

DUPAGECOUNTY

Technology Committee – IT Projects Update



Technology Committee

Technology Project Updates





ERP Action Plan Update

ENTERPRISE RESOURCE PLANNING

Highlights:

- HR/Payroll Systems and Payroll Outsourcing RFPs
 - Selected an HR/Payroll System and Payroll Outsourcing Vendor
 - OnActuate / Ceridian (Dayforce)
 - Implementation will begin in August 2023
 - 12-month anticipated implementation schedule
- Finance ERP RFP
 - RFP developed. Will advertise in 2024

Watch Items:

Finance ERP RFP launch timing





DuPageCounty.gov Project



What: Change all county email addresses from "dupageco.org" to "dupagecounty.gov"

Highlights:

- The .gov migration was put on hold due to competing priorities
- The project was restarted, and the team is working with domain migration third-party SMEs to move things forward
- Testing critical applications affected by the change, including but not limited to Okta, Adobe, LEAP, and Tyler, continues
- The completion date of this project has been moved to December 2023

Watch Items:

The implementation timeline





Cybersecurity Action Plan



Highlights:

- Actively monitoring and tweaking security posture regularly
- Issued a Managed Detection and Response (MDR) RFQ and received 19 responses
- Issued MDR RFP to seven qualified vendors. Responses are due to Procurement on July 20, 2023
- IT department will review, score, and select an MDR provider
- Preparation for Cybersecurity Liability Insurance renewal underway

Watch Items:

- Managed Detection and Response RFP
- Cybersecurity Liability Insurance Renewal





Additional Project Updates



- **□** B2Gnow Diversity Tracking Tool Completed
- ☐ PRMS Upgrades Project In progress
- □ eDiscovery Tool In progress
- ☐ FOIA Request Tool In progress
- ☐ Intranet Project In progress





IT Department

Artificial Intelligence (AI) Presentation





What is Artificial intelligence (AI)?

Artificial intelligence (AI) is the basis for mimicking human intelligence processes by creating and applying algorithms built into a dynamic computing environment.

Generative AI is a subfield of artificial intelligence in which computer algorithms generate outputs that resemble human-created content. Examples are text, images, graphics, music, and computer code.

Advantages of AI:

- 1. Al drives down the time taken to perform a task. It enables multi-tasking and eases the workload for existing resources
- 2. All enables the execution of complex tasks without significant cost expenses
- 3. Al operates 24x7 without interruption or breaks and has no downtime
- 4. All augments the capabilities of many individuals
- 5. Al facilitates decision-making by making the process faster and smarter







Created by Al

What is Artificial intelligence (AI)?

Artificial Intelligence (AI) is a technology that imitates human intelligence using computer algorithms. It can perform tasks like humans do, but in a dynamic computing environment.

Generative AI is a type of AI that creates things that look like they were made by humans. For example, it can generate text, images, graphics, music, and computer code.

Advantages of AI:

- **1.** Faster tasks: All reduces the time needed to complete tasks. It helps us do multiple things at once and makes work easier for our current resources.
- 2. Cost-effective: Al allows us to accomplish complex tasks without spending a lot of money.
- 3. Non-stop operation: Al works 24/7 without breaks or downtime.
- **4.** Enhancing capabilities: Al enhances the abilities of individuals, making them more productive.
- **5.** Improved decision-making: Al speeds up and improves the decision-making process, making it smarter and more efficient.





Types of AI:

Reactive machines

Limited memory

Theory of mind

Self-awareness

Terms for this Discussion

Artificial intelligence (AI)

 Any technique that allows computers to mimic human intelligence using logic, if-then statements, and machine learning

Deep learning (DL)

•A subset of ML composed of deeply multi-layered neural networks that perform tasks like speech and image recognition

Machine learning (ML)

•A subset of AI that uses machines to search for patterns in data to build logic models automatically

Generative AI

 Powered by large models that are trained on vast set of data and commonly referred to as foundation models (FMs)



This is the current focus





Why is AI so hot now?

GPT (Generative Pre-trained Transformer) is a type of AI foundation model.

- Foundation models (also known as large language models [LLMs]) are machine learning types that use large pretraining data sets.
- There are many uses and types of foundation models.

ChatGPT is a chat application that uses a specially trained version of GPT.

• ChatGPT is designed to interact with users conversationally and to use GPT-3.5's specially trained large training set.

OpenAI (founded in 2015) develops leading generative artificial intelligence (AI) technology.

OpenAI developed ChatGPT.

Source: Gartner, Inc.





Why Is ChatGPT So Popular?

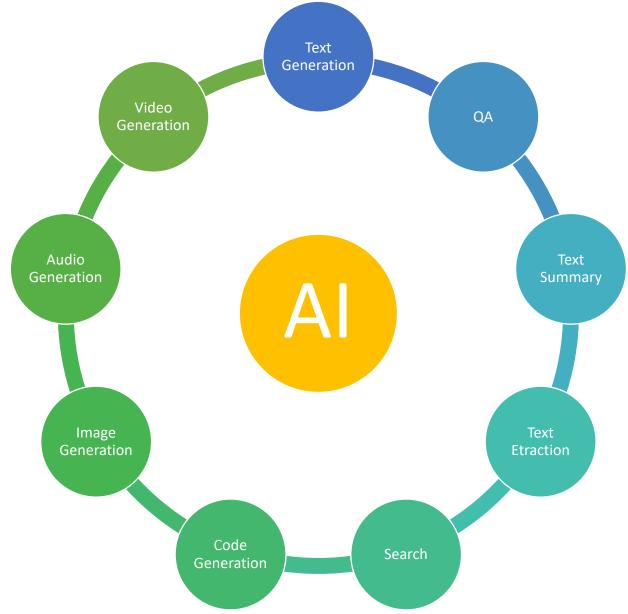
- It is a perfect storm of the latest tech and the "wow factor."
 - A large language model (Generative Pre-trained Transformer [GPT]) that performs advanced language-related functions, including language generation, summarization, and question-answering.
 - It's a free chatbot that can generate an answer to almost any question it's asked.
- It can hold seemingly intelligent conversations with humans by understanding.
 - Interactions with ChatGPT can be humorous and insightful.
 - They can also be factually incorrect or biased.
 - There is a danger that ChatGPT content that is factually incorrect may be assumed to be correct.
- It has massive market implications.
 - It offers significant potential opportunities

Source: Gartner, Inc.





Common Uses of Al:







Public Sector / Local Government Examples:

- ConstituentEngagement
- □ Communications
- ☐ Public Health
- □ Public Safety
- □ Transportation



- FinanceManagement
- ConstituentServices
- Energy and Utilities
- Research and Engagement





How Can DuPage County Use AI?

- ☐ Creation of development plans
- ☐ Strategy, design, and policy planning
- ☐ Visual concept development
- ☐ Streamline communications between citizens and elected officials
- Enhance Citizen feedback

- ☐ Facilitate signals analysis and processing (cameras, sensors, etc.)
- ☐ Provide simulation enhancements (Public Works, infrastructure, transportation)
- ☐ Assist with the forecast of patterns
- ☐ Streamline processes within agencies
- ☐ Help generate solicitations (Bids, RFPs, etc.)





Ethical Concerns

| False answers and "Hallucinations:" Use the model to predict the next words without underst content. | anding the |
|-------------------------------------------------------------------------------------------------------------|---------------------|
| Data issues: Inaccurate, biased, prohibited, wrong data. Lack of real-time data. | |
| IP and copyright infringements: Use of proprietary training data. | |
| Deep fakes: Foundation models can generate fake content in the requested style. | |
| Fraud and abuse: False reviews, false papers, spam, phishing. | |
| ☐ Lack of transparency and clear explanations: Cannot check why a model reached a particular conclusion. | |
| Concentration of power: Foundation models can be developed only by hyperscalers. | |
| Exposure of sensitive information: Confidential and personally identifiable Information. | Source: Gartner, Ir |





How is County IT preparing for the emergence of AI?

- ☐ Researching, demoing, and testing AI technologies
- Having strategic discussions with peers and AI vendors
- ☐ Working on Proof-of-Concept engagements
- ☐ Developed a team of Al Subject Matter Experts (SMEs) to visualize, test, and implement Al solutions





Q & A







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Thank you!