

AI News Digest

12/22/2025 - 12/28/2025

WEEKLY DIGEST: EDUCATION & LEADERSHIP

Weekly Summary of Top AI Articles

This week, significant advancements in AI education and tools were highlighted across various articles. MIT's new major in Artificial Intelligence and Decision Making reflects the growing importance of AI in academia. Additionally, innovative tools like NotebookLlama and Gistr are reshaping how knowledge is organized and shared. Meanwhile, practical resources such as free AI courses and Docker projects are making AI more accessible to learners at all levels.

KEY FINDINGS

- ✓ MIT is launching a new major focused on AI and Decision Making.
- ✓ NotebookLlama offers an open-source solution for converting PDFs to podcasts.
- ✓ Gistr enhances knowledge organization for data professionals using AI.

IMPLICATIONS

- The introduction of AI-focused academic programs may lead to a new generation of AI professionals.
- Open-source tools like NotebookLlama democratize access to advanced content formats.
- AI-driven applications like Gistr could significantly improve productivity for knowledge workers.

Key Metrics: Number of new AI courses available: 7; Time to learn Microsoft Power Automate: Under 10 minutes; Number of practical Docker projects for beginners: 5

1. MIT in the media: 2025 in review

Category: Education

Departments: Computer Science, Engineering Education & Leadership, Electrical & Computer Engineering, Political Science & Public Administration

Topics: AI Education, Human-Technology Interaction, Quantum AI Applications, Decision Making Systems

Impact Score: 25.0

Rubric Scores

Research Relevance: 4

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

MIT has made significant strides in various scientific domains, particularly in artificial intelligence and quantum technology, as highlighted during a recent campus visit by Chronicle. The Institute's new Artificial Intelligence and Decision Making major aims to equip students with skills to develop AI systems and understand human-technology interactions. Additionally, MIT has launched the Quantum Initiative (QMIT) to address challenges in science, healthcare, and national security, emphasizing the field's potential for substantial impact. These developments underscore MIT's commitment to innovation and practical education in emerging technologies.

<https://news.mit.edu/2025/mit-media-review-1222>

2. Build Your Own NotebookLlama: A PDF to Podcast Pipeline (Open, Fast, and Fully Yours)

Category: Applications

Departments: Computer Science, Engineering Education & Leadership

Topics: Generative AI, PDF Text Extraction, Text-to-Speech Synthesis, Scriptwriting Automation

Impact Score: 23.0

Rubric Scores

Research Relevance: 4

Educational Value: 5

Innovation / Novelty: 4

Practical Impact: 5

Interdisciplinary Potential: 3

Ethical / Policy Implications: 2

The article introduces NotebookLlama, an open-source implementation designed to replicate the PDF-to-podcast functionality of Google's NotebookLM. It outlines a four-stage workflow that transforms raw text from PDFs into polished MP3 audio files featuring a natural dialogue between two speakers. The process includes PDF text extraction, text cleaning using the Llama 3.1 model, creative scriptwriting, and audio generation through a text-to-speech engine. The implementation emphasizes transparency and control, allowing users to inspect outputs at each step and ensuring a restartable pipeline.

<https://www.analyticsvidhya.com/blog/2025/12/build-your-own-notebookllama/>

3. Gistr: The Smart AI Notebook for Organizing Knowledge

Category: Applications
Departments: Computer Science, Engineering Education & Leadership
Topics: Enterprise AI, Knowledge Management Automation, Dynamic Workspace Integration, Data Science Productivity Tools

Impact Score: 21.0

Rubric Scores

Research Relevance: 3	Educational Value: 4	Innovation / Novelty: 4
Practical Impact: 5	Interdisciplinary Potential: 3	Ethical / Policy Implications: 2

Gistr is an AI-native notebook designed to enhance the organization and interaction of knowledge for data professionals. Unlike traditional note-taking applications, Gistr integrates AI to facilitate the consolidation of diverse information sources, such as tutorials, articles, and code, into a cohesive and dynamic workspace. It addresses the challenges of fragmented knowledge by enabling users to efficiently recall, summarize, and connect insights across projects, thereby improving productivity and fostering deeper understanding in data science tasks. The tool employs structures like collections, threads, and sources to streamline workflows and automate knowledge management processes.

<https://www.kdnuggets.com/gistr-the-smart-ai-notebook-for-organizing-knowledge>

4. Think Your Python Code Is Slow? Stop Guessing and Start Measuring

Category: Applications
Departments: Computer Science, Engineering Education & Leadership
Topics: AI Hardware, Performance Profiling, cProfile Tool, Snakeviz Visualization

Impact Score: 16.0

Rubric Scores

Research Relevance: 2	Educational Value: 4	Innovation / Novelty: 3
Practical Impact: 4	Interdisciplinary Potential: 2	Ethical / Policy Implications: 1

The article discusses a systematic approach to optimizing a slow Python script by utilizing profiling tools to identify performance bottlenecks. It introduces two specific tools: cProfile, a built-in Python profiler, and snakeviz, which visualizes profiling data interactively. The author outlines the setup of a development environment using conda and provides a sample script designed to exhibit performance issues across CPU, memory, and iteration tasks. The goal is to demonstrate how to effectively analyze and improve code performance based on empirical data rather than assumptions.

<https://towardsdatascience.com/think-your-python-code-is-slow-stop-guessing-and-start-measuring/>

5. How to Use Microsoft Power Automate? [In Under 10 Minutes]

Category: Business

Departments: Computer Science, Engineering Education & Leadership

Topics: Enterprise AI, Workflow Automation, No-Code Automation, Integration with Third-Party Apps

Impact Score: 15.0

Rubric Scores

Research Relevance: 1

Educational Value: 4

Innovation / Novelty: 2

Practical Impact: 4

Interdisciplinary Potential: 3

Ethical / Policy Implications: 1

Microsoft Power Automate is an AI-powered automation tool designed to streamline repetitive, rules-based tasks in various business processes. It enables users to automate workflows with minimal coding, allowing for improved accuracy and consistency in task execution. The tool operates on a 'Trigger to Action' model, where specific events initiate predefined actions, facilitating the creation of automated workflows known as Flows. Power Automate integrates seamlessly with both Microsoft and third-party applications, enhancing overall efficiency and reducing manual workload.

<https://www.analyticsvidhya.com/blog/2025/12/microsoft-power-automate-guide-for-beginners/>

6. Top 7 Free AI Courses with Certificates

Category: Education

Departments: Engineering Education & Leadership, Educational Leadership

Topics: AI Education, Online Learning Platforms, Certificate Programs, Inclusive AI Training

Impact Score: 14.0

Rubric Scores

Research Relevance: 1

Educational Value: 5

Innovation / Novelty: 2

Practical Impact: 3

Interdisciplinary Potential: 2

Ethical / Policy Implications: 1

This article presents a curated list of seven free AI courses, each tailored to different learning preferences and goals. The courses range from beginner-friendly introductions to AI concepts, such as Google's "Introduction to AI," to more comprehensive paths like LinkedIn Learning's "Getting Started with AI and ML." Each course offers a free certificate upon completion, catering to various learners, including those seeking academic foundations, practical job readiness, or strong fundamental knowledge in AI and machine learning. The selection emphasizes inclusivity and accessibility in AI education.

<https://www.analyticsvidhya.com/blog/2025/12/free-ai-courses-with-certificates/>

7. 5 Fun Docker Projects for Absolute Beginners

Category: Education

Departments: Computer Science, Engineering Education & Leadership

Topics: Enterprise AI, Docker Containerization, Continuous Integration Automation, Multi-Container Management, Monitoring and Logging Stack

Impact Score: 13.0

Rubric Scores

Research Relevance: 1

Educational Value: 4

Innovation / Novelty: 2

Practical Impact: 3

Interdisciplinary Potential: 2

Ethical / Policy Implications: 1

This article outlines a series of five practical projects designed to teach users essential Docker skills through hands-on experience. The projects include hosting a static website with Nginx, managing multi-container applications using Docker Compose, connecting multiple application containers to a shared database, automating continuous integration with Jenkins, and building a logging and monitoring stack with Prometheus, Loki, and Grafana. Each project emphasizes the reproducibility and isolation benefits of Docker, enabling users to effectively manage applications and services in a consistent environment. The tutorials aim to enhance understanding of Docker's capabilities beyond theoretical knowledge.

<https://www.kdnuggets.com/5-fun-docker-projects-for-absolute-beginners>