

## 4-Koma: Insert Witty Title Here

SARAH MAREK, Texas A&M University, USA



Fig. 1. The final Yonkoma combining AI generated images and hand-drawn artwork.

Author's Contact Information: Sarah Marek, mareksam@tamu.edu, Texas A&M University, College Station, Texas, USA.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

Conference acronym 'XX, College Station, TX

For this project, I decided to run an experiment to better understand how AI might fit into my personal workflow. By dividing the work of creating a yonkoma between AI image generation tools and hand-drawn artwork, I was able to compare the efficiencies of each production process.

**CCS Concepts:** • **Do Not Use This Code → Generate the Correct Terms for Your Paper;** *Generate the Correct Terms for Your Paper; Generate the Correct Terms for Your Paper; Generate the Correct Terms for Your Paper.*

**Additional Key Words and Phrases:** Do, Not, Us, This, Code, Put, the, Correct, Terms, for, Your, Paper

#### **ACM Reference Format:**

Sarah Marek. 2025. 4-Koma: Insert Witty Title Here. In *Proceedings of Make sure to enter the correct conference title from your rights confirmation email (Conference acronym 'XX)*. ACM, New York, NY, USA, 4 pages. <https://doi.org/XXXXXXX.XXXXXXX>

## **1 Introduction and Related Works**

The marketing of AI towards creative fields has grown significantly in the past several years, with manga creation being one of the potential use-cases advertised. In particular, AI has been targeted at script writing, background automation, and polishing sketches. Manga is a highly visual and narrative-driven medium, making it an ideal target for AI-assisted creation. By leveraging AI-generated scripts and images, this project aims to explore AI's role in supplementing traditional artistic efforts. A traditional panel workflow would follow several steps: thumbnailing, sketching, linework/inking, coloring, and rendering. AI has been marketed primarily towards the thumbnailing and rendering stages, and that's how it's been approached in this project: using a prompt to generate a scene, then adding further rendering on top. This study builds on existing research on AI-driven content creation. Zhang Yunqian's paper [3] on AI-driven background generation explores deep generative models to automate scene construction. Chiou [1] investigate how AI facilitates co-ideation in design workflows. Messer [2] examines AI's impact on art perception, noting that while AI-assisted art is seen as innovative, it is often perceived as less authentic. These studies provide context for assessing AI's role in manga production, particularly regarding efficiency, creative control, and audience reception.

## **2 Methodology**

The project followed a structured process to integrate AI tools with traditional manga creation techniques. Initially, multiple script variations were generated using ChatGPT. These AI-generated drafts provided a starting point, but significant manual refinement was necessary in order to bring the script up to something at my standard.



Fig. 2. A selection of the generations made for this project from both Leonardo.ai and ChatGPT image generators.

For visual elements, I employed ChatGPT's image generator and Leonardo.ai to generate panels. First with Leonardo, but moved over to ChatGPT struggling with getting panels that matched my script. The AI outputs were often inconsistent between generations and never fully followed the script, requiring extensive editing and digital painting to achieve the desired aesthetic. To correct for this I edited the results in photoshop and created and composited draw-overs to mask and enhance different parts of the AI results. Overall, this whole approach was about three hours.



Fig. 3. A side by side comparison of the original generated images and the edits done to them.

For the other half, I used my usual drawing process in Adobe Photoshop following the style from the AI: sketching, line art, color and render passes, then color filter layers for final touches. This more familiar approach took about two hours in total. The final step involved assembling and refining the manga panels in Photoshop. The assembled comic was uploaded to Github for hosting.

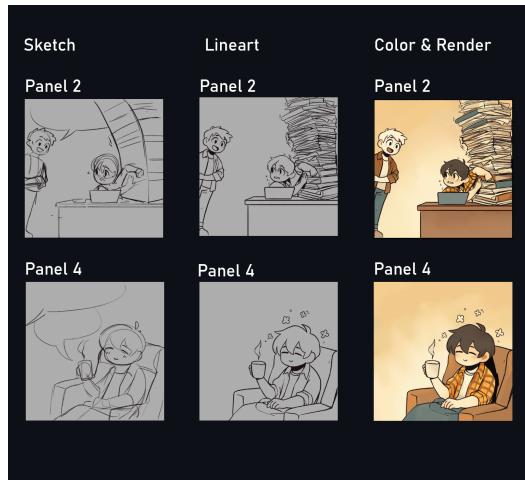


Fig. 4. A overview of my process from sketch to line-work and to full render.

### 3 Result and Future Work

The final comic was able to blend AI-generated and hand-drawn elements successfully, but comparing the time and effort spent on each workflow revealed that working with the AI was less efficient and enjoyable compared to free-hand artwork. While AI tools accelerated the earliest stages, their output was often messy, requiring substantial human intervention. The lack of specificity in AI content generation also made it nearly impossible to iterate on one result, instead necessitating hand edits to polish ideas that held promise. Future work will likely require further experimentation with AI tools to more efficiently integrate with my workflow.

## 4 Conclusion

This experiment demonstrated AI's potential and limitations in manga creation. While AI can accelerate ideation, human refinement is crucial for creating a polished and cohesive final product. In my specific case, so much human intervention was required that it weighed down any gains made in that earlier acceleration.

## Acknowledgments

This work is submitted as part of Assignment 1 for the VIZA 626 course at Texas A&M University, under the instruction of Professor You-Jin Kim, during the Spring 2025 semester.

## References

- [1] Li-Yuan Chiou, Peng-Kai Hung, Rung-Huei Liang, and Chun-Teng Wang. 2023. Designing with AI: An exploration of co-ideation with image generators. In *Proceedings of the 2023 ACM designing interactive systems conference*. 1941–1954.
- [2] Uwe Messer. 2024. Co-creating art with generative artificial intelligence: Implications for artworks and artists. *Computers in human behavior: artificial humans* 2, 1 (2024), 100056.
- [3] Zhang Yunqian. 2024. AI-driven background generation for manga illustrations: a deep generative model approach. *Operational Research in Engineering Sciences: Theory and Applications* 7, 1 (2024).

Received 20 February 2007; revised 12 March 2009; accepted 5 June 2009