# Integrating AI into Instructional Design: Enhancing Youth Work

Welcome to our exploration of how artificial intelligence can transform educational frameworks and youth engagement.

This presentation will guide you through practical applications and ethical considerations for implementing AI in your teaching practice.

France Culture Connection

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AI SMART EDU AI
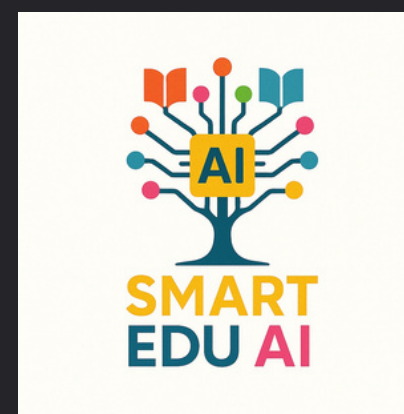
Gagné's 9-step model

provides a comprehensive framework
for designing structured and engaging learning experiences.

Beginning Phase

1. Gain attention
2. Inform objectives
3. Stimulate recall of prior knowledge

Middle Phase

4. Present content,
5. Provide guidance
6. Elicit performance from learners

Final Phase

7. Provide feedback,
8. Assess performance
9. Enhance retention of knowledge

How AI Enhances Each Step

Engagement & Orientation

- AI creates interactive attention-grabbing content
- Generates personalized learning objectives
- Analyzes prior knowledge and provides reminders

Content & Practice

- Recommends tailored learning resources
- Virtual tutors offer real-time support
- Generates adaptive practice exercises

Assessment & Retention

- Provides immediate, personalized feedback
- Creates automated, adaptive assessments
- Suggests spaced repetition for long-term retention

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A Student-Centered Approach

The 5E Model promotes active learning through structured yet flexible stages.

Explore

Students investigate concepts through hands-on activities

Engage

Spark curiosity with interesting questions or scenarios

Explain

Students articulate their understanding of concepts

Evaluate

Assessment of learning through various methods

Elaborate

Apply knowledge to new situations and deepen understanding

AI's Role in Each Stage

Engage & Explore

AI creates captivating interactive scenarios to spark curiosity.

Students use AI-powered simulations to explore concepts independently.

Explain & Elaborate

AI provides personalised explanations based on learning pace.

Students apply knowledge through AI-guided project work.

Evaluate

AI enables adaptive assessments that adjust difficulty.

Provides immediate feedback with targeted improvement suggestions.

AI in Action: A Science Lesson

Engage
Chatbot poses intriguing question: "How do plants survive without eating?"

Explore
Students manipulate light and water in AI simulation.

Explain
AI generates explanations tailored to student questions.

Elaborate
Students create projects using AI-suggested resources.

Evaluate
AI grades quizzes and offers specific improvement tips.

Why Use AI?

Personalisation

AI adapts content to individual learning styles. Students progress at their own pace.

Engagement

Interactive AI tools maintain youth interest. Learning becomes more enjoyable.

Efficiency

Automated tasks free educators for meaningful interactions. Administrative burden decreases.

Accessibility

AI provides resources for underserved populations. Educational equity improves.

Navigating Challenges with AI

Privacy Concerns
- Implement robust data protection measures
- Obtain appropriate consent for data collection
- Ensure compliance with educational privacy laws

Algorithmic Bias
- Audit AI systems for potential bias
- Use diverse training data sets
- Maintain human oversight of AI recommendations
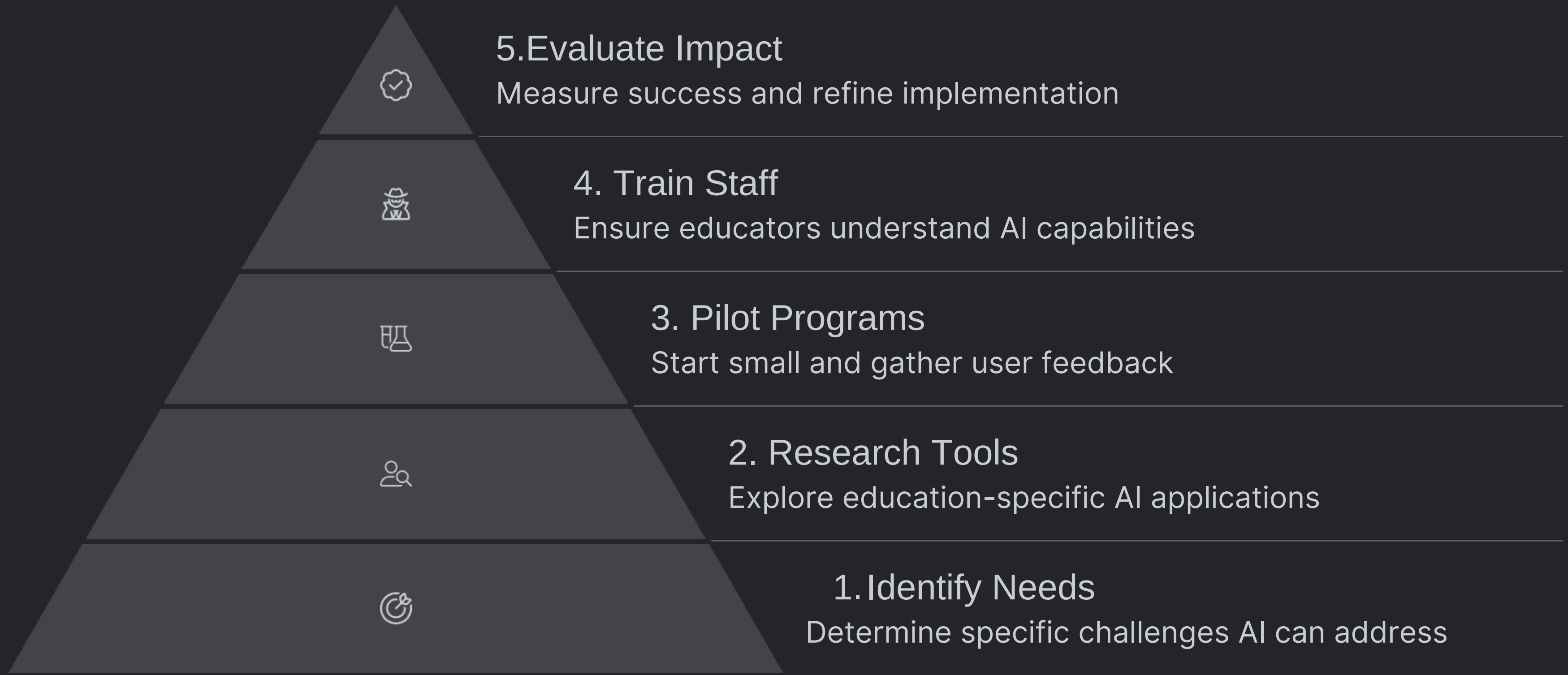
Digital Divide
- Create offline AI capabilities
- Provide technology access programs
- Design for low-bandwidth environments

Human Connection
- Use AI as a complement to human teaching
- Preserve meaningful in-person interactions
- Focus AI on administrative tasks when possible

Steps to Integrate AI in Your Work

5. Evaluate Impact
Measure success and refine implementation

4. Train Staff
Ensure educators understand AI capabilities

3. Pilot Programs
Start small and gather user feedback

2. Research Tools
Explore education-specific AI applications

1. Identify Needs
Determine specific challenges AI can address

Begin your AI integration journey with a clear understanding of your educational objectives.

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1. Hybrid Tools for Both Models Generative AI (LLMs like ChatGPT) Features:

Customizable prompts can generate lesson content aligned with Gagné's 9 Events or the 5E Model.

Techniques like Chain of Thought (CoT) refine outputs for coherence, while Low-Rank Adaptation (LoRA) fine-tunes models for pedagogical accuracy.

Example Use Case:

Prompt:
"Generate a lesson plan on photosynthesis using Gagné's 9 Events, including formative assessments and guided practice."

Chat GPT

Claude ai

Perplexity

✅ **When ChatGPT Is Useful**

 - **E**xplains complex ideas in simple terms
 - Helps write and improve texts
- Creates quizzes, lesson plans, or summaries
- Boosts productivity (translation, research, planning)

❌ **Limitations of ChatGPT**

- May give incorrect or outdated info
- Lacks deep understanding or context
- Doesn't think or judge ethically
- Risk of overreliance and reduced critical thinking

Chat gpt/Claude ai

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Perplexity

✅ **When Perplexity AI Is Useful**

- Answers questions with **web-sourced citations**
- Helps with **up-to-date research** and fact-checking
- Summarizes news, articles, or academic content
- Useful for students, researchers, and curious learners

❌ **Limitations**

- Quality depends on **sources retrieved from the web**
- May miss nuance or context in complex topics
- Cannot replace **critical analysis** or human insight
- Risks of **over-reliance** and shallow understanding

NotebookLM

✅ **When NotebookLM Is Useful**

- Summarizes and explains **your uploaded documents**
- Helps generate insights from **notes, PDFs, research papers**
- Answers questions based **only on your sources**
- Great for students, researchers, and writers

❌ **Limitations**

- Limited to the documents you upload — **no general knowledge**
- May miss context if files are poorly formatted
- Doesn't replace **deep reading or analysis**
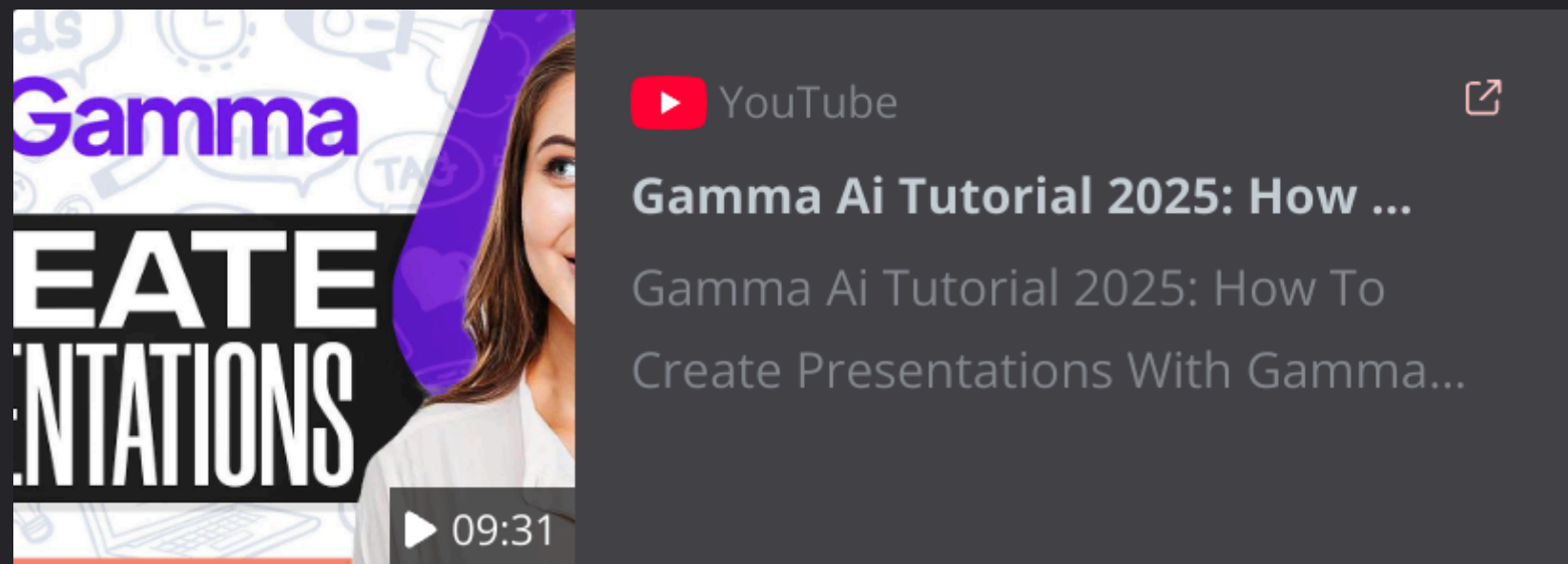- Not ideal for real-time web search or broad queries

Gamma

Gamma is an AI-powered presentation and document creation platform that aims to provide a new medium for presenting ideas. It enables users to create beautiful presentations, documents, and websites without requiring design or coding skills.

YouTube

Gamma Ai Tutorial 2025: How ...

Gamma Ai Tutorial 2025: How To Create Presentations With Gamma...

▶ 09:31

Prezi

Prezi is a cloud-based presentation platform that enables the creation of non-linear, visually dynamic presentations through a zoomable user interface. Unlike traditional slide-based tools, Prezi organizes content spatially on a single canvas, allowing users to emphasize relationships between ideas and concepts. This approach supports a more interactive and engaging form of visual communication, often used in educational, professional, and research contexts to enhance audience understanding and retention.

Team Work
(National team)

Each group will design a short AI training session for teachers and students by creating an 8-slide presentation.

The training will be structured using Gagné's 9 Events of Instruction and the 5E instructional model to ensure pedagogical coherence and engagement.

Each group will focus on a specific digital tool, and explore its educational potential when enhanced by AI to create a presentation about:

- Group1: Magic school
- Group2: Logicball
- Group3: Khan Academy

Research will be conducted using Perplexity AI, content development supported by ChatGPT or Claude AI, and the final presentation will be created using Gamma.
You can exporte the powerpoint file to Canva to personalise it.

2. For Gagné's 9 Events of Instruction MagicSchool AI's Lesson Plan Generator Features:

Generates structured lesson plans aligned with educational standards (e.g., ISTE, Common Core).

Customizable templates that allow educators to define learning objectives, guided practice, independent work, and assessments.

Includes options for technology integration and differentiation strategies.

Alignment with Gagné's Model:

Focuses on "gaining attention" (engagement), "informing learners of objectives", and "providing feedback" through guided practice and closure activities.

Automates steps like "presenting content" and "eliciting performance", reducing preparation time while maintaining pedagogical rigor.

YouTube

Magic School Tutorial For Tea...

Full training in the free option in Magic School AI 2025. My Website...
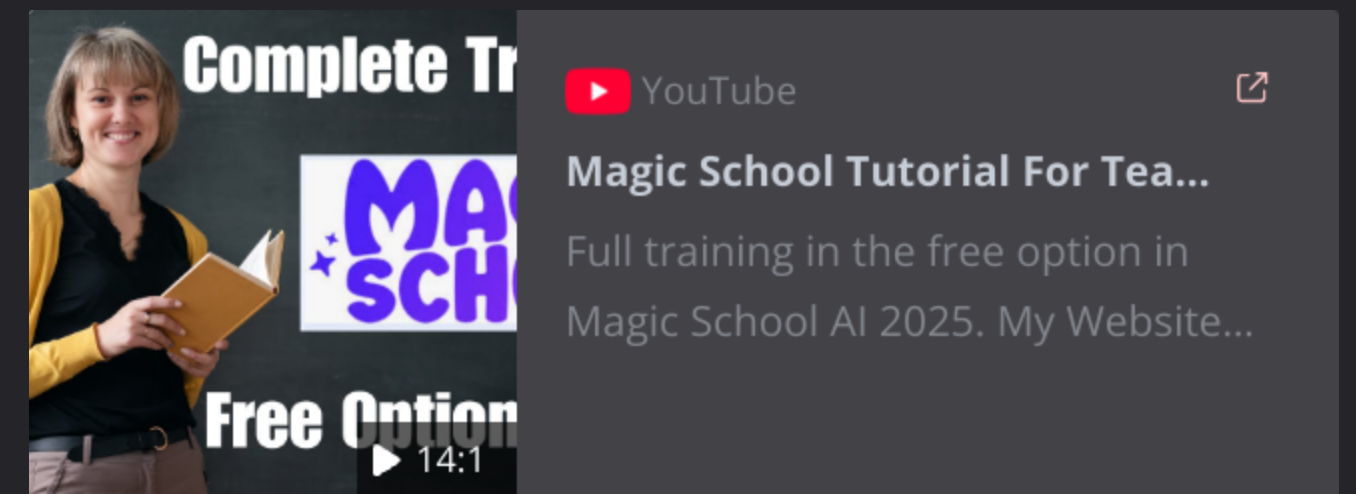
Logicballs

LogicBall AI is an all-in-one content creation platform powered by artificial intelligence. It helps users quickly generate high-quality written and visual content—including articles, social media posts, product descriptions, and images—using intuitive tools and customizable templates. Designed for marketers, educators, entrepreneurs, and content creators, LogicBall AI streamlines the creative process, saves time, and boosts productivity.
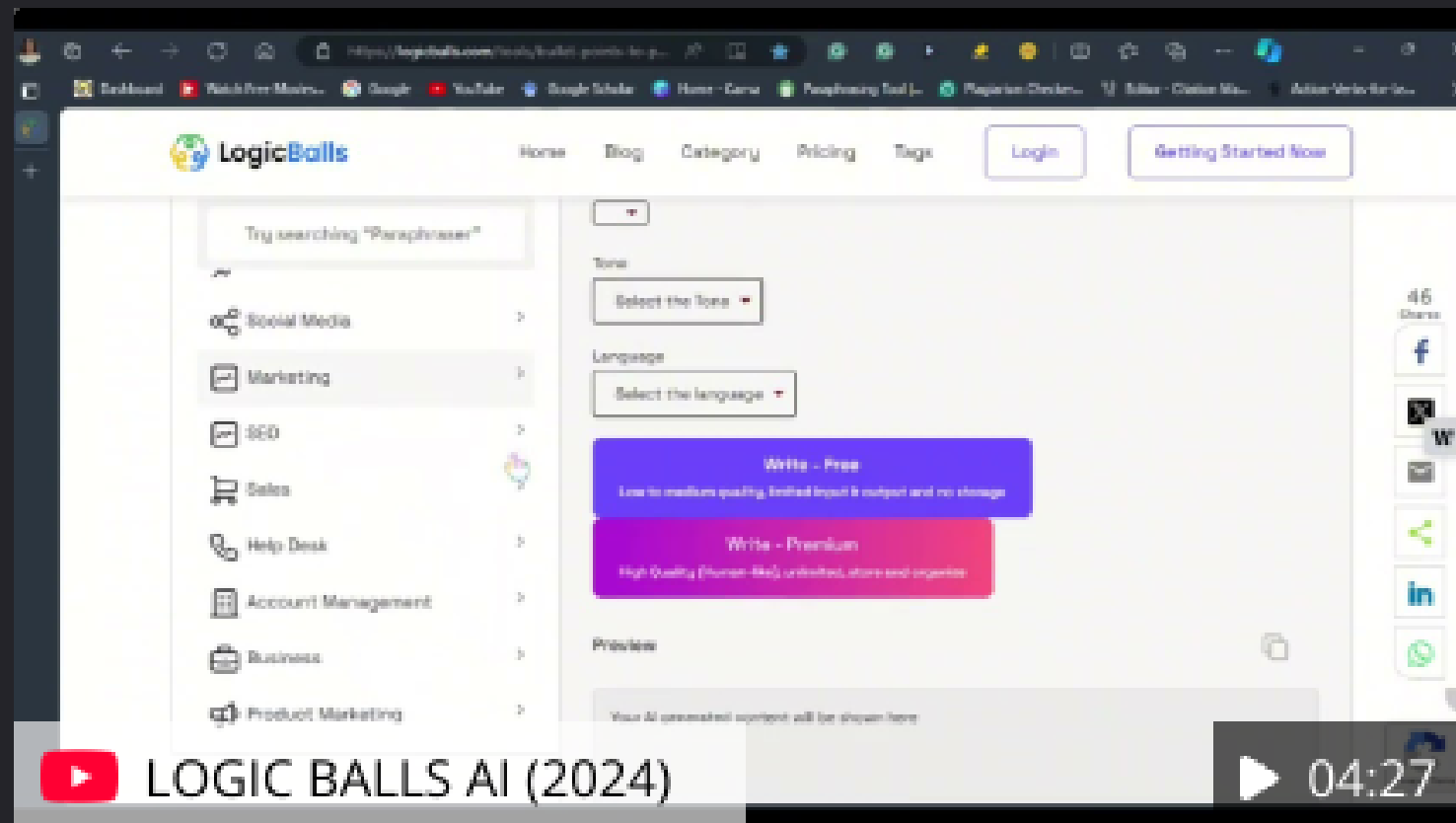
Khan academy

How Khan Academy Works

Registration and Course Selection : Users sign up and choose from a wide range of subjects, including mathematics, science, and art history.

Video Lessons and Quizzes : Courses are structured into units with educational videos and quizzes to reinforce understanding.

Personalized Learning : Khan Academy uses algorithms to identify each student's strengths and weaknesses, allowing learning at their own pace.

Gamification : Users earn points and badges to motivate their progress.

Usefulness of Khan Academy

Free Access to Education :

Khan Academy is free and accessible to everyone worldwide, contributing to democratizing education.

Personalized Learning Experience : It allows students to learn at their own pace, filling gaps and accelerating learning where they are advanced.

Tools for Teachers : Teachers can use Khan Academy to identify students' gaps and adjust their teaching accordingly.

Continuing Education : Khan Academy also offers courses on life skills, such as internet safety and financial management.

06:38

YouTube

Top 10 AI Tools for Teachers in 2025 || Tech Tools for Educators

🎥 **Welcome to Tech Tools for Educators!** Are you ready to revolutionize your classroom with cutting-edge AI tools? 🚀 In this video, we dive into the **Top 10 AI...**