

Intelligence & Automation

Think of:

- Artificial Intelligence as the brain
- Automation tools as the eyes, ears, arms and legs

“Combining these concepts, tools and technologies will move us rapidly to practical application and usage”



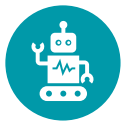
Key Technology Overview & Definitions

Application Programming Interface (API)



- Used To Connect Cloud-enabled Applications
- Real-time connections
- Utilizes the business application layer
- Secured through authentication keys
- Triggered by an action

Robotic Process Automation (RPA)



- Digital workers
- Execute repetitive, process-oriented actions
- Managed resource (triggered or scheduled)
- 10-15X faster than human interaction
- Multi-application access
- Least intrusive
- Highly flexible toolkit
- Combination of AI + RPA = Intelligent Automation

Computer Vision



- Recognizing elements in real-time
- Simplifies interaction with a wide-variety of applications
- Ideal for visual-only applications like Citrix and Remote Desktop
- These techniques are also used in self-driving or assisted driving

Natural Language Processing (NLP)



- Decoding written text and speech into semantics and intent
- Understanding and processing human language
- Used widely in Chatbots & Generative AI

Machine Learning (M/L)



Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed.

Machine learning focuses on the development of computer programs that can access data and use it to learn for themselves.

Document Understanding



- Extracting data from documents
- Document types include:
 - Structured
 - Semi-Structured
 - Unstructured
- OCR and Machine Learning now widely used
- Models are trained with a concept called “Data Labelling”

Generative AI



Generative artificial intelligence is artificial intelligence capable of generating text, images, or other media, using generative models. Generative AI models learn the patterns and structure of their input training data and then generate new data that has similar characteristics. (Wikipedia)

- ChatGPT / OPENAI
- Microsoft Copilot
- Utilize neural networks
- Trained with large amounts of data
- Emerging technology
- Ethical, social and security issues need to be addressed and considered

Potential Use Cases for Intelligence & Automation

Donor engagement and Communications	Document classification/extraction
Volunteer Coordination	Social Media Management
Document Summarization	Member Engagement
Reporting and Compliance	Content Creation
Employee on-boarding / off-boarding	Fundraising Campaign Analysis
Grant Writing	

Common Themes for Automation



Repetitive



Time-Consuming



Process-Oriented



Low Value Add