Editorial Management and Automation Platforms for Academic Projects and Publishing:

Abstract Editorial management systems and academic project management platforms have become critical infrastructure for universities, research institutions, and scholarly publishers. They support workflows from student final year projects (FYPs) and theses to journal manuscript submission, peer review, and publication. However, most existing solutions are fragmented: FYP management tools rarely integrate with journal-style editorial workflows, and many manuscript management systems (MMSs) do not support local academic processes such as proposal defence, supervisor allocation, and institutional reporting. This paper reviews the state of the art in editorial management and automation platforms that are relevant to the design of an integrated Editorial Management and Automation Platform (EMAP).

Using a systematic review protocol, we examine 30 representative systems and studies published between 2003 and 2025, including journal management systems (e.g., Open Journal Systems, ACOMS+, Palamede), institution-specific MMS implementations, and a diverse set of FYP/thesis management platforms. We analyse them along eight attributes: domain and scope, workflow coverage, role model, degree of automation, integration capabilities, analytics and decision support, usability evaluation, and technology stack. The comparative analysis shows that: (i) MMSs typically provide rich editorial workflows but limited support for local academic project processes; (ii) FYP/thesis systems strongly support supervision and monitoring but almost never include journal-grade peer review, DOI assignment, or repository integration; and (iii) only a small subset of platforms begin to exploit advanced analytics, dashboards, or machine learning for allocation and prioritization. We identify key research gaps, including end-to-end lifecycle integration, configurable workflows, unified identity and reporting, and explainable automation. Based on these findings, we derive design implications and a conceptual architecture for EMAP as an integrated, modular, and automation-oriented platform that unifies FYP management, thesis workflows, and scholarly publishing.

Keywords Editorial management system, manuscript management system, final year project management, thesis management, workflow automation, peer review, EMAP.

1 Introduction

Universities and research institutions need to manage two broad but related classes of "editorial" work:

1. **Scholarly publishing workflows** submission, peer review, revision, and publication of journal and conference articles.
2. **Academic project workflows** calls for proposals, supervisor allocation, proposal evaluation, progress monitoring, defence, and archiving of final year projects (FYPs), theses, and capstone projects.

Historically, these activities have been supported by separate systems or even manual, spreadsheet-based processes. Open Journal Systems (OJS), ScholarOne, Editorial Manager, and other manuscript management systems (MMSs) have become de facto standards for journal workflows, driving automation and transparency in peer review and publication. (Accesson+1)

In parallel, many universities have developed local FYP and thesis management solutions to handle supervision, monitoring, and assessment. (Pertanika Journal+2 ResearchGate+2)

However, these solutions are rarely integrated. Journal systems typically do not manage FYP calls, supervisor assignment, defence scheduling, or institutional grading. FYP systems, on the other hand, rarely support journal-style peer review, DOI assignment, or long-term preservation in institutional repositories. As a result, institutions face duplicated data, inconsistent workflows, and limited analytics across the academic lifecycle.

The **Editorial Management and Automation Platform (EMAP)** concept addresses this gap. EMAP is envisioned as a unified platform that:

- Automates editorial and academic project workflows from FYP call to journal publication.
- Supports all roles (students, supervisors, reviewers, editors, coordinators, administrators).
- Provides dashboards, notifications, and analytics for decision-making.
- Integrates with external scholarly infrastructure (Crossref, ORCID, repositories, LMS, identity providers).

To justify and refine this vision, we need a structured understanding of the current landscape: which systems exist worldwide, which features they provide, and where the gaps are.

1.1 Objectives of this review

This review pursues four main objectives:

- **O1 Mapping the landscape:** Identify and categorize existing journal management, editorial, FYP, and thesis management platforms relevant to EMAP.
- **O2 Attribute analysis:** Compare systems along attributes that matter for EMAP: workflow coverage, automation, usability, integration, and analytics.
- **O3 Gap identification:** Highlight open issues and limitations in current systems.
- **O4 EMAP design implications:** Derive functional and non-functional requirements and a high-level architecture for EMAP.

1.2 Research questions

We structure the review around the following research questions (RQs):

- **RQ1:** What types of editorial and academic project management systems have been proposed or deployed worldwide?
- **RQ2:** Which workflows and features do these systems support, and how far do they automate the editorial lifecycle?
- **RQ3:** How are usability, user acceptance, and system quality evaluated in these systems?
- **RQ4:** What gaps remain for an integrated EMAP that covers both FYP/thesis processes and scholarly publishing?

2 Background

2.1 Manuscript and journal management systems

Manuscript management systems (MMSs) support submission, peer review, and publication for scholarly journals. Comparative studies show that widely used platforms – such as OJS, ScholarOne, and Editorial Manager – share core features: online submission, role-based workflows (author, editor, reviewer), revision cycles, decision tracking, and email notifications. (escienceediting.org+1)

- **OJS (Open Journal Systems)** is an open-source MMS widely adopted by small and medium publishers and institutional presses. It supports multi-journal hosting, configurable workflows, editorial roles, and integration with DOI registration, indexing services, and repositories. (Academia+2Academia+2)
- **Palamede** extends OJS to support multi-press, multi-journal hosting, enabling several university presses to share a single infrastructure. (Academia)
- **ACOMS+**, developed by the Korea Institute of Science and Technology Information, is an online submission and peer review system that implements open science features such as open peer review, self-archiving, and quantitative/qualitative evaluation of reviews. (Directory of Open Access Journals+1)

Empirical work highlights both the strengths and weaknesses of MMSs. Kim et al. compared multiple systems used by top publishers and showed that while they efficiently handle submission and reviewer management, they often have limited configurability for local workflows and can be complex for small editorial teams.

2.2 Usability and quality evaluations

Several studies evaluate the usability and user satisfaction of MMSs using heuristic evaluations, surveys, and user testing:

- Hasan and Abuelrub conducted usability testing on the IAJIT OpenConf journal management system, revealing issues related to navigation, consistency, and feedback, and highlighting the importance of clear error messages and user guidance. (jsoftware.us+1)
- Mozafari-Vanani et al. prioritized usability components (e.g., learnability, efficiency, user satisfaction) in journal management systems across Iranian medical universities, identifying navigation and help features as critical. (jipm.irandoc.ac.ir+2DataCite Support+2)

These studies underline that **automation alone is not sufficient**; editorial systems must also be transparent and usable for non-technical stakeholders such as editors, reviewers, and authors.

2.3 FYP and thesis management systems

Parallel to MMS developments, many universities have built **FYP and thesis management systems** to deal with increasing student numbers and complex supervision processes:

- **Dashboard-based FYP systems** provide visual overviews of project progress, deadlines, and supervision activities for students and coordinators. (ResearchGate+1)
- **Decision support systems** use machine learning (e.g., Naïve Bayes) to recommend supervisors and topics based on historical project data. (IAENG+1)
- **Collaboration-oriented platforms** provide communication, coordination, and resource sharing across students, supervisors, and administrators throughout the FYP lifecycle. (Semantic Scholar+1)

More recent work includes dashboards and theory-based designs (e.g., using the Theory of Shame to improve student accountability in FYP processes) and web-based FYP management systems for monitoring performance and supervision. (Sistemasi+3 SpringerLink+3 SpringerLink+3)

However, these systems are typically **institution-specific**, often lack integration with institutional repositories or journal systems, and focus on local assessment rather than broader scholarly communication.

3 Review Methodology

This paper adopts a **systematic literature review (SLR)** approach, inspired by established guidelines for evidence-based software engineering and information systems.

3.1 Search strategy

To answer the research questions, we searched the following sources:

- Major digital libraries: IEEE Xplore, ACM Digital Library, ScienceDirect, SpringerLink, Scopus.
- Domain-specific journals and conferences in scholarly communication and library science (e.g., Science Editing, Journal of Information Science Theory and Practice, OCLC Systems & Services).
- General academic search engines: Google Scholar and publisher portals (IGI Global, institutional repositories, and PKP/OJS community documentation).

We used combinations of the following keywords (and their variants):

“Journal management system”, “manuscript management system”, “online submission and peer review system”, “Open Journal Systems”, “editorial management”, “final year project management system”, “FYP management”, “thesis management system”, “graduation project management”, “project allocation system”.

The search covered publications roughly from 2000 to June 2025.

3.2 Inclusion and exclusion criteria

Inclusion criteria.

- Peer-reviewed articles, conference papers, or substantial technical reports.
- Systems or studies that implement or evaluate:
  - Journal/manuscript editorial workflows, or
  - FYP/thesis management, supervision, or allocation, or
  - Open-source scholarly publishing platforms relevant to EMAP.
- Papers describing architecture, implementation, evaluation, or comparative analysis.

Exclusion criteria.

- Purely conceptual discussions without a concrete system or workflow.
- Generic project management tools with no academic or editorial focus.
- Very short position papers or posters without sufficient detail.

3.3 Study selection and data extraction

After de-duplication, we screened titles and abstracts, followed by full-text screening. For each included study, we extracted:

- Bibliographic data (authors, year, venue).
- Domain (journal, FYP/thesis, hybrid).
- Scope of the system (submission, review, supervision, defence, publication, archiving).
- Technology stack (where available).
- Evaluation method (usability tests, case study, survey, analytics).
- Reported strengths and limitations.

From an initial pool of >100 items, we selected **30 representative works** with enough technical and evaluation detail to inform EMAP design. Twenty of these are summarized in the attribute table (Section 5).

4 Taxonomy of EMAP-Related Systems

Based on the review, we organize systems into three main categories.

4.1 Journal and manuscript management systems

These systems focus on the scholarly publishing lifecycle:

- **Open Journal Systems (OJS)** – widely used open-source MMS supporting submission, peer review, editorial decision, copyediting, production, and publication. It offers plug-ins for Crossref DOI registration, indexing, and ORCID integration. (Academia+2 Academia+2)
- **ACOMS+ (AccessON Peer Review Management System Plus)** – a national-level system in Korea with explicit support for open science, including open peer review, self-archiving, and data sharing. (Directory of Open Access Journals+1)
- **Palamede** – a multi-press extension of OJS that supports multiple university presses and journals on a shared multi-tenant infrastructure. (Academia)
- **Institution-specific MMS implementations** – including systems developed by universities and publishers for local journals (e.g., University of Zakho, Jambi University's accreditation-oriented MMS). (IJSTR+2 SINTA+2)

These platforms typically implement:

- Role-based workflows (author, reviewer, editor, production editor).
- Configurable templates for email notifications and decision letters.
- Review forms and scoring schemes.
- Basic reporting and export functions.

4.2 FYP and thesis management systems

Systems in this category support supervision and evaluation of student projects:

- **Monitoring-focused systems:** Dashboard-based platforms that track project milestones, submissions, and supervision meetings, improving visibility for coordinators and students. (ResearchGate+1)
- **Allocation and decision-support systems:** Web-based systems that use data mining or machine learning (e.g., Naïve Bayes) to assign supervisors and suggest topics based on preferences and historical data. (IAENG+2 CORE+2)
- **Collaboration-oriented systems:** E-collaboration applications that provide communication tools, shared workspaces, and joint document management throughout the FYP lifecycle. (IGI Global+1)
- **Thesis management and registration systems:** Web-based systems that manage thesis proposal registration, topic approval, and repository-like storage of completed theses. (Neliti+2 STMIK Pontianak+2)

4.3 Cross-cutting infrastructure and surveys

Some works are not systems themselves but are important for EMAP:

- **Surveys of open-source electronic publishing systems** (e.g., Cyzyk & Choudhury's evaluation of OJS, EPrints, and DPubS) provide comparative insights into open-source platforms used in scholarly communication. (Academia)

- **PKP reflections** document the evolution and design philosophy of OJS and related tools, emphasizing open infrastructure, community governance, and interoperability. (Academia)
- **Open peer review and open science literature** describes emerging practices EMAP should support (open reviews, data sharing, transparent metrics). (SpringerLink+1)

5 Comparative Analysis and Attribute Table

5.1 Attribute dimensions

To compare systems, we define eight attributes that are directly relevant to EMAP:

1. **Domain** – Journal / FYP / Thesis / Hybrid.
2. **Workflow coverage** – Which stages are supported (call/registration, submission, review, supervision, defence, publication, archiving).
3. **Role model** – Supported user roles (student/author, supervisor/reviewer, editor/coordinator, admin).
4. **Automation level** – Manual, partially automated (e.g., notifications), or highly automated (e.g., auto-assignment, rule engines).
5. **Integration capabilities** – Support for DOIs, ORCID, external repositories, LMS/SSO, or APIs.
6. **Analytics & decision support** – Dashboards, reports, machine learning, monitoring.
7. **Usability evaluation** – Presence of structured usability/acceptance evaluation.
8. **Technology / deployment** – Stack and deployment style where reported.

5.2 Attribute table for representative systems

ID	System / Study	Year	Domain	Main Focus	Automation & Analytics	Evaluation	Link / DOI
J1	Kim et al., “Comparative analysis of manuscript management systems for scholarly publishing” (Science Editing)	2018	Journal	Compares MMSs (OJS, ScholarOne, Editorial Manager, etc.) on workflow and usability	Moderate automation; basic reporting	Comparative feature analysis and expert evaluation	https://doi.org/10.6087/kcse.137
J2	Hasan & Abuelrub, “Usability Testing for IAJIT OpenConf Journal Management System”	2013	Journal	Usability evaluation of a conference/journal MMS	Basic automation (emails, tracking)	Lab usability tests with users	https://doi.org/10.4304/jsw.8.2.387-396
J3	Mozafari-Vanani et al., “Prioritizing the usability components in journal management systems at Iranian medical universities”	2020	Journal	Prioritizes usability components (learnability, efficiency, etc.) across multiple JMS	Workflow automated; focus on usability gaps	Survey & multi-criteria decision analysis	https://doi.org/10.35050/jipm010.2020.007
J4	Bogunović et al., “An Electronic Journal Management System”	2003	Journal	Early web-based editorial and publishing system	Automates submission, review, publication	Case study at engineering faculty	https://doi.org/10.1109/ITI.2003.1225350

J5	Jacksi, “Design and Implementation of Online Submission and Peer Review System: A Case Study of E-Journal of University of Zakho”	2015	Journal	Local journal’s online submission & peer review	Automates submission, review, e-publication	Case study; informal feedback	http://www.ijstr.org/final-print/aug2015/Design-And-Implementation-Of-Online-Submission-And-Peer-Review-System-A-Case-Study-Of-E-journal-Of-University-Of-Zakho.pdf
J6	Kamid et al., “Development and Implementation of a Web-Based Journal Management System to Enhance Accreditation and Quality Evaluation”	2025	Journal	MMS tailored for accreditation and KPIs in Indonesian university journals	Automated workflows, KPI dashboards	User acceptance & accreditation outcomes	https://doi.org/10.55324/enrichment.v2i10.268
J7	Chung et al., “Online Submission and Review System for Open Science: A Case of AccessON Peer Review Management System Plus (ACOMS+)”	2024	Journal	National submission/review system with open science features	High automation; open peer review, analytics	Case study with feature analysis	https://doi.org/10.1633/JISTaP.2024.12.1.6
J8	Fonseca, “A PKP Open Journal System: how a portable, open source journal management/publishing system can improve the scholarly communication process”	2008	Journal	Adoption and impact of OJS on workflow and visibility	OJS automation; multi-lingual support	Implementation case report	https://www.researchgate.net/publication/37676931 (full text)

J9	Pantaleo & Nesi, “Palamede: a Multi-Press Open Journal System”	2009	Journal	Multi-press OJS extension for multiple university presses	Automates multi-tenant hosting and workflows	Experimental deployment with three presses	https://www.academia.edu/6185629/Palamede_a_Multi_Press_Open_Journal_System
J10	Teixeira da Silva, “Manuscript management systems require sensible management: The case of authors from different geographic regions”	2025	Journal	Critically discusses MMS governance, fairness, and ethics	Conceptual focus; argues for transparent automation	Conceptual / opinion paper	https://doi.org/10.24069/sep-25-37
F1	Shabli et al., “Designing and Developing a Web-Based Final Year Project Management System Using the Theory of Shame”	2024	FYP	FYP system to enhance student accountability via Theory of Shame	Automated notifications, status tracking	Implementation with theory-informed design	https://doi.org/10.1007/978-3-031-91485-0_20
F2	Isa et al., “Prototype Development of Final Year Project Management System to Monitor Student’s Performance”	2024	FYP	Dashboard-based FYP system for monitoring progress	Automated dashboards; role-based access	Prototype testing and user feedback	https://doi.org/10.37934/araset.40.1.164173

F3	Tuah et al., “A Dashboard-based System to Manage and Monitor the Progression of Undergraduate IT Degree Final Year Projects”	2022	FYP	Smart dashboard for FYP monitoring and analytics	Dashboards and data analytics for progress	RAD-based development; user testing	https://doi.org/10.47836/pjst.30.1.13
F4	Afolabi et al., “Decision Support System for Final Year Project Management”	2019	FYP	Web-based DSS for FYP topic and supervisor allocation using Naïve Bayes	Automated recommendation (ML-based)	Demonstration and case use at university	https://www.iaeng.org/publication/WCECS2019/WCECS2019_pp233-237.pdf
F5	Lounas et al., “An E-Collaboration Application for Final-Year Project Management”	2023	FYP	Collaborative platform supporting communication, coordination, coproduction, and resource sharing	Automated notifications, shared workspace	Usability / collaboration effectiveness study	https://doi.org/10.4018/IJeC.315787
F6	Yahaya et al., “Final Year Students’ Projects Allocation and Management System”	2023	FYP	FYP project allocation and verification system for Nigerian universities	Automated allocation and verification; accuracy metrics	Evaluation with 48 project titles (93.75% accuracy)	https://doi.org/10.55639/607
F7	Joshua et al., “Design and Implementation of Final Year Project Management System”	2021	FYP	Web-based FYP management using PHP/MySQL for remote supervision	Automates grouping, supervision, and communication	Functional and user acceptance tests	https://www.ciitresearch.org/dl/index.php/dmke/article/view/DMKE062021001

F8	Tuah et al., “Final Year Supervision Management System as a Tool for Monitoring Students’ FYP” (early work)	2011	FYP	Early supervision management system with appointment and monitoring modules	Partially automated monitoring and logging	Prototype with planned acceptance tests	https://doi.org/10.1016/j.sbspro.2011.10.215 (via ScienceDirect, if available)
F9	Thamrin & Andriani, “Design Web-Based Registration and Data Management of Student Thesis Information System”	2021	Thesis	Thesis registration and data management (Indonesia)	Automates registration, data management	Case study evaluation	https://doi.org/10.30700/jst.v11i1.1111
F10	Setiabudhi et al., “Frontend Design and Development of Thesis Management Application Using NextJS”	2025	Thesis	Modern frontend for thesis management using Next.js	UI/UX-focused automation of thesis workflow	Evaluation of usability and performance	https://doi.org/10.36378/jtos.v8i1.4385

5.3 Key observations

From the attribute comparison, several patterns emerge:

1. **Domain separation:** Journal systems (J1–J10) and FYP/thesis systems (F1–F10) are designed for different institutional "silos" and rarely integrate.
2. **Workflow coverage imbalance:**
   - Journal systems offer full editorial workflows (submission → review → decision → publication) but no supervision or defence stages.
   - FYP/thesis systems offer supervision, monitoring, and assessment but no external peer review, DOI registration, or journal-level publishing.
3. **Automation scope:**
   - Most systems automate **notifications**, **status tracking**, and **basic assignment**.
   - Only a few use advanced decision support or machine learning (F4, F6).
   - Open science features like open peer review and data sharing appear mainly in ACOMS+ and similar next-generation MMSs. Directory of Open Access Journals+2 Accesson+2
4. **Usability and adoption:**
   - Multiple studies highlight **usability problems** in MMSs, especially navigation, error feedback, and complexity. jsoftware.us+2 jipm.irandoc.ac.ir+2
   - FYP systems that provide clear dashboards and visual progress indicators report higher user satisfaction. Pertanika Journal+2 ResearchGate+2
5. **Integration and interoperability:**
   - Open-source MMSs like OJS and Palamede provide plugins and APIs for DOIs, ORCID, and repositories.Academia+1
   - FYP/thesis systems are often developed as stand-alone web applications with limited integration to LMS, identity management, or institutional repositories.

These gaps motivate EMAP's integrated approach.

6 Open Challenges and Research Gaps

6.1 Siloed systems across the academic lifecycle

Institutions typically operate separate systems for:

- FYP/thesis management (student-level projects),
- Graduate research management (MS/PhD theses),
- Journal and conference management.

There is limited **data continuity** between these systems: a student's project may later become a journal article, but the workflows, identifiers, and metadata are not linked. EMAP should provide a **unified lifecycle** where a project can move from proposal to thesis to article within one ecosystem.

6.2 Configurable yet manageable workflows

Comparative MMS studies show that highly configurable workflows can become complex to administer, particularly for small journals or departments. (escienceediting.org+1) FYP systems face similar tension: coordinators want flexible evaluation forms and milestone structures, but too much configurability can confuse users.

An EMAP must strike a balance:

- Offer **templated workflows** (e.g., standard FYP process, journal peer review, conference track) with parameterization.
- Provide **graphical workflow editors** for advanced institutions without forcing all users to manage low-level details.

6.3 Usability and transparency in automation

Usability studies of MMSs show that poorly designed interfaces and workflows lead to errors, frustration, and underutilization of advanced features. (jsoftware.us+2 jipm.irandoc.ac.ir+2) Decision support modules (e.g., supervisor recommendation) must therefore be **transparent and explainable**:

- Students and coordinators should understand why a particular supervisor or reviewer was recommended.
- The system should provide rationales, not just decisions.

6.4 Support for open science and institutional reporting

Modern MMSs like ACOMS+ explicitly support open peer review, open access, and data sharing. (Directory of Open Access Journals+2 Accesson+2) EMAP must consider:

- Whether FYP and thesis reviews can be made partially open (e.g., anonymized rubrics in institutional repositories).
- How to integrate with ORCID, DOI registration agencies, and open data repositories.
- How to generate **institutional analytics** (e.g., number of completed projects by research area, publication rates after FYP, supervisor loads).

6.5 Scalability and multi-tenancy

As Palamede and OJS multi-press deployments demonstrate, multi-tenant architectures are essential when multiple departments or journals share infrastructure. (Academia+1) EMAP will likely need:

- Tenant isolation by faculty/department/journal.
- Shared core services (identity, notification, analytics, integration) to avoid duplication.

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7 Implications for EMAP Design

Based on the review, this section translates evidence into concrete design implications for the EMAP platform.

7.1 Functional requirements

1. **Unified project and manuscript lifecycle**
   - Manage FYP calls, supervisor selection, proposal submission, defence scheduling, and grading.
   - Allow "promotion" of high-quality FYPs/theses into journal submissions within the same platform (reusing metadata, files, and reviewer history).
2. **Configurable workflows**
   - Provide standard templates:
     - Undergraduate FYP workflow,
     - Master/PhD thesis workflow,
     - Journal article workflow,
     - Internal technical report review.
   - Support configurable stages (screening, review rounds, defences, corrections, archival) with role-based permissions.
3. **Role management and dashboards**
   - Roles: student/author, supervisor/reviewer, editor, FYP coordinator, admin, external examiner.
   - Dashboards for each role:
     - Students: milestones, deadlines, feedback, similarity report status.
     - Supervisors: supervisee list, pending tasks, meeting logs.
     - Editors/coordinators: pipeline overview, bottlenecks, allocation status.
4. **Automation features**
   - Automatic email/notification triggers on state changes (submission, assignment, decision, overdue).
   - Semi-automatic assignment of supervisors/reviewers using rules and optionally machine learning, as in decision support approaches for FYP management. (IAENG+1)
   - Automatic generation of formatted letters (acceptance, revision, defence schedule).
5. **Integration capabilities**
   - DOI registration and metadata export (for journal outputs and possibly selected FYPs).
   - ORCID integration for authors/supervisors.
   - Institutional SSO (single sign-on) and LMS integration (e.g., grade export, enrolment).
   - Repository integration to deposit final theses and articles.
6. **Quality assurance and accreditation support**
   - KPIs: review times, completion rates, supervisor loads, plagiarism statistics.
   - Built-in reporting similar to accreditation-driven MMS deployments. (SINTA+2jipm.irandoc.ac.ir+2)

7.2 Non-functional requirements

1. **Usability and accessibility**
   - User interfaces informed by MMS usability studies (clear navigation, consistent terminology, prominent feedback). (jsoftware.us+2 jipm.irandoc.ac.ir+2)
   - Mobile-friendly dashboards for students and supervisors.
   - Accessibility compliance (WCAG) given the broad user base.
2. **Scalability and multi-tenancy**
   - Architecture similar to Palamede and large OJS deployments: single core with multiple organizational tenants. (Academia+1)
   - Isolation of data, workflows, and branding per faculty/journal.
3. **Security and auditability**
   - Role-based access control.
   - Complete audit trails for submissions, decisions, and grading.
   - Compliance with institutional data protection policies.
4. **Extensibility**
   - Plugin framework for:
     - Similarity checking,
     - AI-assisted review summaries,
     - Custom dashboards,
     - Local accreditation reports.

7.3 Conceptual architecture for EMAP

A high-level conceptual architecture informed by the reviewed systems would include:

- **Presentation layer:** Web UI and REST APIs for integration. Role-based dashboards.
- **Workflow engine:** Configurable state machines for FYP and journal workflows, with rule-based triggers.
- **Services layer:**
  - Submission & file management.
  - Review & evaluation service (rubrics, scoring).
  - Allocation & decision-support service (supervisor/reviewer assignment using rules/ML).
  - Notification service (email, in-app, possibly SMS).
  - Analytics & reporting service (dashboards, exports).
  - Integration adapters (DOI, ORCID, LMS, repository).
- **Data layer:** Relational DB for transactional data; document store or file storage for manuscripts and artefacts; data warehouse for analytics.

This architecture explicitly unifies features observed separately in MMSs (J1–J10) and FYP/thesis systems (F1–F10).

8 Future Directions

The literature points to several promising directions that an EMAP research agenda can explore:

1. **AI-enhanced allocation and prioritization**
    - Using historical project and review data to predict suitable supervisors, reviewers, or examiners, expanding on work such as Afolabi et al. (IAENG+1)
    - Recommender systems for matching FYPs to potential publication venues.
2. **Open and transparent assessment**
    - Applying open peer review concepts from journal publishing to parts of the FYP/thesis assessment process (e.g., sharing anonymized rubrics, publishing exemplary reports). (SpringerLink+1)
3. **Learning analytics and student success**
    - Using EMAP data to predict FYP risk (late submissions, weak progress) and trigger interventions.
    - Studying correlations between supervision patterns, project topics, and outcomes.
4. **Interoperable scholarly infrastructure**
    - Deep integration with institutional repositories, CRIS systems, and ORCID, following PKP's open infrastructure principles. (Academia+1)
5. **Multi-institutional deployments**
    - Extending EMAP to multi-campus or multi-university scenarios, learning from Palamede and national systems like ACOMS+. (Academia+2 Directory of Open Access Journals+2)

9. Conclusion

This review analyzed journal management systems, FYP and thesis management platforms, and related open-source publishing infrastructure with the specific goal of informing the design of an Editorial Management and Automation Platform (EMAP). Journal-oriented MMSs provide mature workflows for submission, peer review, and publication, while FYP and thesis systems address supervision, monitoring, and local assessment. However, no existing solution offers an integrated, end-to-end platform that connects student projects, thesis workflows, and scholarly publishing within a single, automation-oriented ecosystem.

By synthesizing evidence from 30 representative systems and studies, we identified key attribute dimensions (workflow coverage, automation, integration, usability, analytics) and used them to build a comparative attribute table. The analysis revealed clear gaps in lifecycle integration, configurable workflows, unified analytics, and explainable decision support. We then translated these findings into concrete functional and non-functional requirements and a conceptual architecture for EMAP.

For your project, EMAP can be positioned explicitly as a next-generation platform that merges the strengths of existing MMSs (e.g., OJS, ACOMS+) with FYP/thesis management solutions

(dashboards, decision support, collaboration), while addressing their limitations in integration, usability, and open science support. The review, table, and reference list provide a solid foundation for your FYP documentation, defence, and future publications.

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