



**CSE499B**  
**Usability & manufacturing**  
**Section 14**

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## **Key Stakeholders:**

### **Artists and Designers:**

- **Needs:** Artists and graphic designers will likely use the model to generate concept art, posters, or illustrations.
- **Usability:** High usability if the model is easy to prompt and modify and provides visually appealing and creative outputs.
- **Measurement of Usability:** Feedback on how intuitive and flexible the prompt interface is and the quality and creativity of the generated outputs (e.g., satisfaction surveys, use-case testing).

### **Filmmakers and Game Developers:**

- **Needs:** They may use such a model for generating concept art, storyboards, or mood-setting imagery for films or games. Most developers who have yet to finalize gameplay can use AI-generated images to create posters and concept art, giving the consumers a sense of how the game will look.
- **Usability:** Moderately high usability if the model consistently generates high-quality, realistic, or stylised images based on their narrative needs.
- **Measurement of Usability:** Examine the frequency of the model usage for imagery generation. Do the created images represent the meaning of the creative briefs, and what feedback does the director or production team give about the realism or cinematic look of what was generated?

### **Academic and Research Institutions:**

- **Needs:** In regards to the target group, such AI-based image generation can be used by researchers of art, sociology, or information technology to examine databases, which include culture and politics-relevant images.
- **Usability:** If the model is efficient and can be applied in academic works, there is moderate usability for the studies of AI development in art generation and the sociology of protest movements.

- **Measurement of Usability:** Assess how frequently researchers engage with the model in writing research articles or how much of an impact the model has on AI, culture, and art research.

## **Usability:**

**Ease of Prompting:** The usability is high if users can easily describe their desired images with proper text prompts and the model delivers consistent, contextually appropriate results. Artists and designers, for instance, would require ease of use when adjusting stylistic elements, lighting, or specific visual themes (e.g., protests, flags, low-light conditions).

**Flexibility and Control:** Usability also depends on users' control over the generated images. To match a project's needs, stakeholders like game developers or filmmakers might need precise control over color tones, perspective, and stylistic details.

**Consistency and Customisation:** Usability is improved if the model consistently produces outputs that closely align with the text prompts. Consistency across multiple generations with the same or similar prompts is essential, especially for agencies or game developers that need to maintain a coherent visual style.

## **Manufacturing:**

### **A.Model Deployment:**

- The model could be deployed on a cloud-based platform where users can input their prompts and receive images directly. Platforms like **Hugging Face**, **RunwayML**, or custom solutions could allow easy access for different stakeholders.
- **API Integration:** For more advanced users (e.g., game developers or ad agencies), the model could be made available through an API, allowing them to integrate it into their workflows or content creation pipelines.

## **B. User Interface and Tools:**

- A user-friendly **interface** that allows non-technical users to input prompts, adjust parameters (like guidance scale or lighting settings), and receive generated images would make the model accessible to a broader audience. Tools for post-processing, like color adjustment or style blending, could enhance usability.
- Advanced users could be provided with **advanced settings** to fine-tune outputs, like controlling the style (cyberpunk, dystopian), lighting (low-light, cinematic), or specific details (crowds, flags).

## **C. Ethical and Legal Considerations:**

- **Ethical Guidelines:** For stakeholders like journalists or news agencies, it's essential to provide clear guidelines on using generated images ethically. Generated images should not be used to misrepresent actual events, especially in contexts like protests or political movements.
- **Copyright and Licensing:** Ensuring that the generated content does not infringe on copyrights or intellectual property is essential, particularly for artistic styles or branded content.

## **D. Training and Documentation:**

- Provide users with comprehensive **documentation** and training materials, explaining how to craft effective prompts and adjust parameters for optimal results.
- Offer **tutorials** demonstrating different use cases, from artistic generation to cinematic storytelling, so stakeholders understand how best to use the model for their needs.

## **E. Continuous Improvement:**

- Regularly update the model based on feedback and expand its training data to cover more specific or diverse scenarios, ensuring it remains relevant and improves over time.

Offer **custom fine-tuning** options for larger clients (like agencies or production studios) to tailor the model to their specific needs, such as refining certain styles or subjects.

