Thank you for attending one of our digital literacy workshops. Our goal is to increase the digital literacy for all and we will continue to bring relevant, useful workshops to you for innovative emerging technologies.

In this workshop we focused on ChatGPT and how to use it in an everyday sense. This document will include several of the examples we used as well as many more. There is a list of several different AI tools that we've found useful, some of which we briefly touched on in the workshop.

If you have any questions or would like to bring this workshop to yours or another organization, please feel free to reach out to me.

Sincerely,

Troy Tabor
troy.tabor@wichita.edu

Introduction to ChatGPT
Capabilities
ChatGPT is a state-of-the-art artificial intelligence (AI) model developed by OpenAI. It's built on the GPT (Generative Pre-trained Transformer) architecture, which is designed to generate human-like text based on the prompts it's given. The latest version is GPT-4.5. ChatGPT has a wide range of capabilities, thanks to its ability to understand and generate text in a way that often resembles human writing. Some of its key capabilities include:

- **Text Generation:** ChatGPT can create content such as emails, articles, and reports. Given a prompt, it can generate text that's relevant and often impressively coherent.
- **Answering Questions:** ChatGPT can provide answers to a wide range of questions, whether they're factual queries ("What is the population of New York City?") or more opinion-based ones ("What are the pros and cons of remote work?").
- **Language Translation:** While not its primary function, ChatGPT can perform translations between various languages. However, it's important to note that it might not be as accurate as a dedicated translation service.
- **Idea Brainstorming:** ChatGPT can be used to generate ideas. For example, it could help brainstorm concepts for a social media campaign, a new city initiative, or problem-solving within city administration.
- **Code Generation:** GPT-4.5 can generate and debug code for various programming languages, making it a useful tool for developers and technical tasks.
- **Visual Understanding:** The newest versions can interpret images alongside text, which can be helpful in multimodal tasks like analyzing diagrams or images.

AI and Natural Language Processing

AI, or Artificial Intelligence, is a branch of computer science that focuses on creating machines and software that exhibit human-like intelligence. This can include tasks such as understanding natural human language, recognizing patterns, learning from experience, and making decisions.

ChatGPT falls under a subfield of AI known as Natural Language Processing (NLP). NLP is all about how computers can be programmed to process, analyze, and generate human language. This includes understanding the meaning of words in context, grasping nuances of language like sarcasm or politeness, and generating text that sounds natural and human-like.

ChatGPT, specifically, is a type of AI model known as a transformer-based language model. It's trained on a large amount of text data, learning patterns, structures, and nuances of the language. When given a prompt, it uses what it's learned to generate relevant and coherent text.

One key concept in how ChatGPT works is the idea of "transformers." These are a type of model architecture that uses attention mechanisms to weigh the importance of different words and phrases when generating text. This allows them to better understand the context and produce more relevant and coherent responses.

Setting Up and Using ChatGPT

1. Go to https://chat.openai.com.
2. Click theSign Upbutton.
3. We recommend using your Gmail login, but you can sign up in whichever way you feel comfortable.
4. Purchasing a $20/month subscription will give you access to advanced services, and the site will rarely be "busy."

Practical Guide

How to Start a Chat

1. Give it a personality (e.g., "You are a professional grant writer" or "Explain this like I'm an 8-year-old").
2. Tell it who the audience is (e.g., "We are writing a grant for a new park for the city of Bend, OR").
3. Give it direction (e.g., "Identify the most useful grants from the state of Oregon or other sources for this type of grant. Then, please write the grants.")

Official Document Writing

o "We are a city of 15,000 in Andover, KS. Write an AI Usage Policy for our city that allows our staff to use AI tools, emphasizes safety and proprietary data, and follows current guidelines on its use."

Email Writing

o "Write an email to the City Council about an incident."

Summarizing Information

o "Summarize the book, Strategy for Sustainability by Adam Werbach. Also, provide all the key points of the book."
o "Upload any document such as a PDF, word document, or even copy and paste form a web page and ask the same summary and key points question."
o "Upload a spreadsheet and ask it to summarize the data."

Generating Social Marketing Messages

o "Create messages based on a calendar of events."

Research

o "What are citizens saying about the city of Andover, KS?"
o "Describe intersection options to the City Council including comparing safety, cost, traffic throughput, and anything else that would be useful."
o "Provide an example ordinance for golf carts."
o "Our state has Home Rule. What is home rule and how does it help cities?"

Document Writing

o Grant writing example was above. A way to find grants is to describe exactly what you're needing a grant for, asking ChatGPT to research which grants would be appropriate, and then asking it to write the grant application including placeholders for costs.
o "We are the city of Andover, KS, and we are wanting to use the gray water from our sewage treatment plant, along with the gray water from the City of Wichita's 4-Mile Creek sewage treatment plant, for watering three local golf courses as well as a new small lake. The cost of the project will be 8 million dollars. Write a grant proposal to the Kansas Department of Commerce for the project."
o "Write a letter to go into a mailer to the citizens of Andover, KS over the subject of fire safety."
o "Create a training workshop for the fire department to give to citizens on fire safety."
o "Write the script for a commercial over fire safety at home. 60 seconds."

Job Postings

o "We are the City of Andover, KS. We are looking to hire a new Director of IT with a salary range of $70,000 to $90,000. Write the job posting."

Strengths and Limitations

Strengths

o **Understanding Context:** ChatGPT excels at understanding the context of a conversation or piece of text, allowing it to generate responses while keeping the context intact.

- o **Generating Human-like Text:** One of the most impressive capabilities of ChatGPT is its ability to generate text that is often indistinguishable from that written by a human.
- o **Multi-domain Knowledge:** ChatGPT is trained on diverse internet text, enabling it to respond to prompts over a wide array of topics.
- o **Customizability and Flexibility:** ChatGPT can be fine-tuned according to specific requirements, making it suitable for various professional and creative applications.
- o **Interactivity:** ChatGPT can maintain ongoing conversations, making it great for customer service, tutoring, and other interactive tasks.
- o **Idea Generation and Brainstorming:** ChatGPT is adept at providing suggestions or approaches to problems, fostering creativity and innovative thinking.
- o **Knowledge Retrieval:** With plugins, it can connect to real-time databases or knowledge retrieval tools, allowing access to more current information.

Limitations
- o **Contextual Misunderstandings:** Despite its ability to understand and generate human-like text, ChatGPT can sometimes misunderstand or misinterpret context, leading to incorrect responses.
- o **Limited Knowledge Base:** ChatGPT's training data includes content up until September 2021, though plugins can provide access to newer information.
- o **Inaccuracy of Information:** ChatGPT doesn't always provide 100% accurate or reliable information. It might generate plausible-sounding but incorrect or misleading responses.
- o **Overuse of Templates:** ChatGPT can overuse certain phrases or templates, leading to somewhat repetitive responses.
- o **Difficulty with Open-ended Questions:** ChatGPT can struggle with open-ended questions that require a high degree of creativity or abstract reasoning.
- o **Potential Ethical Concerns:** Ethical concerns include privacy risks, potential misuse for generating harmful content, and over-reliance affecting critical thinking skills.
- o **Inability to Make Decisions or Express Opinions:** ChatGPT does not have beliefs, opinions, or consciousness; it merely predicts what a human might say in a given context.

Ethics and Responsible Use
Despite the numerous advantages of using ChatGPT, it's crucial to acknowledge that it is a tool designed to assist, not replace, human intellect and decision-making. Certain tasks necessitate human intervention and oversight for reasons like nuance understanding, empathy, ethical considerations, and more. Here are some guidelines:

- o **Ethical Decision-Making:** Human intervention is necessary whenever ethical judgments or decisions need to be made. ChatGPT lacks a moral compass and cannot make value-based decisions.
- o **Handling Sensitive Information:** Sensitive data or information, such as personal data or confidential business details, should always be managed by a human.
- o **In-depth or Specialized Analysis:** Humans are better at in-depth or specialized analysis that requires a deep understanding of a specific field.

- o **Contextual Understanding:** Humans are better at understanding complex or nuanced context.
- o **Emotional Intelligence and Empathy:** In situations that require empathy, understanding, or emotional intelligence, human intervention is essential.
- o **Accountability:** Any decision-making process that has a significant impact on individuals, organizations, or society should involve human judgment and oversight.
- o **Real-time Adaptation:** Humans are better at adapting to real-time changes and handling unforeseen circumstances.

It's worth noting that the role of ChatGPT is to assist and enhance human capabilities, not to replace them. The tool is most effective when used in collaboration with human judgment and expertise.

ChatGPT Challenge Game

Purpose: This game is designed to help users understand how to interact with ChatGPT, teach them how to use it to generate creative content, and demonstrate how its responses can be guided.

Materials Needed: ChatGPT interface on a shared screen or individual devices, if available.

How to Play:

1. **Introduction (5 minutes):** Explain the goal of the game: to collaboratively create a story using ChatGPT. Each participant will add a sentence or two to the story, and then prompt ChatGPT to continue it.
2. **Kickoff (1 minute):** Start the game by providing a basic setting for the story. For example: "In a bustling city known for its advanced technology and sustainability efforts, a team of city officials faced a peculiar challenge..."
3. **Story Building (15 minutes):** The first participant adds a sentence or two, then prompts ChatGPT to continue. For example: "...The city's beloved, ancient tree was wilting. To solve this, the officials planned to..." and let ChatGPT take over.
4. **Participant Input (1-2 minutes each):** Each participant then takes turns to add to the story and then prompts ChatGPT to continue. Encourage them to try guiding the AI in different directions and see how it responds.
5. **Story Completion and Discussion (5 minutes):** After everyone has had a turn, conclude the story and have a quick discussion about the experience. What surprised them? What did they learn about interacting with ChatGPT?

Outcome: At the end of this game, participants will have not only learned about the creative capabilities of ChatGPT, but also practiced guiding its output and experienced its collaborative potential. This interactive, hands-on game will provide them a better understanding of how they can use ChatGPT in their daily tasks.

Section 8: Further Learning

- ChatGPT.com (Advanced Chatbot)
- Claude.ai (Advanced Chatbot)
- Gemini.google.com (Advanced Chatbot)
- Copilot.microsoft.com (Avanced Chatbot, Integrates is MS Office)
- Perplexity.ai (Advanced Search Engine)
- Napkin.ai (Presentation Infographics)
- Mural.co (Mind Mapping)
- Notebooklm.google (Chat; Podcast)
- gamma.app (Presentation Builder)
- uizard.io (Application User Experience Concepting)
- bolt.new (Software Building)
- v0.dev (Software Building)
- heygen.com (Video Generator)

This kit is designed to be a comprehensive guide for any business or city worker looking to make use of ChatGPT in their day-to-day tasks. It includes practical tips, ethical guidelines, and resources for further learning.