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ACADEMIC AI IMPACT

MEASURING THE IMPACT OF AI ADOPTION ON ACADEMIC
LIBRARY WORKFLOWS

A RESEARCH PAPER BY EMERGING
STRATEGY ON BEHALF OF
CLARIVATE

Emerging Strategy

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EXECUTIVE SUMMARY

Academic libraries are under sustained pressure to deliver timely, consistent, and high-quality services across library workflows, even as staffing levels and institutional resources remain constrained. In this context, artificial intelligence (AI) is being introduced in some academic libraries as operational infrastructure that supports daily work across varying levels of complexity. While AI's potential impact extends beyond these use cases, this report deliberately focuses on measurable effects in metadata creation, cataloguing, and course reading list workflows.

Automation has long been a part of library operations, but recent AI tools represent a significant step forward. Unlike earlier rules-based systems, today's tools can process unstructured content, extract key information, and generate usable data and insights aligned with professional standards. These capabilities are embedded directly into existing library workflows, requiring minimal technical expertise.

STUDY SNAPSHOT

This study examines the operational impact of two Clarivate products: Alma AI Metadata Assistant and Leganto Syllabus Assistant in two core academic library workflows:

- Metadata creation and cataloguing
- Course reading list and syllabus support

The analysis is based on in-depth interviews with academic library professionals across a range of institution types and operational models.

Interviewees included cataloguers, teaching and learning support staff, and library systems and operations personnel directly involved in deploying or supervising AI-supported workflows.

HEADLINE RESULTS

The use of AI tools was associated with several consistent changes in library workflows within the set of institutions interviewed:

- Reduced effort in first-pass preparation tasks, particularly in metadata transcription, normalization, and syllabus parsing.
- Improved consistency and standardization, especially where inputs varied widely in structure and quality.
- Faster progression from intake to usable records or reading lists, with fewer manual steps required to reach review-ready outputs.
- Reallocation of staff time from routine data entry toward higher judgment work, validation, and exception handling.

In addition to these qualitative shifts, libraries reported measurable changes in time use, throughput, and service availability. While the magnitude of impact varied by institution and workflow design, interviewees consistently described improvements along four operational dimensions highlighted on this page.

TIME AND EFFICIENCY

30-60%

Reduction in time spent on manual, repetitive work

- Course list creation reduced from 15-45 minutes to 2-5 minutes
- Metadata transcription reduced from hours to minutes for draft records

ACCESS AND AVAILABILITY

50-60%

Of reading lists immediately available after AI processing

Same-day availability common for:
- Course materials already held by the library
- New acquisitions processed with AI-assisted metadata

THROUGHPUT AND CAPACITY

2-4X

Increase in feasible workload without additional staff

- Hundreds of metadata records per day enriched in backlog projects
- Courses supported proactively that were previously out of scope

QUALITY AND OVERSIGHT

70-90%

Of AI-generated output accepted with minor edits

WHAT AI CHANGES (AND WHAT IT DOES NOT)

To clarify the nature of this impact, interviewees consistently distinguished between areas where AI changed operational constraints and areas where core professional responsibilities remained unchanged.

AI Changes:
- Eliminates manual entry as the bottleneck
- Makes deferred work feasible (backlogs, proactive course support)
- Improves consistency and readiness for future standards

AI Does Not Change:
- Professional judgment or accountability
- Baseline staffing expectations in the near term
- Need for review, correction, and governance

STRATEGIC TAKEAWAYS FOR LEADERS

- AI can provide operational support when deliberately implemented, helping stabilize workflows that are difficult to sustain manually and enabling the creation of new, proactive processes where capacity previously constrained action
- Impact is most visible in faster preparation and access to materials, enabling libraries to maintain or increase service levels with existing staff and to extend support into areas that were previously out of scope
- For the institutions interviewed, value depends on library-led scoping and governance, with the strongest returns in high-friction, rules-based workflows
- Treating AI outputs as drafts preserves quality and trust
- AI reallocates effort rather than responsibility, shifting staff time from execution toward review and judgment
- Adoption was most effective when introduced gradually, allowing staff to adapt and integrate AI into existing workflows
- Targeted AI use can support resilience and adaptability, particularly where staffing constraints and metadata debt limit the scalability of manual workflows and where libraries seek to move from reactive to more proactive service models

The sections that follow present detailed takeaways for library leaders, synthesized workflow-level findings, and four institutional case studies that illustrate how these impacts played out in practice.

IMPLICATIONS FOR LIBRARY LEADERS

Taken together, the evidence in this study shows that AI tools are already producing tangible operational benefits for academic libraries that adopt them. These benefits are not automatic, and they do not look the same everywhere. When applied deliberately, AI can reshape how certain workflows operate by expanding capacity, improving access, and enabling libraries to keep pace with institutional expectations with existing staff.

For library leaders, the implications are about how operational pressure, professional judgment, and strategic priorities intersect. The following sections outline what this evidence suggests about when adoption makes sense, how it succeeds, and what libraries should realistically expect.

THE OPERATIONAL CASE FOR ADOPTION

Some libraries are adopting AI to absorb current demand and address metadata debt.

The institutions included in this study represent a small group of early adopters rather than a broad cross-section of academic libraries. Their experiences nonetheless offer insight into why some libraries are choosing to experiment with AI at this stage and what problems they are attempting to solve.

In these cases, AI was adopted not because it was seen as an emerging trend, but because existing workflows were struggling to keep up with current demand. Participants described sustained pressure from constrained staffing, growing course volumes, expanding formats, and rising compliance requirements. AI was introduced as a practical response to these conditions, helping libraries stabilize operations when manual processes alone proved difficult to scale.

The primary goal was capacity recovery, not staff reduction.

Importantly, AI was used to reclaim staff time from repetitive, time-intensive work and to refocus effort on professional judgment and decision-making.In teaching workflows, this supported timely course readiness despite increasing volume. In metadata workflows, it enabled progress on backlogs and incremental improvements in discovery that had been challenging to achieve through manual approaches alone.

Metadata workflows highlight the opportunity most clearly.

Large volumes of legacy records, minimal cataloguing, and uneven descriptive quality can limit discovery and slow readiness for evolving standards and collaborative initiatives. The experiences documented here suggest that targeted, library-led use of AI may offer a viable way to advance this accumulated work, especially where purely manual approaches have stalled.

These cases raise a practical question rather than a universal prescription.
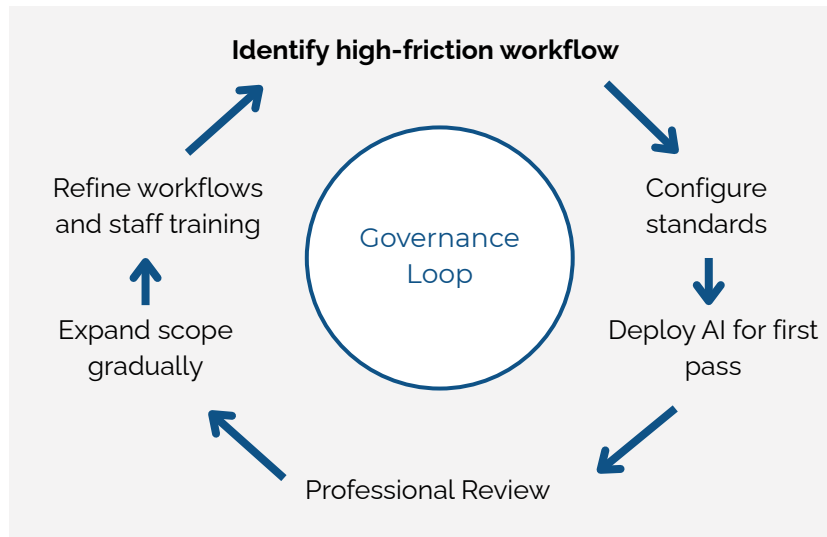
For library leaders, these cases suggest that AI adoption isn't inevitable or universally necessary. Instead, they highlight a practical question: whether existing workflows can continue to absorb growing demands without additional tools that reduce friction and expand capacity. The institutions in this study suggest that carefully scoped, incremental adoption can serve as a constructive option for libraries exploring how to address these pressures on their own terms.

IMPLEMENTATION CONSIDERATIONS

AI delivers value when adoption is library-led, governed clearly, and focused on specific high-friction workflows where professional judgment remains intact.

While the operational case for adoption is strong, the evidence also shows that outcomes depend heavily on how AI is introduced and governed.

Successful implementations were consistently library-led, with clear ownership over configuration, standards, and review practices. Interviewees emphasized that a gradual, controlled introduction was critical to building staff confidence and avoiding disruption to established workflows. Treating AI output as a draft rather than a finished product helped maintain quality and reinforce professional trust.

Libraries that realized value fastest avoided universal deployment. Instead, they focused on workflows dominated by repetitive entry, transcription, or initial compilation. This selective approach reduced risk, built staff confidence, and delivered visible benefits without expanding workload.

Effectiveness varies by material type and language, reinforcing the importance of selective application.

Interviewees noted that AI performance was strongest when source materials were well-structured and aligned with the AI model's dominant languages and formats. For less common languages, highly specialized subject matter, or atypical resource types, outputs required closer review or were applied more selectively. As a result, libraries emphasized matching AI use to workflows and materials where it could reliably reduce effort, rather than expecting uniform performance across all content.

Professional judgement shifted effort; it did not add work.

In teaching workflows, AI replaced time-intensive reading list creation with faster review and adjustment, allowing staff to support more courses with the same resources.

In metadata workflows, effort shifted from record-by-record creation to validation and refinement. In both cases, AI reduced the volume of work requiring deep attention while preserving accountability and quality.

Rather than focusing on mechanics, libraries trained staff to quickly assess outputs, spot common issues, and consistently apply local standards. This approach supported confidence and consistency without introducing additional process layers.

Incremental AI adoption enabled learning without disruption.

Most institutions began with pilots or limited-scope use, generating meaningful benefits before formal standardization. Where AI-supported workflows extended beyond the library, clear communication helped set expectations and positioned the library as an enabler of scale and quality, not an added checkpoint.

These findings show that AI delivers clear and impactful value at the workflow level. The sections that follow examine how this played out across cataloguing and course materials workflows, using cross-institutional patterns and four institutional case studies.

CROSS-WORFLOW IMPACT OF AI IN ACADEMIC LIBRARIES

AI implementation was measured through Clarivate's Leganto Syllabus Assistant and Alma Metadata Assistant across the institutions interviewed, alongside selective use of general-purpose tools such as Microsoft Copilot, Google Gemini, and voice-to-text applications, as well as image-based text-capture tools (e.g., Google Lens).

This section examines how AI alters the flow of work across two core library workflows: course reading list preparation and metadata creation.

COURSE READING LISTS AND SYLLABUS WORKFLOWS

By removing manual citation entry, AI shifts staff effort from transcription to review and collaboration.

The most immediate and consistent value reported using AI is the elimination of manual citation entry. Before using AI, staff described the list-creation process as dominated by searching, transcription, and follow-up.

At multiple institutions, staff noted that building a list meant "searching for and adding citations" and managing "a fair bit of back and forth" with faculty when citation information was incomplete or unclear.

In some cases, instructors would share a partial set of readings with the library, while directing students to bookstores or external sources for the remainder. This limited the library's visibility into the full course plan and reduced its ability to provide access to materials it already owned. With AI, staff upload or paste a syllabus or citation document and receive a populated draft list that reflects the full set of assigned readings.

Instructors no longer have to search resource by resource inside the physical library... or the digital one.
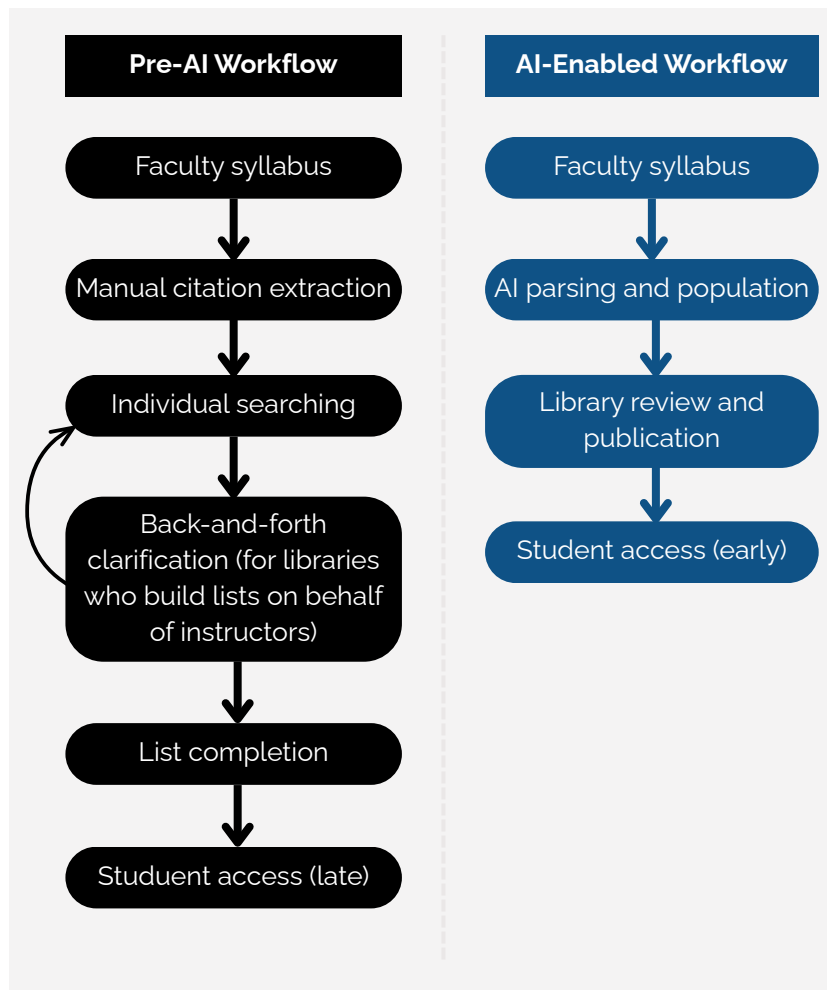
Coordinator of Library Services, Universidad Tecnológica de Bolívar (UTB)

This gives the library earlier and more complete visibility into course materials, allowing staff to focus on review rather than transcription, and to surface library-held content that might otherwise remain "hidden." As one Universidad Tecnológica de Bolívar (UTB) interviewee described it, AI-enabled tools now identify and organize the bibliography automatically from their course plan, allowing staff to focus on checking rather than typing.

Earlier visibility into required materials enables proactive outreach and higher campus visibility.

Some institutions reported that faculty members would reach out to them, surprised that their reading lists had already been uploaded. This led to reduced back-and-forth with faculty. It also allowed libraries to intervene earlier on cost and access. By seeing the complete set of assigned readings, not just those explicitly shared, libraries could ensure that students had access to materials already held in the collection, reducing reliance on bookstore purchases and lowering out-of-pocket costs. When the reading lists are pre-populated, follow-up conversations focus on confirmation and refinement rather than basic data collection.

One interviewee using Clarivate's Leganto Syllabus Assistant noted that this shift reduced the need for workshops, department outreach, and other marketing efforts. In practice, this raised the library's visibility across more courses and departments through direct, tangible support.

Eliminating manual data entry reduces input effort by 30–50% and total course list creation time from 15–45 minutes to 2–5 minutes.

Across interviews, staff consistently estimated that the time required to create the course list dropped by roughly one-third to one-half for the data entry portion of the workflow. Reading lists that previously took 15 to 45 minutes to build manually can now be created in 2 to 5 minutes. For instance, for a 20-item list, the University of Windsor noted a drop from 20 minutes to 3 minutes.

At Concordia University, lists with over 100 items previously required more than a full day of focused work. With AI-enabled tools like the Leganto Syllabus Assistant, staff generate a complete draft list automatically and spend one to two hours reviewing and refining it. Beyond time savings, the interviewee emphasized reduced cognitive load and improved ability to balance list creation with other responsibilities.

Some institutions also noted increased alignment within their library-licensed and owned content, supporting their affordability and access goals. However, interviewees emphasized this as a directional outcome rather than a formally tracked metric.

Quality, compliance, and accuracy continue to depend on human oversight.

All interviewees emphasized that professional review remains essential. AI removes repetitive entry work but does not replace judgment, policy decisions, or exception handling.

Staff continue to review citations for accuracy, formatting, and completeness, and to manage copyright and fair-use determinations, for now. University of Windsor staff noted that results vary depending on syllabus quality and formatting, reinforcing the need for review before publication.
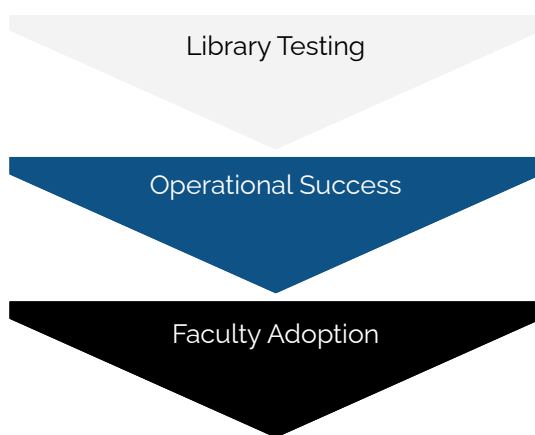
List creation (with Leganto Syllabus Assistant) is definitely faster, and mental strain is much less. It allows us to do more work and be more flexible with our work.

Senior Instruction Outreach Librarian, Concordia University

Adoption begins inside the library and expands outward as confidence and results grow.

Across all institutions, adoption begins within the library. Staff use AI tools behind the scenes before exposing them directly to faculty, particularly during peak terms. Several interviewees noted caution around faculty-facing rollout until staff gain confidence in consistency and outcomes.

Faculty engagement tends to increase after operational success becomes visible. Early wins also reshaped internal perceptions of capacity. Tasks that were previously excluded from workflows due to time constraints are now feasible.

Library Testing

Operational Success

Faculty Adoption

The following case studies illustrate how these impacts play out in practice across different types of institutions that use the Leganto Syllabus Assistant.

CONTEXT

Brock University launched Leganto during a period of significant operational pressure. Implementation timelines were delayed, and the library entered the year's busiest academic term without its course reading service fully established. As one staff member explained, "Without that AI tool, that delay would have been felt more... had more of an impact."

PRE-AI WORKFLOW

Before adopting the Syllabus Assistant, Brock operated a fully library-mediated course readings service. Staff manually entered citations from syllabi, searched for each item individually, and processed physical and digital materials across the former Course Readings Platform. A typical 20-item list required approximately 30 to 40 minutes of staff time for data entry alone, not including copyright review, scanning, or physical processing.

As the service coordinator noted, this work included "not only in Leganto, but also in Alma... labeling books, processing them, moving them to temporary locations."

IMPACT OF THE SYLLABUS ASSISTANT

With the introduction of the AI Syllabus Assistant, the data entry portion of the workflow was effectively removed. When syllabi were successfully read, the system populated complete reading lists in seconds. "If AI works perfectly," the interviewee explained, "it's like no time. There's 100% saved time, and sometimes it just takes 30 seconds."

This shift allowed the library to recover time rapidly during a delayed launch. One staff member described realizing what was possible as being "in the seventh heaven."

MEASURED IMPACT

- Data entry time for a 20-item list dropped from 30-40 minutes to seconds.
- Approximately half of the overall course readings workload time was eliminated at the data-entry stage.
- Staff reported that "almost all" citations are now imported via AI or reference import rather than manual entry.

Importantly, staff were careful to distinguish between data entry time savings and the full-service lifecycle. They clarified that while data entry is eliminated, tasks that require staff expertise, such as reviewing the citations generated by the AI tool for accuracy, completeness, and/or missing citations, copyright checking, scanning, and purchasing, remain.

EARLIER STUDENT ACCESS

Brock configured Leganto so that materials already held by the library became accessible to students immediately upon population. As a result, staff estimated that 50-60% of course materials are available to students right away.

OUTCOME

The Syllabus Assistant allowed Brock to stabilize course readiness during a delayed rollout, prevent service disruption, and reallocate staff time toward copyright review, physical reserves, and exception handling rather than transcription.

CONTEXT

Academic library supports a large, fast-moving course environment, with approximately 150-200 new reading lists created each semester. Historically, the library only supported instructors who actively requested reading lists. Many courses operated without library-curated reading lists, not because of a lack of interest, but because proactively creating lists at scale was seen as impractical.

"That wasn't even part of our workflow," one staff member explained. "We thought that it was an impossible task."

THE OPPORTUNITY

Institutional policy required all course syllabi to be published in a public database. This created an opportunity for Academic library to identify courses without reading lists, but it required that staff generate them more efficiently.

IMPACT OF THE SYLLABUS ASSISTANT

Using the AI Syllabus Assistant, staff began retrieving syllabi directly from the institutional database and automatically generating reading lists. The whole process takes approximately 2 to 3 minutes per course.

"I spend maybe about 30 minutes a day putting syllabi in," the interviewee noted. "From start to finish, it takes about two to three minutes to see a reading list get created."

MEASURED IMPACT

- Reading lists created in 2-3 minutes for courses that previously had none
- AI accuracy reported at 90% or more, with minimal corrections required
- Staff time commitment described as manageable and "not a burden at all"

FACULTY ENGAGEMENT AND VISIBILITY

When the library sends a completed reading list to an instructor, reactions are often immediate and positive. "They're like, I didn't even know that this was possible," the interviewee reported.

This proactive outreach has led to increased faculty questions about reading lists, Leganto, and textbook access. Rather than running workshops or formal marketing campaigns, the library described this approach as "guerrilla marketing through the Leganto AI Syllabus tool."

IMPACT ON STUDENT ACCESS AND AFFORDABILITY

Because the AI tool identified materials already held by the library, students gain immediate access to assigned readings. Staff reported a noticeable increase in student traffic and inquiries related to textbook access.

OUTCOME

The Syllabus Assistant transformed an "impossible" task into a routine workflow. Academic library moved from reactive list support to proactive course engagement, strengthening faculty relationships and advancing student affordability goals without adding staff.

CATALOGUING AND METADATA WORKFLOWS

The primary value of AI in cataloguing and metadata workflows lies in replacing manual transcription with review-driven enrichment.
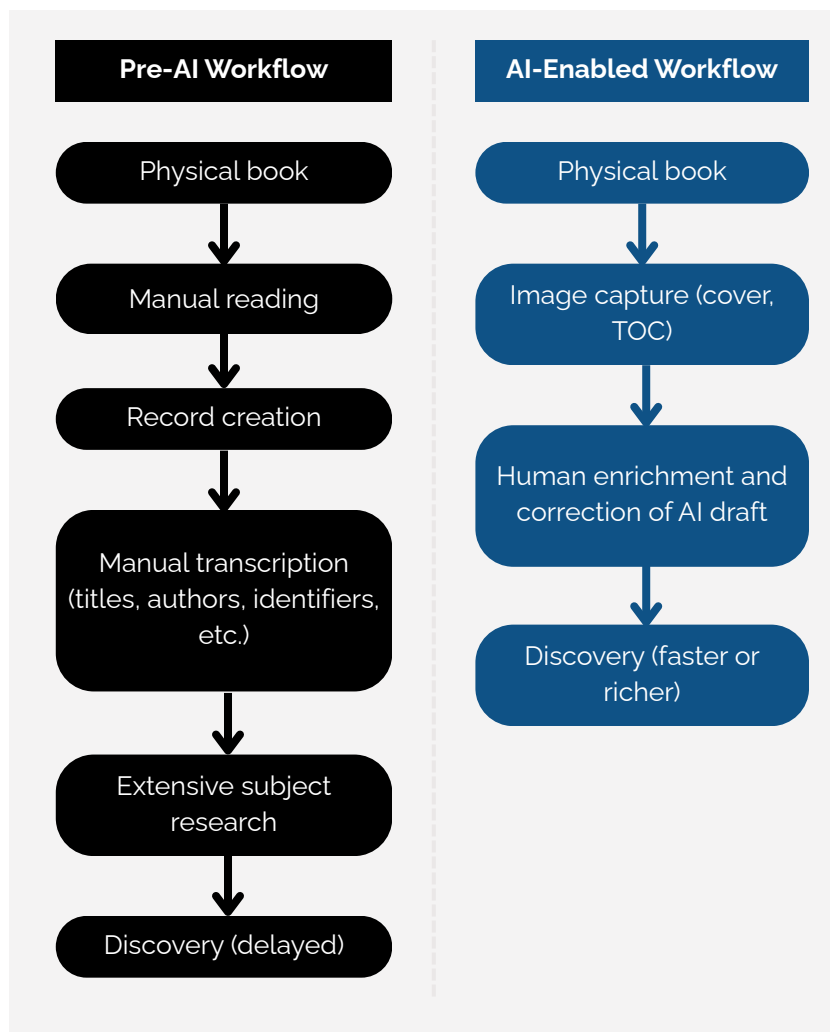
The most consistent value reported is the reduction of manual transcription and initial descriptive work. Instead of entering fields line by line, staff upload images of covers and tables of contents or run existing records through enrichment, receiving a populated draft that can be reviewed and refined.

At the University of Haifa, value was most substantial in subject analysis and content enrichment. The interviewee emphasized that assigning subject headings, particularly for theses and unfamiliar disciplines, was historically the most time-consuming part of original cataloging. With AI, that work becomes faster and more manageable, even when the outputs require correction.

Assigning subject headings is mentally exhausting because you have to research what the book is about, assign the subject headings, and then check whether you're doing it correctly. AI makes this process feel lighter and less labor-intensive.

Head of Metadata and Process Management, University of Haifa

Pre-AI Workflow	AI-Enabled Workflow
Physical book	Physical book
Manual reading	Image capture (cover, TOC)
Record creation	Human enrichment and correction of AI draft
Manual transcription (titles, authors, identifiers, etc.)	Discovery (faster or richer)
Extensive subject research	
Discovery (delayed)	

Impact varies by workflow, but gains are consistently material; AI makes long-standing backlogs tractable.

Across institutions, the strongest gains appear in two areas: increasing throughput for enrichment work and improving the depth and consistency of original cataloguing where copy-cataloguing records are limited or unavailable.

For large enrichment projects, libraries reported substantial increases in daily output, enabling them to address legacy metadata at a scale that manual workflows could not support. Processing times for new acquisitions also decreased markedly, allowing materials to appear in discovery more quickly and reducing delays between receipt and user access. In these contexts, most AI-generated metadata was accepted with minor edits, with staff effort concentrated on review and normalization rather than initial entry.

In original cataloguing, the value lies in consistency and reduced research burden.

Here, impact was more qualitative than purely time-based. At the University of Haifa, the interviewee estimated that approximately 90 percent of AI-generated enhancements were accepted with minor edits. At the same time, full rejections occurred only in a small minority of cases For materials with clear bibliographic structure and sufficient descriptive context, time to complete original cataloguing dropped to about 10 minutes, including review, compared with a much wider, less predictable range under manual methods. The primary value was not speed alone, but greater consistency and reduced research burden in subject analysis.

AI enables flexibility.

Across these use cases, the evidence shows that AI does not impose a single efficiency model. Instead, it allows libraries to choose between scale and depth depending on local priorities, enabling both high-volume backlog reduction and richer descriptive work without removing professional judgment

AI-generated subject terms aren't always perfect, but they prevent me from going down a big rabbit hole by providing a good clue or a good approximation to start from. I really appreciate that.

Library Staff, Large Research University in the Western United States

Cataloguers retain responsibility for accuracy and standards.

All interviewees stressed that professional review remains essential. AI accelerates drafting and enrichment but does not replace cataloguing expertise.

Common review tasks include:
- Verifying subject headings and correcting subfields
- Normalizing fixed fields and removing duplicate tags
- Ensuring compliance with institutional, national, and OCLC standards

At the Universidad Tecnológica de Bolívar (UTB), staff noted cases in which donor names were incorrectly interpreted as authors, requiring careful review of creator fields. At the University of Haifa, subject headings are frequently adjusted to reflect local vocabulary and standards. The interviewee stated plainly, "The review is necessary," describing the AI assistant as complementary rather than autonomous.

Adoption begins with targeted experimentation and expands as confidence and value are established.

Adoption typically begins with individual cataloguers or technical services teams experimenting with the tool on specific backlogs or material types. Value is often realized before formal standardization.

Across institutions, early success builds confidence and broadens use, while reinforcing the need for continued human judgment in metadata quality and standards compliance.

The following case studies of UTB and a large research university in the Western United States illustrate how Alma AI Metadata Assistant supports both high-volume enrichment at scale and more complex original cataloguing focused on qualitative depth.

CONTEXT

Before implementing Alma Metadata Assistant, UTB relied on a fully manual, two-level cataloging workflow. A technical assistant handled the most time-consuming step: the "laborious transcription" of information from physical books into cataloging templates. Once transcription was complete, a professional librarian performed classification and subject analysis, a process whose duration varied widely depending on the material's complexity.

This structure worked for new acquisitions at low volume, but it made retrospective enrichment effectively unattainable. The library's goal of bringing tens of thousands of legacy records up to current RDA (Resource Description and Access) standards and preparing them for integration into a national union catalog was out of reach.

As one interviewee stated directly, without AI, it would have been "almost impossible to do retrospective work at this scale."

THE AI-SUPPORTED WORKFLOW

UTB was introduced to Alma Metadata Assistant during Clarivate Day in October 2024. The tool's design and integration were intuitive enough that the library began experimenting independently within two weeks, relying on the Clarivate Knowledge Center rather than formal implementation support. The key change was a fundamental shift in workflow. The new process replaces manual transcription with automated extraction:

- Staff take three to four photos of a physical book, typically the front cover, back cover, and table of contents.
- After entering a required field, such as the title, the AI reads the images and automatically populates cataloging fields.

- For existing records, the tool is used to enrich metadata by adding Library of Congress Subject Headings (LCSH), summaries, and tables of contents.

Rather than eliminating professional work, the tool removes the most rote and time-intensive component of the process. As UTB staff described it, "transcription is no longer the bottleneck."

MEASURED IMPACT

- The transition from manual transcription to AI-assisted cataloging resulted in a 70-80% reduction in processing time.
- Records that previously required hours of transcription and assembly can now be generated in 30 to 60 seconds for the initial draft.
- The technical services team can efficiently process 200 to 600 records daily.
- AI reliably identifies publishers and cities that were previously difficult for staff to extract from certain materials.
- New books that once took three to four days to appear in discovery are now frequently available the same day they arrive.

These gains transformed retrospective enrichment from an aspirational goal into an active, ongoing project.

QUALITY AND HUMAN OVERSIGHT

UTB evaluates the quality of AI-generated metadata at 7 to 8 out of 10, emphasizing that the output is usable but not final. Strengths noted by staff include:

- Reliable generation of English LCSH enables Spanish-language materials to surface in English-language subject searches
- Accurate addition of RDA tags to older records, reducing structural inconsistencies

Approximately 20-30% of AI-generated output requires manual editing. UTB staff describe the relationship as complementary rather than autonomous: the AI accelerates preparation, but professional judgment determines the final record.

OUTCOME

By automating the most repetitive aspects of metadata creation, UTB achieved several strategic outcomes that extend beyond efficiency:

- Time previously spent on transcription is now directed toward higher-value work, including institutional repository management and metadata editor corrections.
- The library is actively "polishing" its full database to minimize errors and inconsistencies ahead of union catalog participation.

Large-scale enrichment has positioned UTB for a future transition to BIBFRAME, ensuring records meet emerging standards rather than remaining locked in legacy structures.

CONTEXT

Academic library manages highly diverse collections, including significant international and government materials. A recurring challenge arises when materials arrive from vendors that do not supply copy records to OCLC. In these cases, catalogers must perform original cataloging, often under pressure to move materials through the workflow quickly.

Historically, this resulted in records following national and local minimal-level standards (currently Elvl "7" in OCLC). These records were sufficient for basic inventory control but lacked subject headings, summaries, and other descriptive elements needed for effective discovery.

THE CHALLENGE

One recurring example involves materials from an African vendor that frequently arrive without any existing bibliographic records. Before using Alma Metadata Assistant, Academic Library catalogers relied on manual typing and sometimes tools like Google Lens to extract text from cover pages and the table of contents. Even with these workarounds, the process averaged 23 minutes per book.

The most challenging part of this work was not transcription but subject analysis. Determining appropriate subject headings for unfamiliar disciplines or regions required extensive research. As the interviewee described it, this often meant "going down a big rabbit hole," significantly increasing cognitive load and slowing throughput. For particularly tedious materials, such as government documents, the effort required sometimes led staff to deprioritize the work entirely.

THE AI-SUPPORTED WORKFLOW

Academic Library began testing Alma Metadata Assistant in a sandbox environment toward the end of the previous year, focusing specifically on original cataloging when no OCLC record exists. Once local and international guidance for creating AI-assisted records became available, one of the Academic Library catalogers began using Alma Metadata Assistant to catalog resources selected for minimal-level cataloging, developing the following workflow.

The cataloger processed materials in small batches of approximately five items to reduce fatigue
- For each item, the cataloger took four photos, typically including the cover and table of contents.
- The images are uploaded directly into the Alma Metadata Editor, where the AI generates a draft MARC record.
- Because Academic Library's workflow requires final editing in OCLC, AI-generated records are exported from the sandbox, uploaded to OCLC for review and correction, and then imported into the production environment.

This approach allowed Academic Library to experiment with AI-generated metadata while maintaining complete control over compliance with standards.

MEASURED IMPACT

Unlike other institutions, Academic Library did not experience a reduction in per-record processing time. In fact, the average time per record increased from 23 to 28 minutes when using the AI tool.

However, the interviewee emphasized that this comparison is not like-for-like.

CASE STUDY: **AN ACADEMIC LIBRARY AT A LARGE RESEARCH UNIVERSITY IN THE WESTERN UNITED STATES**

USING AI TO IMPROVE METADATA QUALITY WHERE MINIMAL CATALOGUING FALLS SHORT

The AI-assisted records include summaries, contents notes, subject terms, and genre fields that would either have taken significantly longer to add manually or would have been omitted entirely under a minimal cataloging approach.

More importantly, the tool reduced the mental burden of original cataloging. By providing a "good start" for subject headings, the AI made the most cognitively demanding part of the job feel lighter and more manageable.

This was especially valuable for materials that staff described as "tedious," including government documents that were previously seen as a "headache" to process.

In this context, the value of the tool lies not in speed, but in enabling richer, more consistent metadata without exhausting professional staff.

OUTCOME

For Academic Library's trial efforts, Alma AI Metadata Assistant was not a productivity tool but a quality tool for resources that would otherwise get minimal-level cataloging, adding content to records that surpass minimal-level cataloging standards.

It supported professional judgment, reduced research friction, and enabled equitable treatment of collections that would otherwise remain under-described.

CONCLUSION

WHAT THESE IMPACTS MEAN IN PRACTICE

AI's impact in academic libraries spans multiple workflows, affecting capacity, access, and the application of professional effort.

Taken together, the experiences with AI-enabled tools show that AI's impact in academic libraries is not confined to a single workflow or outcome. Across teaching support and technical services, the tools change how work is structured, what work becomes possible, and where professional judgment is applied.

In faculty-facing workflows, AI primarily reduces friction. By eliminating manual entry and streamlining preparation, Leganto Syllabus Assistant enables libraries to support more courses, engage faculty earlier, and enhance student access without increasing staff workload.

In metadata workflows, AI expands capacity in different ways. Alma AI Metadata Assistant enables addressing backlogs, enriching legacy records, and improving discoverability for materials that would otherwise remain minimally described.

IMPLICATIONS FOR THE NEXT PHASE OF AI ADOPTION

This study shows that AI's role in academic libraries is no longer speculative or confined to isolated pilots; it is already shaping core operations across cataloguing and course materials workflows in measurable, institution-specific ways.

AI's role in academic libraries is likely to expand gradually rather than through sudden transformation. As staff confidence grows, libraries are beginning to apply these tools beyond initial use cases to additional formats, more complex materials, and workflows that have historically been deferred due to insufficient capacity.

Over time, this expansion also supports greater readiness for emerging standards, shared catalogues, and collaborative resource environments. By addressing metadata debt, improving consistency, and reducing preparation bottlenecks, AI helps libraries position themselves for interoperability and collective initiatives that manual workflows cannot realistically sustain.

The broader implication for library leaders is clear.

AI is now an operational reality in academic libraries, influencing what work can be sustained, how quickly materials reach users, and where professional effort is most effectively applied. Institutions that engage deliberately, govern carefully, and align AI use with professional judgment are better positioned to manage ongoing demand, improve access, and remain adaptable as standards, expectations, and collaborative environments continue to evolve across higher education.

APPENDIX

RESEARCH METHODOLOGY

Study Design

This study is based on in-depth qualitative interviews with library professionals who use AI-powered tools in their daily workflows. Participants include R1 research universities, mid-sized comprehensive institutions, and international universities with multilingual collections.
Case studies in this report are anonymized unless institutions provided explicit consent for attribution.

11 Interviewees based in **8** Academic Institutions

North America   Latin America   Middle East

Core Workflows (Clarivate Products)

Course Readiness and Teaching Support

Leganto Syllabus Assistant

Cataloguing and Discovery

Alma Metadata Assistant

How Impact Was Quantified

The study relies on self-reported time comparisons, volume metrics, and workflow contrast analysis rather than controlled experiments or direct observation. Participants were asked to estimate:

- **Time savings:** How long specific tasks took before and after AI adoption (e.g., minutes per reading list, minutes per cataloging record)
- **Volume metrics:** How many courses, records, or citations are processed in a typical week, month, or term
- **Capacity indicators:** Examples of new work enabled, backlog reductions achieved, or staff time reallocated to other responsibilities

METHODOLOGICAL NOTES

- Findings represent directional evidence from institutional experiences, not statistically aggregated results from controlled trials.
- Time estimates reflect typical workflows as reported by experienced practitioners, not precise measurements from time-tracking systems.
- Metrics are institution-specific and may not aggregate directly due to differences in institutional size, staffing models, and workflow design.
- Results provide evidence that libraries can adapt to their own contexts rather than universal benchmarks or guaranteed ROI calculations.

The study does not claim statistical significance or attempt to generalize findings beyond the institutions interviewed. Instead, it provides rich, contextualized evidence that library leaders can use to inform their own decision-making.

ABOUT EMERGING STRATEGY

Emerging Strategy is a management consulting firm specializing in evidence-based insight for the education and information sectors. We help organizations navigate the intersection of technology, workflow change, and institutional priorities by grounding analysis in practitioner experience and measurable outcomes.

Our work focuses on how markets operate in practice, how decisions are made within institutions, and how products and platforms are evaluated, adopted, and sustained over time.

Our Education Practice delivers market intelligence and strategic insight across the education ecosystem, including:

- Academic libraries and higher education institutions
- Education technology and SaaS platforms
- Professional learning and workforce development
- Assessment, credentialing, and lifelong learning systems

We partner with publishers, platform providers, institutions, and associations to deliver actionable intelligence that supports informed decision-making in complex, resource-constrained environments.

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