How AI can improve library services
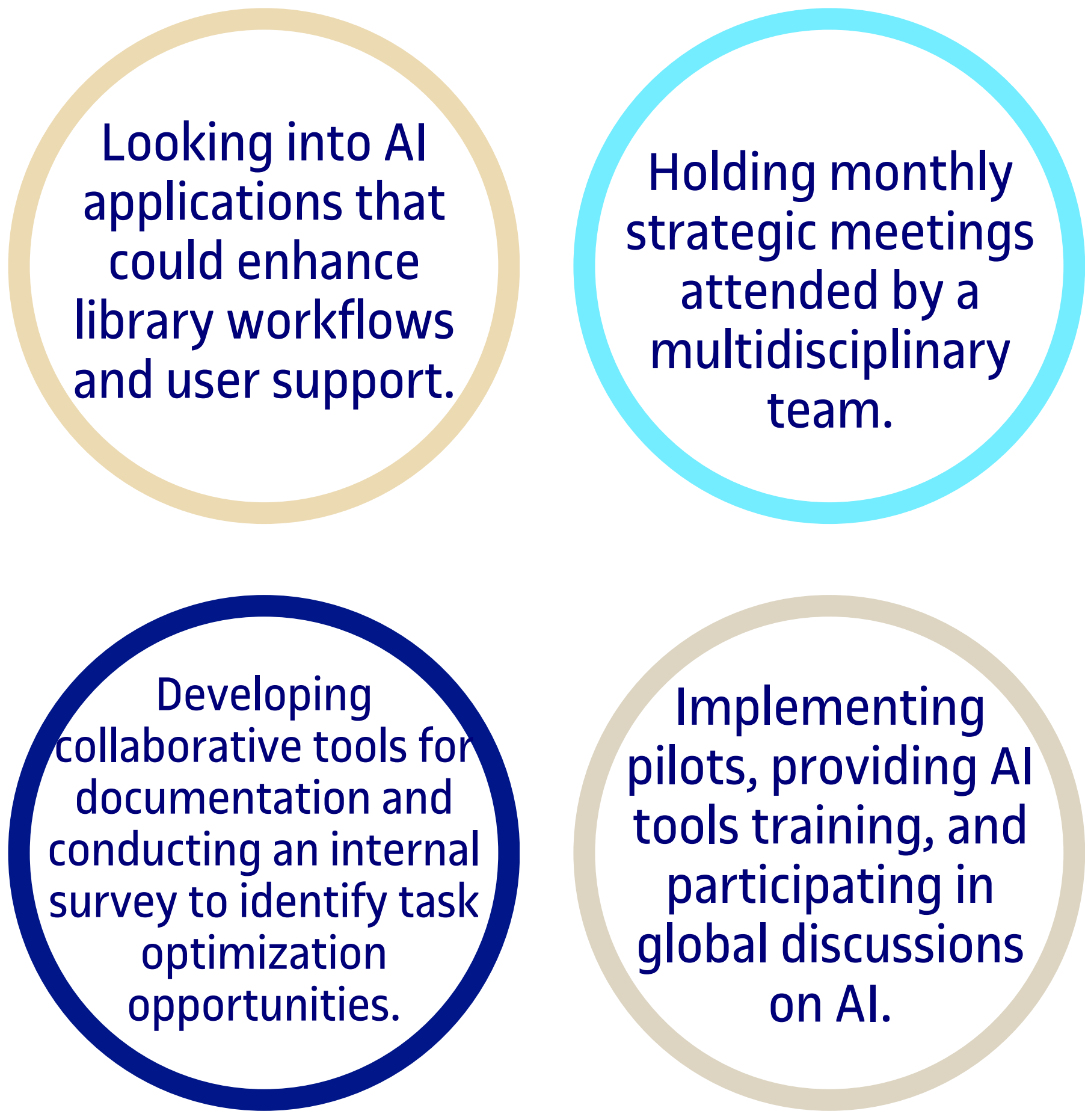
Insights from the UOC's experience

#artificial intelligence
#academic libraries
#chatbot
#digital transformation
#generative AI
#knowledge discovery

Introduction

Artificial intelligence (AI) is revolutionizing university libraries, providing them with opportunities to improve efficiency, accessibility and user experience. The UOC Library has adopted a thoughtful approach to its embrace of AI, balancing innovation with ethical responsibility to address the needs of its academic community.
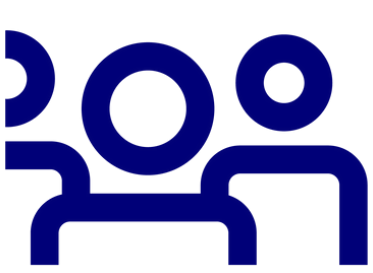
The UOC's AI Working Group

The activities of the UOC's AI Working Group leading the exploration of how AI can improve library services include:

- Looking into AI applications that could enhance library workflows and user support.
- Holding monthly strategic meetings attended by a multidisciplinary team.
- Developing collaborative tools for documentation and conducting an internal survey to identify task optimization opportunities.
- Implementing pilots, providing AI tools training, and participating in global discussions on AI.

Methodology

The UOC Library adopted AI through a structured and exploratory approach:

The process of enhancing the Library's services with AI was conducted in an ethical, responsible manner.

AI Working Group
A multidisciplinary team with monthly meetings to align strategies and share insights.

Collaboration
Findings were shared with bodies like REBIUN and at conferences to inform future strategies.

Focus areas
Pilots targeted knowledge discovery (Primo Research Assistant), query automation (The Library Replies), and production of educational materials (transcription, animations, accessibility).

Evaluation
Tools were assessed for efficiency, scalability, and user feedback. Key challenges included infrastructure needs, data privacy, and linguistic diversity.

Key projects and results

These explorations provided valuable insights into AI's role in academic contexts, helping to define future directions. Challenges such as infrastructure needs, accuracy, and customization remain focal areas for further development.

Primo Research Assistant

- **Description**: AI-powered search assistant for natural language queries.
- **Results**: Increase in the adoption of library searches from 6.75% to 11.63% in three months. User satisfaction at 83.7%.

The Library Replies chatbot

- **Goal:** Automate responses to frequent library queries.
- **Outcome:**
  - Showed potential for query automation but raised concerns about data security and infrastructure needs.
  - The pilot is currently paused due to these challenges.

Exploratory pilots

A significant portion of the learning resources used by students is produced by the UOC Library, which has explored AI tools to assess their potential for enhancing academic content production.

Video transcriptions

Tools: TurboScribe, Notta.

Findings: Significant time savings (60%) for multilingual content, but struggles with noisy or complex audio.

Animations

Tool: Vyond.

Findings: Explored for academic content but deemed unsuitable due to limited customization for the UOC's needs.

Alternative text for accessibility

Tool: Microsoft Copilot.

Findings: Improved workflows for creating image descriptions, though further linguistic and contextual refinements are needed.

Didactic tagging of texts

Tool: ChatGPT.

Findings: Potential for automating tagging processes, but issues with context accuracy and consistency halted further exploration.

Ethical considerations

Ethical innovation
The UOC's approach emphasizes critical evaluation of AI tools to ensure alignment with institutional values.

Challenges
Data privacy, linguistic diversity, and bias in AI-generated content remain key focus areas.

Future directions

Integrated services
Develop a "virtual librarian" for unified library services.

Expanding pilot projects
Explore multilingual tools, resource recommendation algorithms and personalized learning support.

Collaborative growth
Strengthen partnerships with REBIUN and other international library networks to share insights