors' experience of the OJS submission and editorial process rather than

on self-reported writing practices, which were considered beyond the scope of the current evaluation.

2.2.5. Data collection

Three complementary data sources were used to evaluate implementation outcomes.

(1) Operational evaluation: Internal institutional assessment examined system stability, processing performance, role management capability, integration readiness, and reporting functionality during the trial deployment phase.

(2) Survey: A structured 5-point Likert survey was administered to authors ($n_1 = 15$) and peer reviewers ($n_2 = 21$). The survey measured usability, workflow experience, editorial communication, and overall satisfaction indices for authors (A_{SI}) and reviewers (R_{SI}).

(3) Qualitative feedback from open-ended survey responses from both authors and reviewers, focusing on difficulties encountered, suggestions for improvement.

For peer reviewers, the survey additionally collected data on AI use frequency, types of tools used, and perceptions of usefulness, risks, bias, and privacy in peer review.

2.2.6. Data Analysis

Scale reliability was evaluated using Cronbach's alpha, with item-rest correlation analysis used to identify inconsistent items. Descriptive statistics (means, medians, and standard deviations) were calculated for all survey items and satisfaction indices.

Responses were first coded inductively to identify recurring difficulties, expectations, and suggestions for system improvement, and reviewer perceptions of AI use in peer review. Because the two questionnaires were designed to reflect different stakeholder roles and did not employ a fully shared measurement framework, no direct statistical comparison was conducted between authors and peer reviewers. Quantitative and qualitative findings were then integrated to provide a consolidated interpretation of the implementation outcomes.

Given the modest sample size, the quantitative analysis was treated as part of an early-stage institutional evaluation rather than as a basis for broad statistical generalization. Descriptive statistics were used to summarize user experience, while reliability analysis was applied cautiously to examine whether the survey items could be meaningfully combined into composite indicators. No inferential comparison was conducted between authors and reviewers because the two respondent groups differed in role, task sequence, and questionnaire structure. To strengthen the interpretation, quantitative patterns were triangulated with operational evidence and open-ended qualitative feedback.

3. RESULTS

3.1. Operational Outcomes

Trial deployment showed that the OJS-based system operated with stable accessibility, consistent functional

performance, and successful activation of core editorial and scholarly communication features. In practice, the system improved manuscript traceability, standardized document storage across editorial stages, enabled automated notifications and reporting, and strengthened coordination among editors, reviewers, and authors. Rather than functioning merely as a submission interface, the implemented platform supported the reorganization of editorial work into a structured digital workflow with clearly defined processing stages and role-based responsibilities.

Comparative institutional evaluation of workflow performance before and after implementation further indicated substantial operational gains. Compared with the previous semi-manual model, which relied heavily on fragmented email exchanges and individualized handling, the OJS-based workflow introduced centralized dashboard-based manuscript management, automated communication, real-time progress monitoring, clearer blind-review handling, and faster retrieval of manuscript records. These changes suggest a shift from person-dependent coordination to status-based and data-based process governance, thereby improving transparency, accountability, and editorial efficiency. A structured comparison between the manual and OJS-based workflows is presented in Appendix B.

3.2. Survey reliability and satisfaction

3.2.1. Reliability analysis

Reliability analysis was conducted prior to descriptive interpretation in order to examine the internal consistency of the survey instruments. The author-side scale, consisting of eight items measuring usability, review quality, and process efficiency, showed good internal consistency (Cronbach’s alpha = .820, 95% CI [.680, .959]), indicating that the full set of items was suitable for subsequent composite analysis.

For reviewers, the invitation-process scale demonstrated very high internal consistency (Cronbach’s alpha = .979), indicating that the items captured a highly coherent dimension of reviewer experience. The usability and interface-clarity scale initially showed acceptable but weaker

reliability (Cronbach’s alpha = .670). After removing item R_FH (*review-file handling*), internal consistency improved to .714, supporting the use of a reduced three-item version. By contrast, the group of items related to automatic notifications, editorial communication, and review completion time showed low reliability (Cronbach’s alpha = .426), suggesting that these indicators should not be combined into a single unidimensional scale but instead interpreted separately. Methodologically, this result indicates that reviewer experience in OJS is multidimensional and cannot be fully represented by a single aggregate construct. The reliability results are summarized in Table 1.

Table 1. Reliability statistics for author and reviewer survey scales

| Respondent group | Scale / construct | Included items | Cronbach’s alpha | Interpretation | Decision |
|------------------|---|---|------------------|-------------------------------------|--------------------------------------|
| Authors | Author satisfaction scale | 8 items on usability, review quality, and process efficiency | .820 | Good internal consistency | Retained as composite scale |
| Reviewers | Invitation process | Invitation-related items | .979 | Excellent internal consistency | Retained as composite scale |
| | Usability and interface clarity (initial) | 4 items including R_FH (<i>review-file handling</i>) | .670 | Acceptable but weaker consistency | Reviewed |
| | Usability and interface clarity (reduced) | 3 items after removing R_FH | .714 | Improved and acceptable consistency | Retained as reduced scale |
| | Notifications, editorial communication, and review duration | R_AN (<i>Automatic notifications</i>), R_EC (<i>Communication with editorial office</i>), R_RD (<i>Review Duration</i>) | .426 | Low internal consistency | Interpreted separately, not combined |

Moreover, the reviewer-side measures do not all behave as a single coherent scale. In particular, R_FH appears to function differently from the other usability indicators and is better treated as a distinct procedural issue than as a straightforward component of interface clarity.

The low Cronbach's alpha for the group of items related to automatic notifications, editorial communication, and review completion time should not be interpreted as indicating low reliability of the OJS system itself. Rather, it suggests that these items do not form a single internally consistent measurement scale. Conceptually, automatic notifications, editorial communication, and review duration represent different operational aspects of the reviewer workflow. Therefore, they were not combined into a composite index. Instead, they were retained as separate descriptive indicators in order to avoid overinterpreting them as a unidimensional construct.

3.2.2. Satisfaction and user evaluations

Survey findings showed a generally high level of satisfaction among authors. The composite Author Satisfaction Index (A_SI), constructed from the eight retained Likert-type items, reached a mean of 4.383 (SD = 0.399), indicating both strong overall satisfaction and relatively low variation across respondents. The highest-rated dimensions were review objectivity (A_RO, Mean = 4.867) and review usefulness (A_RE, Mean = 4.600), suggesting that authors perceived the peer-review process as both transparent and academically meaningful.

Positive evaluations were also reported for interface and guidance (A_IG, Mean = 4.533), automatic feedback functions (A_AE, Mean = 4.533), and registration and login convenience (A_LC, Mean = 4.333).

The lowest-rated dimension was overall ease of use (A_EU, Mean = 3.733), indicating that a minority of users still encountered difficulties in navigating or operating the platform. The relatively lower score for A_EU suggests that author-side user experience (UX) remained the main area requiring improvement. Open-ended responses indicate four main causes: unstable access or login conditions, slow system processing, occasional technical errors, and some workflow steps that were not sufficiently intuitive for first-time users. These issues were not related to dissatisfaction with the editorial process itself, since review objectivity and review usefulness received high ratings. Rather, they reflected practical barriers in navigating the submission system and completing required operations smoothly.

These findings point to several practical measures for improving author-side UX. The journal should provide a short author guide with screenshots, simplify Vietnamese interface wording where possible, prepare a pre-submission checklist, add frequently asked questions to the journal website, and provide direct technical support during the initial submission stage. From the system side, server performance, email delivery,

login stability, and error reporting should be monitored regularly. These improvements would help reduce first-time user difficulty and improve author confidence in the OJS-based workflow.

In addition, authors expressed expectations for future system enhancement. The most desired integrations were Google Scholar/DOI synchronization and automatic AI citation or similarity detection (both 46.7%), followed by ORCID integration (40.0%) and chatbot-based support (33.3%). These responses indicate that user expectations extend beyond technical stability toward greater scholarly interoperability, stronger quality control, and more responsive user support within the digital publishing environment.

Reviewer responses likewise showed a broadly positive evaluation of OJS in the peer-review process. The composite indicator for the invitation process (R_INVITE) had a mean of 4.260, while the composite indicator for usability and interface clarity (R_USABILITY) had a mean of 4.492. Among the stand-alone indicators, automatic notifications (R_AN, Mean = 4.619) and communication with the editorial office (R_EC, Mean = 4.476) were evaluated positively. By contrast, review duration or review completion time (R_RD) received the lowest mean score (M = 3.286, Median = 4.000) and showed the highest standard deviation (SD = 1.419), indicating substantial variation among reviewers in the time required to complete peer review.

Table 2. Mean scores for author and reviewer evaluations of OJS

| Respondent group | Indicator | Mean |
|-------------------------|---|-------------|
| Authors | A_SI – Author Satisfaction Index | 4.383 |
| | A_RO – Review objectivity | 4.867 |
| | A_RE – Review usefulness | 4.600 |
| | A_IG – Interface and guidance | 4.533 |
| | A_AE – Automatic feedback functions | 4.533 |
| | A_LC – Registration and login Convenience | 4.333 |
| | A_EU – Overall ease of use | 3.733 |
| Reviewers | R_INVITE – Invitation process | 4.260 |
| | R_USABILITY – Usability and interface clarity | 4.492 |
| | R_AN – Automatic notifications | 4.619 |
| | R_EC – Communication with editorial office | 4.476 |
| | R_RD – Review duration / review completion time | 3.286 |

Qualitative reviewer feedback supports this interpretation. Most reviewers did not report major obstacles in using the system, but the difficulties that were mentioned included inconvenience in placing comments directly on manuscripts, occasional problems in system operation, invitation emails being filtered into spam folders, time pressure during the review process, and a lack of precision in some Vietnamese interface wording. Although these issues did not undermine the generally positive evaluation of OJS, they point to localized technical and linguistic adjustments that could further improve usability and reviewer convenience.

The reviewer survey also showed that AI had already entered the peer-review environment, although still in a limited and

cautious manner. Most reviewers reported using AI only sparingly, at less than 25% of their review work (70.0%), while 30.0% reported not using AI at all. ChatGPT was the most commonly used tool (75.0%), followed by Perplexity (15.0%) and Scopus AI/Scholar (10.0%). At the attitudinal level, 61.9% believed that AI could improve the quality of reviewer feedback, and 42.9% believed that it could improve efficiency. At the same time, reviewers expressed concerns about misuse leading to misleading content (57.1%), privacy and security risks (38.1%), and algorithmic bias that could affect scientific judgment (38.1%). AI use among reviewers therefore remains limited and selective. The overall pattern is one of cautious experimentation rather than routine dependence. These findings are summarized in Table 3.

Table 3. Reviewer use and perceptions of AI in peer review

| Domain | Category | Percentage (%) |
|---------------------------------|--|----------------|
| Extent of AI use in review work | Less than 25% of review work | 70.0 |
| | No AI use | 30.0 |
| AI tools used | ChatGPT | 75.0 |
| | Perplexity | 15.0 |
| | Scopus AI/Scholar | 10.0 |
| Perceived benefit | AI can improve feedback quality | 61.9 |
| | AI can improve efficiency | 42.9 |
| Concern | Misuse may generate misleading content | 57.1 |
| | Privacy and security risks | 38.1 |
| | Algorithmic bias affecting scientific judgment | 38.1 |

4. DISCUSSION

4.1. OJS as a digital governance infrastructure

The findings indicate that the implementation of OJS at UPTJS should be understood not merely as a technical installation, but as an institutional intervention in editorial governance. By reorganizing manuscript processing into clearly defined stages, supported by role-based responsibilities and dashboard-based tracking, the system contributed to a shift from fragmented email-based coordination toward a more structured, status-based, and data-informed model of editorial management. This transformation is particularly meaningful in the context of a resource-constrained university journal, where workflow continuity, procedural traceability, and editorial accountability may otherwise depend heavily on individual staff members and informal coordination practices.

4.2. Multidimensional reviewer experience in the OJS-mediated workflow

The reviewer-side results further suggest that reviewer experience within the OJS-mediated workflow is multidimensional and should not be reduced to a single aggregate measure. Technical communication functions, editorial interaction, and review-related time burden appear to represent distinct aspects of the review process. For instance, reviewers may evaluate automatic notifications and communication with the editorial office positively while still experiencing

pressure in completing reviews within the expected timeframe. This distinction helps explain why some reviewer-side indicators did not form a highly consistent composite scale. Future evaluations of OJS implementation should therefore differentiate between system-related functions, such as notification reliability, communication support, and interface clarity, and task-related conditions, such as reviewer workload, availability, and review duration. In this sense, the lower internal consistency observed in some reviewer-side items should be interpreted as evidence of construct multidimensionality rather than as a direct indication of poor system reliability.

4.3. Operational standardization and workflow consistency

The operational gains observed after implementation also support the view that OJS can serve as journal-management infrastructure rather than merely a submission interface. Automated notifications, centralized document storage, version control, and clearer blind-review handling reduced procedural fragmentation and improved the consistency of editorial operations. At the same time, the results reinforce earlier studies suggesting that the benefits of journal platforms are realized most effectively when technical deployment is accompanied by organizational alignment, user training, and context-sensitive configuration (Mwantimwa & Wema, 2022; Rohman et al., 2024; Malvić et al., 2022).

4.4. User acceptance and areas for workflow refinement

The user data further show that overall acceptance of the system was high, although not uniform across all aspects of use, a pattern broadly consistent with prior studies reporting positive perceptions of OJS alongside persistent usability and operational barriers (Mwantimwa & Wema, 2022; Rohman et al., 2024). Authors rated review objectivity, review usefulness, and interface guidance positively, while remaining difficulties were concentrated in ease of use and technical stability. Reviewers likewise evaluated invitation handling, usability, notifications, and editorial communication favorably, but review completion time remained the least satisfactory aspect of their workflow. Together with the open-ended responses, these findings suggest that the main challenge has moved from basic adoption to workflow refinement, including email delivery reliability, more convenient manuscript commenting, clearer interface wording, and stronger user guidance.

4.5. AI-assisted peer review as an emerging issue in digital editorial practice

A further contribution of the study is its exploratory account of AI-assisted peer review within an OJS-mediated editorial environment. The findings indicate that AI use among reviewers was already present, but remained limited and selective rather than routine. Reviewers recognized the potential of AI tools to support feedback quality and review efficiency, while also expressing concerns about misleading output, privacy

and security risks, and algorithmic bias. This pattern suggests that AI currently functions as a supplementary aid within the editorial ecosystem rather than as a substitute for reviewer judgment. It also reinforces the need for human oversight and explicit journal-level policy on responsible AI use in peer review (Kousha & Thelwall, 2024).

4.6. Proposed AI-related enhancements for the OJS-mediated editorial workflow

Based on reviewer feedback, AI should not be integrated into the editorial workflow as an autonomous decision-making mechanism. Instead, it should be introduced as a controlled support layer under editorial supervision. Several practical enhancements may be considered for future OJS development at UPTJS. First, an AI-use disclosure field could be added to the reviewer form, allowing reviewers to indicate whether tools such as ChatGPT, Perplexity, or Scopus AI/Scholar were used and for what purposes. Second, the system could provide policy-based reminders on confidentiality, data protection, and the prohibition of uploading unpublished manuscripts to unsecured third-party AI platforms. Third, AI-supported functions should be limited to low-risk editorial support tasks, such as checking review-form completeness, improving the clarity of reviewer comments, identifying missing metadata, or supporting similarity and citation checks through approved tools. Fourth, all AI-supported activities should remain subject to human verification by editors and reviewers. This approach would allow the journal to benefit from AI-assisted

efficiency while maintaining peer-review integrity, confidentiality, and editorial accountability.

5. CONCLUSION

This study has shown that the implementation of OJS at UPTJS was both feasible and institutionally meaningful. The platform transformed a semi-manual editorial workflow into a more standardized digital process characterized by centralized manuscript tracking, automated communication, improved record retrieval, and clearer role-based responsibilities. The evaluation also showed positive perceptions among both authors and peer reviewers, suggesting that the system was generally accepted as improving transparency, workflow clarity, and editorial professionalism. Overall, these findings position OJS as a practical infrastructure for workflow digitalization in resource-constrained university journals.

This study contributes a replicable implementation–evaluation model that connects technical deployment with user-centered assessment. It also broadens the discussion of journal digitalization by identifying the early presence of AI in peer review, not as a dominant practice, but as an emerging element within the editorial environment. At the institutional level, the findings suggest that the benefits of platform-based digitalization depend not only on system adoption, but also on continued technical refinement, role-specific user support, and clear policy guidance for new digital tools.

Several limitations should be acknowledged. First, the study is based on a single institutional case with a modest sample size, including 15 authors and 21 reviewers. This reflects the actual scale of users involved in the early implementation phase of a single scientific journal at a university, but it limits the extent to which the findings can be statistically generalized. Therefore, the results should be interpreted as context-specific evidence of initial OJS adoption rather than as broadly generalizable conclusions. Second, the evaluation period was relatively short and therefore captures early-stage implementation rather than longer-term organizational effects. Third, the AI-related findings reflect initial perceptions and selective use rather than demonstrated impacts on review quality, consistency, or efficiency. Future studies should involve larger samples, multiple journals, and longer observation periods to validate the findings across different institutional settings.

Future research should develop more systematic frameworks for assessing responsible AI integration in OJS-mediated editorial workflows, particularly in relation to review quality, transparency, accountability, and editorial governance. From an implementation perspective, future development of the OJS workflow should incorporate a responsible AI-use policy and controlled AI-related functions, including reviewer disclosure, confidentiality reminders, metadata checking, similarity support, and editor-supervised assistance to enhance review quality.

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APPENDIX A: OJS 3.4 server and software prerequisites

| Component | Requirement | Purpose |
|----------------------------|---|--|
| Programming language | PHP ≥ 8.0 | Core runtime environment for executing OJS application logic |
| Web server | Apache (recommended) or Microsoft IIS | Handles HTTP requests, user access, and web application delivery |
| Operating system | Linux, Windows, BSD, or macOS | Provides server-level platform compatibility and system resource management |
| Database management system | MySQL/MariaDB ≥ 4.1 or PostgreSQL ≥ 9.1.5 | Stores journal data, manuscripts, metadata, and user accounts |
| Required PHP modules | php-mbstring, php-xml, php-intl | Enables multilingual processing, XML handling, and internationalization features |
| Web browser support | Chrome, Firefox, Edge (modern versions) | Allows users to access OJS through a web-based interface |
| Deployment architecture | Client-server model | Ensures centralized data storage, processing, and multi-user access |
| File storage configuration | Separate storage directory from source code | Improves system security and protects manuscript data |

APPENDIX B: Comparison of editorial workflow before and after OJS implementation at UPTJS

| Workflow aspect | Manual workflow | OJS-based workflow |
|------------------------|------------------------------------|--|
| Manuscript submission | Submitted via email | Submitted through centralized online submission system |
| Manuscript tracking | Manual tracking via spreadsheets | Real-time dashboard-based tracking |
| Editorial coordination | Email-based communication | Integrated workflow with role-based coordination |
| Reviewer management | Manual invitation and tracking | Automated reviewer invitation and response tracking |
| Communication | Delayed and manual email responses | Automated system notifications |
| Document storage | Distributed file storage | Centralized and structured repository |
| Process transparency | Limited visibility | Full traceability and status tracking |
| Reporting capability | Manual reporting | Automated usage and workflow reports |

ỨNG DỤNG HỆ THỐNG TẠP CHÍ MỞ (OJS) TRONG CHUYỂN ĐỔI SỐ QUY TRÌNH BIÊN TẬP VÀ XUẤT BẢN TẠP CHÍ KHOA HỌC TRƯỜNG ĐẠI HỌC PHAN THIẾT

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Tóm tắt: Nghiên cứu này trình bày việc triển khai Hệ thống Tạp chí Mở (Open Journal Systems - OJS) nhằm số hóa quy trình biên tập và xuất bản của Tạp chí Khoa học Trường Đại học Phan Thiết (UPTJS), Việt Nam. Sử dụng thiết kế nghiên cứu triển khai - đánh giá ở cấp độ cơ sở, nghiên cứu kết hợp tái cấu trúc quy trình nghiệp vụ, cấu hình OJS 3.4, đánh giá vận hành hệ thống, khảo sát tác giả ($n = 15$) và chuyên gia phản biện ($n = 21$), cùng phản hồi từ các câu hỏi mở. Kết quả cho thấy OJS đã chuyển đổi một quy trình bán thủ công dựa trên email và bảng tính thành một quy trình số hóa có cấu trúc hơn, với việc theo dõi bản thảo tập trung, tự động hóa trao đổi, phân định vai trò rõ ràng hơn và cải thiện khả năng truy xuất hồ sơ. Đánh giá của người dùng nhìn chung là tích cực, mặc dù các tác giả vẫn ghi nhận một số khó khăn liên quan đến mức độ dễ sử dụng, độ ổn định khi đăng nhập/truy cập, tốc độ hệ thống và một số thao tác chưa trực quan; trong khi đó, các chuyên gia phản biện xác định thời gian hoàn thành phản biện là khía cạnh ít được hài lòng nhất trong quy trình. Phản hồi của chuyên gia phản biện cũng cho thấy việc sử dụng một số công cụ AI cụ thể, chủ yếu là ChatGPT, Perplexity và Scopus AI/Scholar, còn ở mức hạn chế và thận trọng, qua đó đặt ra nhu cầu về hướng dẫn chính sách rõ ràng và tích hợp AI một cách có trách nhiệm. Nhìn chung, nghiên cứu cung cấp một mô hình triển khai - đánh giá có tính thực tiễn cho các tạp chí đại học có nguồn lực hạn chế đang hướng tới cải thiện quản trị biên tập, trải nghiệm người dùng và chuyển đổi số trong xuất bản học thuật.

Từ khóa: AI hỗ trợ phản biện, Hệ thống Tạp chí Mở (OJS), phản biện đồng cấp, số hóa quy trình biên tập, tạp chí đại học, xuất bản học thuật

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Ghi chú

Các tác giả xác nhận không có tranh chấp về lợi ích đối với bài báo này.