28 November 2024

PEMBUDAYAAN PENDIGITALAN KAMPUS

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Timb. Pengarah (Dasar dan Pendigitalan)
(dan menjalankan tugas Chief Digital Officer)
Pusat Pembangunan Maklumat dan Komunikasi
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Berilmu Berbakti Pertanian • Inovasi • Kehidupan

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3. Deputy Director (ICT Policy and Digitalization) Infocomm Development Centre (iDEC), Universiti Putra Malaysia
4. Chairperson, Young Scientist Network-Academy of Sciences Malaysia (YSN-ASM)
5. Member, National Science Council (Majlis Sains Negara)
6. Task Force Member, National Artificial Intelligence Roadmap Implementation 2021-2025, MOSTI
7. Committee for Technology And Technical Professional Development Council, Technologist Board Of Malaysia (MBOT)
8. AI Technical Committee, Jabatan Standards Malaysia
9. Interim Research Associate, Malaysia Institute for Ageing Research (MyAGEING), Universiti Putra Malaysia.
10. Research Associate, Institute for Mathematical Research (INSPEM), Universiti Putra Malaysia.

Text Mining

1. Online Reputation Meter
2. Evolving Multi-Granular Temporal Abstraction Method to Improve Clinical Data Analysis
3. Multi-Tasking based Deep Learning for Tweets Analytics
4. Deep Attention Model For Review-based Multi-Criteria Recommendation System
5. Sequence-to-Sequence Based Natural Answer Generation Models

Data Analytics

1. Digitalisation and IoT for Precision Biodiversity
2. COVID19 Vaccination Distribution Planning and Tracking
3. BSH- LHDNM Analytics Dashboard for Program Bantuan Kerajaan
4. National Integrated Cybersecurity Threat Factor Profiling
5. Learning Analytics and Chatbot for Personalized Learning

Research Interests

- Artificial Intelligence
- Data Science and Data Analytics
- Text Mining and Question Answering
- Recommender Systems
- eLearning

Machine Learning

1. Deep Recurrent Q-Network Approach for Multi Objective Recommendation System
2. Interactive Machine Learning based on Deep Reinforcement Learning and Generative Adversarial Network Hybrid for Digital Twin

Kandungan:

1. **Asas AI dan Kegunaannya**
2. **Gen AI untuk Penghasilan Bahan Media Kreatif**
3. **Gen AI untuk Mengumpulkan dan Analisis Data**
4. **Gen AI untuk Pengajaran dan Pembelajaran Interaktif**
5. **Penutup**

Hands on:

1. QuickDraw
2. ElsaSpeak
3. TeachableMachine
4. Text2Data
5. slides.ai
6. napkin.ai
7. canva
8. meaningcloud
9. NotebookLM
10. Perplexity
11. scipace
12. elicit
13. researchrabbit
14. powerdrill
15. magicschool

AI Types

1. Image Recognition
2. Text Analytics
3. GenAI
4. Prediction

Bahagian 1

Asas AI dan Analitik Data

AI bukan sesuatu yang baharu!

Cth. Penapis muka dalam TikTok

Tech In Telugu

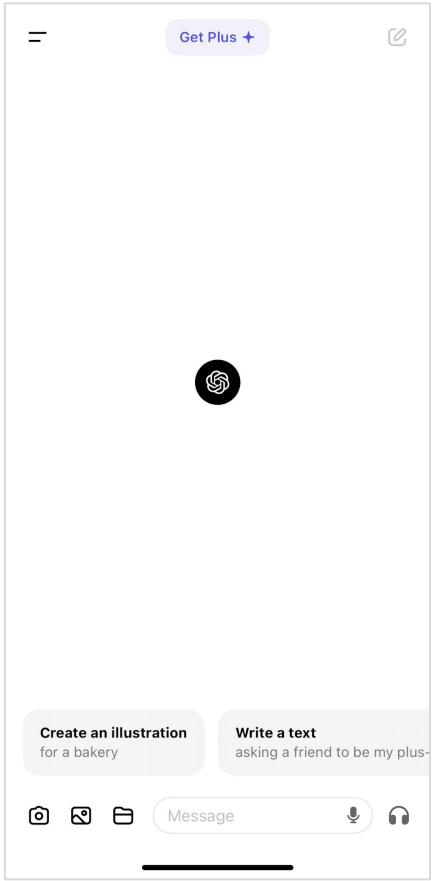
Effect House - TikTok

Face Morph tutorial | Ti...

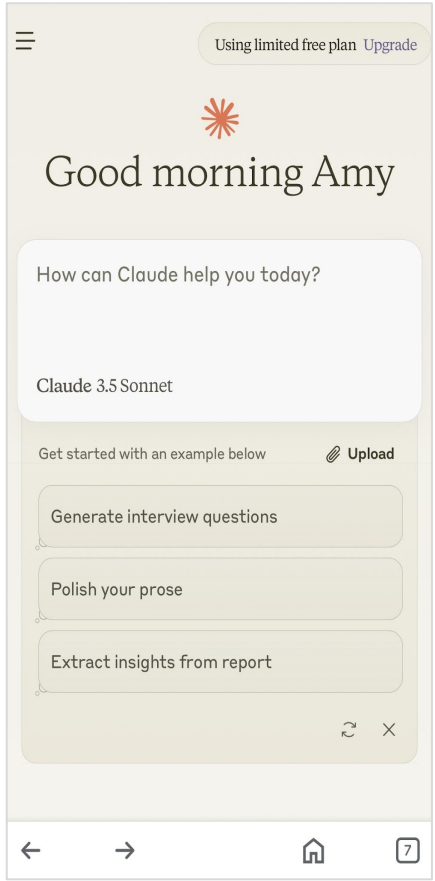
Dexerto

How to use TikTok's AI face filter ...

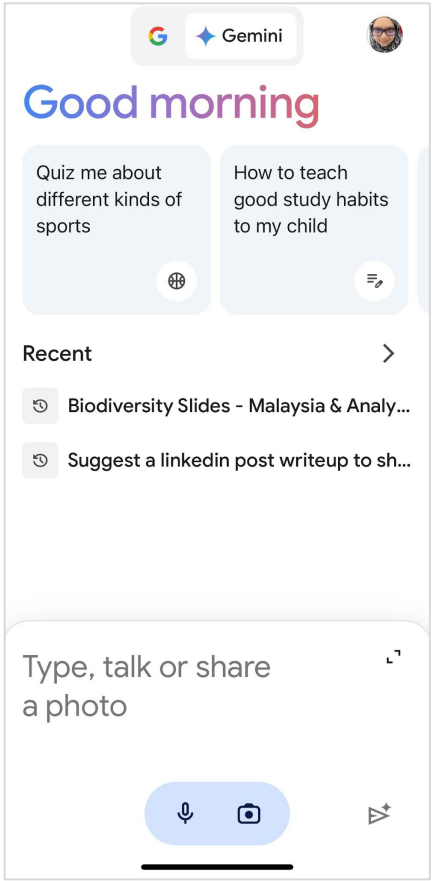
ChatGPT



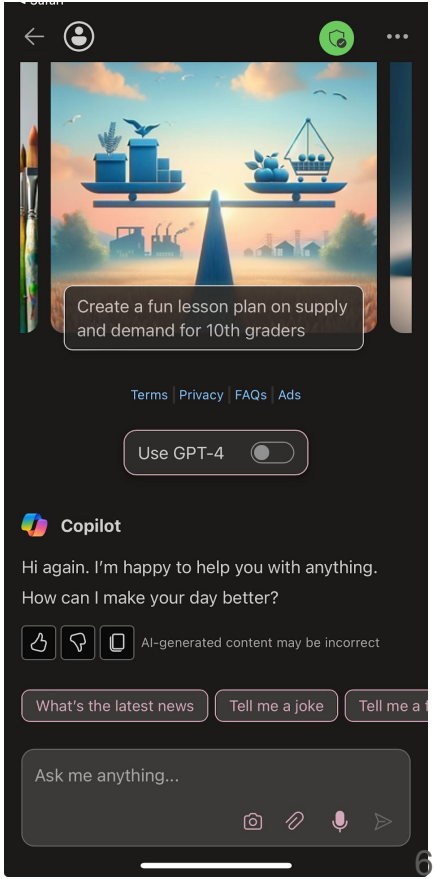
Claude



Gemini



Copilot



PENANDA ARAS PENDIGITALAN GLOBAL

28

- Kerajaan Digital
- Akademi Digital
- ID Nasional
- Perolehan Tuntas
- *National AI Strategy*

7

- Kerajaan Digital
- Akademi Digital
- ID Nasional
- *Blockchain*
- Perolehan Tuntas
- Inisiatif EA
- *Big Data Analytics & Artificial Intelligence*

13

- Kerajaan Digital
- Kenderaan Autonomi

1

- Kerajaan Digital
- Akademi Digital
- ID Nasional
- *Blockchain*
- Perolehan Tuntas
- Inisiatif EA
- *Big Data Analytics & Artificial Intelligence*
- Masyarakat Digital

3

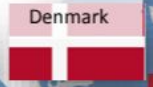
- Kerajaan Digital
- Tadbir urus Digital
- *Once Only Principle*
- ID Nasional
- *Blockchain*
- Inisiatif EA

Canada

United Kingdom

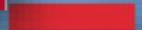
Norway

Denmark



Estonia

Austria



Poland

Netherlands

Perancis

10

- Kerajaan Digital
- ID Nasional
- Kenderaan Autonomi
- *Big Data Analytics & Artificial Intelligence*

Korea

2

- Kerajaan Digital
- Tadbir urus Digital
- ID Nasional
- Inisiatif EA
- *Big Data Analytics & Artificial Intelligence*
- Data Terbuka

Malaysia

Singapore

11

- Kerajaan Digital
- Kenderaan Autonomi
- Akademi Digital
- *Blockchain*
- Inisiatif EA
- Model Kerjasama Baru
- *National AI Strategy*
- *Smart Nation*

24

- Kerajaan Digital
- *Once Only Principle*

19

- Kerajaan Digital
- ID Nasional

15

- Kerajaan Digital
- *Once Only Principle*
- ID Nasional
- *National AI Strategy*

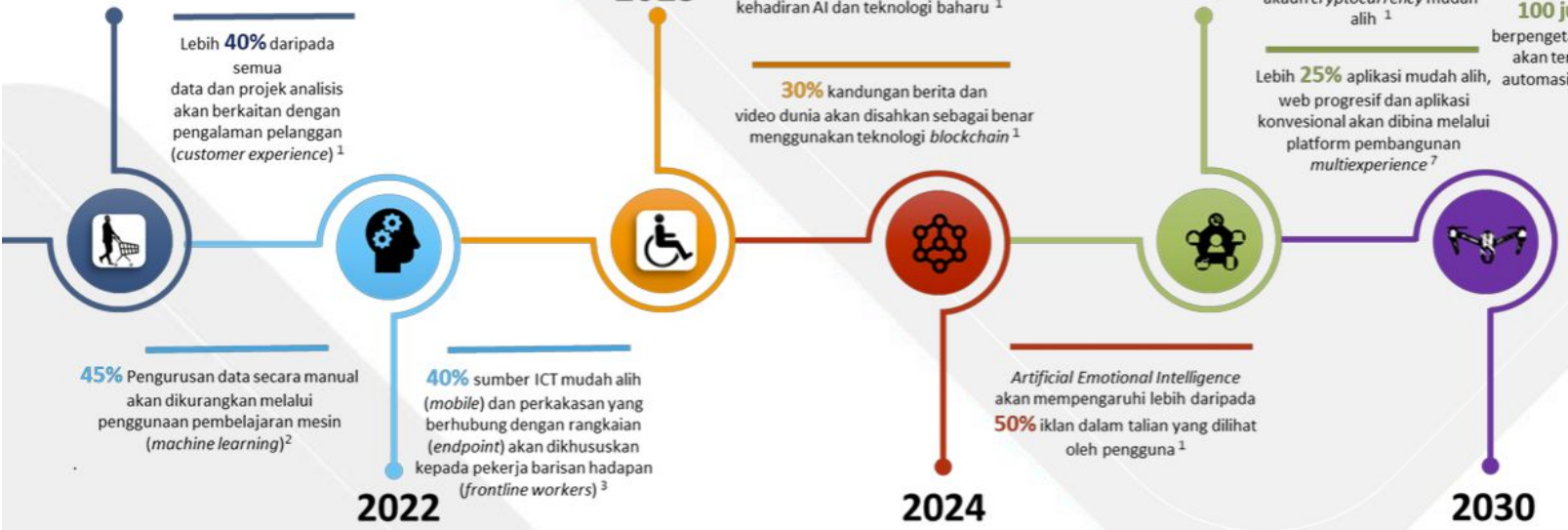
47

- Kerajaan Digital
- Inisiatif EA
- Data Terbuka
- *Big Data Analytics & Artificial Intelligence*
- ID Nasional

*. Penarafan *E-Government Development Index* (EGDI) Tahun 2020

TREND TEKNOLOGI PENDIGITALAN

PSPSA 2021 – 2025



Sumber:

[1] Gartner (2019) | https://www.gartner.com/smarterwithgartner/gartner-top-strategic-predictions-for-2020-and-beyond/

[2] Gartner IT Symposium (2019)| Xpo 03 –07 November 2019 Barcelona, Spain |Top 10 Data and Analytics Technology Trends That Will Change Your Business

[3] Gartner IT Symposium (2019)| Xpo 03 –07 November 2019 Barcelona, Spain |The Future of Frontline Workers

[4] KPMG (2020) | https://home.kpmg/my/en/home/services/advisory/management-consulting/it-enabled-transformation/rpa1.html

[5] Malaysia's Ageing Population Trends (2016)| https://www.researchgate.net/publication/305727022_Malaysia's_Ageing_Population_Trends

[6] Frost & Sullivan (2019) | ICT Trends 2021 -2025

[7] Gartner (2020) | https://www.gartner.com/en/information-technology/glossary/multiexperience-development-platforms-mxdp

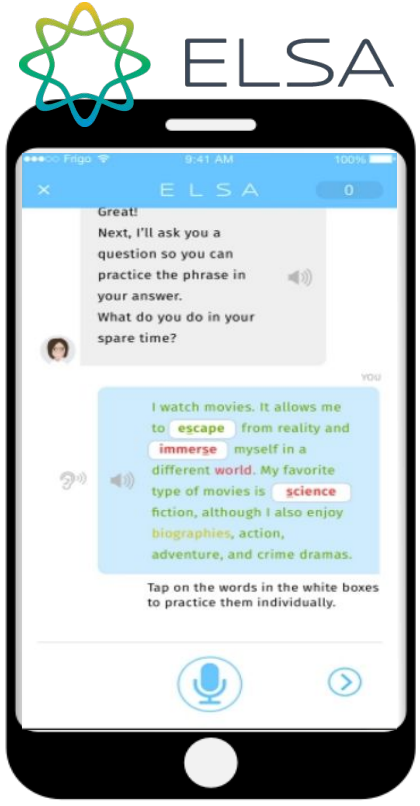
AI dalam pendidikan bukan sesuatu yang baharu!

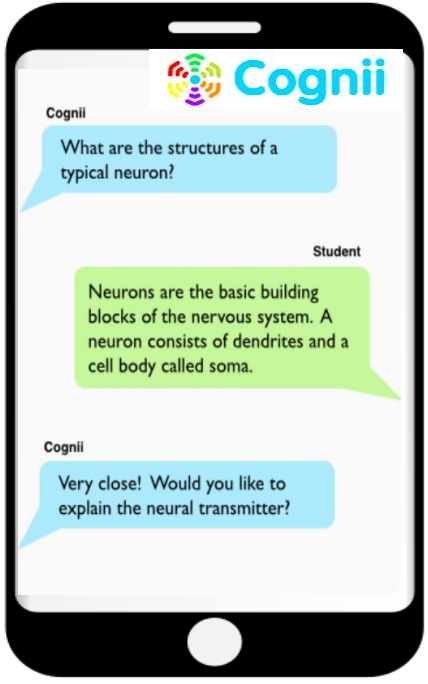
QuillBot
Paraphrasing Tool

turnitin

松鼠Ai 1对1
Squirrel Ai Learning

grammarly

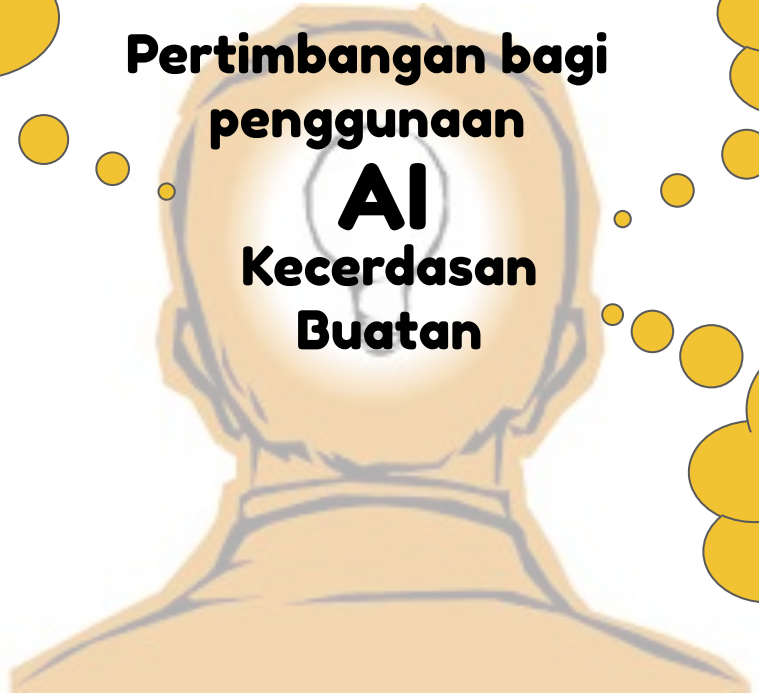




Perspektif 1:
Teknikal
Bagaimana ia berfungsi?

Perspektif 2:
Sosial dan budaya
Apa kesannya?

Pertimbangan bagi penggunaan AI Kecerdasan Buatan



Perspektif 3:
Aplikasi
Bagaimana menggunakannya?

According to the 2023 updated OECD definition “an AI system is a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment”

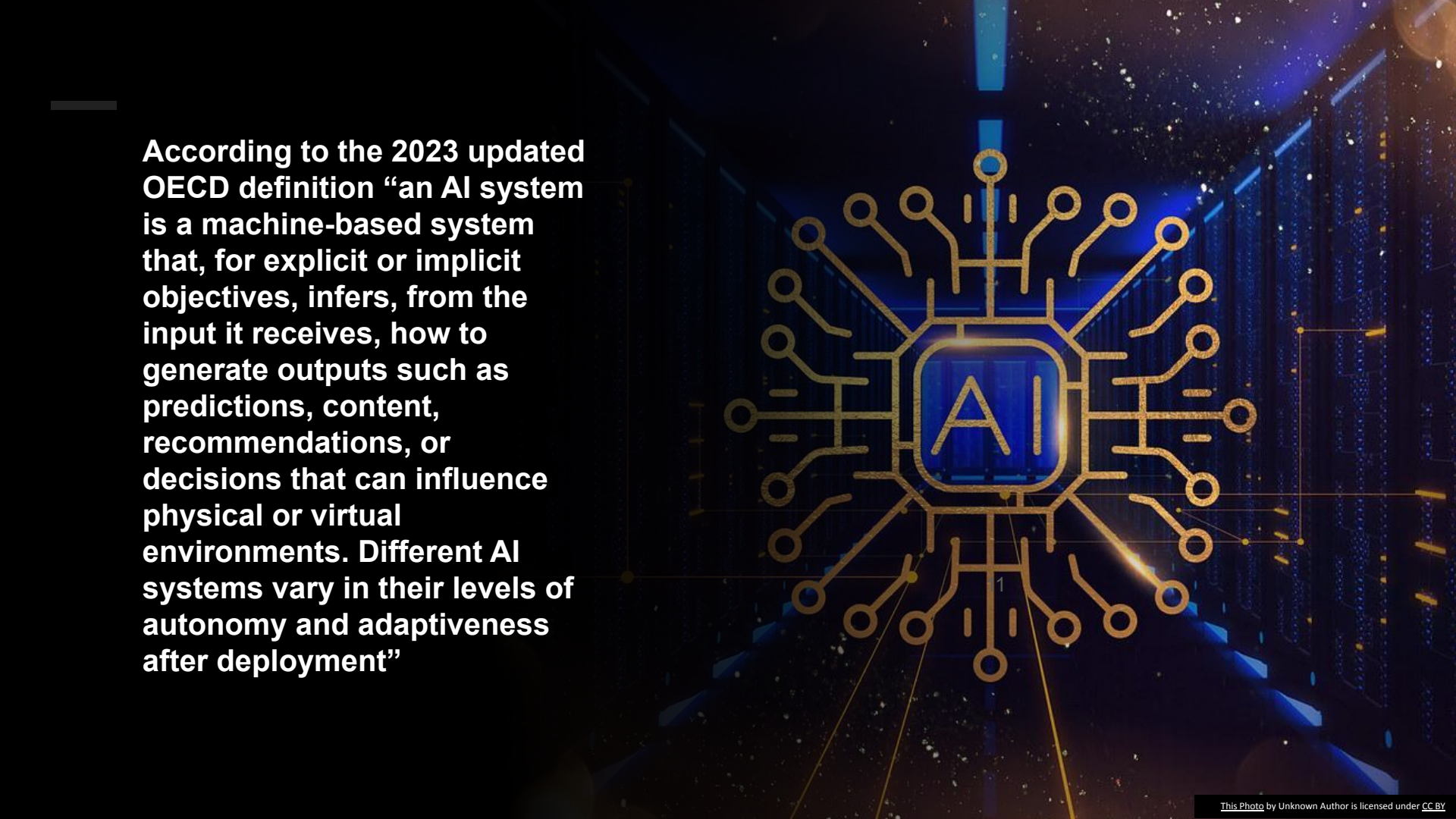


Table 3.1. Understanding the use of AI in the public sector

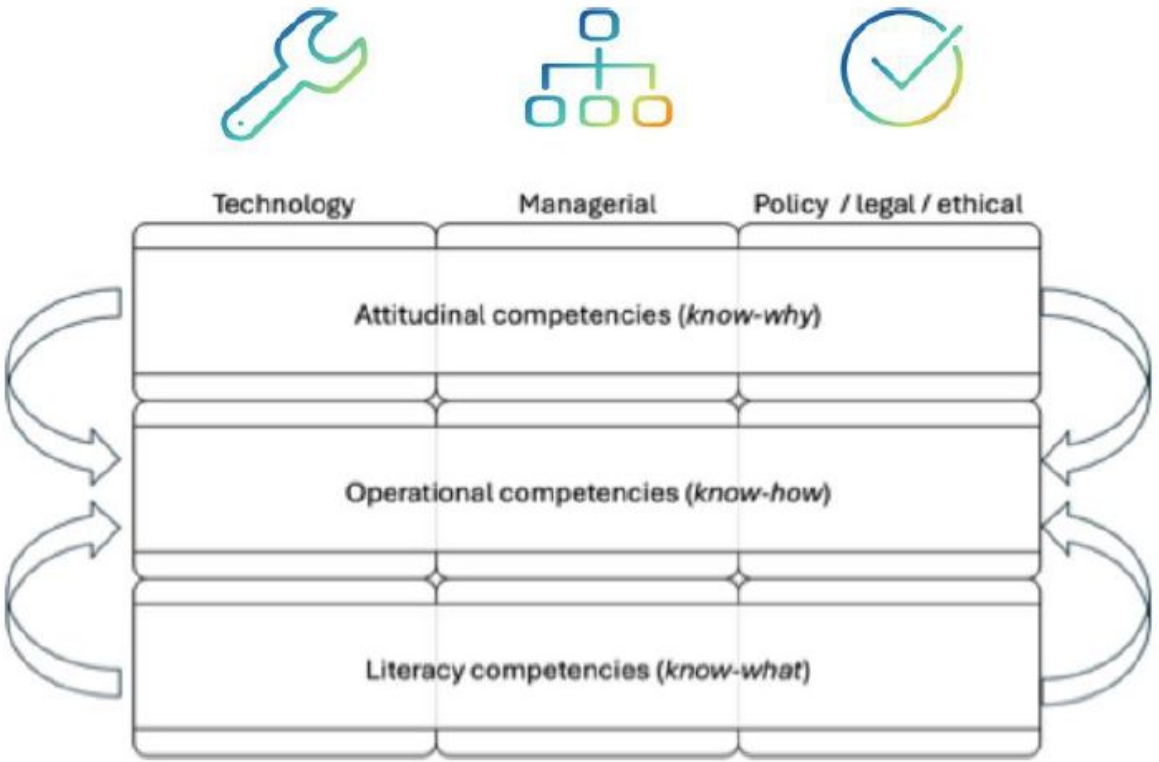
Tasks	Function	Impact
• Recognition. • Event detection. • Forecasting. • Personalisation. • Interaction support. • Goal-driven optimisation. • Reasoning with knowledge structures. • Content generation	Internal operations	Productivity (efficiency and effectiveness)
	Policy making	
	Service delivery	Responsiveness
	Internal and external oversight	Accountability

Note: the Tasks column is adapted from the "AI System Tasks" of the OECD Framework for the Classification of AI Systems (OECD, 2022[27]).
Source: (OECD, 2024[2]).

About half of the reported AI use cases in the public sector in G7 members are set to increase the efficiency of public sector operations. One fifth of the reported use cases concern internal and external oversight functions to improve government accountability and another fifth seeks to improve responsiveness of public services. A minority of use cases are being developed to improve the effectiveness of policymaking.

Ref: https://www.oecd.org/en/publications/g7-toolkit-for-artificial-intelligence-in-the-public-sector_421c1244-en.html

Figure 3.8. EU: Competencies for AI in the public sector, a comprehensive framework



Source: (Medaglia, Mikalef and Tangi, Forthcoming[62]).

Ref:
https://www.oecd.org/en/publications/g7-toolkit-for-artificial-intelligence-in-the-public-sector_421c1244-en.html

AI for Public Sector by G7 Countries

Improving the Efficiency of Public Sector Internal Operations

Automating repetitive tasks:

- Italy's INPS uses AI to classify and sort citizen emails, freeing staff for other tasks.
- The UK's *Redbox Copilot* processes large documents for civil servants.
- Japan uses AI to summarize updated legal texts, saving time for government staff.

Content generation:

- Italy employs generative AI to draft reports, reducing manual effort.

Enhancing Public Service Delivery

Chatbots:

- Examples include Canada's *Business Assistant Chatbot* and the US Department of Education's financial aid bot, which streamline citizen interactions.

Personalized services:

- AI-driven platforms, like Italy's job training recommendation system, tailor services to individual needs.

Strengthening Accountability

Fraud detection:

- The US Treasury uses AI to detect fraud and recover funds in check payments.

Oversight in spending:

- AI identifies irregularities in public procurement, as demonstrated by the US Department of State's anomaly detection system.

Supporting Policy Making

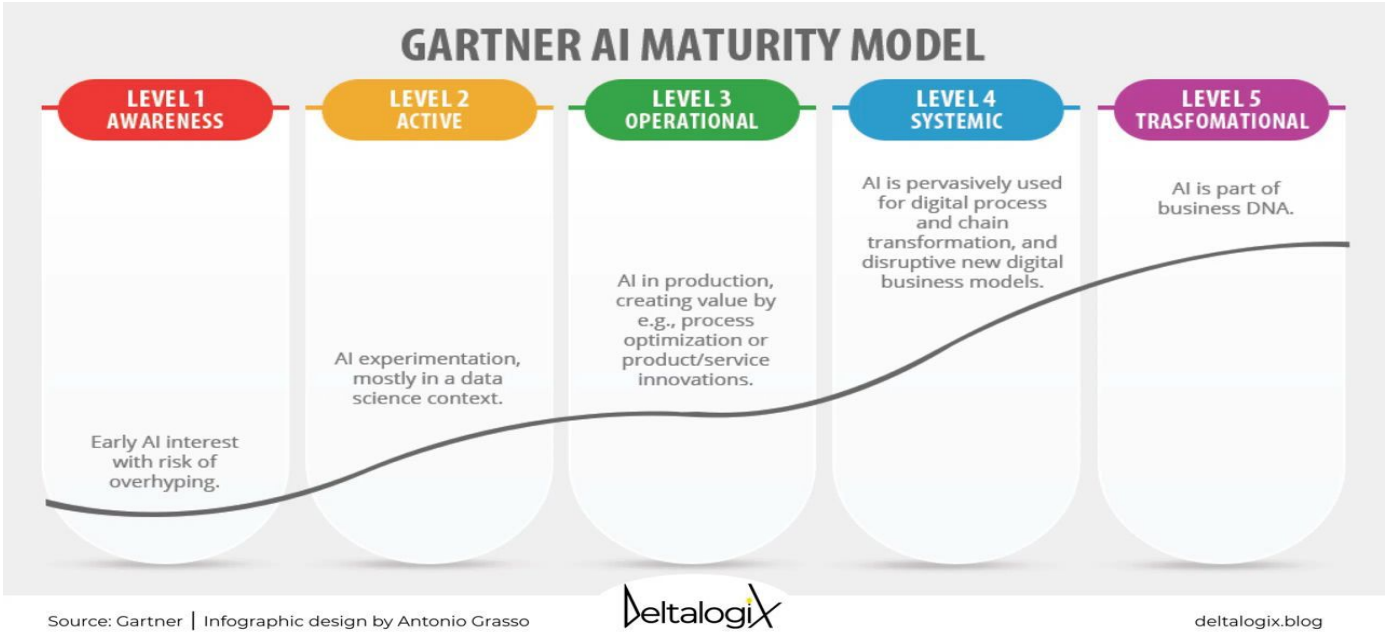
Public consultations:

- The UK is developing an AI tool to analyze public responses for better policymaking.

Evidence-based insights:

- AI supports data-driven policies in areas like agriculture, public health, and digital transformation.

Ref:
https://www.oecd.org/en/publications/g7-toolkit-for-artificial-intelligence-in-the-public-sector_421c1244-en.html



1. Perkongsian pengalaman 2. Garis Panduan Adaptasi Penggunaan Gen AI	1. Latihan penggunaan Gen AI untuk meningkatkan produktiviti 2. Perkongsian amalan terbaik	1. Integrasi AI untuk automasi proses bisnes digital 2. Pengukuran impak	1. Kebijakan berbantukan AI untuk intervensi 2. *Human-in-the-loop AI*	1. Kebijakan berwawasan berasaskan ramalan dan preskriptif menggunakan AI

Cadangan Adaptasi AI bagi memperkukuhkan perkhidmatan pendigitalan UPM

Recommendations on AI Adoption in UPM

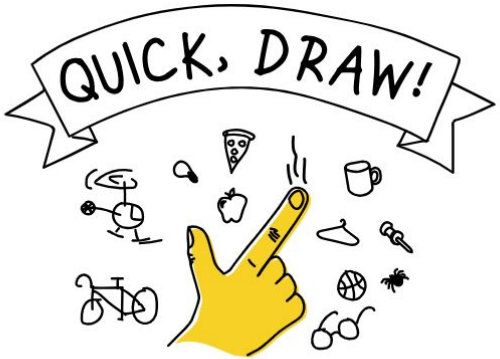
1. Improve internal operations and administrative efficiency
   a. Document analysis
   b. Streamline workflow
   c. Semi-automation of routine workflow
2. Enhance service delivery
   a. Chatbot for complementing help-desk
   b. Monitoring and intervention aided by AI
3. Enhance AI Integration in Academic Programs
4. Strengthen AI Research and Innovation
   a. Leverage AI in agriculture, biodiversity, healthcare, education
   b. AI to accelerate food security
   c. Data-driven health and wellbeing
5. Business efficiency and productivity
   a. Predictive analytics for decision making
   b. Simulation tools for strategic planning
6. Build AI Awareness and Skills
7. Foster Strategic Partnerships and public engagements
8. Ensure Ethical AI Implementation

Familiarise with:

1. ChatGPT
2. Gemini
3. Copilot
4. canva
5. slides.ai
6. napkin.ai
7. NotebookLM
8. Perplexity
9. scipace
10. elicit
11. researchrabbit
12. powerdrill

https://quickdraw.withgoogle.com

Journal Advisor | ed... | my life management | Bookmarks | Sci-Hub: removing... | Education | Reinforcement learn... | iGIMS | artificial intelligence | powerbi | Other favorites



Can a neural network learn to recognize doodling?

Help teach it by adding your drawings to the world's largest doodling data set, shared publicly to help with machine learning research.

Let's Draw!

This is an A.I. Experiment

Made with some friends from Google

English

Privacy & Terms

ELSA

This summer I will visit a new country with two of my best friends.

Criteria of Intelligence:

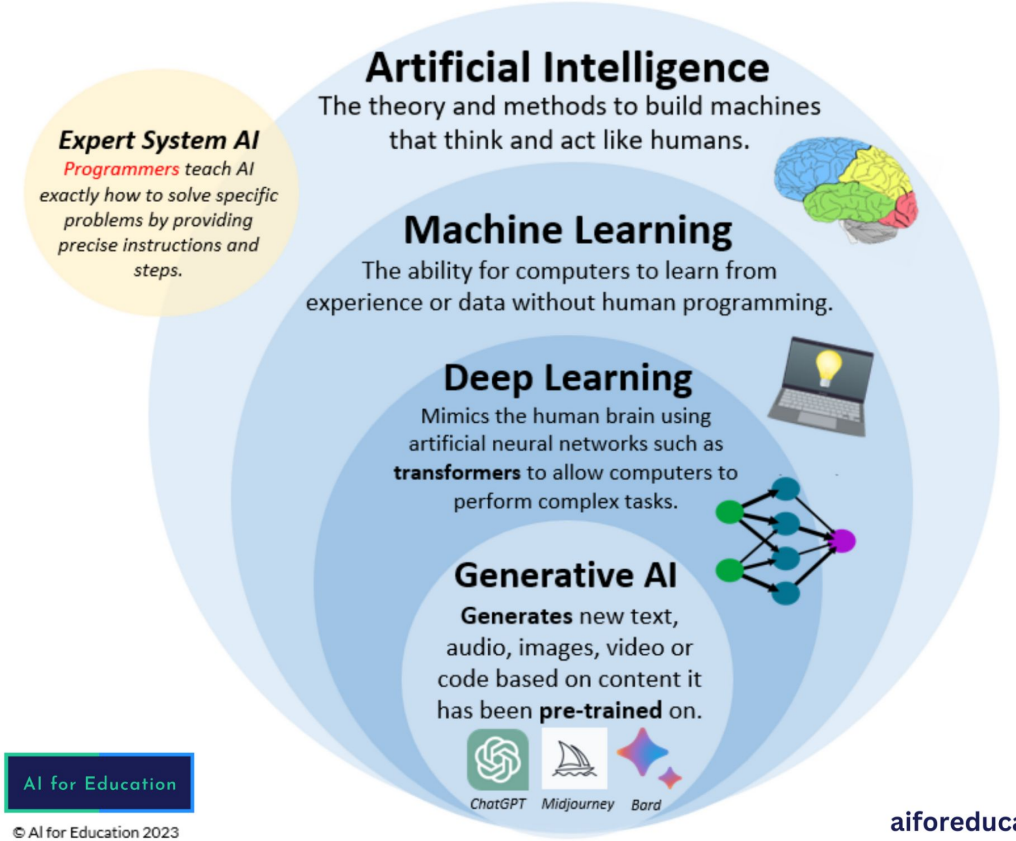
- Learning
- Reasoning
- Problem-solving
- Perception
- Language understanding
- Decision-making

AI components:

1. Machine Learning
2. Deep Learning
3. Natural Language Processing
4. Computer Vision
5. Robotics
6. Expert Systems
7. Neural Networks
8. Generative AI

Defining Generative AI

To understand generative artificial intelligence (GenAI), we first need to understand how the technology builds from each of the AI subcategories listed below.



Ref:
https://www.aiforeducation.io/ai-resources/generative-ai-explainer

AI for Education

aiforeducation.io

Use Case of AI in Businesses

Marketing Personalization

- ✓ Personalize emails, offers/coupons
- ✓ Netflix/Amazon: Recommends products/shows to watch next
- ✓ Chatbots: Customers want the convenience of not having to wait for a human agent to handle their call. It is instant, 24x7 available!

Fraud Detection

- ✓ Spot potential cases of fraud across many different fields.
- ✓ PayPal, for example, is using machine learning to fight money laundering.

Personal Security

- ✓ AI can spot things human screeners might miss in security screenings at airports, stadiums, concerts, and other venues.
- ✓ That can speed up the process significantly and ensure safer events.

Healthcare

- ✓ Spot more patterns than their human counterparts.
- ✓ Ex: to detect breast cancer early based on studying the early mammography scans of women using computer assisted diagnosis (CAD)

Src: http://www.coffeewithshiva.com/top-use-cases-of-ai-in-business/

Use Case of AI in Computer Vision

Smart Cars

- ✓ Self-driving, autonomous cars
- ✓ Adjusts the settings – temperature, audio, seat position based on driver's preference
- ✓ Offers real-time traffic & road conditions

Robots

- ✓ Used as a customer service greeter
- ✓ Ex: Japan's SoftBank telecom operations have Pepper, a humanoid robot that can interact with customers and "perceive human emotions."

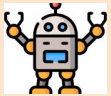
Drones

- ✓ A future delivery system for safely transporting and making small parcel delivery via drones a reality
- ✓ Amazon's "Prime Air" Drones are set to deliver up to 5-pound packages in less than 30 minutes.

Augmented Reality

- ✓ Google Glass: It can show the location of items you are shopping for, with information such as cost, nutrition, or if another store has it for less money.
- ✓ Get to know weather reports, reminders instantly.

Src: http://www.coffeewithshiva.com/top-use-cases-of-ai-in-business/

AI Category	Explanation	Sub-categories
 Computer Vision	Applications that analyze visual data to extract meaningful information.	Image recognition, Object detection, Medical imaging analysis
 Natural Language Processing (NLP)	Systems that understand, interpret, and generate human language	Text analysis, Machine translation, Sentiment analysis
 Speech Recognition and Synthesis	AI that processes spoken language and converts it to text (or vice versa)	Voice assistants, Real-time transcription services, Text-to-speech applications
 Robotics	AI-enabled machines capable of performing tasks autonomously or semi-autonomously	Industrial robots, Service robots, Autonomous drones
 Planning and Scheduling	AI systems that optimize resource allocation and task management	Workflow optimization, Smart logistics, Autonomous task scheduling
 Navigation	AI systems that enable location awareness and route planning	GPS-based navigation systems, Pathfinding for autonomous vehicles, Indoor navigation solutions
 Chatbots and Reasoning	Systems capable of interactive conversations and logical decision-making	Virtual assistants, Customer support bots, AI-driven Q&A systems
 Machine Learning	Systems that use data to make classification, prediction or clustering	Weather forecasting, Financial market analysis, Predictive maintenance

Digitalisation & Internet of Things (IoT) Programme for Biodiversity

A pilot project of precision Biodiversity at Pasoh Forest Reserve

Objective

To develop and provide a comprehensive system and facilities for the precise management of biodiversity and its ecosystems through digitalisation and IoT.

Output

1. A comprehensive system and facilities for the precise management of biodiversity and its ecosystems at Pasoh Forest Reserve.

Emerging technologies

AI, ML, robotics, drones & IoT

+

Ecological Simulator

2. Report and documentation of the project implementation and assessment.

Outcome

- Enhanced biodiversity conservation, monitoring & management through frontier technology application
- Economic growth & human well-being through the appropriate application of data and information from Pasoh
- Increased socio-economic benefits from biodiversity-linked engagements
- Increased capacity building for precision biodiversity

PRECISION BIODIVERSITY: DIGITALISATION & IOT PROGRAMME FOR BIODIVERSITY

1. DATABASE SETUP & DATA INTEGRATION

Output: Biodiversity Portal

2. DATA CURATION & AI-BASED SPECIES IDENTIFICATION

Output: AI species identification model Frame work (Insects, Flora & Fauna)

3. DEVELOPMENT OF MOBILE APPS FOR DATA COLLECTION

Output:

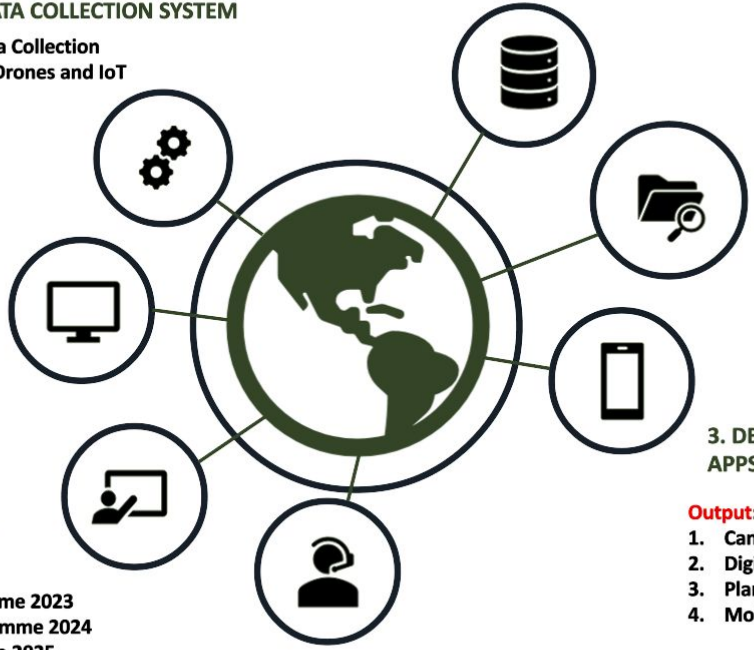
1. Camera trap system used by FRIM
2. Digitisation of Insects for CIS UKM
3. Plant Digitisation for FRIM
4. Mobile Application for Citizen Science

4. DEVELOPMENT OF DATA COLLECTION SYSTEM

Output: Automated Data Collection System using Robotics, Drones and IoT sensors

5. DEVELOPMENT OF ECOLOGICAL SIMULATOR

Output: Ecological Simulator Dashboard



6. TRANSFER OF TECHNOLOGY

Output:

1. Foundation Training Programme 2023
2. Development Training Programme 2024
3. Adoption Training Programme 2025
4. Knowledge Transfer

7. SUPPORT & MAINTENANCE

One year support and maintenance on the database, mobile apps, data collection system and simulator after Go-Live [2026]

Surrogate model in ecology simulator

Surrogate model in ecology simulator

to be sorted by: Remaining Species

prescription for year: 2021

Action Time	Regime	Objective	Dipterocarp Trees to fell	Non-Dipterocarp Trees to fell	Chengal Trees to fell	Carbon Loss	Remaining Volume	New AGB	Remaining Species
Now (2021)	9-12 trees per hectare	Species	16	14	14	6.1	1,434	1,142	371
Now (2021)	12-16 trees per hectare	Volume	10	9	8	10.0	1,639	1,250	370
Next 5 years (2026)	9-12 trees per hectare	Species	13	12	11	9.0	1,922	1,165	369
Now (2021)	16-20 trees per hectare	Economy	13	12	11	9.3	1,834	1,165	368
Next 5 years (2026)	12-16 trees per hectare	Volume	16	14	14	6.0	1,006	1,431	367
Next 5 years (2026)	16-20 trees per hectare	Economy	12	15	16	11.32	1,261	1,168	364
Now (2021)	Do Nothing	Do Nothing	0	0	0	12.52	934	1,002	281

📊📝 You can see the predicted implications based on you desire criterias.

Select your Priority: to save Species

Select your Regime: 9-12

Select your Action Time: Now (2021)

- Now (2021)
- Next 5 years (2026)

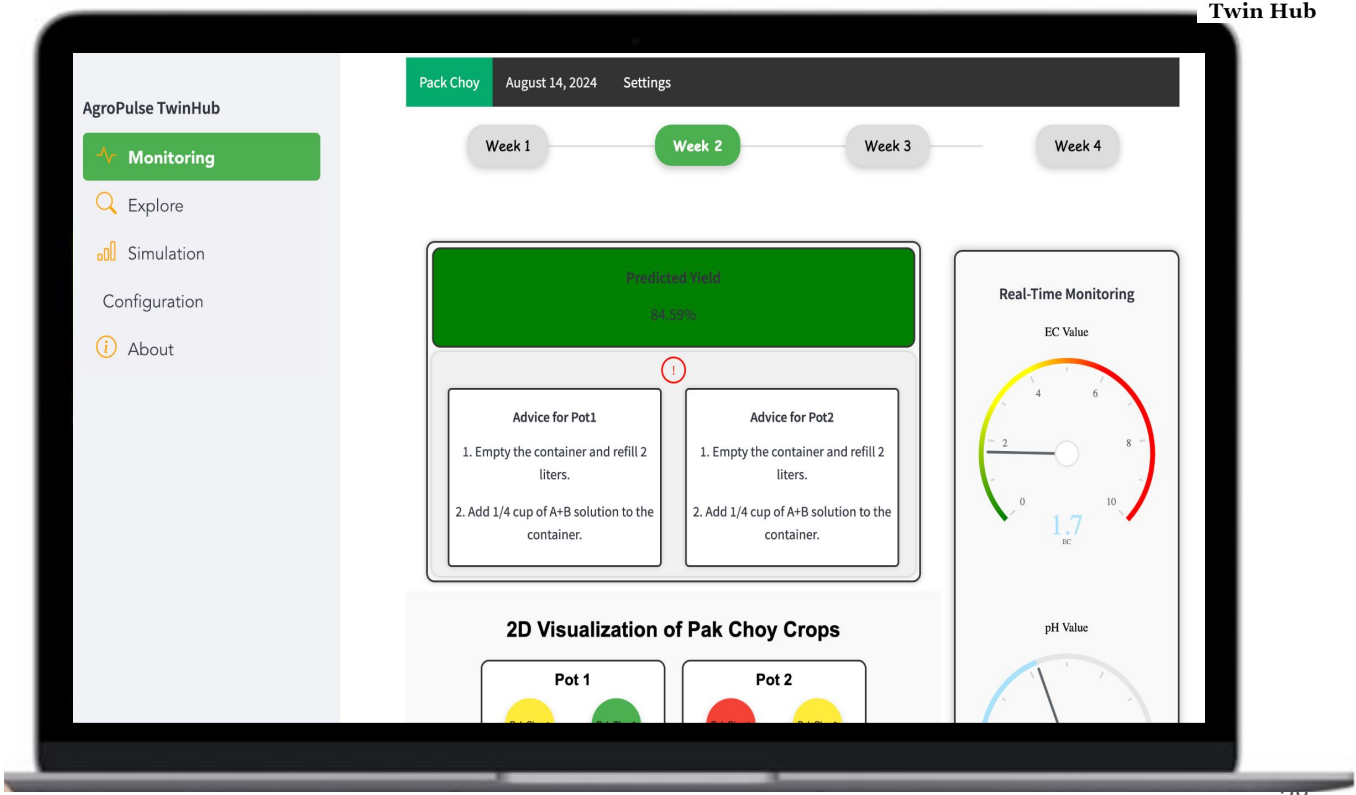
Dipterocarp Trees to fell: 7 (0 – 24)

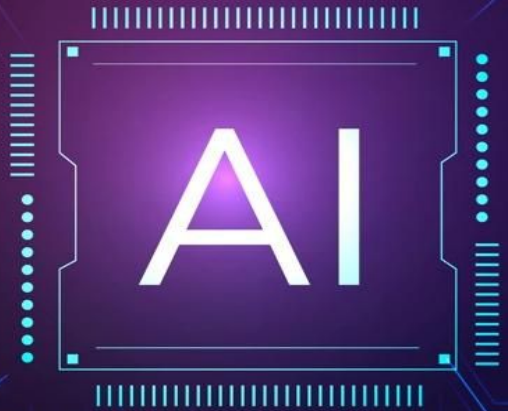
Non-Dipterocarp Trees to fell: 7 (0 – 24)

Apply Simulation

Agro Pulse Twin Hub

- Integrates multiple farm IoT systems
- Monitoring crop status
- Reports crop trends
- Highlights crops at-risk
- Recommend nutrient recovery
- Digital modeling of crops





AI for automating

AI for assisting

AI for predicting

AI for enhancing

AI for augmenting

AI for learning

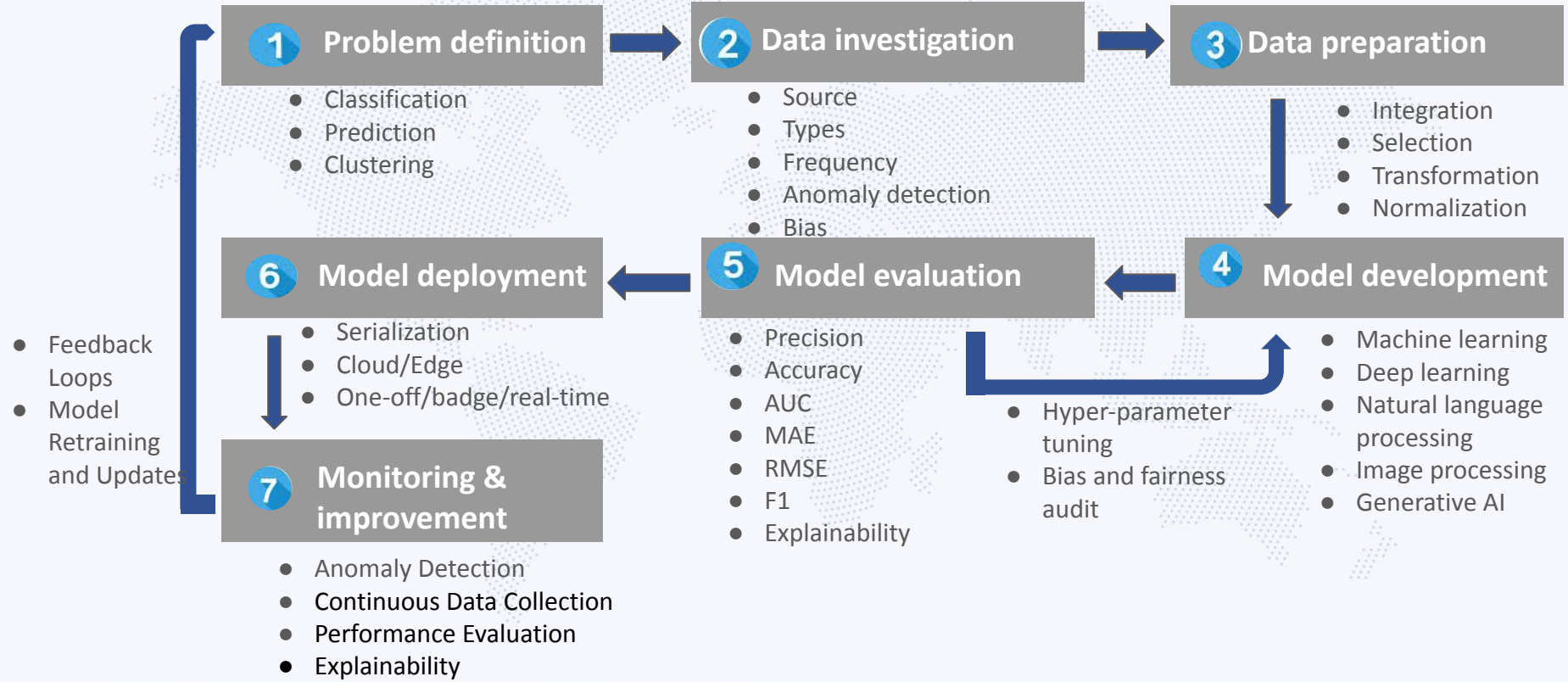
AI for personalizing

AI for optimizing

AI for advising

AI for interfacing

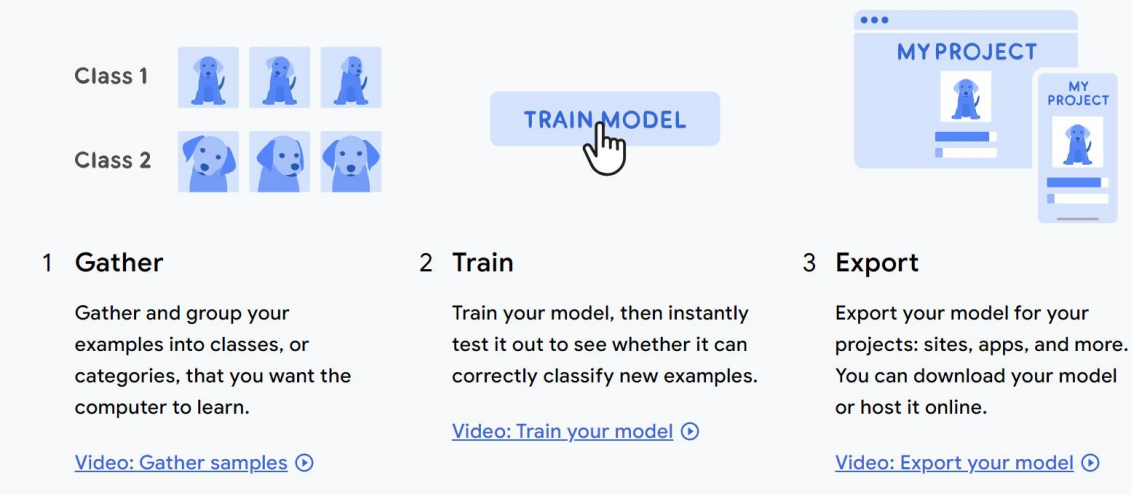
AI Lifecycle



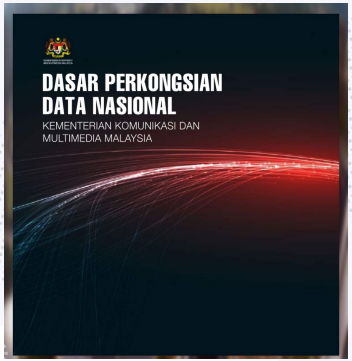
Teachable Machine

Cara yang pantas dan mudah untuk mencipta model pembelajaran mesin untuk laman web, aplikasi anda dan banyak lagi.

Pergi ke https://teachablemachine.withgoogle.com/ untuk merasai pengalaman proses mengumpul data, membina model, *tuning* dan menggunakan data tersebut.



Data sharing ecosystem in Malaysia



REPOSITORI APLIKASI SEKTOR AWAM

data.gov.my

MyGDX
GOVERNMENT CENTRAL DATA EXCHANGE
MENERAJUI INTEGRASI DATA

Data Dictionary
Sektor Awam

OpenDOSM

mybis

Malaysia GeoPortal
PUSAT GEOSPATIAL NEGARA
KEMENTERIAN SUMBER ASLI DAN KELESTARIAN ALAM

Open SCIENCE
Malaysia Open Science Platform (MOSP)

MARC

MyGovCloud @ MDSA

Malaysian Health Data Warehouse
Ministry of Health Malaysia

PADU
PANGKALAN DATA UTAMA

Malaysian Meteorological Department Web Service API

Economic

- Risk of job displacement
- Risk of concentration of power within 1 or a few companies
- Liability risk

Societal

- Risk of autonomous weapons proliferation
- Risk of an intelligence divide

Values

- Values misalignment risk

AI Risks

A call for human-in-the-loop AI

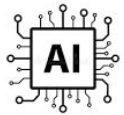
Performance

- Risk of errors
- Risk of bias
- Risk of opaqueness
- Risk of instability of performance
- Lack of feedback process

Security

- Cyber intrusion risks
- Privacy risks
- Open source software
- Adversarial attacks

AI



- Risk of AI going “rogue”
- Inability to control malevolent AI

Table 1. The AI competency framework high-level structure: aspects and progression levels

Aspects	Progression		
	Acquire	Deepen	Create
1. Human-centred mindset	Human agency	Human accountability	Social responsibility
2. Ethics of AI	Ethical principles	Safe and responsible use	Co-creating ethical rules
3. AI foundations and applications	Basic AI techniques and applications	Application skills	Creating with AI
4. AI pedagogy	AI-assisted teaching	AI–pedagogy integration	AI-enhanced pedagogical transformation
5. AI for professional development	AI enabling lifelong professional learning	AI to enhance organizational learning	AI to support professional transformation

unesco

Ref: AI competency framework for teachers - UNESCO Digital Library

Table 1. AI competency framework for students

Competency aspects	Progression levels		
	Understand	Apply	Create
• Human-centred mindset	• Human agency	• Human accountability	• Citizenship in the era of AI
• Ethics of AI	• Embodied ethics	• Safe and responsible use	• Ethics by design
• AI techniques and applications	• AI foundations	• Application skills	• Creating AI tools
• AI system design	• Problem scoping	• Architecture design	• Iteration and feedback loops

Artificial Intelligence (AI) Standards

1. ISO/IEC TS 4213:2022 - Assessment of machine learning classification performance
2. ISO/IEC 5259-1:2024 - Data quality for analytics and ML — Part 1: Overview, terminology, and examples
3. ISO/IEC 5259-2:2024 - Data quality for analytics and ML — Part 2: Data quality measures
4. ISO/IEC 5259-3:2024 - Data quality for analytics and ML — Part 3: Data quality management requirements and guidelines
5. ISO/IEC 5259-4:2024 - Data quality for analytics and ML — Part 4: Data quality process framework
6. ISO/IEC 5338:2023 - AI system life cycle processes
7. ISO/IEC 5339:2024 - Guidance for AI applications
8. ISO/IEC 5392:2024 - Reference architecture of knowledge engineering
9. ISO/IEC TR 5469:2024 - Functional safety and AI systems
10. ISO/IEC 8183:2023 - Data life cycle framework
11. ISO/IEC TS 8200:2024 - Controllability of automated AI systems
12. ISO/IEC TS 12791:2024 - Treatment of unwanted bias in classification and regression ML tasks
13. ISO/IEC TR 17903:2024 - Overview of machine learning computing devices
14. ISO/IEC 22989:2022 - AI concepts and terminology
15. ISO/IEC 23053:2022 - Framework for AI systems using ML
16. ISO/IEC 23894:2023 - Guidance on AI risk management
17. ISO/IEC TR 24027:2021 - Bias in AI systems and AI-aided decision making
18. ISO/IEC TR 24028:2020 - Overview of trustworthiness in AI
19. ISO/IEC 24029-1:2021 - Assessment of the robustness of neural networks — Part 1: Overview
20. ISO/IEC 24029-2:2023 - Assessment of the robustness of neural networks — Part 2: Methodology for the use of formal methods
21. ISO/IEC TR 24030:2024 - Use cases for AI
22. ISO/IEC TR 24368:2022 - Overview of ethical and societal concerns in AI
23. ISO/IEC TR 24372:2021 - Overview of computational approaches for AI systems
24. ISO/IEC 24668:2022 - Process management framework for big data analytics
25. ISO/IEC TS 25058:2024 - Guidance for quality evaluation of AI systems (SQuaRE)
26. ISO/IEC 25059:2023 - Quality model for AI systems (SQuaRE)
27. ISO/IEC 38507:2022 - Governance implications of AI use by organizations
28. ISO/IEC 42001:2023 - AI management system

Big Data Standards

29. ISO/IEC 20546:2019 - Big data — Overview and vocabulary
30. ISO/IEC TR 20547-1:2020 - Big data reference architecture — Part 1: Framework and application process
31. ISO/IEC TR 20547-2:2018 - Big data reference architecture — Part 2: Use cases and derived requirements
32. ISO/IEC 20547-3:2020 - Big data reference architecture — Part 3: Reference architecture
33. ISO/IEC TR 20547-5:2018 - Big data reference architecture — Part 5: Standards roadmap

TC ← ISO/IEC JTC 1

Standards by ISO/IEC JTC 1/SC 42

Artificial intelligence

(as of 18th Nov 2024)

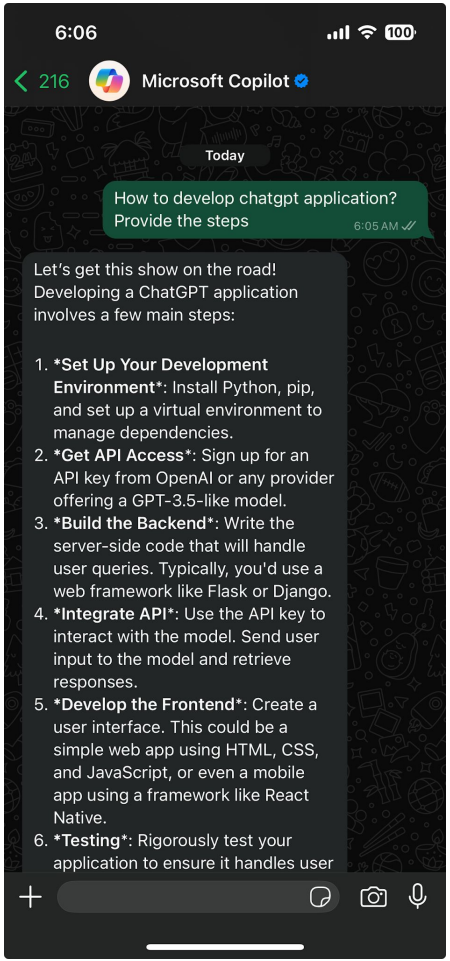
SCAN ME

Bahagian 2

AI untuk Penghasilan Bahan Media Kreatif

Jenis	Aplikasi	Fungsi
Teks	ChatGPT	1. *Generates answers to information searches based on entered text* 2. *Generate program code*
	Perplexity	1. *Generates answers to information searches based on entered text* 2. *Links to reference articles* 3. *List of questions related to information search*
	www.researchrabbit.ai	1. *Generates answers to information searches based on entered text* 2. *List of articles related to information search*
	Elicit	1. *Generates answers to information searches based on entered text* 2. *List of articles related to information search* 3. *Formulate an abstract* 4. *Generate and suggest specific questions related to selected articles* 5. *In-depth questions and answers for selected articles*
	SCISPACE	

Jenis	Aplikasi	Fungsi
Imej	Midjourney	1. *Generate images based on text content entered* 2. *Provide image editing options such as subject, scenario and style*
	Freepik freepik	1. *Generate images based on text content entered* 2. *Provide image editing options such as subject, scenario and style*
Video	Elai.io elai.	1. *Generate video based on template selection, storyboard input or PDF file.* 2. *Update videos based on edits by users on generated videos*



Gen AI semakin mudah diakses

- Web
- Aplikasi
- WhatsApp
- Dalam aplikasi
- Aplikasi berasaskan tujuan

https://www.bing.com/search?q=ngrok.yml+not+found&f...

Journal Advisor | ed... | my life management | Bookmarks | Sci-Hub: removing... | Education | Reinforcement learn... | iGIMS | artificial intelligence | powerbi | Other

Microsoft Bing

ngrok.yml not found

Deep search

Melayu nurfadhlina... 36

SEARCH COPILOT SCHOOL IMAGES VIDEOS MAPS NEWS MORE TOOLS

About 733,000 results

Who can see school results?

Hi NURFADHLINA,
Find answers about school—personalized just for you.

My classes | Recent messages | My profile

Send feedback

ngrok
https://ngrok.com/docs/ngrok-agent/config

Agent Configuration File | ngrok documentation

The default location of the **ngrok agent's** configuration file varies based on your operating system. The easiest way to **find** the configuration file location is to run: which will validate and print the location of the configuration file. For the main operating systems we support, their default file locations are: 1. … See more

Global Options

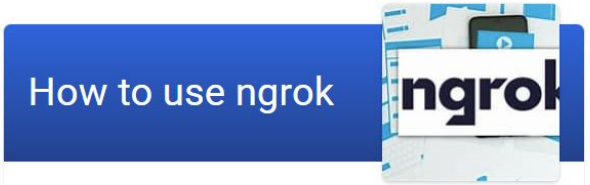
The following is a list of options that can be configured at the root of your configuration file and specify the behavior of the agent. See more

Tunnel Definitions

It sounds like you're having trouble with ngrok not detecting your configuration file. The `ngrok.yml` file should be located in your home directory by default. If it's not there, you might need to create one or specify the path to the file when starting ngrok. Would you like instructions on how to create a new `ngrok.yml` file or how to specify its path?

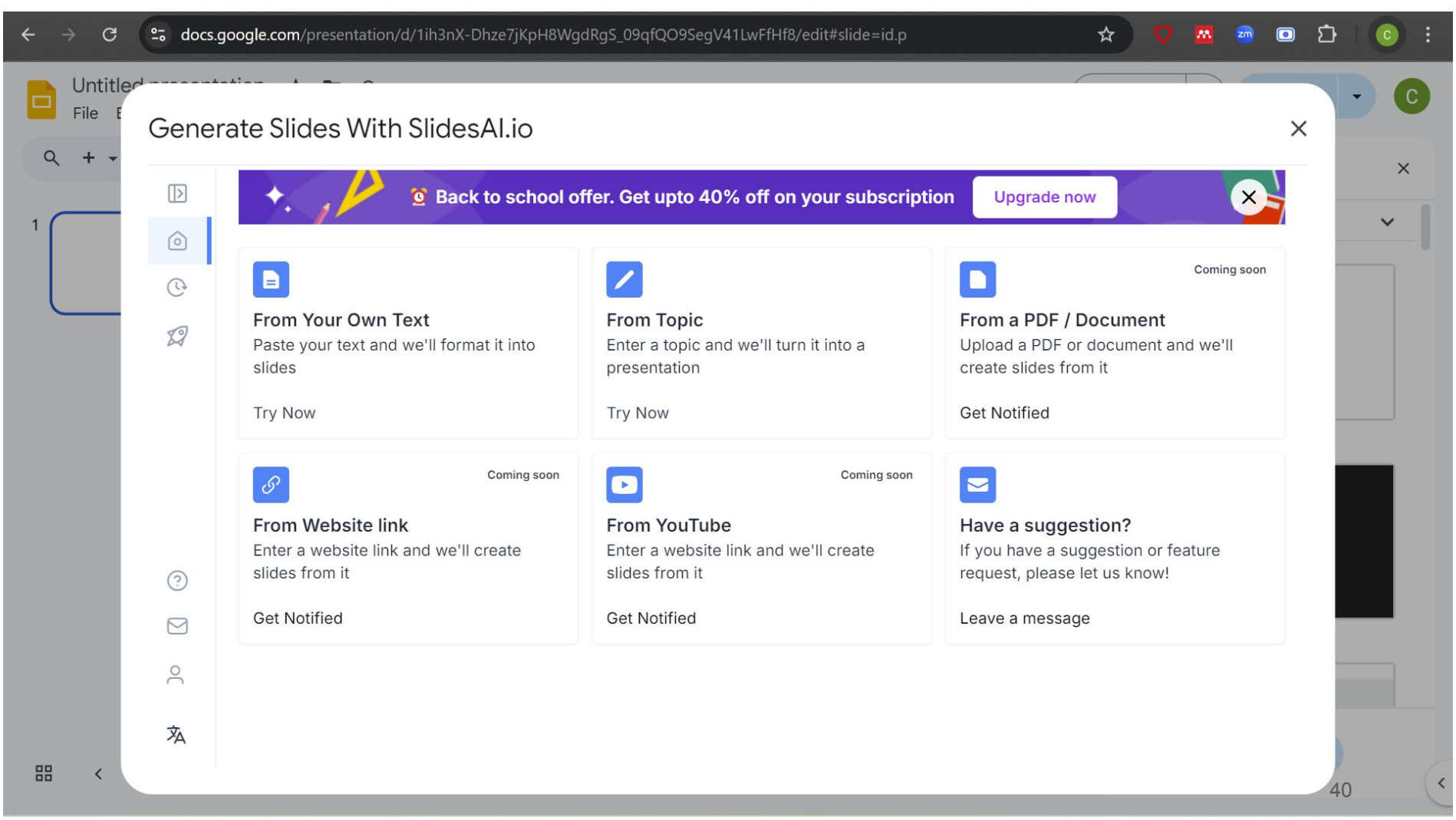
Yes, please tell me how to create an ngrok.yml file.

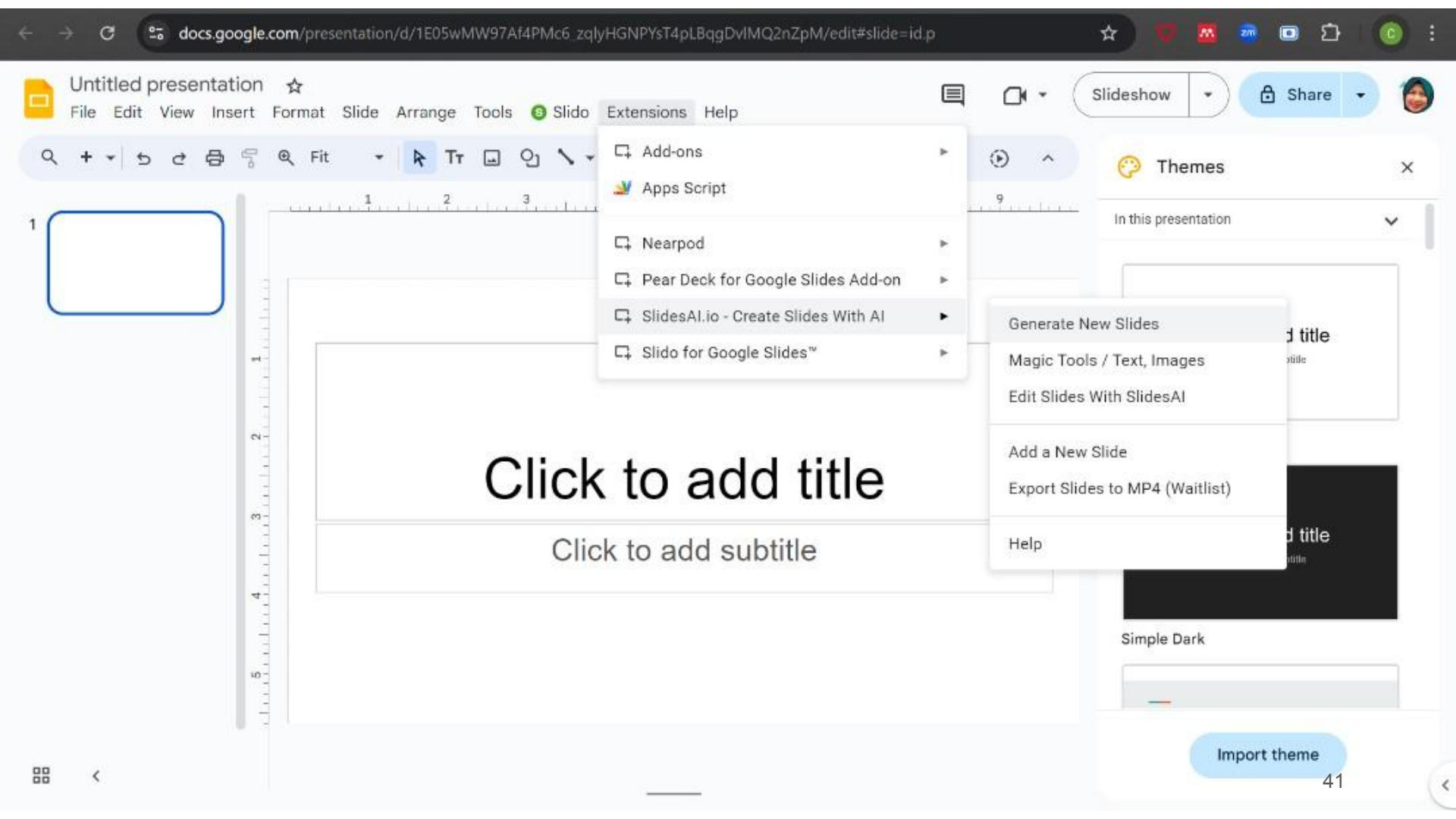
See more



How do I connect my ngrok agent to my ngrok

Does ngrok use HTTPS?
Ngrok uses secure tunnels


docs.google.com/presentation/d/1ih3nX-Dhze7jKpH8WgdRgS_09qfQO9SegV41LwFfHf8/edit#slide=id.p
Untitled presentation
File
Generate Slides With SlidesAI.io
Back to school offer. Get upto 40% off on your subscription
Upgrade now
From Your Own Text
Paste your text and we'll format it into slides
Try Now
From Topic
Enter a topic and we'll turn it into a presentation
Try Now
Coming soon
From a PDF / Document
Upload a PDF or document and we'll create slides from it
Get Notified
Coming soon
From Website link
Enter a website link and we'll create slides from it
Get Notified
Coming soon
From YouTube
Enter a website link and we'll create slides from it
Get Notified
Have a suggestion?
If you have a suggestion or feature request, please let us know!
Leave a message
40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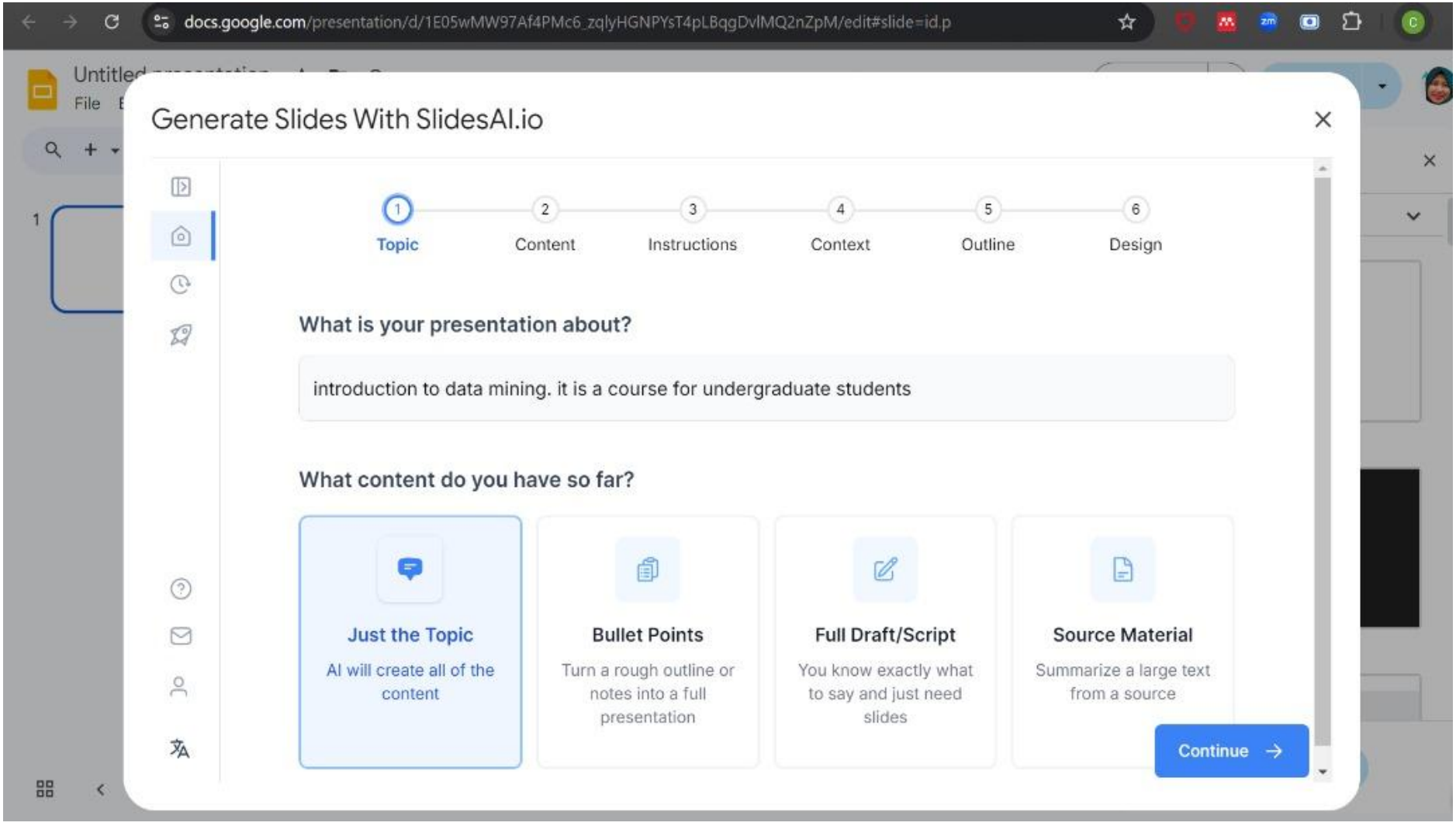
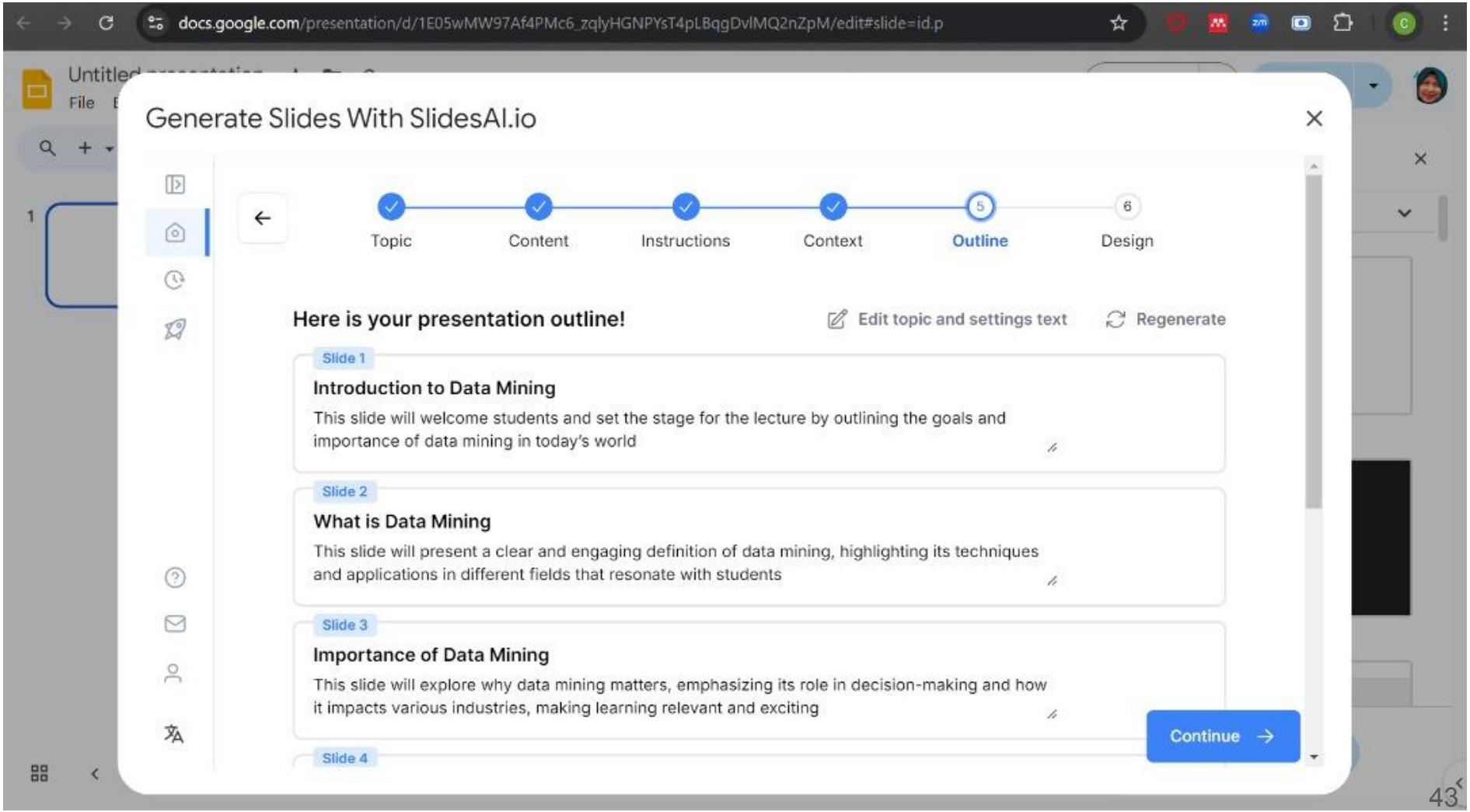
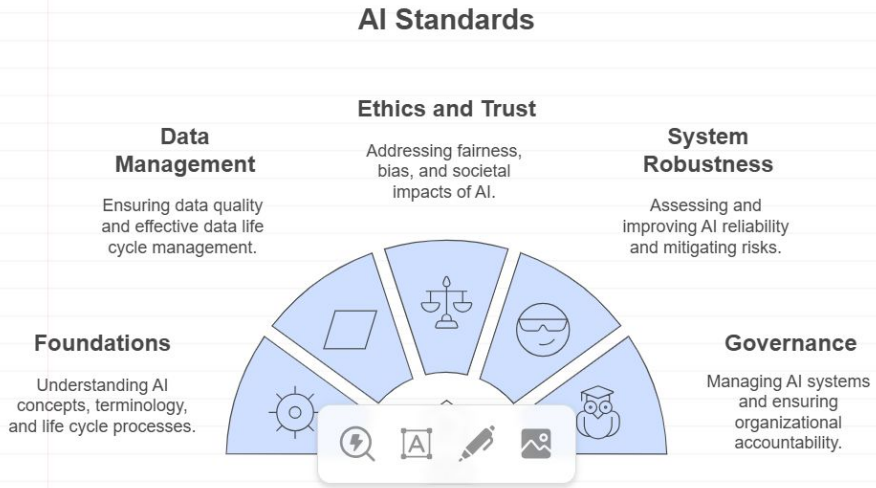
Untitled presentation
File Edit View Insert Format Slide Arrange Tools Slido Extensions Help
Slideshow
Share
Add-ons
Apps Script
Nearpod
Pear Deck for Google Slides Add-on
SlidesAI.io - Create Slides With AI
Slido for Google Slides™
Generate New Slides
Magic Tools / Text, Images
Edit Slides With SlidesAI
Add a New Slide
Export Slides to MP4 (Waitlist)
Help
Click to add title
Click to add subtitle
Themes
In this presentation
Simple Dark
Import theme


docs.google.com/presentation/d/1E05wMW97Af4PMc6_zqlyHGNPYsT4pLBqgDvlMQ2nZpM/edit#slide=id.p
Untitled
File
Generate Slides With SlidesAI.io
1 Topic
2 Content
3 Instructions
4 Context
5 Outline
6 Design
What is your presentation about?
introduction to data mining. it is a course for undergraduate students
What content do you have so far?
Just the Topic
AI will create all of the content
Bullet Points
Turn a rough outline or notes into a full presentation
Full Draft/Script
You know exactly what to say and just need slides
Source Material
Summarize a large text from a source
Continue

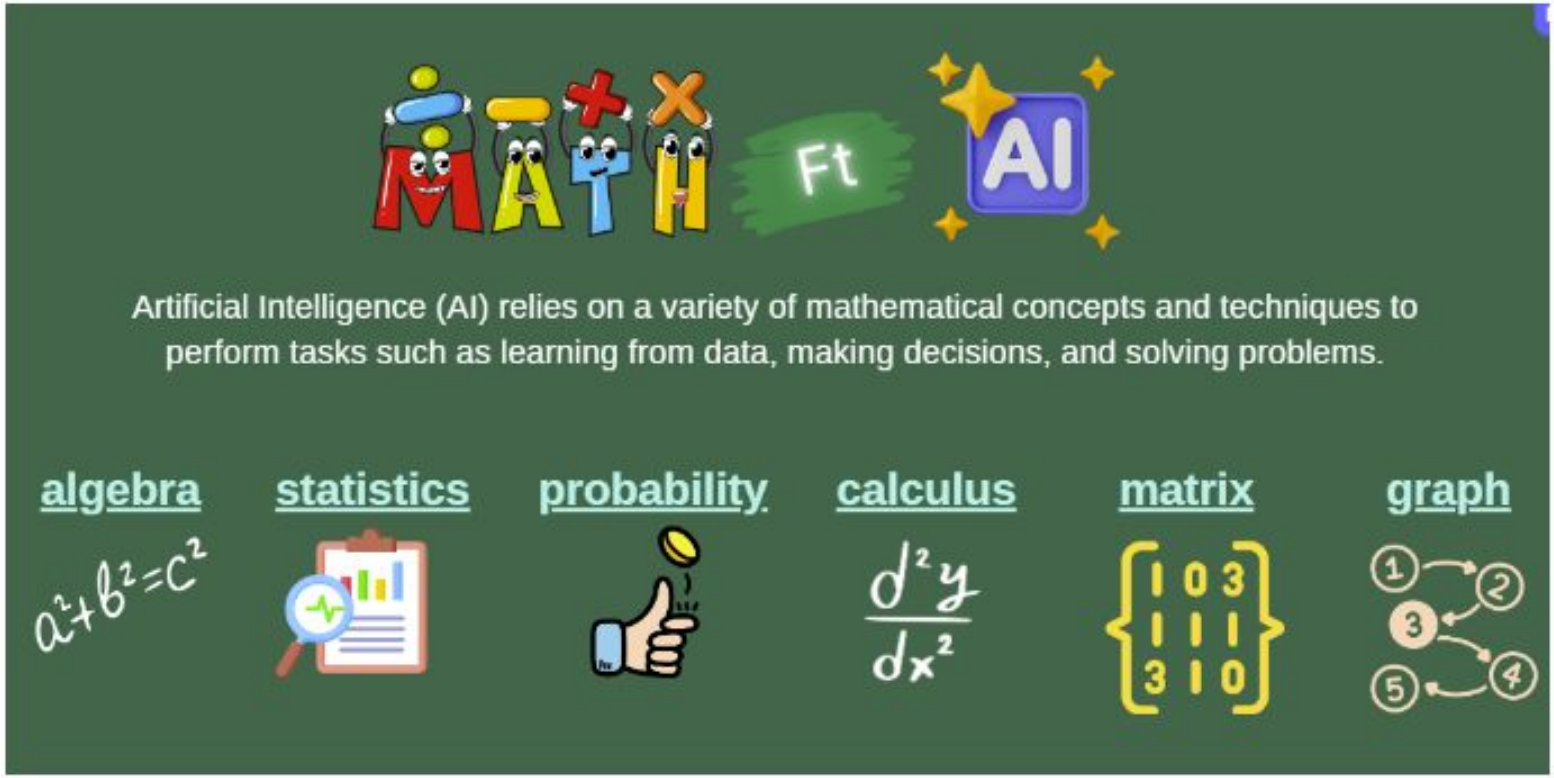

docs.google.com/presentation/d/1E05wMW97Af4PMc6_zqlyHGNPYsT4pLBqgDvlMQ2nZpM/edit#slide=id.p
Untitled
File
Generate Slides With SlidesAI.io
Topic
Content
Instructions
Context
5
Outline
6
Design
Here is your presentation outline!
Edit topic and settings text
Regenerate
Slide 1
Introduction to Data Mining
This slide will welcome students and set the stage for the lecture by outlining the goals and importance of data mining in today's world
Slide 2
What is Data Mining
This slide will present a clear and engaging definition of data mining, highlighting its techniques and applications in different fields that resonate with students
Slide 3
Importance of Data Mining
This slide will explore why data mining matters, emphasizing its role in decision-making and how it impacts various industries, making learning relevant and exciting
Slide 4
Continue
43

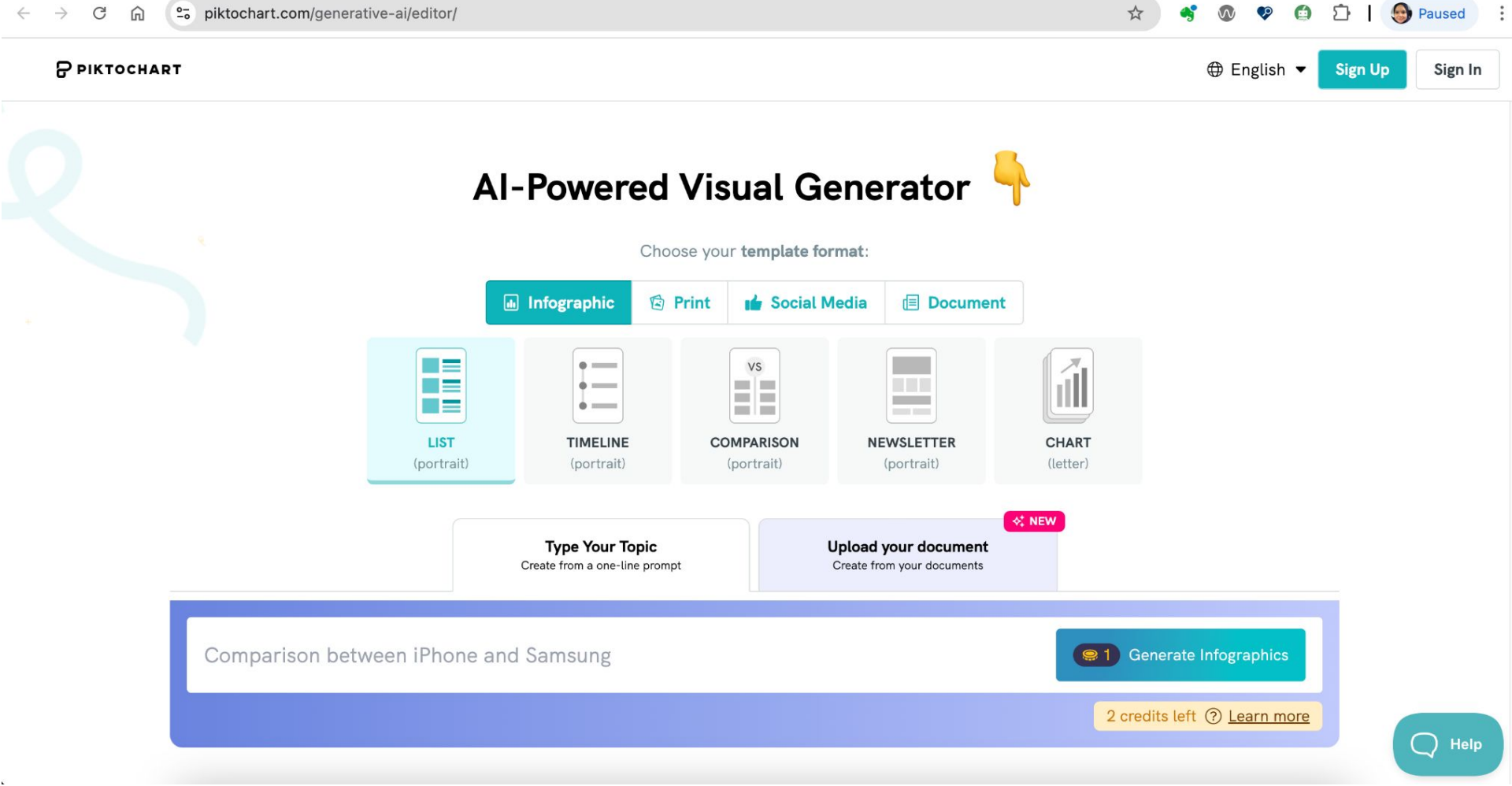
AI standards provide students with essential guidance in:

1. **Foundations**: Understanding AI concepts, terminology, and life cycle processes.
2. **Data Management**: Ensuring data quality and effective data life cycle management.
3. **Ethics and Trust**: Addressing fairness, bias, and societal impacts of AI.
4. **System Robustness**: Assessing and improving AI reliability and mitigating risks.
5. **Frameworks**: Structuring AI systems for performance and control.
6. **Governance**: Managing AI systems and ensuring organizational accountability.
7. **Practical Application**: Learning from real-world use cases and quality assurance practices.



Play video


MATH
Ft
AI
Artificial Intelligence (AI) relies on a variety of mathematical concepts and techniques to perform tasks such as learning from data, making decisions, and solving problems.
algebra
$a^2+b^2=c^2$
statistics
probability
calculus
$\frac{d^2y}{dx^2}$
matrix
graph


piktochart.com/generative-ai/editor/
Paused
PIKTOCHART
English
Sign Up
Sign In
AI-Powered Visual Generator
Choose your template format:
Infographic
Print
Social Media
Document
LIST
(portrait)
TIMELINE
(portrait)
VS
COMPARISON
(portrait)
NEWSLETTER
(portrait)
CHART
(letter)
NEW
Type Your Topic
Create from a one-line prompt
Upload your document
Create from your documents
Comparison between iPhone and Samsung
1
Generate Infographics
2 credits left
Learn more
Help

Canva

Home
Projects
Templates
Brand
Apps
Classwork
Glow up

+ Create a design

Join a school team

All apps
Workplace essentials
AI-powered
Productivity
Design essentials
Share & publish

For teams

Marketing
Creative
HR

Trash

Amy's Work
Nurul Amelina ...

Featured

Text Maker

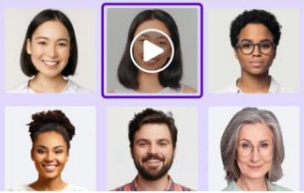
Create custom 3D text effects to make your designs unique.
Adjust gradients, stylise fonts, and more.

Design with Text Maker

Search apps

For you | Workplace essentials | AI-powered | Productivity | Design essentials | Share

Instantly add a talking head video to your designs >



D-ID AI Presenters
AI-generated avatars

Generate realistic images and art using AI >

DALL·E
Image Generator by OpenAI

Generate images and QR art from text >

Mojo AI
AI and QR art generator

Add natural-soundi to your design >

Murf AI
Text-to-speech

?
47

Canva

Create a design

Join a schoo

All apps

Workplace essent

AI-powered

Productivity

Design essentials

Share & publish

For teams

Marketing

Creative

HR

Trash

Amy's Wo
Nurul Am

esign essentials

Customize f
photos reall

Francis

Treat your pup!

Colorful penguin skateboarding

Mojo AI

Created by INNORIA's TEAM

Image Art, Image to Image , QR Art, AI

Unleash creativity with seamless image generation and QR art creation. Transform your ideas into visually stunning masterpieces effortlessly. - Text to Image - Image to Image - QR code to QR Art

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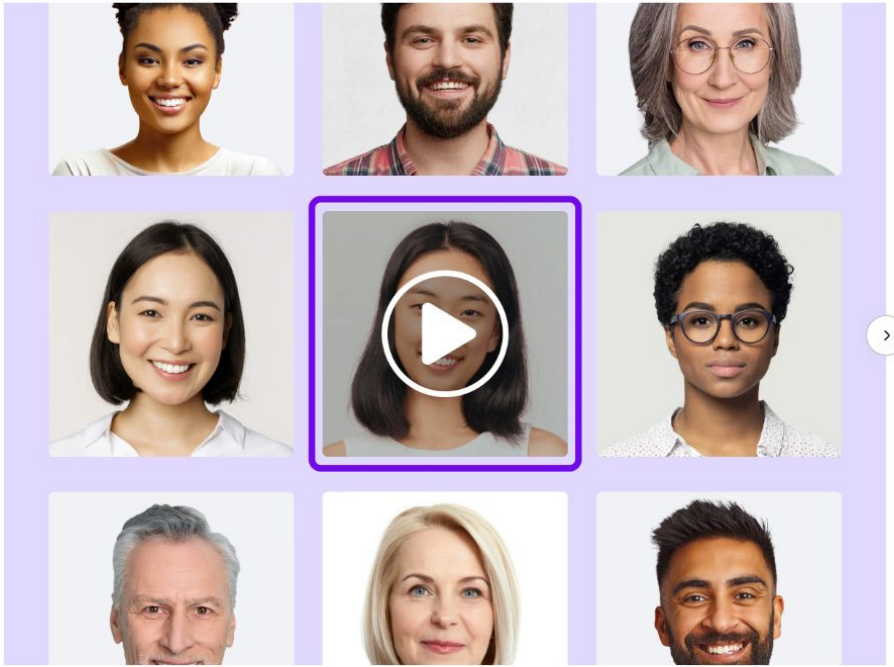

D-ID AI Presenters
Created by D-ID Plugins Team

AI Presenters at a click of a button

Make presentations that are more exciting and engaging with AI Presenters by D-ID. Pick a presenter or upload your own, add your text, and our plug-in will generate an AI presenter in moments. You can control the size, placement, background color, language and voice of the presenter. Superpower social media campaigns, training presentations, corporate communications, sales and marketing content and more.

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Bahagian 3

AI untuk Mengumpulkan dan Analisis Data

https://text2data.com/Demo

Journal Advisor | ed... | my life management | Bookmarks | Sci-Hub: removing... | Education | Reinforcement learn... | iGIMS | artificial intelligence | powerbi

Free sentiment analysis demo

Our demo service uses generic models trained on real user's comments, product, service opinions. In order to get specific results that are tailored to your domain, please consider training your own sentiment model.

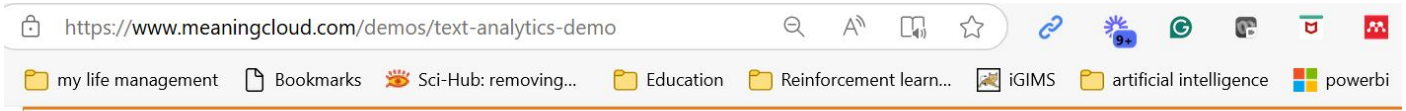
Please enter your text in **english*** for analysis or leave default one.

Great product! Perfect length and cut to wear with my leggings! This was recommended by my Consultant.

☐ Twitter-like content ⓘ SHARE THIS ANALYSIS RUN ANALYSIS

great product! perfect length and cut to wear with my leggings! This was recommended by my Consultant.

great product
recommended great
perfect



English

Clean Send

Earth Day: 9 Trends That Show the Harsh Reality of Climate Change By Pam Wright and Jan Wesner Childs https://weather.com/science/environment/news/2021-04-16-earth-day-climate-trends-data-global-warming

Decades of scientific data including satellite images show that human-caused climate change is real and affecting our planet at an alarming rate, according to multiple agencies and organizations including the United Nations, the National Academy of Sciences, NASA, NOAA and the American Meteorological Society. While scientists say Earth has experienced cycles of warming and cooling over the ages, the significant warming trend we are now experiencing is nothing like those of the past. The difference, the experts say, is human activity. From rising sea levels to retreating glaciers to coral bleaching, human-induced global warming is affecting every corner of our planet. Ancient paleoclimate evidence collected from tree rings, ocean sediment, coral reefs and layers of sedimentary rocks indicates carbon dioxide from human activity is increasing more than 250 times faster than it did from natural sources after the last Ice Age, and current warming is occurring about 10 times faster, according to NASA. Here are 9 climate trends that show that the planet is in trouble:

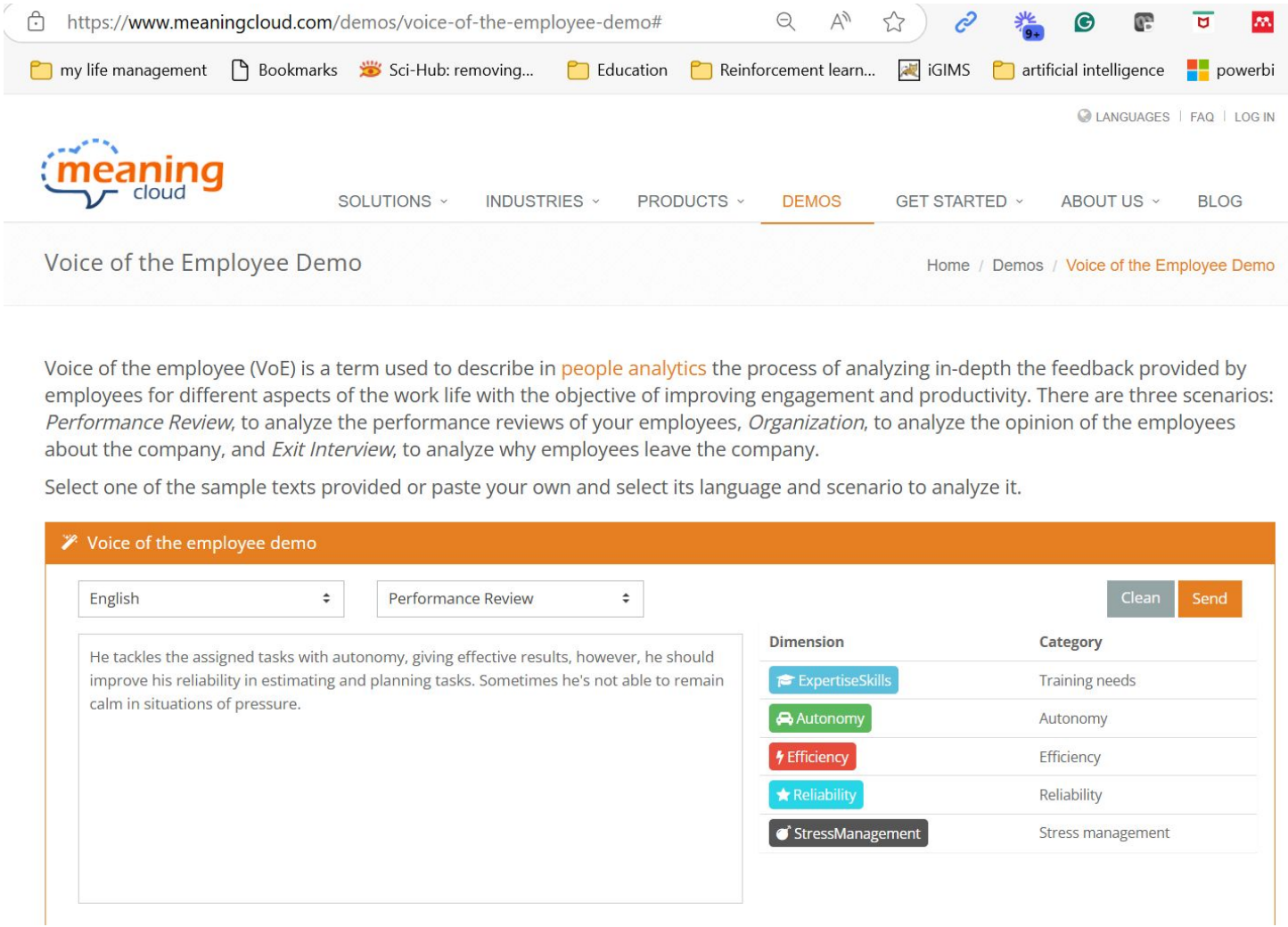
1. Seas Are Rising Faster Global sea levels rose about 8 inches over the last 100 years, according to NASA. That might not seem like much, but the rate of sea level rise over the past two decades is nearly double that of the entire previous century. And that's just the beginning. Scientists at NOAA predict that global sea level is very likely

Results

- Entities
- Concepts
- Other topics
- Classification
- Sentiment

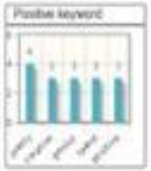
These are the entities detected in the text using Topics Extraction. You can click on each entity to highlight them in the text.

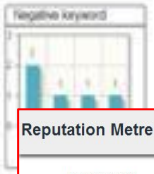
Entity	Type	Subtype	Appearances	Relevance
National Oceanic and Atmospheric Administration	Organization	Government	8	100
NASA	Organization	Government	7	87
United States	Location	Country	5	62
Earth	Location	Planet	4	50
Intergovernmental Panel on Climate Change	Organization	InternationalOrganization	2	25

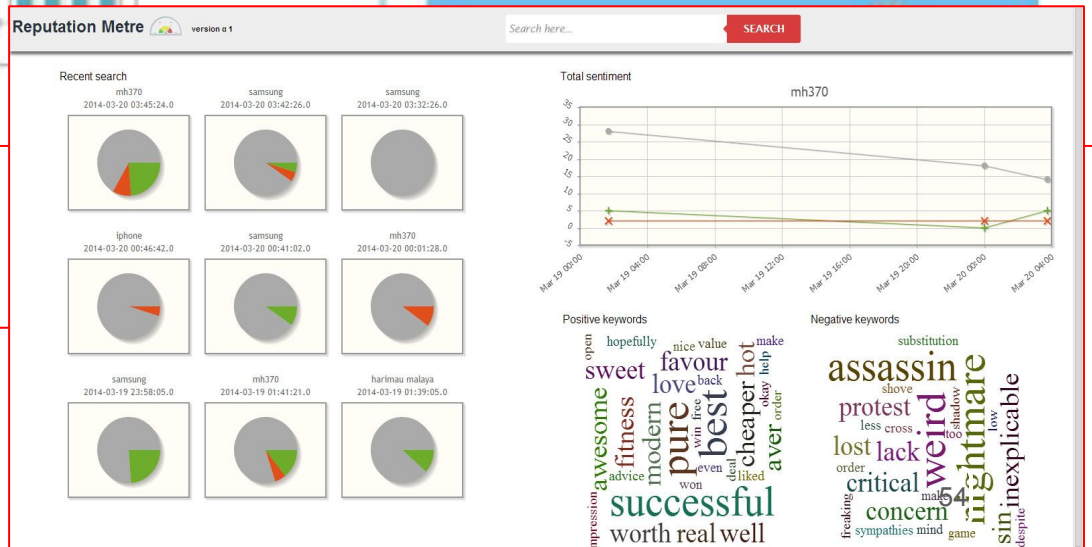

https://www.meaningcloud.com/demos/voice-of-the-employee-demo#
my life management
Bookmarks
Sci-Hub: removing...
Education
Reinforcement learn...
iGIMS
artificial intelligence
powerbi
LANGUAGES | FAQ | LOG IN
meaning cloud
SOLUTIONS
INDUSTRIES
PRODUCTS
DEMOS
GET STARTED
ABOUT US
BLOG
Voice of the Employee Demo
Home / Demos / Voice of the Employee Demo
Voice of the employee (VoE) is a term used to describe in people analytics the process of analyzing in-depth the feedback provided by employees for different aspects of the work life with the objective of improving engagement and productivity. There are three scenarios: Performance Review, to analyze the performance reviews of your employees, Organization, to analyze the opinion of the employees about the company, and Exit Interview, to analyze why employees leave the company.
Select one of the sample texts provided or paste your own and select its language and scenario to analyze it.
Voice of the employee demo
English
Performance Review
Clean
Send
He tackles the assigned tasks with autonomy, giving effective results, however, he should improve his reliability in estimating and planning tasks. Sometimes he's not able to remain calm in situations of pressure.
Dimension
Category
ExpertiseSkills
Training needs
Autonomy
Autonomy
Efficiency
Efficiency
Reliability
Reliability
StressManagement
Stress management

Sentimetrics Engine©			
Listener Crawler Linker Responder	Theme identifier	Polarity identifier	Sentiment calculator

Online Reputation Meter







1. Online Reputation Meter, Market Validation Grant (Principle Researcher), 2013-2015
2. Hybrid Kernel and Sentiment Analysis Methods for Accurate Stock Anticipation in Financial News, Fundamental Research Grant Scheme (Co-Researcher), 2014-2016
3. Towards Crime Analysis using Sentiment Mining to Forecast Future Occurrences in Crime Series, Exploratory Grant Scheme (Co-Researcher), 2012-2014

https://chatgpt.com/gpts

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ChatGPT

Data Analyst

Explore GPTs

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Yesterday

Aplikasi Perusahaan Secara Sing

Previous 7 Days

Analyzing Biodiversity Dynamics

New chat

AI Course Outline

AI Categories Overview

Draft Feedback Guidelines

AI in Education Fundamentals

Thesis Feedback Summary

AI Bias and Learning

Previous 30 Days

Renew Plus

+ Create

GPTs

Discover and create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills

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Featured

Curated top picks from this week

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Ask the research, chat directly with the world's scientific literature. Search references, get simple...
By consensus.app

Grimoire
Code Wizard ✨ New Grimoire PRO App: https://apple.co/3YRykm3 Buil...
By mindgoblinstudios.com

PDF AI PDF
The ultimate document assistant. Securely store and chat with PDFs, CSVs, TXT, Markdown and Excel...
By myaidrive.com

ChatPRD - AI for Product Managers
An on-demand Chief Product Officer that drafts and improves your PRDs, while coaching you to...
By chatprd.ai

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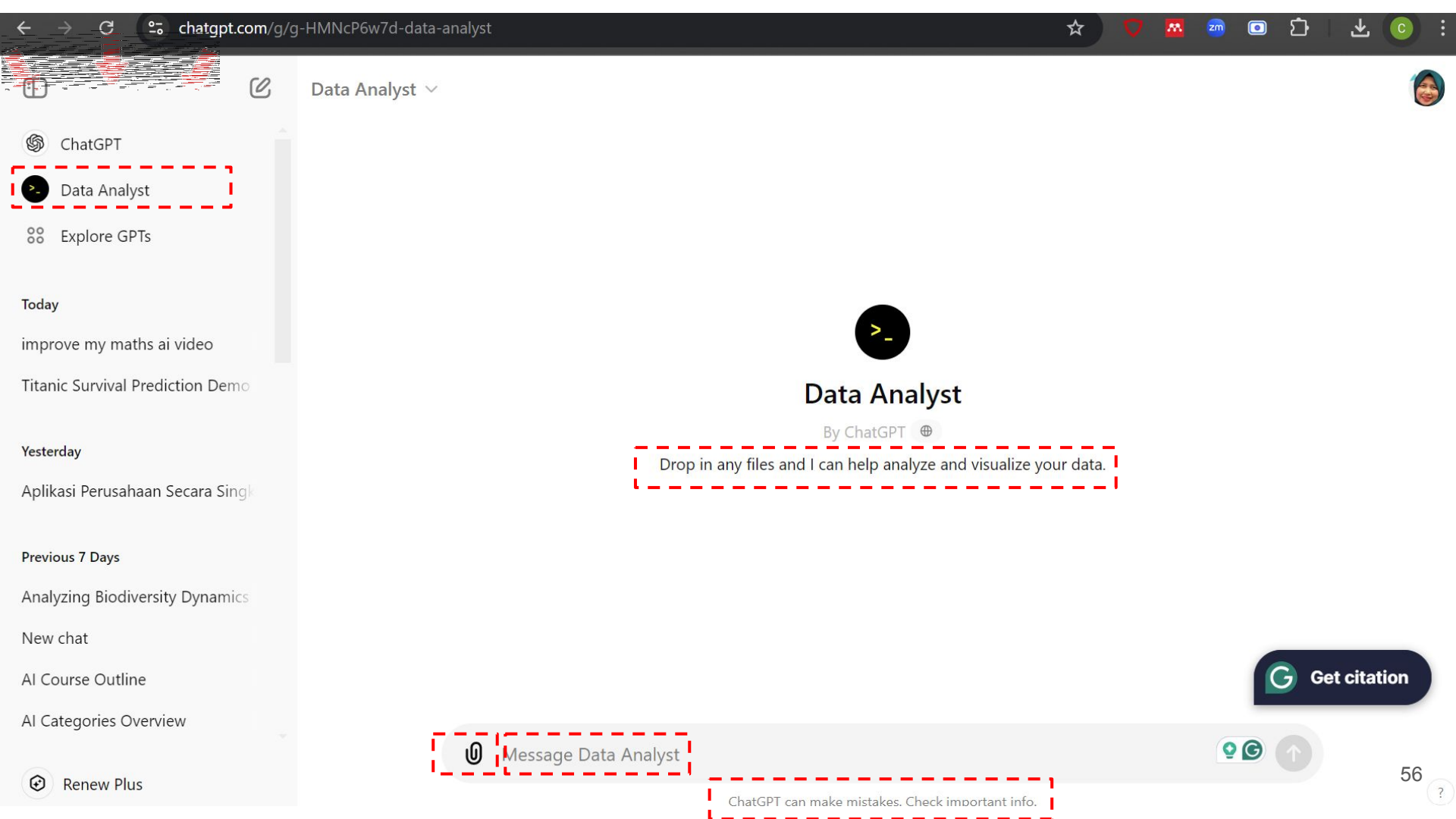
Most popular GPTs by our community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Data Analyst
ChatGPT
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Today
improve my maths ai video
Titanic Survival Prediction Demo
Yesterday
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Data Analyst
By ChatGPT
Drop in any files and I can help analyze and visualize your data.
Get citation
Message Data Analyst
ChatGPT can make mistakes. Check important info.
56

GenAI for Research and Data Analysis Purpose

NotebookLM

Perplexity

SCISPACE

QuillBot
Paraphrasing Tool

Elicit

Scite

powerdrill

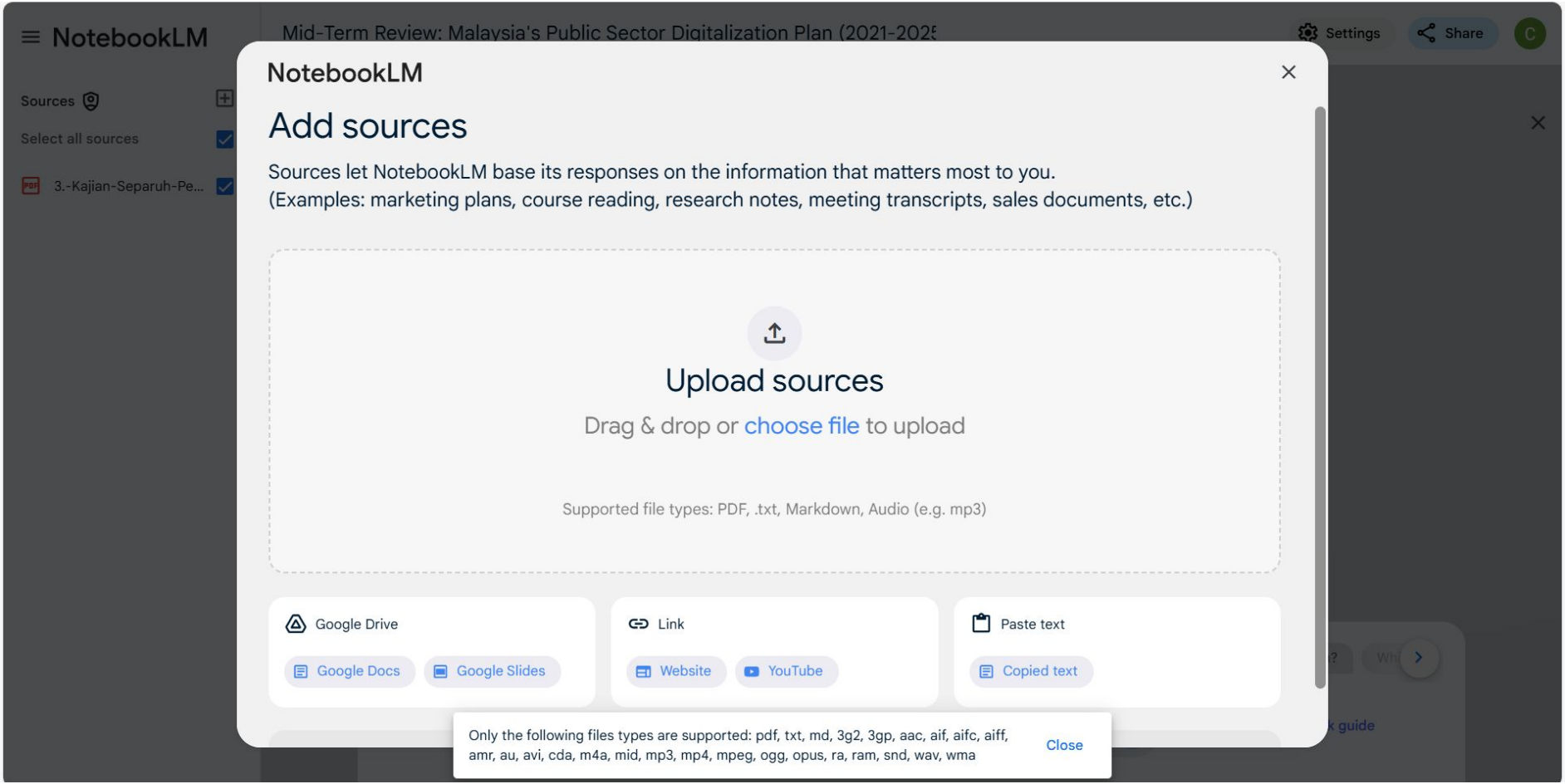
scite.ai

www.researchrabbit.ai

Bing

A coming productivity boom?

- ✓ *Automate paper summary*
- ✓ *Suggested link to related papers*
- ✓ *Suggested questions to dig further (eg critique to the papers, main contribution, the data used)*
- ✓ *Answer questions about the paper in seconds!*
- ✓ *Paraphrase*
- ✓ *Generate code and do experiment in the cloud*
- ✓ *Analyse data*
- ✓ *Generate graphs*
- ✓ *Generate queries*
- ✓ *Generate insights*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Mid-Term Review: Malaysia's Public Sector Digitalization Plan (2021-202
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Sources let NotebookLM base its responses on the information that matters most to you.
(Examples: marketing plans, course reading, research notes, meeting transcripts, sales documents, etc.)
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Drag & drop or choose file to upload
Supported file types: PDF, .txt, Markdown, Audio (e.g. mp3)
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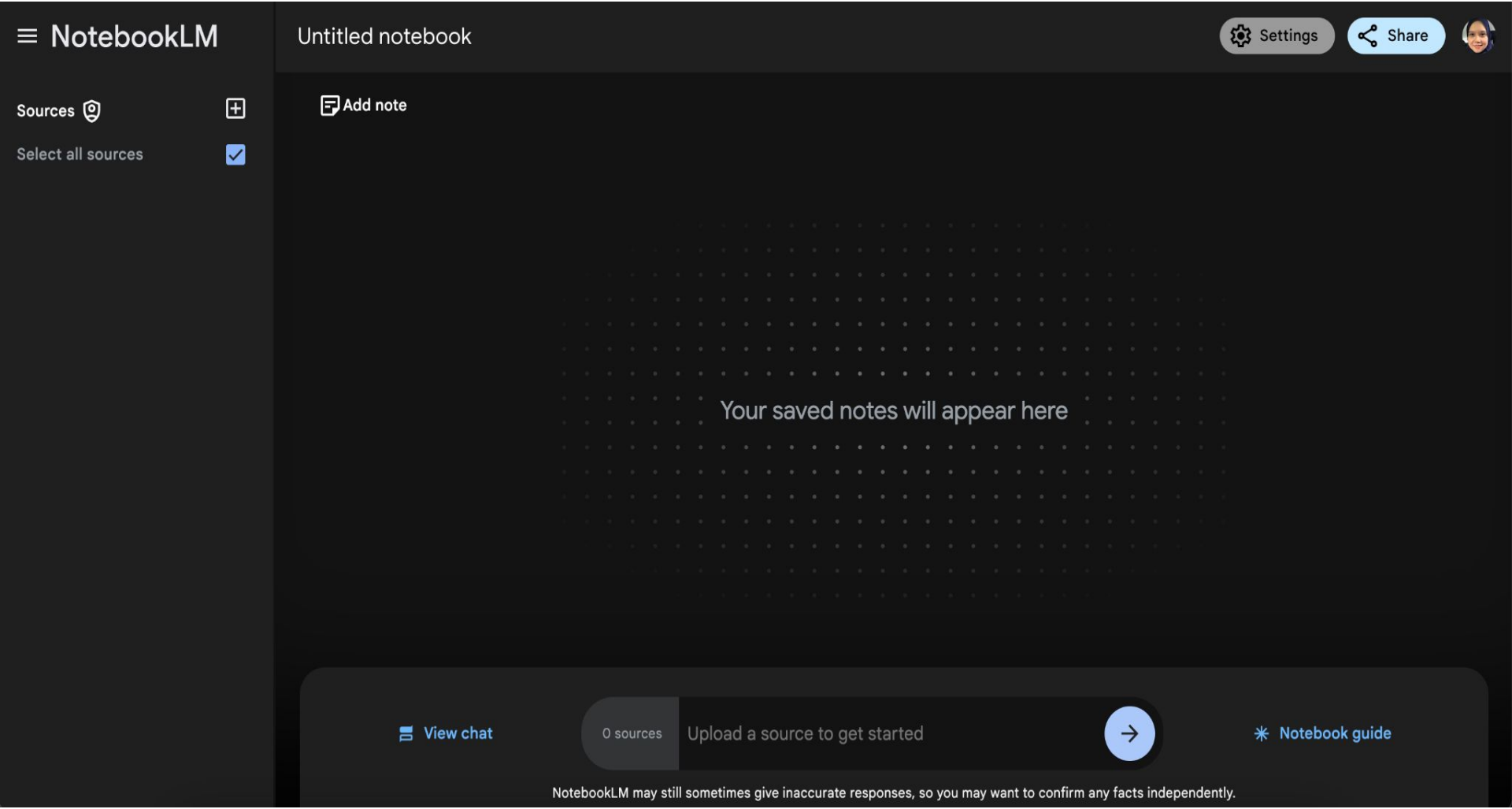
Google Docs
Google Slides
Link
Website
YouTube
Paste text
Copied text
Only the following files types are supported: pdf, txt, md, 3g2, 3gp, aac, aif, aifc, aiff, amr, au, avi, cda, m4a, mid, mp3, mp4, mpeg, ogg, opus, ra, ram, snd, wav, wma
Close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Sources
Select all sources
Add note
Your saved notes will appear here
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0 sources
Upload a source to get started
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Journal Advisor | ed... | my life management | Bookmarks | Sci-Hub: removing... | Education | Reinforcement learn... | iGIMS | artificial intelligence | powerbi | Other favorites

3.-Kajian-Separuh-Penggal-PSPSA-2021-2025-ver2.pdf

Source guide

Summary

This document is a mid-term review (Kajian Separuh Penggal) of Malaysia's 2021-2025 Public Sector Digitalization Strategic Plan (PSPSA). It assesses the plan's progress from 2021 to 2023 across seven strategic pillars (Teras Strategik), highlighting achievements and identifying areas needing improvement. Key themes include leveraging data intelligence (Pemanfaatan Kepintaran Data), delivering inclusive digital services (Peneraju Perkhidmatan Digital Inklusif dan Bersepadu), and agile governance (Tadbir Urus Tuntas dan Tangkas). The review aligns

Key Topics

- Digital Government
- Data Utilization
- Digital Services
- Human Capital

KEMENTERIAN DIGITAL

Mid-Term Review: Malaysia's Public Sector Digitalizatio

PSPSA Achievements

- The PSPSA 2021-2025 had 142 initiatives planned over five years and as o
  57% 1 2.
- Six of the seven strategic thrusts achieved over 50% implementation:
  - Strategic Thrust 1 (TS1) - Data Intelligence Utilization
  - Strategic Thrust 2 (TS2) - Inclusive and Integrated Digital Services Lead
  - Strategic Thrust 3 (TS3) - Comprehensive and Agile Governance
  - Strategic Thrust 4 (TS4) - Human Capital Empowerment and Reinvigora
  - Strategic Thrust 5 (TS5) - Optimization of Secure Shared Service Value
  - Strategic Thrust 6 (TS6) - Branding, Promotion Expansion, and Accultu
- **TS5 had the highest implementation rate at 70.83%.** Out of 27 initiative and 18 were on schedule 3.
- **TS7 - Adaptation of Relevant Emerging Technologies, had an impleme** the 12 initiatives, one achieved its target, seven were on schedule, and fou

Specific Achievements

What specific challenges hindered the implementation of E2E services?

Close Chat | 1 source | Start typing...

NotebookLM can make mistakes, so do

how does ecology simulator relates with machine learning

Quick Search

- Study becomes insight:... nih · 1
- Machine Learning as... nih · 2
- Study becomes insight:... wiley · 3
- Machine learning and dee... wiley · 4
- The current and future use... sciencedirect · 5
- An Outlook for Deep... springer · 6

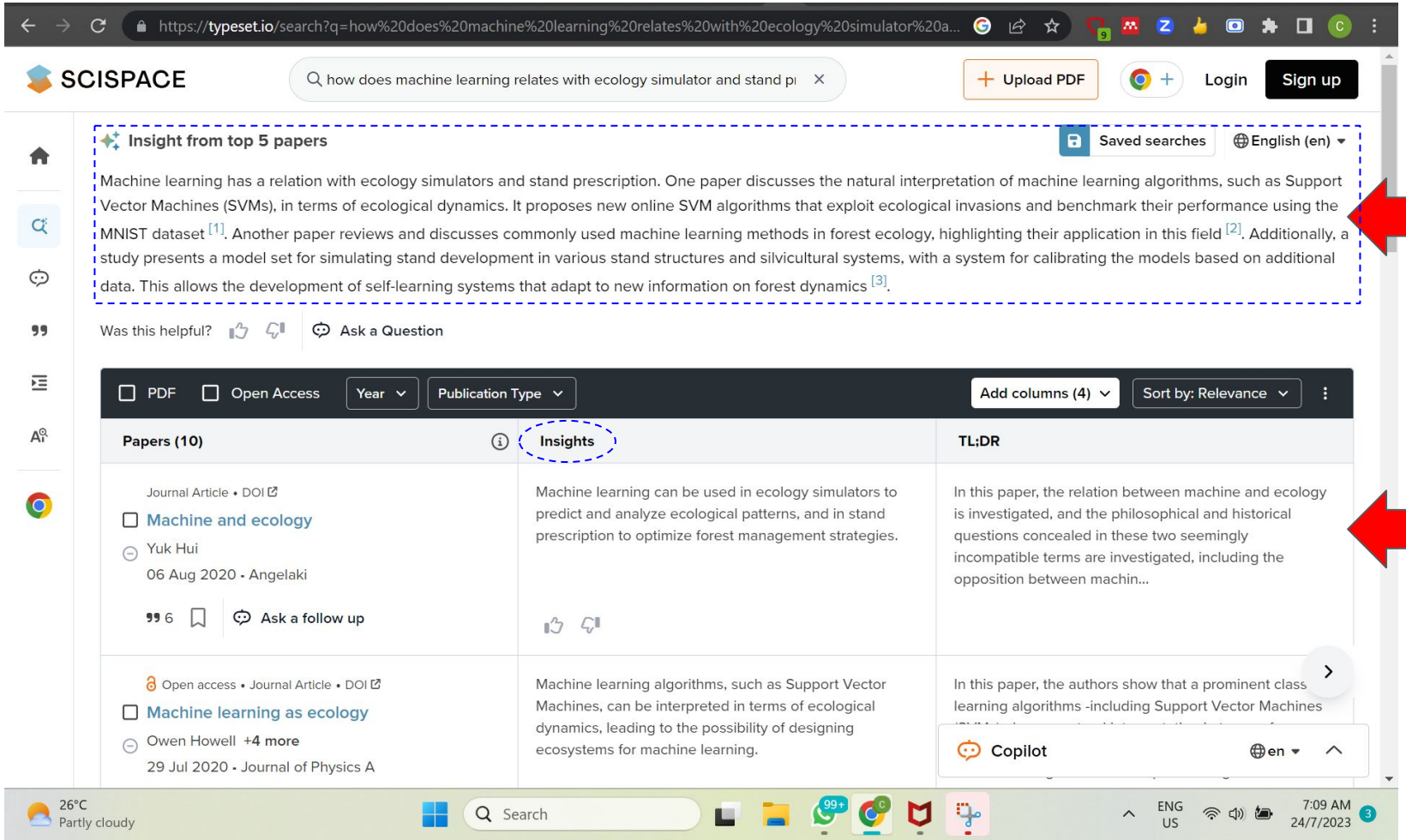
Answer

Ecology simulators and machine learning are related in the following ways:

1. **Empirical Modeling and Prediction**: The ecological and environmental science communities have embraced machine learning for empirical modeling and prediction [1] [3]. Machine learning algorithms can be used to analyze ecological data and make predictions about various ecological phenomena.
2. **Species Richness Prediction**: Machine learning techniques, such as random forest and boosted regression models, can be used to predict species richness in ecological simulations [1]. These models can analyze spatial data and make predictions with little or no spatial bias.
3. **EcoSVM Algorithm**: The EcoSVM algorithm, which combines ecological principles with s

Ask follow-up...

4. **Predictive Modeling and Data Analysis**: Machine learning and deep learning algorithms are



Cerapan ringkasan untuk 5 kertas teratas disediakan

Ringkasan cerapan setiap kertas disediakan

https://elicit.org/search?q=how+does+stand+prescription+relates+with+machine+learning&token=01H5YX...

Update

Elicit

how does stand prescription relates with machine learning

FAQ Tasks Starred

Add information about all papers

- Abstract summary ✓
- Intervention
- Outcomes measured
- Number of participants

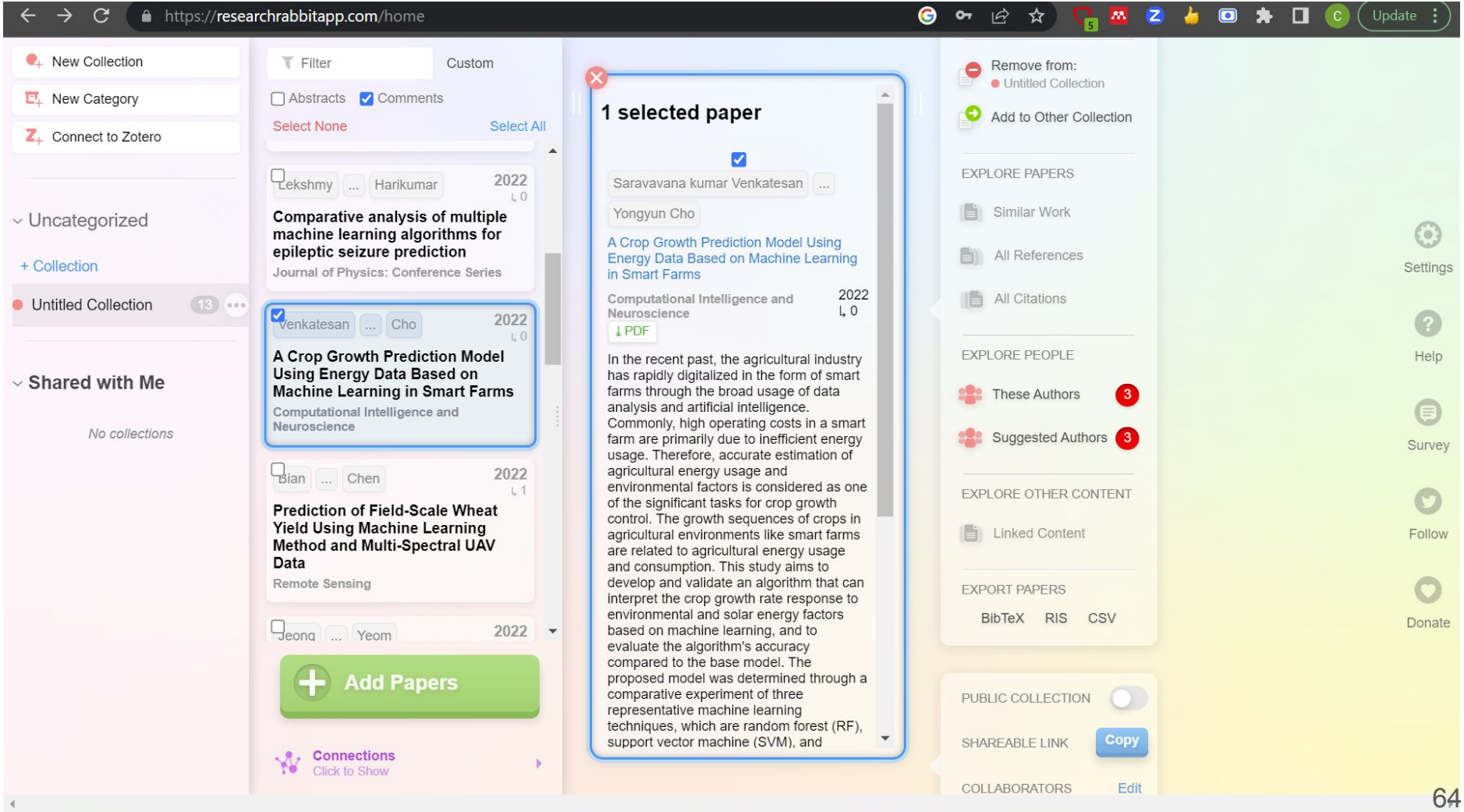
Search for paper information

What was the...

Has PDF | Filter | Sort by | Export as

Paper title	Abstract summary
Medicine Prescription System by using Machine Learning S. Suma, A. Surya 2021 1 Citations	Machine learning algorithms can be effective prediction of diseases can be done and providing precise medicine for the disease.
Machine Learning for Drugs Prescription P. Silva, Adriano Rivolli, P. Rocha, F. Correia, Carlos ... *IDEAL* 2018 0 Citations DOI	The prescription problem may be solved as a Multi-Label classification problem since, for each diagnosis, multiple drugs may be prescribed at the same time.
Review of machine learning algorithms' application in pharmaceutical technology Jelena Đuriš, Ivana Kurćubić, S. Ibrić *Arhiv za farmaciju* 2021 Review 2 Citations DOI	Machine learning algorithms can be especially helpful with the analysis of the large volume of data generated by the Process analytical technologies.

https://elicit.org/search?q=how+does+stand+prescription+relates+with+machine+learning&token=01H5YXERQ1S6BGKNX98E51YH5S&paper=deea8bfa422c34d0bddfef549a8714edd175d789&column=title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A Crop Growth Prediction Model Using Energy Data Based on Machine Learning in Smart Farms
Computational Intelligence and Neuroscience
Bian ... Chen 2022 1
Prediction of Field-Scale Wheat Yield Using Machine Learning Method and Multi-Spectral UAV Data
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Yongyun Cho
A Crop Growth Prediction Model Using Energy Data Based on Machine Learning in Smart Farms
Computational Intelligence and Neuroscience
2022 0
PDF
In the recent past, the agricultural industry has rapidly digitalized in the form of smart farms through the broad usage of data analysis and artificial intelligence. Commonly, high operating costs in a smart farm are primarily due to inefficient energy usage. Therefore, accurate estimation of agricultural energy usage and environmental factors is considered as one of the significant tasks for crop growth control. The growth sequences of crops in agricultural environments like smart farms are related to agricultural energy usage and consumption. This study aims to develop and validate an algorithm that can interpret the crop growth rate response to environmental and solar energy factors based on machine learning, and to evaluate the algorithm's accuracy compared to the base model. The proposed model was determined through a comparative experiment of three representative machine learning techniques, which are random forest (RF), support vector machine (SVM), and
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powerdrill

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Discover — Explore

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Upload your files, click, and your data visualizations will be ready in minutes.
Generate charts and graphs

Trend Forecasting
Analyze and forecast

Data Cleaner
Deduplicate data

AI Presentation Maker
Generate presentation

AI Data Report Generator
Generate data report

Ask me anything

Start a new chat

Presentation Templates

Contents

Statistical Analysis

- **Mean XCO**: The average XCO value across QUADs is 48.70, with a standard deviation of 27.95. The values range from 8.45 to 91.20.
- **Mean YCO**: The average YCO value is 96.93, with a standard deviation of 56.69. The values range from 8.05 to 190.81.

Visualization Insights

- **XCO Trend**: The XCO values show a cyclical pattern, with peaks and troughs occurring at regular intervals across the QUAD values.
- **YCO Trend**: The YCO values exhibit a generally increasing trend, with some fluctuations, indicating a rise in values as QUAD increases.

Conclusion and Insights

- **Cyclical Pattern in XCO**: The XCO values demonstrate a repeating cycle, suggesting periodic changes across QUADs.
- **Increasing Trend in YCO**: The YCO values tend to increase with higher QUAD values, indicating a potential correlation between QUAD and YCO.

Q2. Explore the potential correlation between the XCO and each of the D columns (D71, D79, D84, etc.) to determine if there are any significant relationships.

Correlation Coefficients

- **D71**: The correlation coefficient with XCO is **0.084**, indicating a very weak positive

New chat

Discover
Datasets
Presentations
BI Dashboards
Apps

History

Distance vs Food Exp...
QUAD Value Distribut...

NURFADHLINA BI...

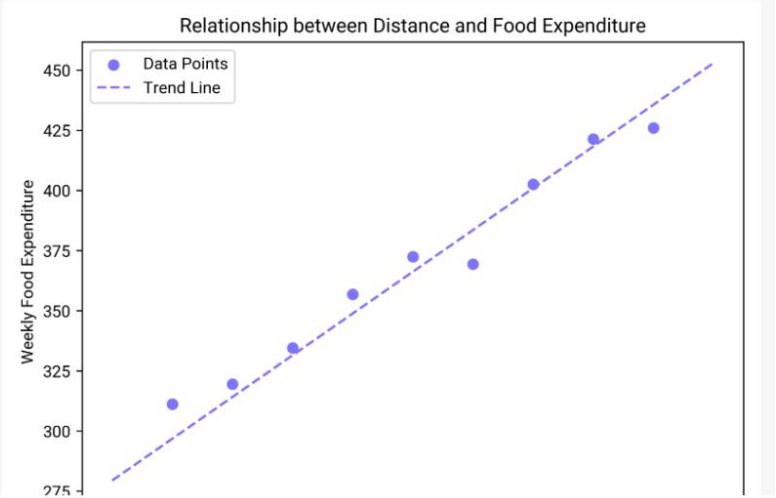
Powerdrill chat

Auto | Hide

Answer

Code 3 | Images 2 | Files 2

Generated images



Ask me anything

Send

Associated Dataset

Consumer Food Purchasing Beha...

CSV · 1 Files

Generate data report

Dataset summary

No keyword

This dataset analyzes consumer food purchasing behavior, detailing demographics and expenditure...

Exploration

What is the distribution of employment status among different education levels?

What is the distribution of income across different household sizes?

What is the relationship between household size and food status?

Bahagian 4

AI untuk Pengajaran dan Pembelajaran Interaktif

SCREEN SHOTS

Interaction modes

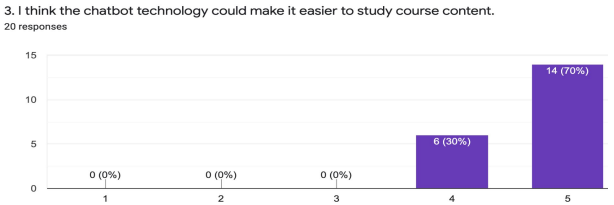
- follow the learning flow guided by CikguAIBot through the menu
- select specific topic (e.g., by typing "Menu Utama" and then send and choose your topic)
- typing your question in Malay (e.g., apakah maksud AI? or saya rasa gembira)

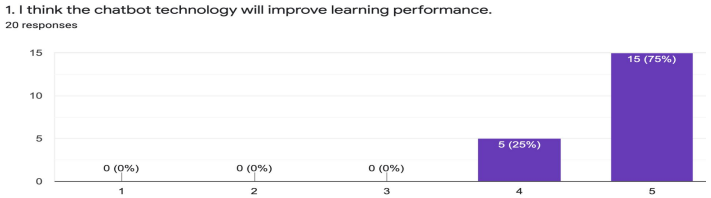
USER EXPERIENCES

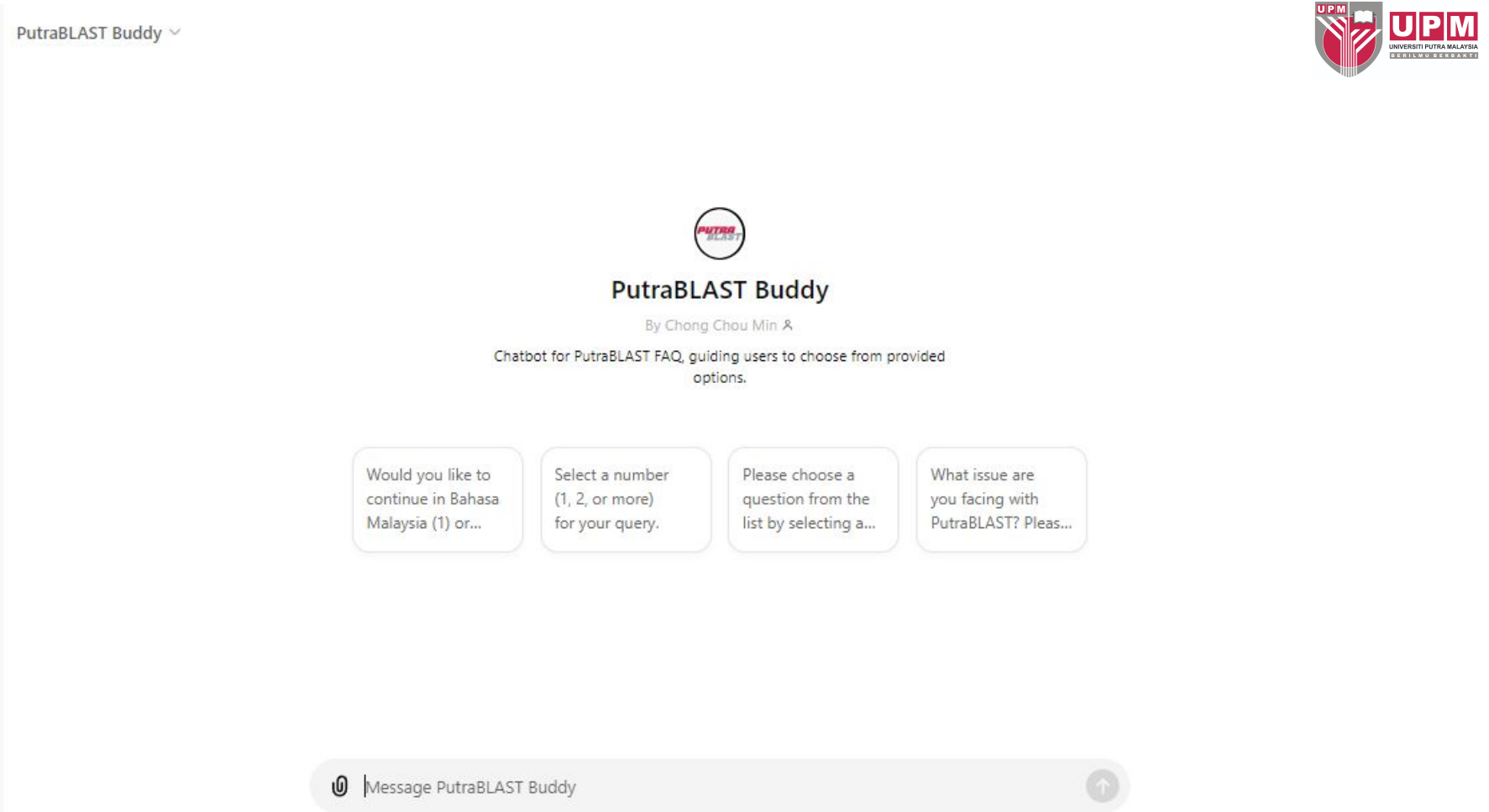
"I am very satisfied using the CikguAIBot. The CikguAIBot gives all the information needed about the topic precisely, including suggested links to the user if they are interested to learn more on the topic given. The generous pictures and infographics are very helpful. The quiz on certain topic also helpful and easy, straight forward kind of questions."

"Interesting. New experience and style of learning"

"Pada pandangan saya pada kali pertama menggunakan aplikasi ini saya berasa sangat teruja kerana appikasi sesuatu aplikasi yang sangat bermanfaat disamping sangat kreatif. Selain itu, aplikasi ini juga telah menyediakan maklumat yang begitu banyak dan mudah untuk difahami. Saya sangat berpuas hati"







https://chatgpt.com/g/g-YIkUkqEBK-putrablast-buddy

GenAI untuk Menyokong Pelajar

- *Brainstorming*
- *Research and project ideas*
- *Topic summarization*
- *Writing tools*
- *Test preparation*
- *Subject and career exploration*
- *Resume enhancement*
- *Interview preparation*
- *Portfolio development and evaluation*
- *Study guides*

30 AI tools to use in the classroom

DITCH THAT TEXTBOOK

Adobe Firefly | Bing Image Creator | Curipod | Bing Chat | QuestionWell | Goblin Tools | FigJam Jambot | Formative AI | KhanMigo | Diffit

ChatGPT | Google Bard | Pictory | Magic School | Education CoPilot | Copy.ai | EduAide.ai | Hello History | Grammarly | Magic Classroom

Got Feedback | Summarize. Tech | Conker | Perplexity | Parlay Genie | Nolej | Hey Pi | Quizizz AI | Twee | ChatPDF

Table 1. The AI competency framework high-level structure: aspects and progression levels

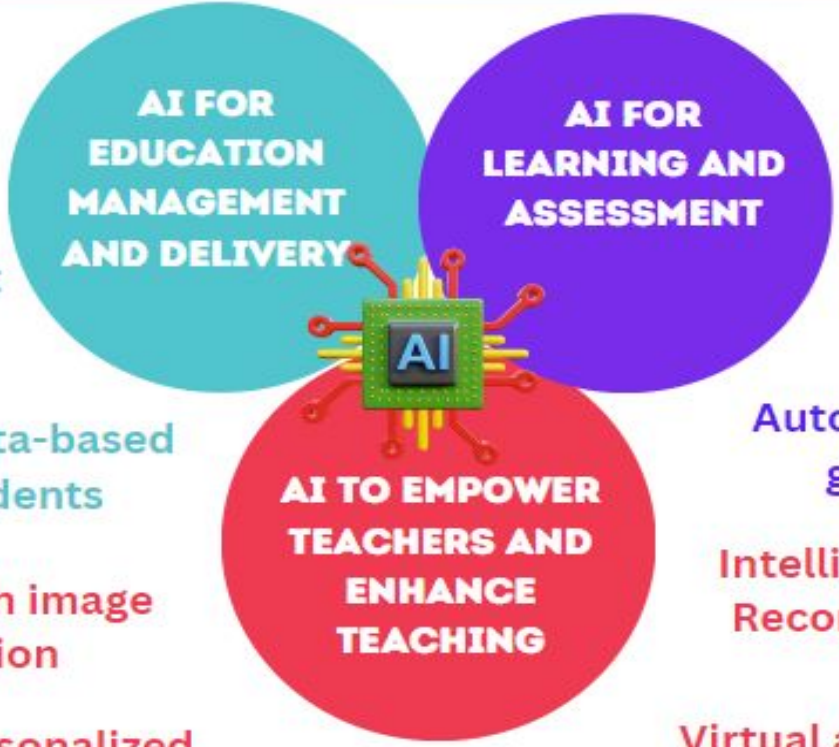
Aspects	Progression		
	Acquire	Deepen	Create
1. Human-centred mindset	Human agency	Human accountability	Social responsibility
2. Ethics of AI	Ethical principles	Safe and responsible use	Co-creating ethical rules
3. AI foundations and applications	Basic AI techniques and applications	Application skills	Creating with AI
4. AI pedagogy	AI-assisted teaching	AI–pedagogy integration	AI-enhanced pedagogical transformation
5. AI for professional development	AI enabling lifelong professional learning	AI to enhance organizational learning	AI to support professional transformation

Ref: AI competency framework for teachers - UNESCO Digital Library

Table 1. AI competency framework for students

Competency aspects	Progression levels		
	Understand	Apply	Create
• Human-centred mindset	• Human agency	• Human accountability	• Citizenship in the era of AI
• Ethics of AI	• Embodied ethics	• Safe and responsible use	• Ethics by design
• AI techniques and applications	• AI foundations	• Application skills	• Creating AI tools
• AI system design	• Problem scoping	• Architecture design	• Iteration and feedback loops

Applications of Artificial Intelligence in Education



Learning analytics to gain feedback to course quality

Chatbots for Enrollment and Retention

Customized and data-based feedback to students

Attendance tracker with image and video recognition

Personalized Learning Advisor

Plagiarism detection

Adaptive test for differentiated assessments

Automated grading and grade prediction

Intelligent Content Recommendation

Virtual assistants as course tutoring chatbots

Jenis AI untuk Pendidikan

AI-Powered Educational Games	Adaptive Learning Platforms	Chatbots for Student Support	Intelligent Tutoring Systems
Adapt to students' skill levels, interests, and learning styles, enhancing engagement and learning outcomes.	*Learning contents and activities are adjusted in real-time to match the learner's pace and level of understanding.*	*24/7 assistance, offering personalized help with academic questions, course content, and study resources.*	*Simulate one-on-one tutoring by providing tailored guidance, based on students' responses and learning needs.*

Kahoot!

SMART SPARROW

ada

KHANMIGO by Khan Academy

MINECRAFT

Riiid

Comm100

松鼠Ai 1对1 Squirrel Ai Learning

Prompt: Create a table that lists the task of a teacher and suitable AI apps for that task

Teacher Tasks and AI Tools

Teacher Task	AI Apps
Lesson Planning	ChatGPT, Planboard, Chalk
Content Creation	Canva, Beautiful.ai, Genially
Grading and Assessment	Gradescope, Turnitin, Feedback Studio
Student Engagement	Kahoot!, Quizizz, Nearpod
Personalized Learning	Century, Knewton, DreamBox Learning
Classroom Management	ClassDojo, Google Classroom, Edmodo
Language Translation	Google Translate, DeepL, Microsoft Translator
Text-to-Speech	Natural Reader, ReadSpeaker, Voice Dream Reader
Plagiarism Detection	Turnitin, Copyleaks, PlagScan
Data Analysis and Visualization	Tableau, PowerBI, Google Data Studio
Virtual Field Trips	Google Expeditions, Nearpod VR, 360 Cities
Parent Communication	Remind, ParentSquare, Bloomz
Time Management	RescueTime, Toggl, Forest
Note-Taking and Organization	Evernote, OneNote, Notion
Professional Development	Coursera, edX, LinkedIn Learning

Claude

Gemini

Teacher Tasks and AI Applications

Teacher Task	AI Application
Lesson Planning	Eduaide, Class Dojo, Jasper.ai
Grading and Assessment	Gradescope, Turnitin, Grammarly
Student Engagement	Kahoot!, Quizlet, Socratic
Administrative Tasks	Google Workspace (Docs, Sheets, Slides), Trello
Personalized Learning	Khan Academy, Knewton, ALEKS
Feedback and Communication	Remind, Edmodo, ClassDojo
Professional Development	Coursera, edX, Udemy
Accessibility Support	Read & Write for Google Chrome, Dragon NaturallySpeaking
Resource Creation	Canva, Jasper.ai, Midjourney
Data Analysis	Power BI, Tableau

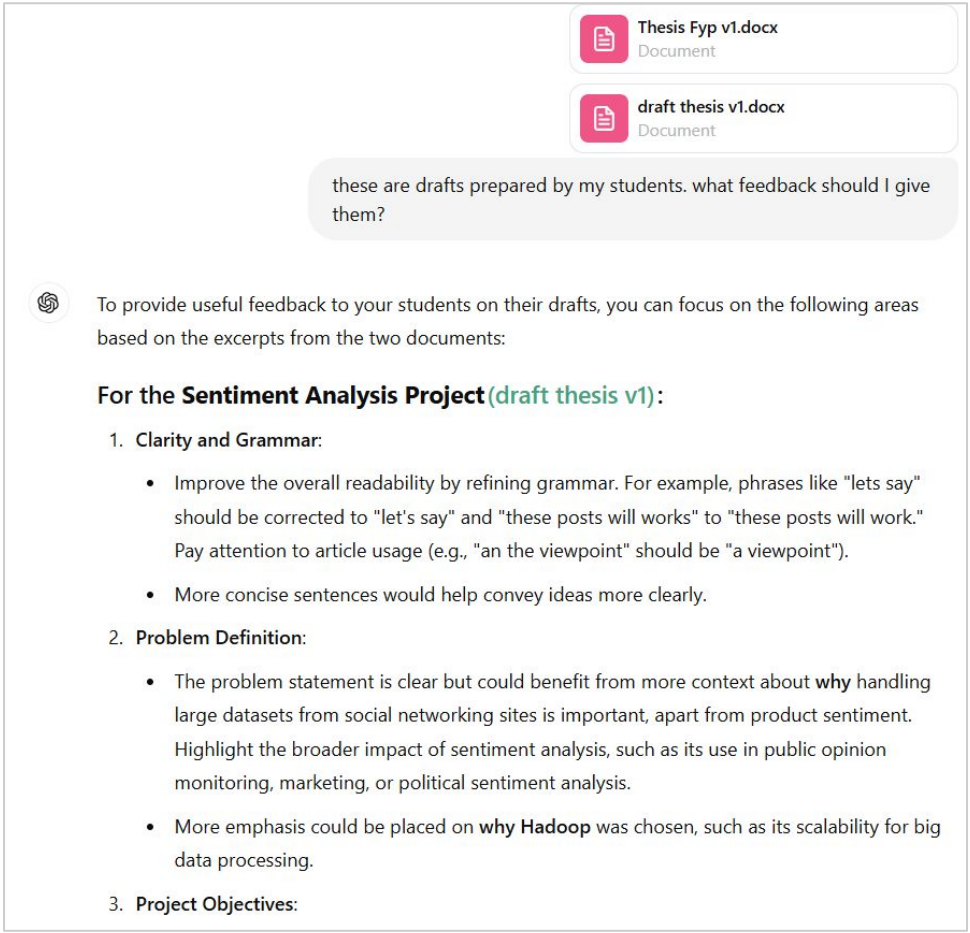
Contoh *prompts* untuk Memperhalusi Kualiti Interaksi dengan ChatGPT

1. Revise this piece of text to be more [clear, shorter, elaborated, concise, simple, complex, humorous]
2. Edit this paragraph for grammar
3. Generate some write up on the [topic] that meets the following criteria [paste criteria].
4. Rewrite this text in the style of [style name]
5. Summarize the [topic] in 50 words or less.
6. Write step-by-step directions for [topic]
7. I need further details than the above.
8. Give me more explanation. Focus on [specific]
9. Based on the following [criteria], give me 5 specific facts for [info]
10. Rewrite this email so it is more [ADJECTIVE] [PASTE EMAIL DRAFT]
11. Write a thank you email to a family member who [WAY THEY HELPED]
12. Describe [TOPIC] in detail
13. Write 10 discussion questions to talk about [TOPIC]
14. Write a model essay on [TOPIC] that includes [FEATURES]
15. Write a song in the style of [ARTIST/GENRE] that teaches students about [TOPIC]
16. Explain the process of [TASK] in [NUMBER] steps
17. Condense this into just [NUMBER] steps [PASTE TEXT]
18. Create a survey to see what [GRADE LEVEL] students would be most interested in learning about [TOPIC]
19. Provide some examples of open-ended questions to include in a student survey about [TOPIC]
20. Can you suggest some interactive games or activities that can help reinforce learning in [TOPIC]?

You can keep on interacting with ChatGPT, ask it to refine and personalise your request!

ChatGPT

https://chatgpt.com/share/09dc7e2e-6359-4f8a-8e44-471d88741f5c



Bagaimana mengesan ChatGPT?

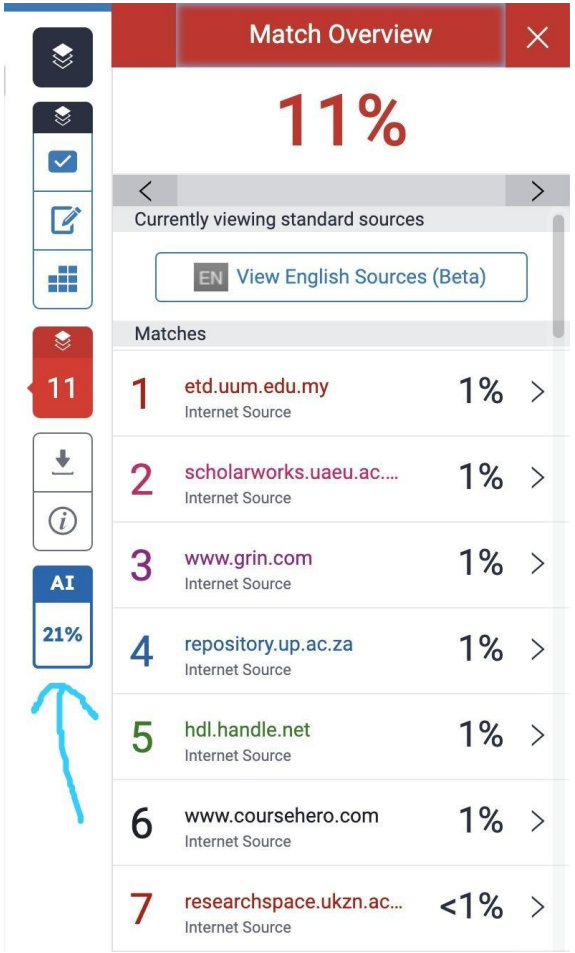
Educators need to redesign the activities and assessments in their teaching (as advised in UPM's guide for ChatGPT in teaching and learning). For detecting ChatGPT, several tools can be used:

https://x.writefull.com/gpt-detector

https://detector.dng.ai

https://gptzero.me

https://writer.com/ai-content-detector/



Bagaimana mengesan ChatGPT?

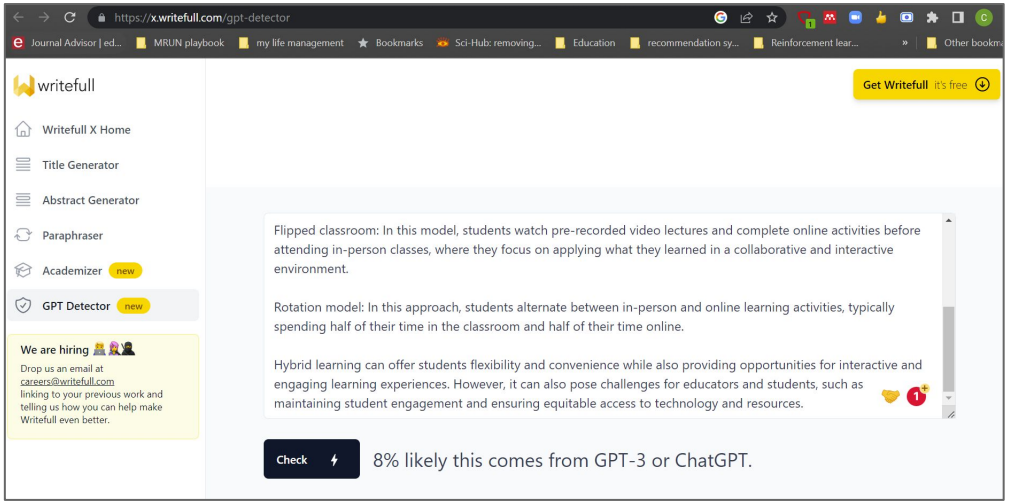
hybrid learning

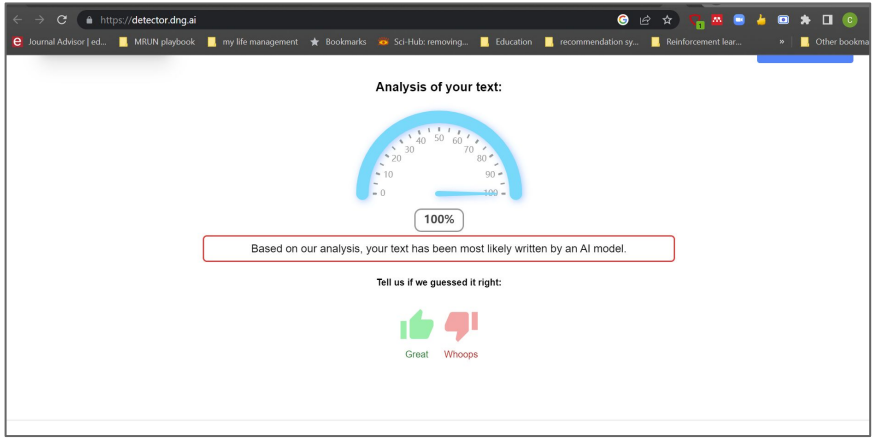
Hybrid learning is an approach to education that combines both in-person and online learning experiences. In a hybrid learning model, students attend some classes or activities on-campus, while also participating in some online activities or coursework.

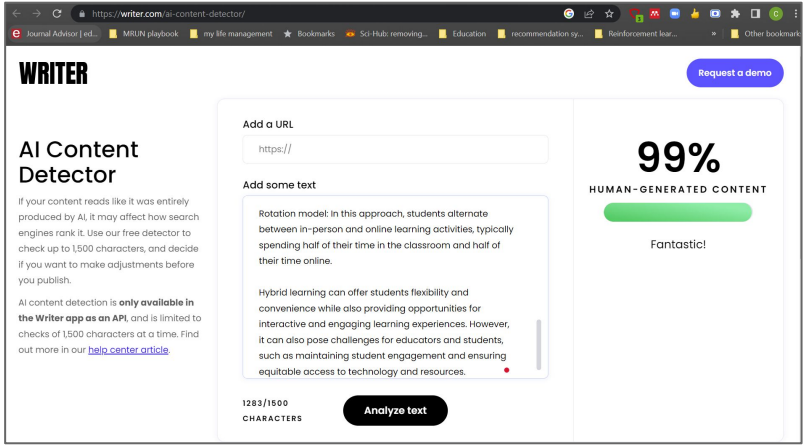
Hybrid learning models can vary depending on the specific institution or program, but some common examples include:

1. Blended learning: This approach combines face-to-face instruction with online learning activities, such as recorded lectures, discussion forums, and online assessments.
2. Flipped classroom: In this model, students watch pre-recorded video lectures and complete online activities before attending in-person classes, where they focus on applying what they learned in a collaborative and interactive environment.
3. Rotation model: In this approach, students alternate between in-person and online learning activities, typically spending half of their time in the classroom and half of their time online.

Hybrid learning can offer students flexibility and convenience while also providing opportunities for interactive and engaging learning experiences. However, it can also pose challenges for educators and students, such as maintaining student engagement and ensuring equitable access to technology and resources.







https://openai.com/chatgpt/enterprise/

Journal Advisor | ed... | my life management | Bookmarks | Sci-Hub: removing... | Education | Reinforcement learn... | iGIMS | artificial intelligence | powerbi | Other favor

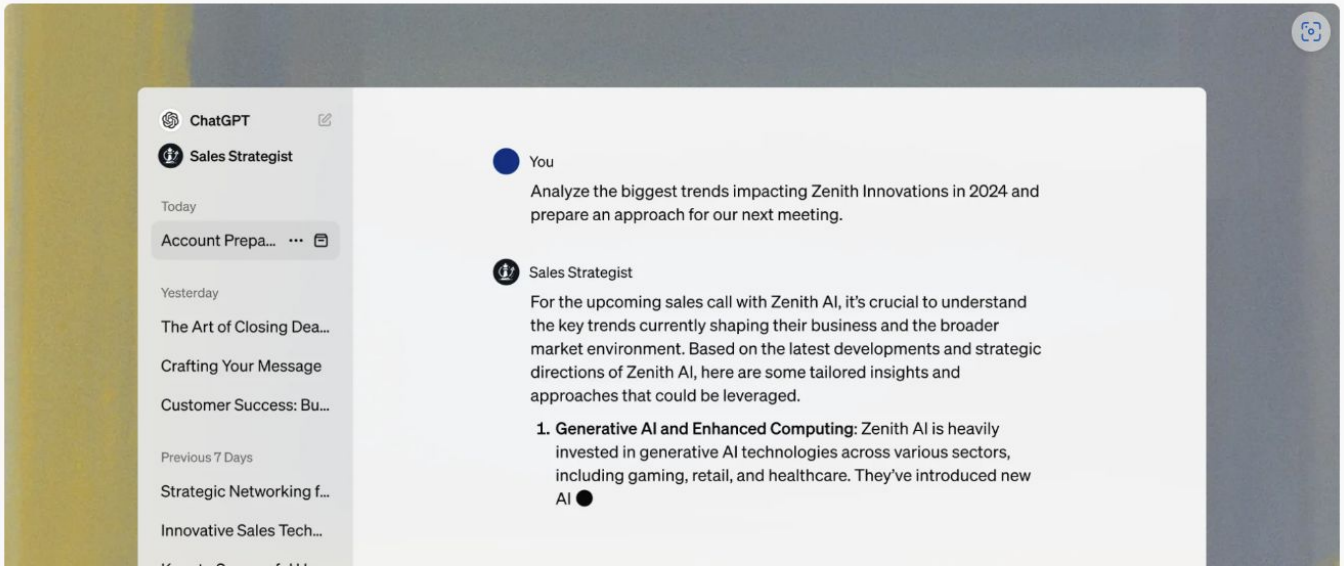
ChatGPT

Overview Team Enterprise Education Pricing

ChatGPT Enterprise

Customize ChatGPT to any workflow and collaborate across teams

Engineering Marketing **Sales & success** Finance & accounting IT Operations HR & recruiting



teachmateai.com

TeachMateAI Tools Help Sign Up Log In

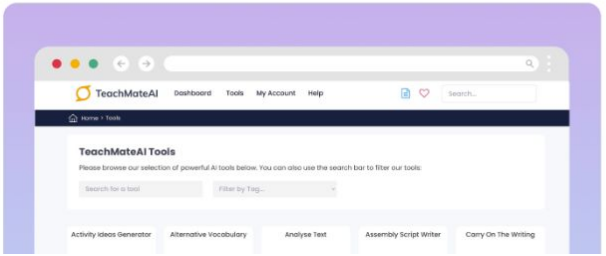
Home

The #1 AI assistant for teachers and school leaders, trusted by over 218,000 educators worldwide.

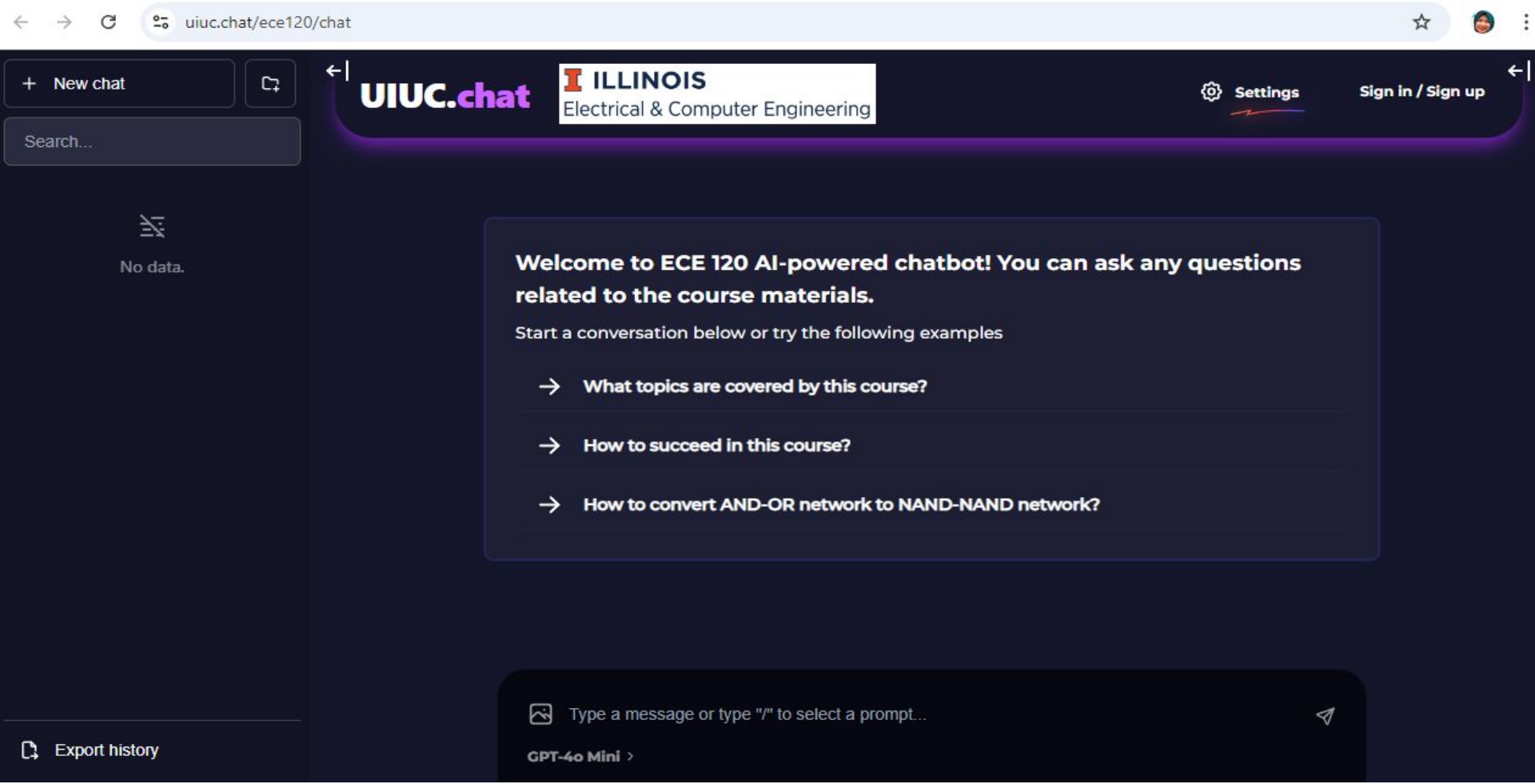
Instant support for teachers. Heavy lifting by AI.

Imagine having more 'me time' with AI teaching tools designed to support you every day — from creating bespoke lesson plans or instant teacher presentations to generating personalised student reports.

TeachMateAI is the leading education AI assistant, trusted by over 218,000 teachers and school leaders worldwide worldwide. To date, we've saved teachers 108,637 days of time with our innovative AI powered tools.



Purpose built for **all phases of education**, TeachMateAI is your AI-powered digital assistant, designed by teachers and tech experts to help you take control of your valuable time. Try our library of AI tools with FREE access to



https://www.uiuc.chat/ece120/chat

buddygpt.ai

BuddyGPT.AI

Use cases Support

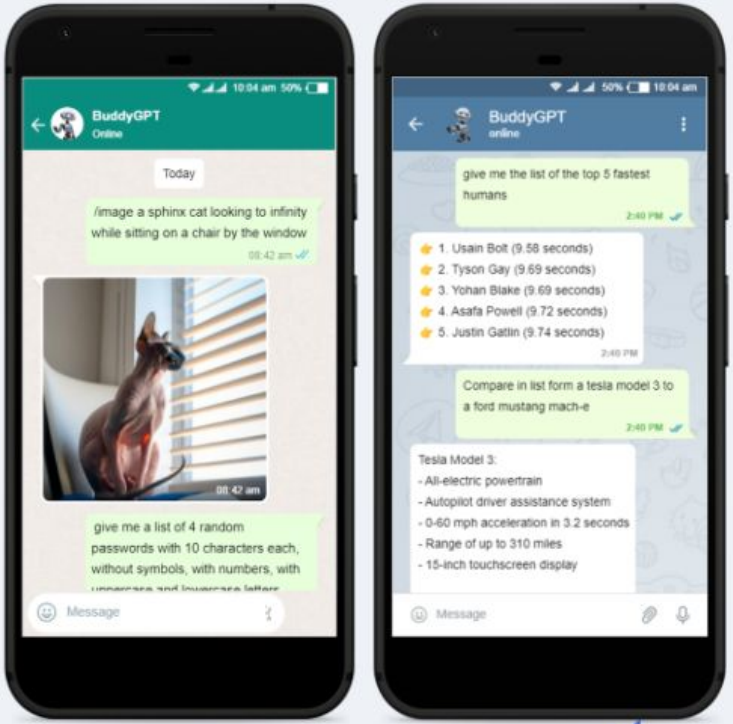
Try for free on Telegram

The power of ChatGPT, on Whatsapp and Telegram

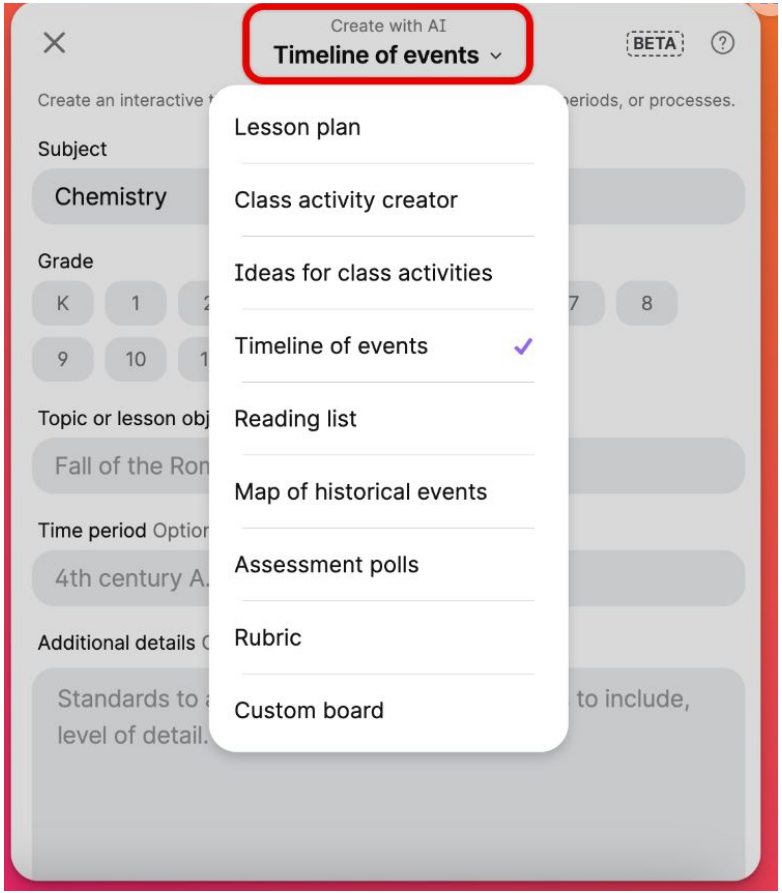
Powered by OpenAI

Use BuddyGPT however you want:

- Recipes
- Learning
- Images
- Marketing
- School work
- Translations
- Travel Itinerary
- Training Plans
- Music
- And much more!



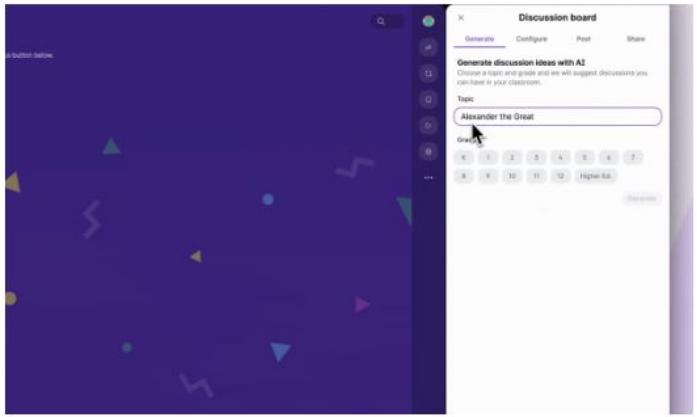
Padlet can auto-generate various content for teaching and learning purposes



NEW May 11, 2024

AI-guided discussion boards

Co-create engaging discussion questions and prompts with the assistance of AI. The AI generates suggestions that you can reject, edit, or approve, giving you complete control while benefiting from its creative input. Stimulate critical thinking and encourage student participation with thought-provoking discussions.



Padlet can auto-generate course content but verification is needed by the human instructor

:Padlet

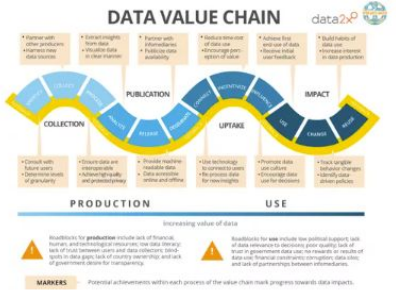
NURFADHLINA BINTI MOHD SHAREF /FSKTM • 3m

Data Mining Course Content

Comprehensive Resources and Lessons

Introduction to Data Mining

Course Overview



Welcome to the Data Mining course! In this post, we will discuss the course structure, objectives, and key takeaways. Ensure you go through this to have a clear understanding of what to

Data Preprocessing

Data Cleaning and Preparation

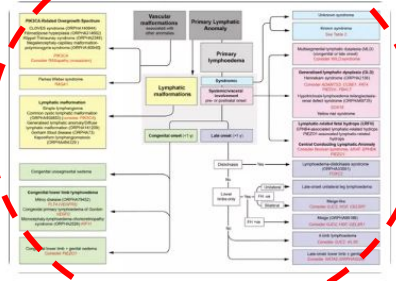
monkeylearn.com

8 Effective Data Cleaning Techniques for Better Data

Learn how to clean and prepare your data for analysis. This session covers techniques for handling missing values, noise, and inconsistencies in the data.

Data Mining Techniques

Classification



Classification is a fundam technique in data mining. lesson, we will explore va classification algorithms l Decision Trees, Naive Bay K-Nearest Neighbors.

This content is not suited for this topic

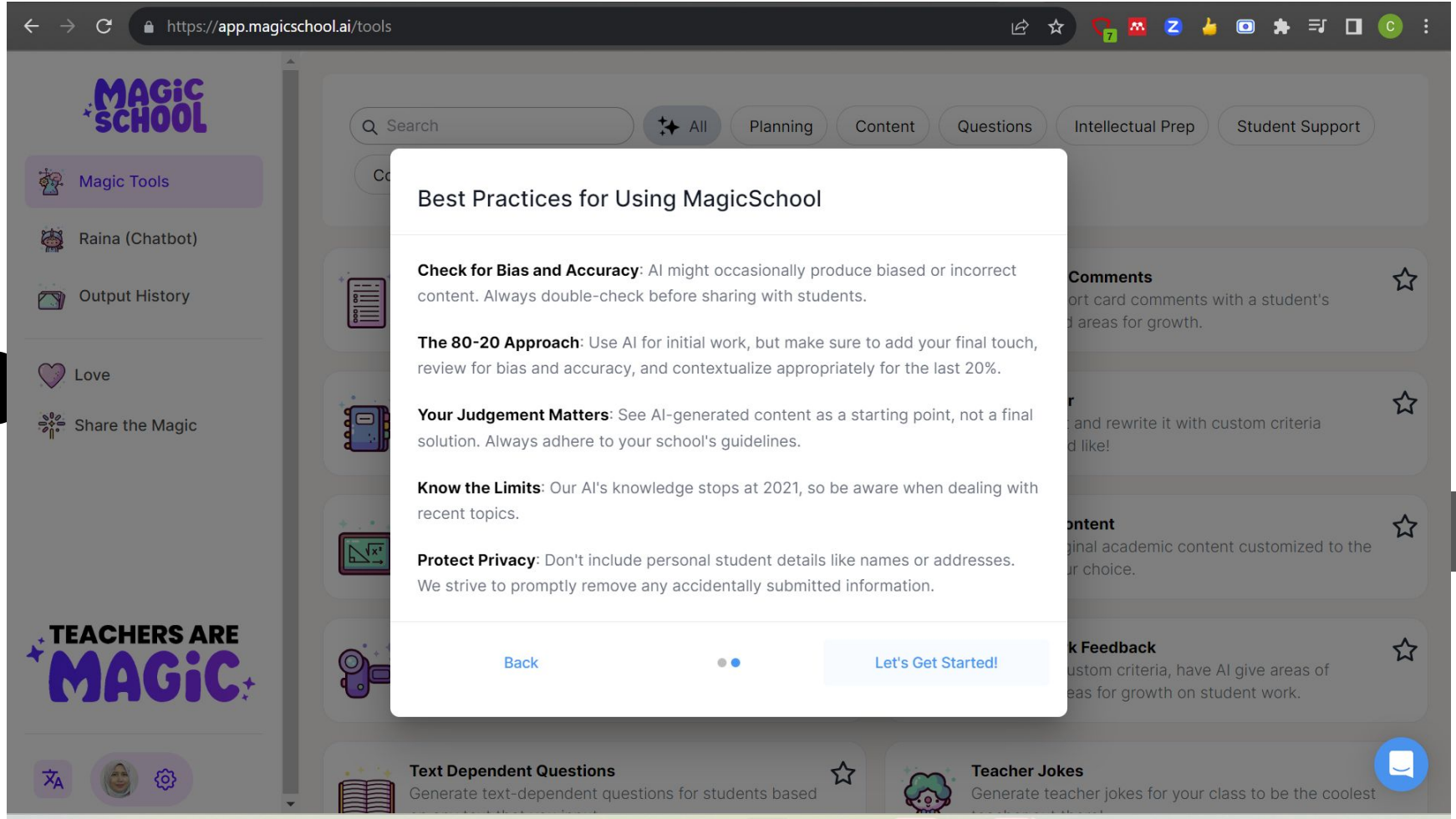
Evaluation and Validation

Model Evaluation Metrics

analyticsvidhya.com

12 Important Model Evaluation Metrics Everyone Should

s metrics to mance of your such as accuracy, precision, recall, and F1-score


https://app.magicschool.ai/tools
MAGIC SCHOOL
Search
All
Planning
Content
Questions
Intellectual Prep
Student Support
Magic Tools
Raina (Chatbot)
Output History
Love
Share the Magic
Best Practices for Using MagicSchool
Check for Bias and Accuracy: AI might occasionally produce biased or incorrect content. Always double-check before sharing with students.
The 80-20 Approach: Use AI for initial work, but make sure to add your final touch, review for bias and accuracy, and contextualize appropriately for the last 20%.
Your Judgement Matters: See AI-generated content as a starting point, not a final solution. Always adhere to your school's guidelines.
Know the Limits: Our AI's knowledge stops at 2021, so be aware when dealing with recent topics.
Protect Privacy: Don't include personal student details like names or addresses. We strive to promptly remove any accidentally submitted information.
Back
Let's Get Started!
Comments
and rewrite it with custom criteria
Feedback
Text Dependent Questions
Generate text-dependent questions for students based
Teacher Jokes
Generate teacher jokes for your class to be the coolest
TEACHERS ARE MAGIC

https://app.magicschool.ai/tools

MAGIC SCHOOL

- Magic Tools
- Raina (Chatbot)
- Output History
- Love
- Share the Magic

TEACHERS ARE MAGIC

Multiple Choice Assessments
Create a multiple choice assessment based on any topic, standard(s), or criteria!

Report Card Comments
Generate report card comments with a student's strengths and areas for growth.

Rubric Generator
Have AI write a rubic for an assignment you are creating for your class in a table format.

Text Rewriter
Take any text and rewrite it with custom criteria however you'd like!

Lesson Plan
Generate a lesson plan for a topic or objective you're teaching.

Academic Content
Generate original academic content customized to the criteria of your choice.

YouTube Video Questions
Generate guiding questions aligned to a YouTube video.

Student Work Feedback
Based on a custom criteria, have AI give areas of strength & areas for growth on student work.

Text Dependent Questions
Generate text-dependent questions for students based on any text that you input.

Teacher Jokes
Generate teacher jokes for your class to be the coolest teacher out there!

Informational Texts
Generate original informational texts for your class, customized to the topic of your choice.

IEP Generator
Generate a draft of an individualized education program (IEP) customized to a students' needs.

https://app.magicschool.ai/tools/rubric-generator

Behavior Intervention Suggestions

Generate a list of suggestions for behavior intervention based on the behaviors of a student that needs support.

Grade level:

University

Areas to Support:

The student gets a high mark for mid term exam but low marks for lab assignments especially when conducted as group work

2

Generate

Behaviors to support: Struggling with low marks for lab assignments, especially in group work settings after achieving high marks in mid-term exams

1. **Individualized Task Adaptations** - Providing the student with modified lab assignments that cater to their learning style and strengths, ensuring they can showcase their knowledge effectively in a group setting.
2. **Peer Collaboration Training** - Conducting workshops or training sessions to enhance the student's ability to work effectively in group settings, fostering teamwork skills, communication, and mutual support among peers during lab assignments.
3. **Feedback and Reflection Sessions** - Implementing regular feedback sessions with the student to discuss their performance in lab assignments, highlighting areas of improvement and setting goals collaboratively to boost their engagement and success in group work scenarios.

Copy Export Read Aloud More

Could you provide the assistant with specific examples of the student's struggles in group work settings?

Have you discussed with the assistant about implementing peer collaboration training to enhance the student's teamwork skills?

Actions

Send a message

Always review content for accuracy and bias; use professional judgment and comply with school policies.

Bahagian 5

Penutup

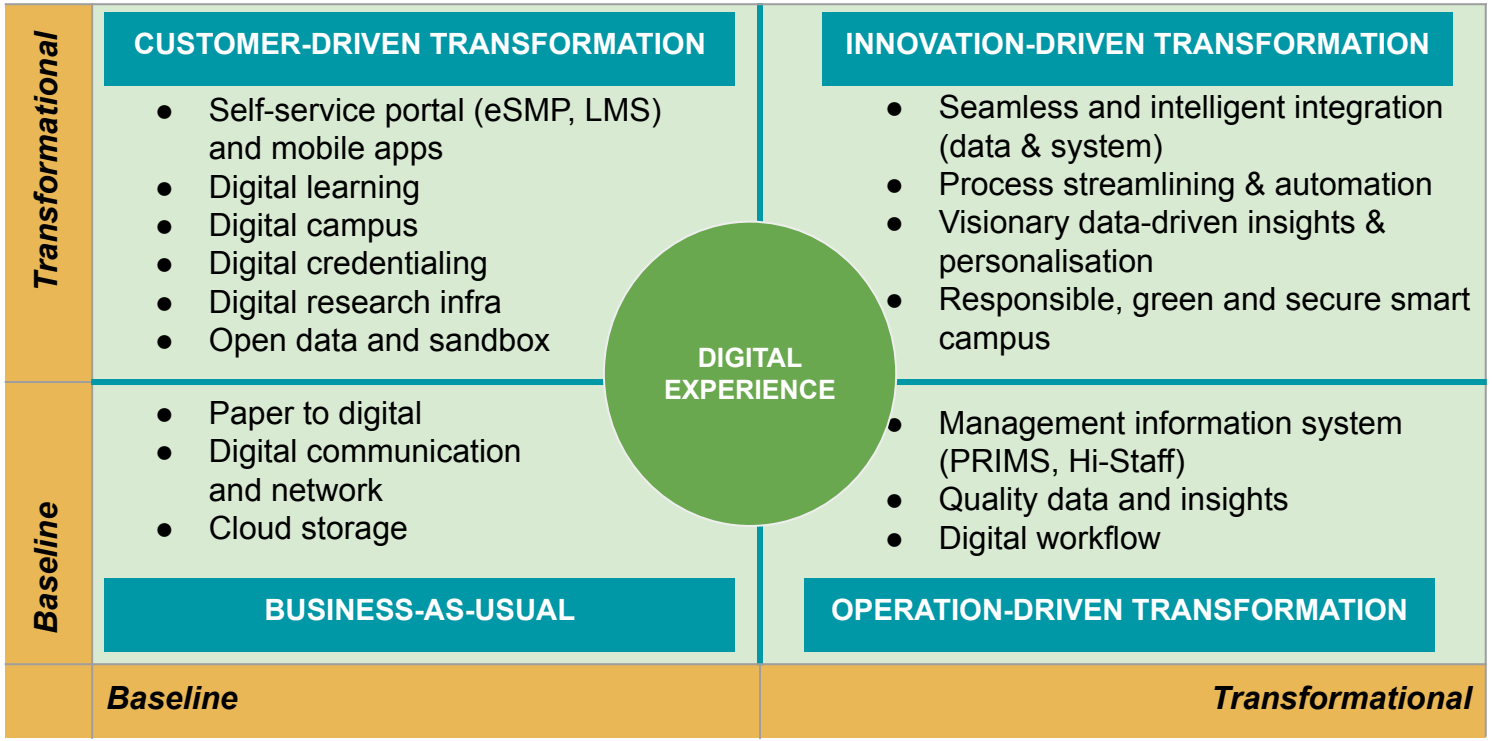
Technology Does not Revolutionize Education; Humans Do!

It is humans who create the systems and institutions that educate children, and it is the leaders of those systems who decide which tools to use and how to use them.

Until those institutions modernize to accommodate the new possibilities of these technologies, we should expect incremental improvements at best.

https://www.linkedin.com/pulse/digital-maturity-model-vital-strategy-thriving-automated?utm_source=share&utm_medium=member_ios&utm_campaign=share_via

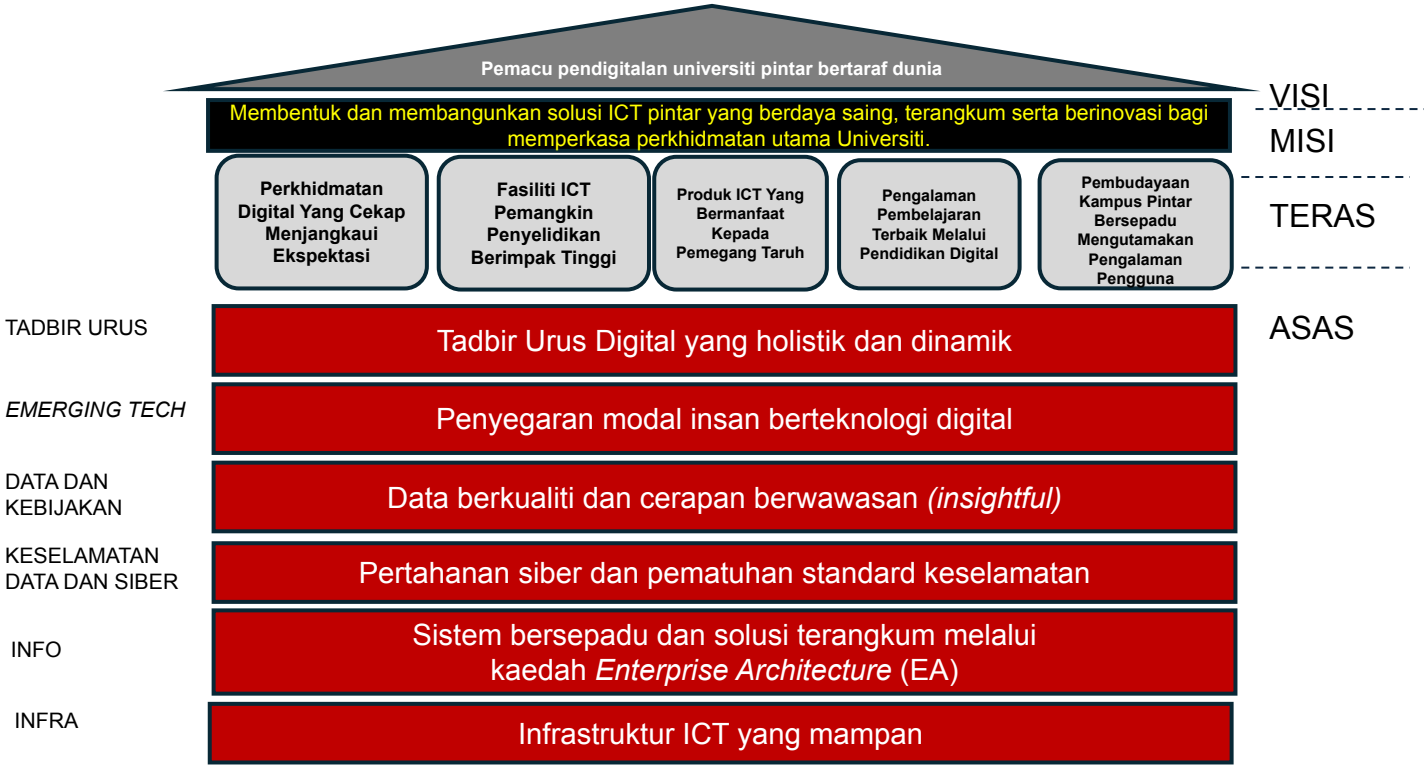
UPM digital aspirations



Stakeholder-driven (External)

Operational-driven (Internal)

UPM *Digital Transformation Framework*

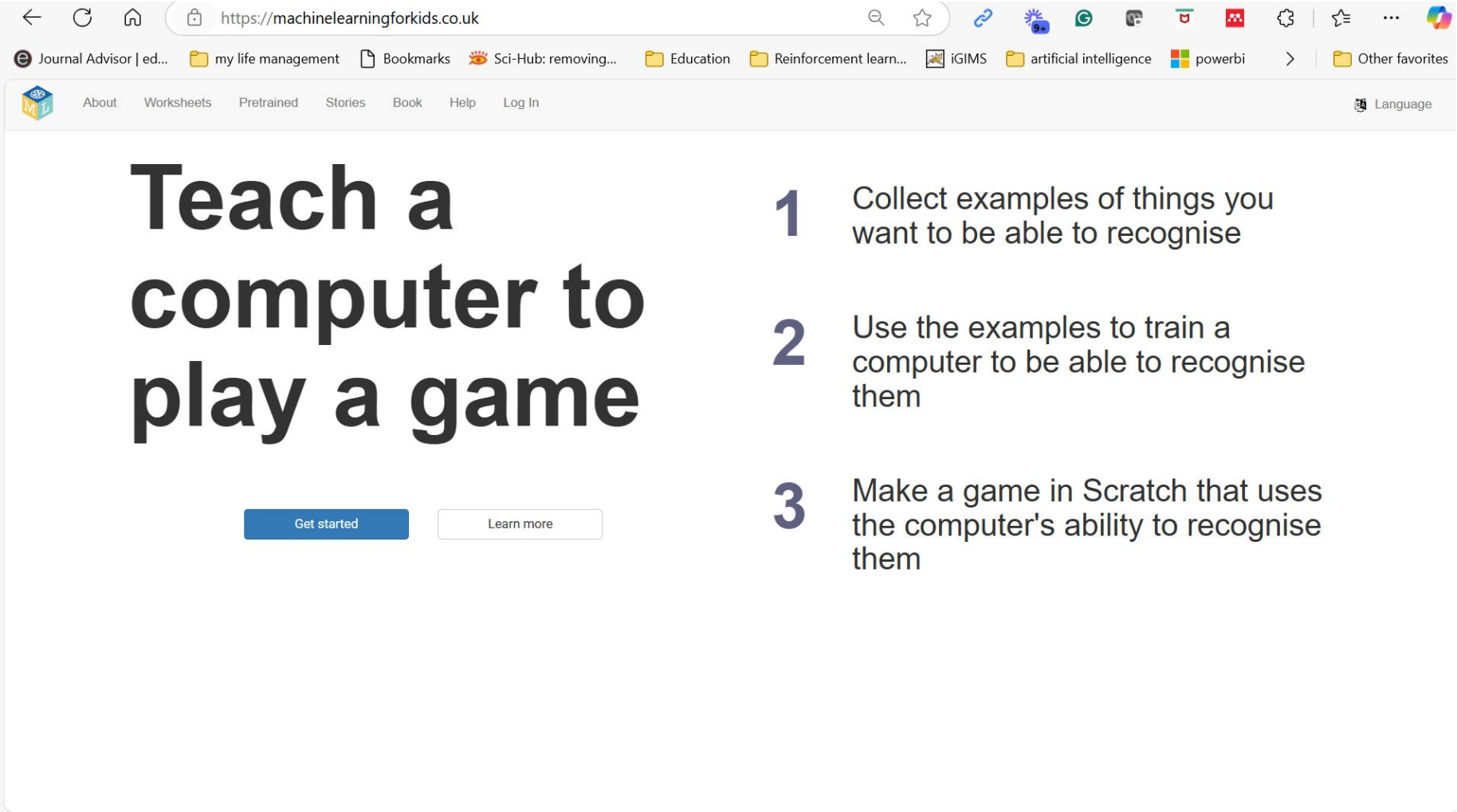


Kemaskini: 27 November 2024

Ingredients for a responsible AI adoption

Responsible AI in education is like baking a delicious cake:

- **Fair ingredients:** Use AI that treats everyone equally, no matter what.
- **Clear recipe:** Make sure everyone understands how AI works in the classroom.
- **Fresh data:** Only use clean and safe information to train AI.
- **Humans in charge:** AI is a helper, not a replacement for teachers.
- **Human goals first:** Use AI to make digital experience more personal and effective.
- **Keep checking the oven:** See how AI is working and make adjustments as needed.


https://machinelearningforkids.co.uk
Journal Advisor | ed...
my life management
Bookmarks
Sci-Hub: removing...
Education
Reinforcement learn...
iGIMS
artificial intelligence
powerbi
Other favorites
About
Worksheets
Pretrained
Stories
Book
Help
Log In
Language
Teach a computer to play a game
Get started
Learn more
1
Collect examples of things you want to be able to recognise
2
Use the examples to train a computer to be able to recognise them
3
Make a game in Scratch that uses the computer's ability to recognise them

THANK YOU

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nurfadhlina@upm.edu.my