



# **ICTSS00120 - Artificial Intelligence Skill Set**

## **Session 5: Identify an Opportunity for Task Automation**

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## Learning Objectives

- Understand the role of AI, ML, and DL in workplace automation.
- Identify organizational objectives for AI, ML, and DL.
- Analyze existing organizational AI technologies and processes.
- Identify common tasks and processes suitable for automation.
- Outline the first task in Assessment 1 (AT1).

### **Assessment 1 (AT1):**

- Task 1: Identify an opportunity for task automation using AI.

# AI in the Workplace

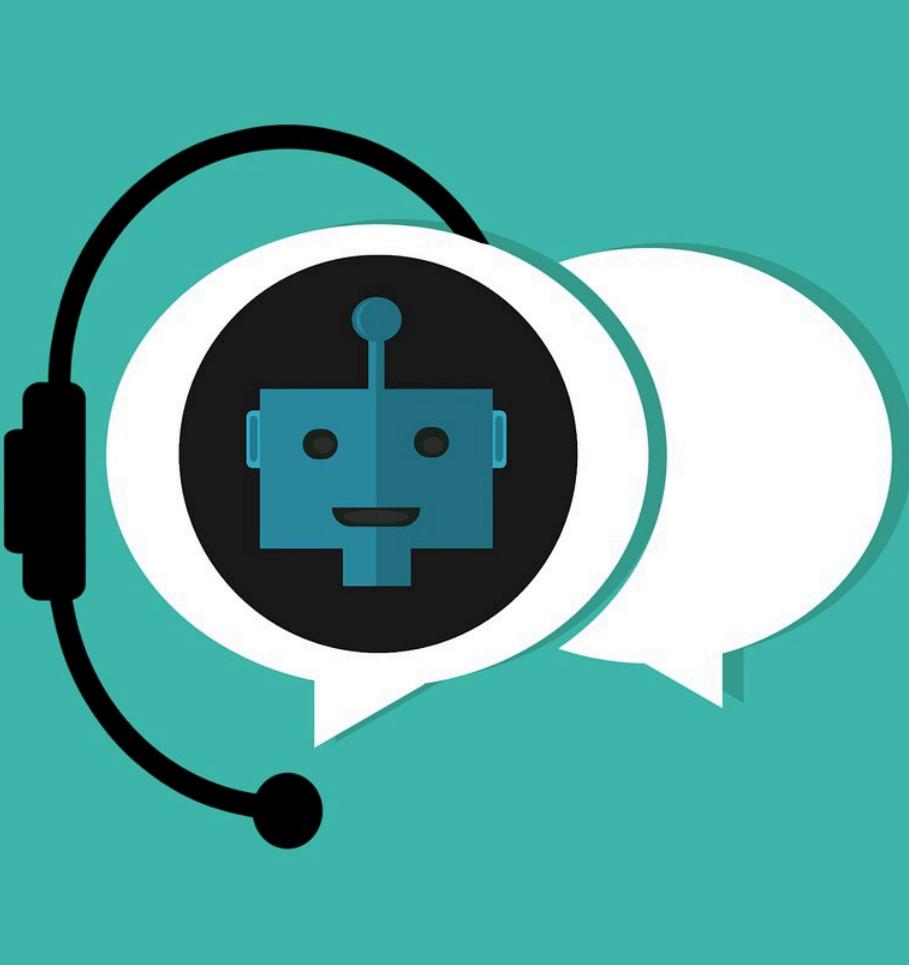
## Enhancing Productivity

- **Automating Repetitive Tasks:**
  - Email filtering, data entry, scheduling.
- **Improving Decision-Making:**
  - Predictive analytics, real-time data insights.

## Reducing Costs

- **Operational Efficiency:**
  - Streamlining workflows, reducing errors.
- **Resource Optimization:**
  - Predictive maintenance, inventory management.





## Common Applications of AI in Business

### Customer Service

- **Chatbots**: Automated responses to common queries.
- **Sentiment Analysis**: Understanding customer emotions through text.

### Marketing

- **Personalized Recommendations**: Suggesting products based on user behavior.
- **Ad Targeting**: Optimizing ad placements through predictive analytics.

# Common Applications of AI in Business

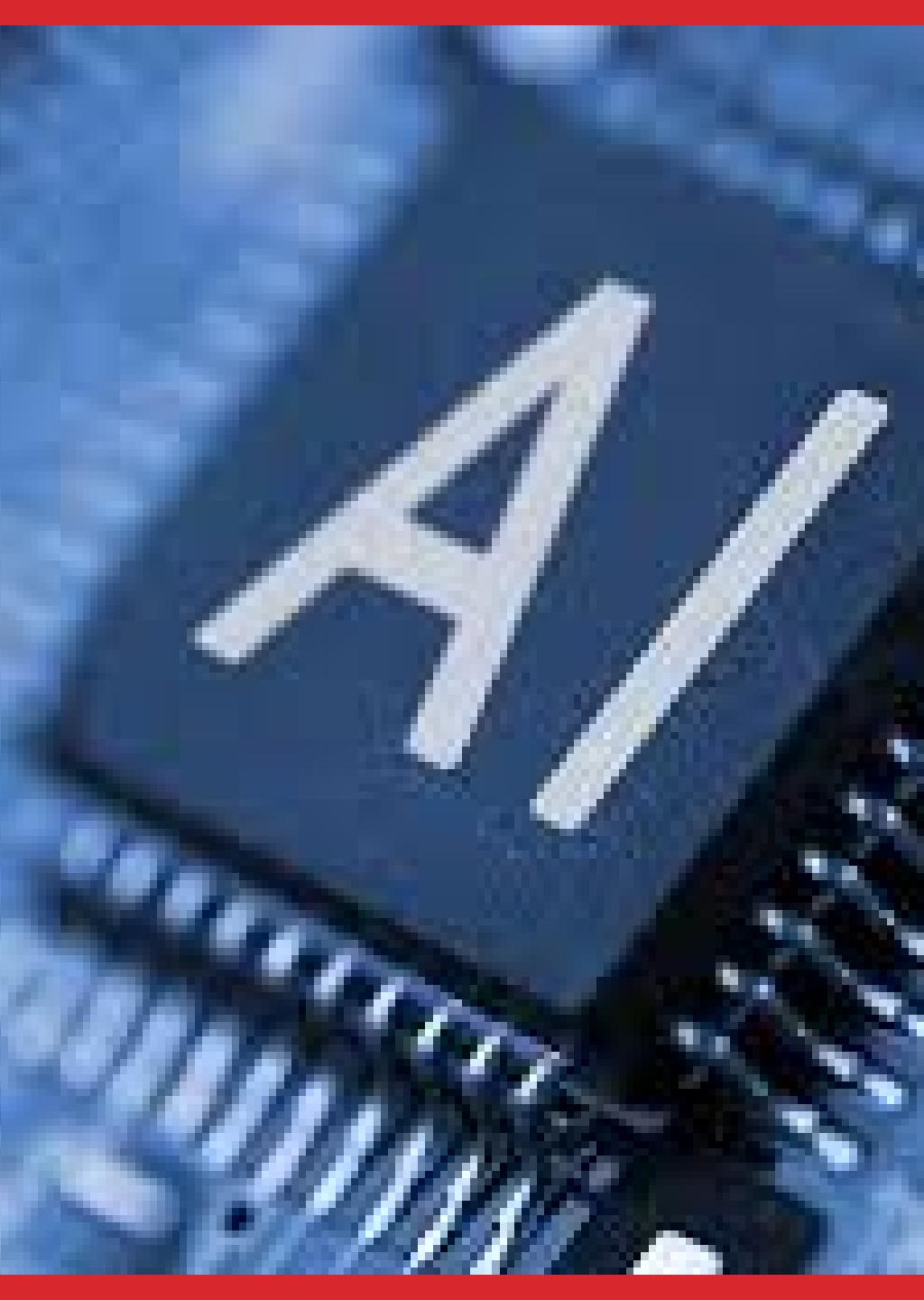
## Healthcare

- **Diagnostic Systems**: AI-powered tools to assist doctors in diagnosing diseases.
- **Predictive Analytics**: Identifying potential outbreaks and patient readmissions.

## Manufacturing

- **Predictive Maintenance**: Identifying equipment failures before they occur.
- **Quality Control**: Automated inspection of products for defects.





## Existing Organizational AI Technologies and Processes

### Identifying Organizational Objectives

- **Strategic Goals:** Enhancing efficiency, improving customer satisfaction.
- **Pain Points:** Identifying areas where current processes are inefficient.

### Existing AI Technologies

- **CRM Systems:** Using AI for customer relationship management.
- **HR Analytics:** AI for employee performance analysis and recruitment.

# Identifying Tasks and Processes Suitable for Automation

## Factors to Consider:

- **Repetitiveness**: Tasks that are repetitive and time-consuming.
- **Data Availability**: Availability of historical data for training AI models.
- **Impact**: Potential impact on efficiency and productivity.

## Examples:

- **Email Campaigns**: Automating personalized email marketing.
- **Data Analysis**: Using AI to analyze large datasets and extract insights.
- **Customer Support**: Implementing AI chatbots for handling customer queries.

# Introduction to the Final Project

## Project Overview:

- **Goal:** Use AI to automate a specific task within an organization.
- **Steps:**
  - Identify a task.
  - Collect and preprocess data.
  - Train and evaluate a model.
  - Implement the solution.
  - Present the findings.

**Must involve a supervised training method!**

## In-Class Activity: Task Automation Identification

**1. Group Formation:** Form small groups for collaboration.

**2. Brainstorming Session:**

- Identify current repetitive tasks in various departments.
- Discuss the availability of data for these tasks.
- Consider the potential impact of automating these tasks.

**3. Present Findings:**

- Each group will present the tasks they identified to the class.
- Discuss the feasibility and benefits of automating these tasks.

## Summary and Next Steps

### Key Takeaways:

- AI can significantly enhance productivity and reduce costs.
- Identify tasks that are repetitive, have available data, and high impact.
- Start the first task in AT1: **Identify an Opportunity for Task Automation.**

### Next Week:

- Evaluating Machine Learning Opportunities
- Completing Tasks 2, 3, and 4 of Assessment 1 in class

## Questions & Answers

### Q&A:

Any questions from today's session??

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