

Introduction to AI Tools

What is AI?

- AI (Artificial Intelligence) refers to machine intelligence
- Intelligence mimics human cognitive functions
- Current AI tools are **not** true AI
- "Generative AI"
 - Based on large language models (LLMs) like GPT-3
 - Generate human-like text, code, images, etc.
 - Output is generated based on prompts

Why Use AI Tools?

- Offload time-consuming, repetitive tasks
- Increase productivity by leveraging AI assistance
- Explore AI's capabilities and potential

AI Tools

- ChatGPT
- Claude AI
- Bing Chat
- GitHub Copilot
- Amazon CodeWhisperer
- DALL-E (image generation)
- Stable Diffusion (image generation)
- Canva

Key Points for Using AI Tools

- **Be Specific:** Provide clear, detailed prompts
- **State Intent:** Clarify the purpose of your request
- **Use Proper Grammar:** Improve output quality
- **Specify Output Format:** Ask for desired structure

Key Points for Using AI Tools

- **Ask Follow-ups:** Clarify and refine responses
- **Experiment with Phrasing:** Try different ways to ask
- **Prompt Fact Checking:** Have AI verify its own responses
- **Learn with AI:** Use AI to guide learning new topics/skills

AI for Learning

- Can break down complex topics into focused lesson plans
- Suggest appropriate resources (books, videos, exercises)
- Provide beginner projects to reinforce learning
- Explain concepts using analogies and visualizations

Coding with AI

- AI coding assistants
 - e.g., GitHub Copilot, Amazon CodeWhisperer
- Generate code snippets, suggest improvements
- Explain code functionality
- Troubleshoot errors
- Anticipate code base on function name
- Useful for learning programming languages/frameworks

AI Image Generation

- AI tools can generate images from text prompts
 - DALL-E
 - Stable Diffusion
 - Canva
 - Bing Images
- Iterate and refine image generations
- Useful for creative projects, visualizations, etc.

Document Analysis with AI

- Upload documents (PDFs, reports, etc.) to AI tools
- Ask questions about the content, get summaries
- Clarify terminology, concepts within the document
- Useful for research, learning complex topics
- Create slides from notes or papers for presentation

Effective Prompting

- Learn to create effective prompts for AI tools
- Refer to prompting guides for best practices
- Iterative prompting often required for best results

AI Adoption

- AI is not likely to replace humans anytime soon
- Learn to use AI effectively will have an advantage
- Embrace AI as a tool to augment your skills
- Increase productivity using AI to speed up tasks

Using AI Responsibly

- **Do Not** use AI for cheating or plagiarism
- Focus on long-term learning and knowledge-building
- Understand the "why" behind AI outputs

Key Takeaways

- Understand AI's current capabilities and limitations
- Learn to create effective prompts for AI tools
- Use AI responsibly to augment your skills and productivity
- Stay up-to-date as AI technology rapidly evolves

Questions?