

The Limits of Generative A.I. In Filmmaking

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1 Problem Statement

As someone invested both in technology and filmmaking (I minored in film), the use of A.I. in filmmaking is one that gives me pause. The potential of A.I. to replace roles that should be filled by human creativity was a concern during the 2023 strikes [1]. Because of this, I decided to research within Topic 14 (Natural Language to Video Storyboarding), to determine where A.I. falls short in filmmaking, and how to limit its role in replacing human creativity.

2 Proposed Techniques

A simplified version of film pre-production can be expressed as outlining, screenwriting, and storyboarding. My experiment will use natural language processing to explore how A.I. understands and generates screenplays and images. My process will be:

- (1) Develop an original short film treatment and screenplay.
- (2) Use natural language A.I. to suggest revisions, which I will use for a second draft.
- (3) Storyboard each scene myself.
- (4) (OPTIONAL) Find someone more artistic than I to create storyboards.
- (5) Use natural language generation to supply an A.I. screenplay from my treatment.

(6) Compare all screenplays for coherence, pacing, and imagery.

(7) (OPTIONAL) Manually storyboard the A.I. screenplay.

(8) Generate A.I. storyboards from both scripts.

(9) Compare all storyboard sets against each other in artistic merit, accuracy to each scene, and usefulness as a storyboard.

3 Expected Outcomes

With the state of A.I., I expect the text portions of the project to show A.I. succeeding in coherency and adherence to my story, as well as being an effective editing tool. However, I doubt the resulting screenplay will be the same quality as my original. The image-generation I expect to be less fruitful, I expect the A.I. images to be visually weak and not useful as storyboards. Overall, I expect the human-created works to win out, but with A.I. being good enough to be concerning for creatives.

References

- [1] Molly Kinder. 2024. Hollywood writers went on strike to protect their livelihoods from Generative AI. their remarkable victory matters for all workers. <https://www.brookings.edu/articles/hollywood-writers-went-on-strike-to-protect-their-livelihoods-from-generative-ai-their-remarkable-victory-matters-for-all-workers/>