

AI Agent Automation for Library Reporting

Introduction to how AI Agents can automate library reporting workflows, improve efficiency, and enhance data-driven decision-making.

Nafi Al Kautsar Putrawan., A.Md.M.I.D., S.Tr.A.B.

**FPPTI Conference
9 October 2025**





Speaker Profile

Nafi Al Kautsar Putrawan., A.Md.M.I.D., S.Tr.A.B.

<https://www.linkedin.com/in/nafiputrawan>

Email: nafi.al@alumni.ui.ac.id

Relevant Certification in AI

Google Gemini Certified Educator

Google AI Essentials

Work Experience

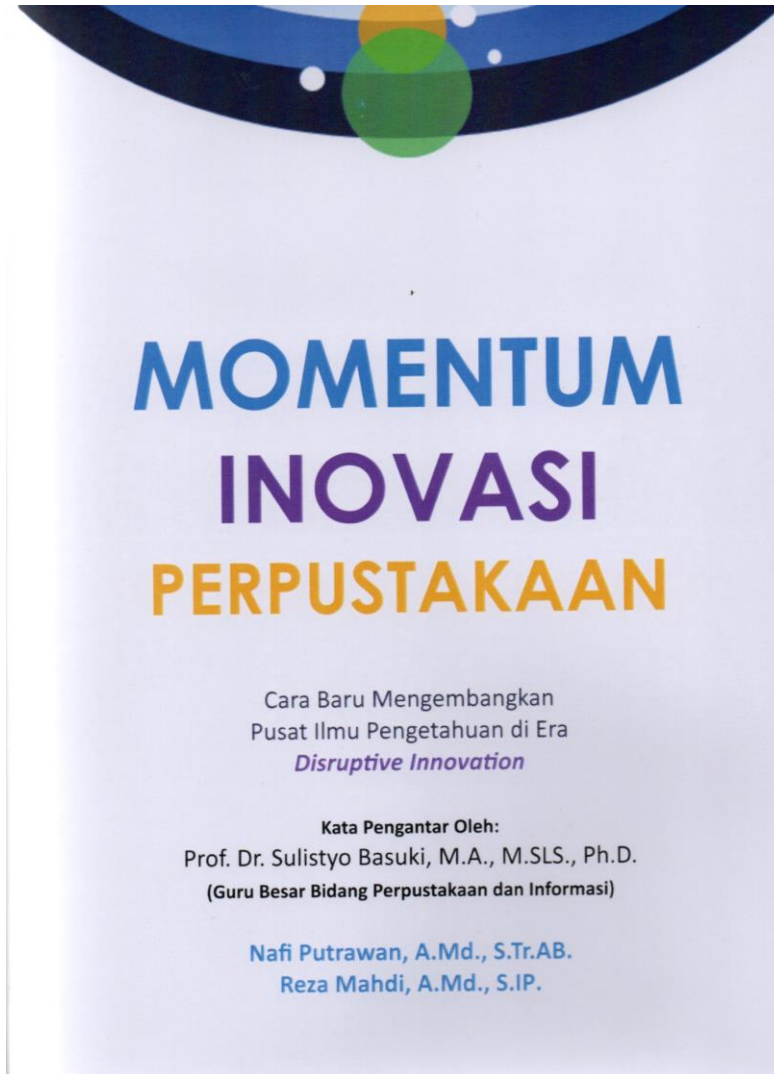


Education Background



Research and Publication

- Versatile. Ahlimedia, 2020. ISBN 9786236605370.
- Library Innovation Momentum: New Ways to Develop Science Centers in the Era of Disruptive Innovation. Ahlimedia, 2020. ISBN 9786236605493.
- Armanesia Blockchain System: Blockchain and IFPS-Based Archive System Prototype. Khizanah al-Hikmah Journal of Library Science and Archiving, 2022. DOI:10.24252/kah/v10i2a9
- Apart from Gold, These Are Safe Haven Assets That Investors Look At During Crisis Times. Investing.com, 2020.
- Renewable Energy Funding Platform. Investing.com, 2020.
- Price Momentum from the Covid-19 Crisis: Blessing or Disaster?. LinkedIn, 2020.
- Alternative Investment Funds: Various Alternative Funding Sources That You Need To Know About. Investing.com, 2020.
- The Effect of the US Non-Farm Payroll (NFP) Report on the Price of Gold, Crude Oil, and the Exchange Rate. Investing.com, 2020.
- Reviewing the Shares of Two Inalum's Subsidiaries after the Freeport Stock Acquisition (PTFI). Investing.com, 2019.
- INSTEX: Special Purpose Vehicle Company of European-Union for Welcoming Iran?. Investing.com, 2019.
- The Urgency of National Tech-Hub Development in Indonesia and Its Implications for Villages. Client Investment Preliminary Project Report for Public. LinkedIn Pulse, 2017.
- Banking Archives Management Must Be Addressed Before Adopting Fintech. Banking Archiving Communication Forum, 2017.
- How Local and Global Innovation Works: Sharing Session with Michael Goldberg (an Experienced Venture Capitalist). LinkedIn Pulse, 2016. Featured on Global LinkedIn Pulse as Law & Government, Software Engineering, Technology category.
- Managing Foreign Investment on Indonesia: How The Small-Company Profit At Least \$US 3000 in Each Day, LinkedIn Pulse, 2015
- Library as an Innovation Center (LaalC): Library, Co-Working Space, and Innovation Hub, LinkedIn Pulse, 2015
- Investing in Data Analysis, LinkedIn Pulse, 2015
- Management of Digital Library. 2015. ISBN 978-602-271-067-7



A book about library innovation

BERSIAPLAH! PUSTAKAWAN DAN ARSIPARIS AKAN MENGHADAPI BADAI ARTIFICIAL INTELLIGENCE

👤 Dunia Perpustakaan 📁 Artikel Perpustakaan 💬 1 Comment 👁 958 Views

Dunia Perpustakaan | Artificial Intelligence | Ada kiriman tulisan menarik dari seorang bernama Nafi A. Putrawan, dirinya mencoba menganalisa dan memberitahukan kita semua akan adanya *artificial intelligence* (AI) atau biasa disebut kecerdasan buatan.

Bagaimana kemudian penulis mengaitkan dengan bidang dunia perpustakaan dan kepustakawanan?

Berikut merupakan ulasan selengkapnya,

Belum selesai perdebatan mengenai apakah lebih baik membangun perpustakaan/arsip konvensional atau digital, bahasan *big data* di ranah perpustakaan, *sensorship*.

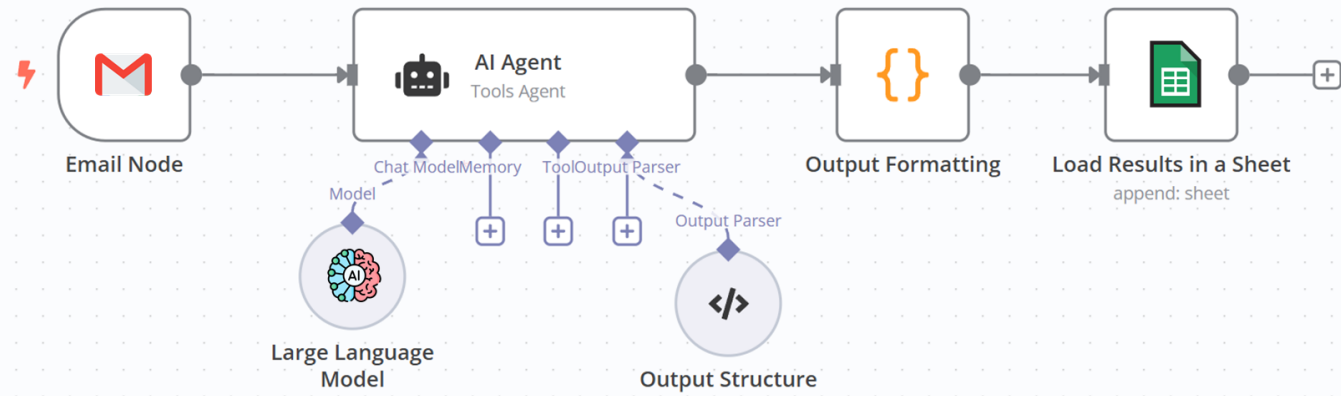
kini sudah muncul lagi salah satu adopsi teknologi baru *artificial intelligence* (AI) atau biasa disebut kecerdasan buatan yang perlu diwaspadai oleh pekerja di bidang informasi dan dokumentasi dalam waktu dekat.

AI dalam bahasan dunia teknologi informasi bukanlah produk riset baru-baru ini, bahkan perjalanan pengembangan dan disiplin ilmu AI telah dimulai sejak tahun 1956.

>

<https://duniaperpustakaan.com/2016/06/bersiaplah-pustakawan-dan-arsiparis-akan-menghadapi-badai-artificial-intelligence.html>

A short article about AI impact for librarian (2016)



What is an AI Agent?

An AI Agent is an autonomous or semi-autonomous system that performs tasks using AI, such as analyzing documents, extracting data, summarizing insights, and automating workflows.

Technology Context Comparison



Mindstudio.ai



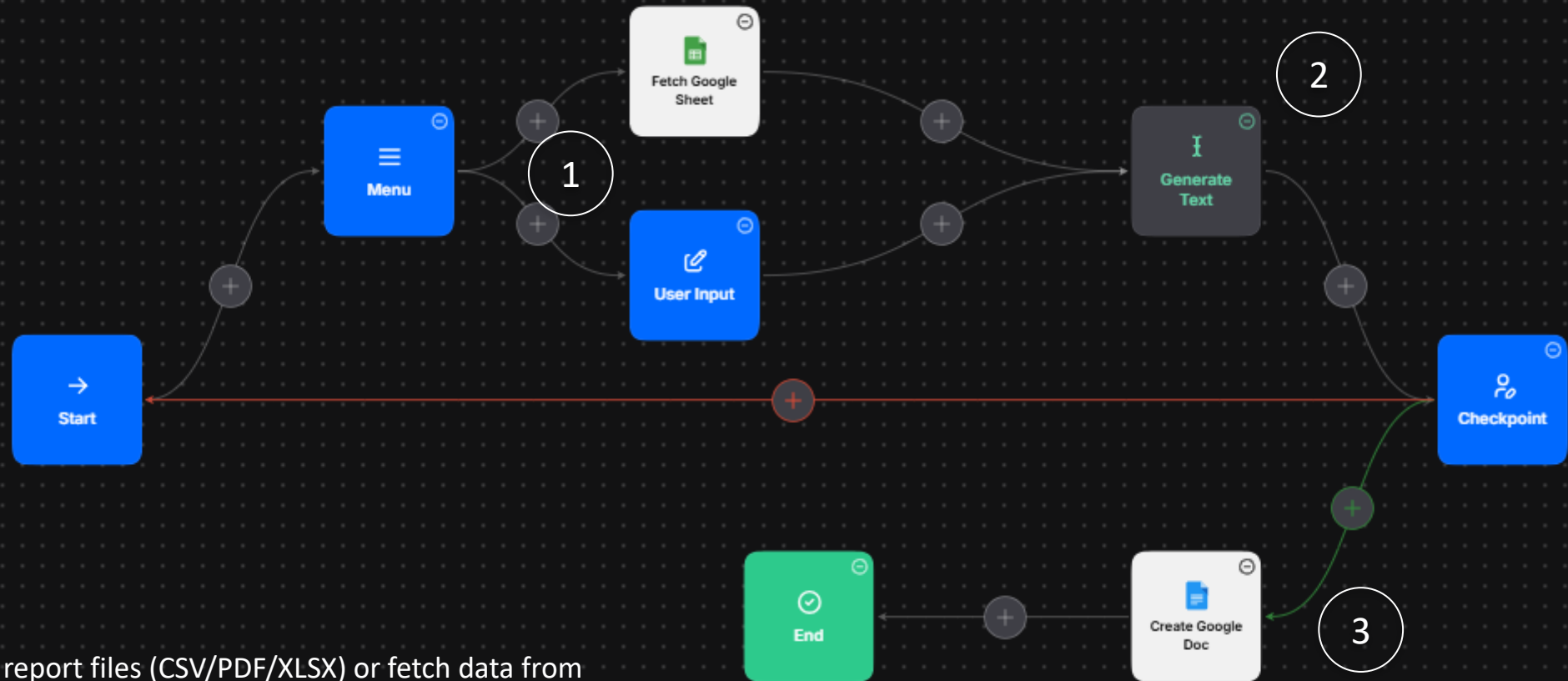
Comet Browser (Perplexity)



Gemini AI Chat

Context	No-code platform to build, test, and deploy AI Agents that can automate tasks like data analysis, reporting, and document generation.	An AI-powered web browser that acts like a digital research assistant, helping users summarize, compare, and automate tasks directly while browsing.	A conversational AI that understands and generates natural language, assisting users in writing, researching, analyzing, and creating ideas through dialogue.
Category	AI Agent Builder	Agentic AI (semi)	LLM Chat AI / Generative AI
Similar Product	N8n, Zapier, Make.com	N/A	Deepseek, ChatGPT, Qwen, Meta AI

Case 1. Workflow Example: Library Reporting Automation with Mindstudio.ai



1. Upload report files (CSV/PDF/XLSX) or fetch data from Google Sheet
2. AI Agent analyzes data (usage, trends, anomalies)
3. Automatically generates report in Google Docs

The Result: Make Report More Valuable with Key Insights Automatically

Library Report October 2025 ☆ 📁 Disimpan ke Drive

File Edit Tampilan Sisipkan Format Data Alat Ekstensi Bantuan

🔍 Menu ↶ ↷ 🖨 🗑 100% ▾ \$ % .0_ .00 123 Default... ▾ - 10 + | B

L7 ▾ 🔍

	A	B	C	D	E	F	G
1	Tanggal Kunjuri	Waktu Kunjuri	Nama Pengunjuri	Tujuan Kunjuri	Meminjam Buku	Judul Buku	ID Katalog
2	01/10/2025	10:15	Budi Santoso	Membaca di tempat	Tidak	-	-
3	01/10/2025	11:30	John Smith	Menggunakan intern	Tidak	-	-
4	01/10/2025	15:20	Omar Daniel	Mencari referensi	Ya	Kimia Organik Dasar 547 XEN k	-
5	01/10/2025	14:00	Yulia Puspita	Mengerjakan tugas	Ya	Pengantar Ilmu Kom 302.2 YUL p	-
6	02/10/2025	10:55	Michelle Rodriguez	Belajar untuk ujian	Tidak	-	-
7	02/10/2025	16:20	Zainal Arifin	Menggunakan intern	Tidak	-	-
8	02/10/2025	14:30	Citra Lestari	Mengerjakan tugas	Ya	Laskar Pelangi	813 HIR I
9	02/10/2025	9:45	Emily Jones	Mencari referensi	Ya	Sapiens: A Brief Hist 909 HAR s	-
10	03/10/2025	9:00	Agus Setiawan	Mengembalikan buku	Tidak	-	-
11	03/10/2025	11:10	Vina Mardiana	Membaca majalah	Tidak	-	-
12	03/10/2025	12:30	Jerome Polin	Mengerjakan tugas	Ya	Kalkulus Jilid 1	515 PUR k
13	03/10/2025	13:20	Michael Williams	Membaca buku fiksi	Ya	The Great Gatsby	813 FIT g
14	04/10/2025	13:10	Paul Campbell	Menggunakan intern	Tidak	-	-
15	04/10/2025	11:45	Dewi Anggraini	Mencari referensi	Ya	Pengantar Akuntansi 657 EKA p	-
16	04/10/2025	15:00	Jessica Brown	Belajar untuk ujian	Ya	Biologi Campbell	570 CAM b
17	05/10/2025	16:00	Eko Prasetyo	Menggunakan intern	Tidak	-	-
18	05/10/2025	14:45	Prilly Latuconsina	Membaca novel	Ya	The Lord of the Ring	823 TOL I
19	05/10/2025	10:25	Yoga Pratama	Mengembalikan dan	Ya	Atomic Habits	158.1 CLE a
20	06/10/2025	9:15	David Miller	Menggunakan kompi	Tidak	-	-
21	06/10/2025	13:20	Fitriani	Membaca majalah	Tidak	-	-
22	06/10/2025	10:35	Nancy Allen	Mengembalikan buku	Tidak	-	-
23	06/10/2025	14:00	Qori Ramadhani	Mengerjakan tugas k	Tidak	-	-
24	07/10/2025	11:50	Bryan Domani	Menggunakan kompi	Tidak	-	-
25	07/10/2025	12:45	Rina Anggraini	Menggunakan ruang	Tidak	-	-
26	07/10/2025	15:00	Sarah Wilson	Mengembalikan buku	Tidak	-	-
27	07/10/2025	10:00	Gunawan	Meminjam buku	Ya	Bumi Manusia	813 TOE b
28	08/10/2025	14:10	Betty Hall	Membaca majalah	Tidak	-	-
29	08/10/2025	15:10	Herlina	Mengerjakan tugas k	Tidak	-	-
30	08/10/2025	9:30	Kevin Sanjaya	Membaca koran	Tidak	-	-



Executive Summary and Actionable Insights Based on the comprehensive analysis of the library visitor log from October 1-31, 2025, several key insights emerge:

- Total Visitors: 100 unique visitors
- Book Borrowing Rate: 37% of visitors borrowed books
- Peak Activity: Mid-morning to early afternoon (9:00 AM - 2:00 PM)
- Primary Visitor Purposes: Academic research, studying, and casual reading

Recommendations:

1. Optimize staffing during peak hours
2. Expand collection in most popular book categories
3. Enhance study and research facilities
4. Consider extended Wi-Fi and computer access

Data Analysis

1. Top 5 Most Visited Dates
 - 10/10/25: 16 visitors
 - 10/22/25: 15 visitors
 - 10/18/25: 14 visitors
 - 10/14/25: 13 visitors
 - 10/27/25: 13 visitors
2. Top 5 Peak Times
 - 10:00-11:00 AM: 22 visitors
 - 2:00-3:00 PM: 20 visitors
 - 9:30-10:30 AM: 18 visitors
 - 3:00-4:00 PM: 16 visitors
 - 1:00-2:00 PM: 15 visitors

Case 2: Use the Comet Browser AI Assistant to Summarize and Identify Areas for Improvement in the Library Report directly.

The screenshot shows a Google Sheet titled "Library Report October 2025" with columns for visit details and an AI Assistant overlay on the right.

	A	B	C	D	E	F	G	H	I	J
	Tanggal Kunjungan	Waktu Kunjungan	Nama Pengunjung	Tujuan Kunjungan	Meminjam Buku	Judul Buku	ID Katalog			
1	01/10/2025	10:15	Budi Santoso	Membaca di tempat	Tidak	-	-			
2	01/10/2025	11:30	John Smith	Menggunakan internet	Tidak	-	-			
3	01/10/2025	15:20	Omar Daniel	Mencari referensi	Ya	Kimia Organik Dasar	547 XEN k			
4	01/10/2025	14:00	Yulia Puspita	Mengerjakan tugas	Ya	Pengantar Ilmu Kom	302.2 YUL p			
5	02/10/2025	10:55	Michelle Rodriguez	Belajar untuk ujian	Tidak	-	-			
6	02/10/2025	16:20	Zainal Arifin	Menggunakan internet	Tidak	-	-			
7	02/10/2025	14:30	Citra Lestari	Mengerjakan tugas	Ya	Laskar Pelangi	813 HIR I			
8	02/10/2025	9:45	Emily Jones	Mencari referensi	Ya	Sapiens: A Brief Hist	909 HAR s			
9	03/10/2025	9:00	Agus Setiawan	Mengembalikan buku	Tidak	-	-			
10	03/10/2025	11:10	Vina Mardiana	Membaca majalah	Tidak	-	-			
11	03/10/2025	12:30	Jerome Polin	Mengerjakan tugas	Ya	Kalkulus Jilid 1	515 PUR k			
12	03/10/2025	13:20	Michael Williams	Membaca buku fiksi	Ya	The Great Gatsby	813 FIT g			
13	04/10/2025	13:10	Paul Campbell	Menggunakan internet	Tidak	-	-			
14	04/10/2025	11:45	Dewi Anggraini	Mencari referensi	Ya	Pengantar Akuntansi	657 EKA p			
15	04/10/2025	15:00	Jessica Brown	Belajar untuk ujian	Ya	Biologi Campbell	570 CAM b			
16	05/10/2025	16:00	Eko Prasetyo	Menggunakan internet	Tidak	-	-			
17	05/10/2025	14:45	Pilly Latuconsina	Membaca novel	Ya	The Lord of the Ring	823 TOL I			
18	05/10/2025	10:25	Yoga Pratama	Mengembalikan dan	Ya	Atomic Habits	158.1 CLE a			
19	06/10/2025	9:15	David Miller	Menggunakan komp	Tidak	-	-			
20	06/10/2025	13:20	Fitriani	Membaca majalah	Tidak	-	-			
21	06/10/2025	10:35	Nancy Allen	Mengembalikan buku	Tidak	-	-			
22	06/10/2025	14:00	Qori Ramadhani	Mengerjakan tugas	Tidak	-	-			
23	07/10/2025	11:50	Bryan Domani	Menggunakan komp	Tidak	-	-			
24	07/10/2025	12:45	Rina Anggraini	Menggunakan komp	Tidak	-	-			

Assistant

Summarize key insights on the table below....

Recommendations for Area of Improvement

- Improve internet infrastructure or offer digital literacy programs, as "Menggunakan internet" is one of the top reasons people visit the library.
- Since half of visits result in borrowing books, consider programs to increase book borrowing (if increasing lending is a goal), such as reading challenges or promotional campaigns.
- Encourage visitors to explore more of the library's other services (like workshops and communities) if current purposes are too concentrated.

These enhancements can help diversify the library's appeal and better serve visitor interests while maximizing resource utilization. google

Library Report October 2025 - Google Spreadsheet

Ask anything...

Benefits for Librarians

Focus on strategic analysis, not manual reporting

Better storytelling and impact demonstration

Faster decision, making for library development

Reduced repetitive tasks.

Pros and Cons of AI Agent Automation in Library Reporting

Aspect	Pros (Advantages)	Cons (Challenges / Risks)
Efficiency	Automates repetitive reporting tasks, saving staff time and effort.	Initial setup and configuration may require technical skills.
Accuracy	Reduces human error in data entry and report compilation.	AI may misinterpret or misclassify data if input sources are inconsistent.
Speed	Generates comprehensive reports in minutes instead of hours or days.	Overreliance on automation can reduce manual review and oversight.
Data Integration	Can combine data from multiple library systems (LMS, e-resources, visitor logs).	Integration may face compatibility issues with older systems.
Insights & Analysis	Detects trends and patterns that might be overlooked by humans.	Requires clean, structured data for meaningful insights.
Customization	Reports can be tailored automatically to specific audiences (e.g., management, faculty).	Customization setup may require prompt design or workflow building.
Scalability	Easily scales to handle large datasets across multiple branches or institutions.	Costs may rise with increased data processing or API usage.
Staff Empowerment	Frees librarians to focus on higher-value work like curation, research support, and user engagement.	Some staff may feel replaced or need retraining to adapt to new workflows.

Implementation Steps

1. Define metrics and goals
2. Audit and connect data sources
3. Build AI Agent (e.g., with MindStudio, n8n)
4. Validate outputs
5. Train staff
6. Maintain and iterate.

Conclusion

AI Agents can transform how libraries manage and communicate data more easily.

Tools like MindStudio.ai, Comet Browser, n8n, Gemini AI enable no-code automation, empowering librarians to focus on insight and impact.

Thank You

“AI technologies can have deeply transformative capabilities, and their power can be put to the service of public welfare and innovation. With necessary preparations – and regard for ethical concerns ... libraries can responsibly use AI technologies to advance their social mission.”

IFLA's policy / statement

Nafi Al Kautsar Putrawan., A.Md.M.I.D., S.Tr.A.B.
<https://www.linkedin.com/in/nafiputrawan>
Email: nafi.al@alumni.ui.ac.id