# AI Visuals, Videos, and Music Tools

## Summary of AI Visual, Video, and Music Tools

Artificial intelligence can be used to both enhance and synthesize creative works, generate graphics and music, develop videos, and much more. These AI tools are "trained" to learn specific rules based on mathematical equations and algorithms. Similar to large language models, the AI generates new content by piecing together predictable elements, resulting in final products that often appear, at least superficially, convincingly authentic. AI technology can be used to edit and enhance artistic endeavors, such as adding filters to photos or synthesized beats to a song, but they can also be utilized to generate new content. Most recently, there has been an increase in text-to-image programs that can create novel visuals and videos based on text prompts.

## Capabilities of AI Visual, Video, and Music Tools

**Images**- systems such as Canva, Midjourney, Gencraft, Jasper, and DALL-E 2 can develop an image based on a few key words. The resulting images can then be tweaked to fit in specific artistic styles. AI can also be utilized to design logos, PowerPoint presentations, advertisements, and more. Tools can also be used to support your own creativity, such as AutoDraw, which allows you to start drawing an image then offers suggestions of what you are trying to draw.

**Videos**- AI can edit and restore old film, and even add color to black and white film. It is also possible to utilize AI to develop new films, such as how IBM created the trailer to the film "Morgan" using AI. Several companies, such as Meta AI, are researching text-to-video technology, which can render video clips in different styles. The technology is also capable of animating a still image. AI programs, such as Synthesia and Adobe Avatar, can create videos featuring talking avatars.

**Music**- AI is capable of composing music and writing song lyrics. Systems including Soundraw, Loudly, and Boomy, can generate copyright-free music in seconds according to a handful of prompts. Many of these programs were trained through the Experiments in Music Intelligence software, with knowledge of a vast array of artists, past and present. AI can also be utilized for real-time musical accompaniment. Recent developments in text-to-speech models can be integrated with music models to develop songs that sound like real singers.

## Limitations and Challenges of AI Visual, Video, and Music Tools

1. AI art often lacks diversity in representation and may present biases in how they depict people and cultures.
2. AI can be used for data processing and pattern recognition, but it is not capable of developing truly new ideas in the way that humans can.

3. AI cannot assess more subjective and abstract concepts. For example, everyone's definition of beautiful varies. AI can create something that draws upon its training of what is beautiful but may not be able to develop something entirely novel.
4. AI struggles with specific details, such as representing a specific number of items in an image or putting objects in a specific spatial order.
5. AI image generators often create images with subtle but disturbing errors, resulting in an uncanny valley effect. The most famous is AI's inability to render human hands.
6. Although most things created by AI do not fall under copyright protection, things developed with a human partner may. Additionally, there is great concern about how challenging it is to distinguish between works that are developed by AI or by humans, which makes it easy for humans to pass AI work off as their own. There is additional concern about whether these AI tools will put humans out of work.

## AI Visual, Video, and Music Tools and Students

1. **Talk to your students:**
   a. Discuss the tools with your students. What makes AI art, videos, and music different from human art, videos, and music? When is it appropriate to utilize AI tools, and when would it be better to create their own original work? How can you collaborate with an AI tool to improve your work, and when will AI tools be a distraction?
2. **AI Images**
   a. Students can enhance creative writing projects with images or utilize images in place of text to respond to prompts.
   b. Task students with developing a prompt to enter into an AI image generator in order to achieve a particular outcome. Students will need to practice utilizing descriptive language to achieve their desired results.
   c. Generate images using AI and ask your students to practice critiquing the work.
   d. Engage your students in a discussion about the differences between AI-generated and human-generated art.
3. **AI Videos**
   a. Students can utilize a program that automatically generates an avatar to produce videos to explain course content- students will be tasked with synthesizing course content and writing a script, but they can let an AI do the talking.
4. **AI Music**
   a. Challenge students to create an AI-generated playlist that is pertinent to the course materials.
   b. Encourage students to find study music that suits their needs.
   c. Generate music using AI and ask your students to practice critiquing the work.

## Instructor Uses of AI Visual, Video, and Music Tools

1. **Generate images to help communicate course concepts.**
2. **Use an AI avatar to create course videos.**
3. **Generate examples of different artistic genres utilizing AI.**

## Resources

Text to Image: https://www.educatorstechnology.com/2023/04/best-ai-art-generators-text-to-image.html

Copyright Information: https://www.educatorstechnology.com/2023/02/is-ai-artwork-copyrighted.html

**Do you have ideas for how to utilize AI Visual, Video, and Music Tools? Let us know at: ctl@kent.edu**