HUMAN SERVICES AND AI: KEY TERMS & CONCEPTS

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UNPACKING A SIMPLE DEFINITION

Artificial Intelligence (AI) is a **technology** that **applies reasoning, analysis, and learning** to **complete a task or achieve a goal, without explicit rules** on how to do so.

Technology - A system or solution equipped with AI capabilities

Applies reasoning, analysis and learning - AI uses techniques like machine learning, data analytics, and insights to function

Complete a task or achieve a goal - A human-defined objective (operational, predictive, or abstract) that AI techology will accomplish which can be complex and is built for varying environments

Without explicit rules - A key distinguishing factor. No hard-coding of rules is needed for the AI-enabled tech to operate

METHODS OF ARTIFICIAL INTELLIGENCE	EXAMPLES
Machine Learning (ML) - A subfield of AI that gives computers the ability to learn without explicitly being programmed	• Targeted ads • Spam filters
Natural Language Processing (NLP) - Machines learn to understand natural language as spoken and written by humans	• Machine translation (e.g.Google translate) • Predictive text • Virtual assistants (e.g.Siri,Alexa) • Speech to text
Speech Recognition - Systems interpret human speech and translate it into text or commands	• Interactive Voice Response (e.g.Conversational IVR) • Virtual assistants (e.g.Siri, Alexa) • Speech to text
Computer Vision - Intelligent algorithms that perform visual perception tasks such as object recognition, scene categorization, integrative scene understanding, human motion recognition, material recognition	• Visual translation • Visual accessibility tools • Image recognition technology (e.g.Google Lens)
Intelligent Automation - The use of automation technologies to streamline and scale decision-making across organizations	• Customer Relationship Management • Human Resources(HR) onboarding & offboarding
Generative AI - A technology that can create content, including text, images, audio, or video, when prompted by a user	• AI Chatbox (e.g.ChatGPT) • Image generation (e.g.Beautiful.ai)