

# ADVENTURERS AND ALGORITHMS

AI AND THE EVOLUTION OF  
TTRPG GAMEPLAY

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# Project Team



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# STUDY BACKGROUND AND OBJECTIVES





# Study Background



**Tabletop Games and Education**



**AI Ethics**



**Intersection of AI and Tabletop Games**



# Study Background



## Tabletop Games and Education

Leveraged by librarians as **alternative literacy programs** (Ewalt, 2013)

Implemented in literature and creative writing courses to **encourage participation** and immersion (Glazer and Hergenrader, 2014)

Employed in technology courses to **explore interpersonal soft skills** (Veldthuis et al., 2022)



# Study Background



## AI Ethics

**Fairness:** An ethical feature built upon the principle of discriminatory non-harm (Leslie, 2019)

**Bias:** Discrimination as a result of poor decision-making and data collection (Modi, 2023)

**Safety:** The ability to mitigate harmful outcomes and degradation of trust (Leslie, 2019)

# Study Background



## Intersection of AI and Tabletop Games

AI tools can be used to **simplify game play**, thus lowering the perceived barrier to entry (Zhu et al., 2023)

Domain-specific models can streamline combat encounters and **reduce GM's cognitive load** (Callison-Burch et al., 2022)

LLMs can summarize game transcriptions to **support narrative continuity** between sessions (Rameshkumar and Bailey, 2020)



# Research Questions

RQ1

For GMs who have used AI for TTRPG sessions, what are their **experiences** and players' **perspectives** on AI as a tool for assisting creative worldbuilding?

RQ2

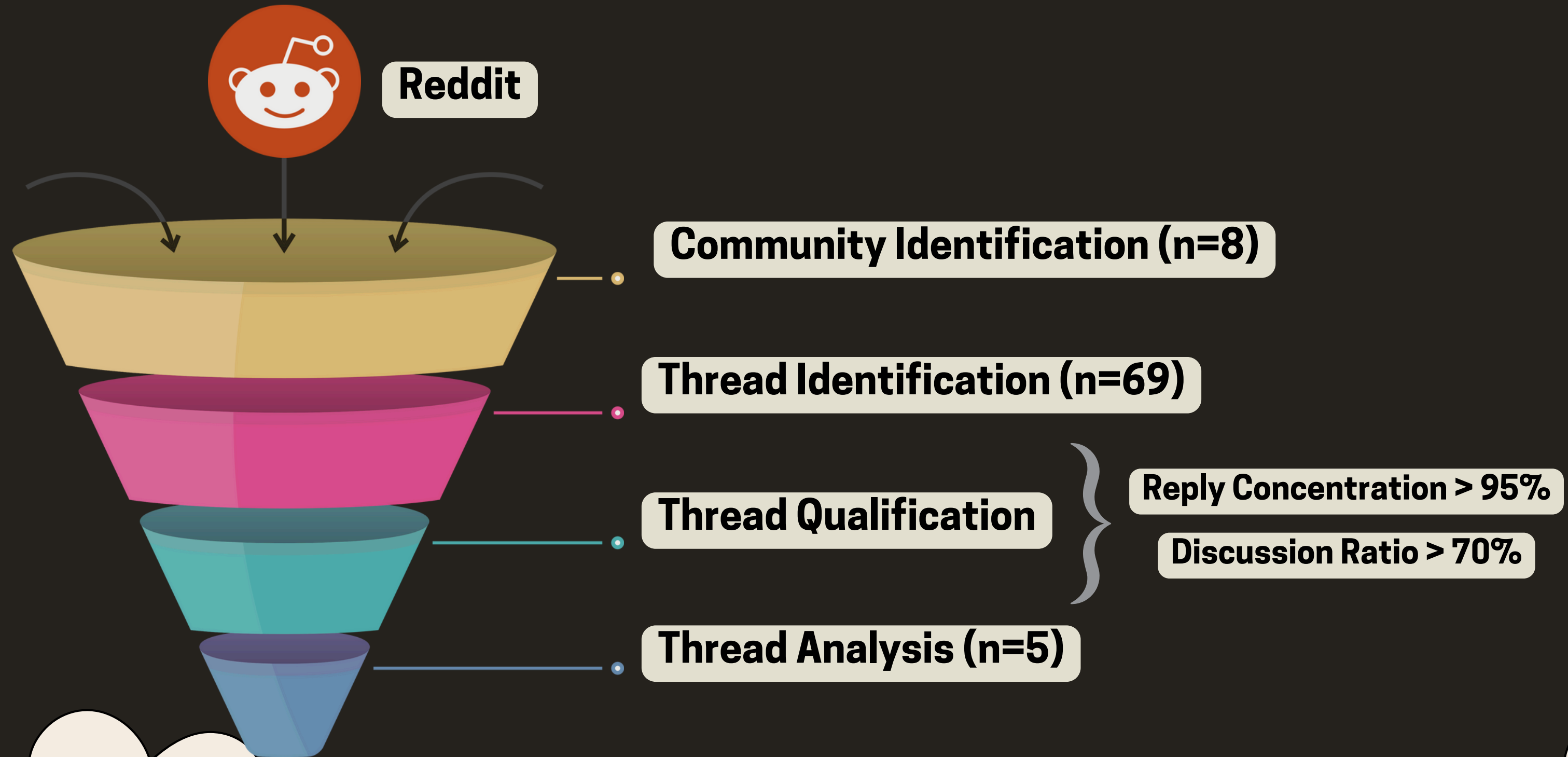
For GMs and players who have used AI for TTRPG sessions, what are their perspectives on ethics particularly regarding **fairness**, **bias** and **safety**?







# Data Collection



# Data Collection

Thread Title	Subreddit	Comment Count	Reply Concentration	Discussion Score
Is it ethical to generate setting lore with AI, or is that not a good thing?	r/rpg	107	100%	73.4%
Letting AI Run a Town	r/rpg	75	100%	79.5%
The difference between random tables and LLM	r/rpg	69	100%	73.2%
Chat GPT as a DM tool	r/DungeonMasters	42	95.2%	78.8%
AI for making a world is crazy	r/DnD	33	100%	82.4%
		TOTAL: 326		





# Code Families

## CODE FAMILY

## DEFINITION

### Bias

A code for comments addressing bias in AI tools. These comments may highlight aspects of design, development, or deployment, including mentions of **biased data, algorithmic bias, or systemic design features**.

### Fairness

A code for comments addressing fairness in AI tools. These comments may include observations on user-centered aspects, such as **intellectual property (IP), equitable treatment, and discriminatory non-harm**.

### Other

A code for comments addressing **emergent ethical factors of AI** outside of fairness, bias, and safety.

### Safety

A code for comments addressing safety in AI tools. These comments may reflect on aspects of **player needs, such as mental health and triggering topics**.

### Tools

A code for comments addressing experiences related to **the use of AI tools**.



# FINDINGS



# Findings



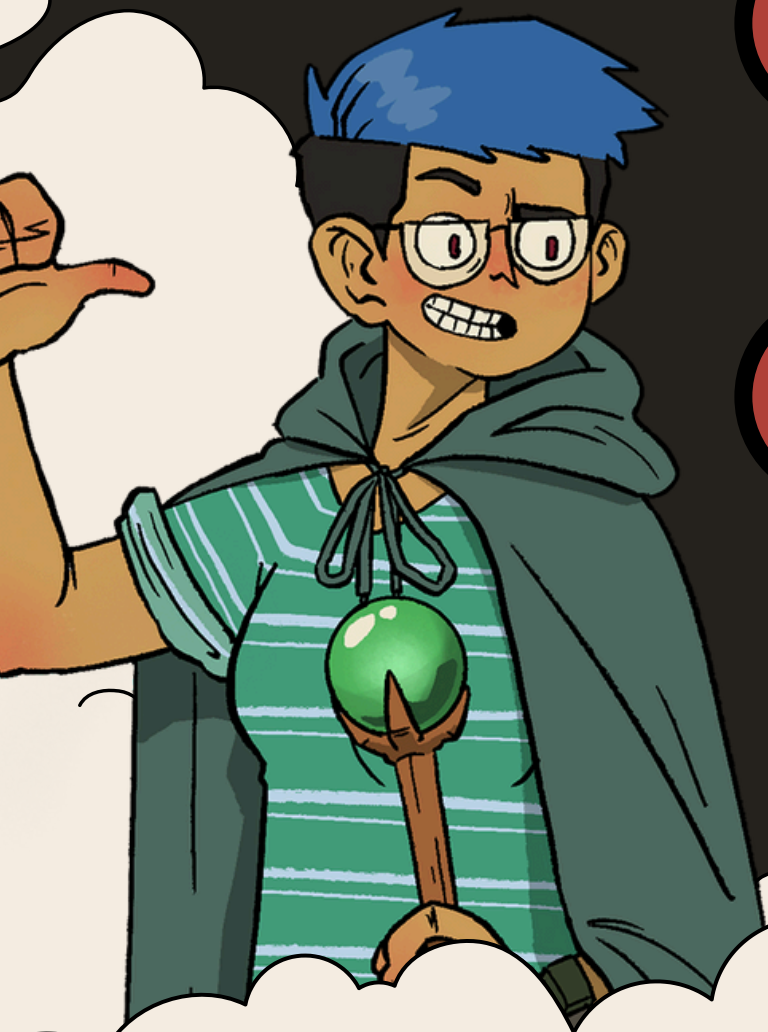
**AI as a GM Assistant**



**Ethical Concerns**



**Community Silencing**





# Findings



## AI as a GM Assistant

### POSITIVE

**Reducing Toil:** *"I use AI to generate all of the stuff I don't want to labor over. I'm too busy to spend hours building the minutiae of a world."*

**Skill Compensation:** *"Not everyone is a writer or creative enough to describe a particular cave, forest, city or whatever"*

### NEGATIVE

**Dehumanization:** *"You're taking a truly limitless and creative hobby for human expression and trying to optimize the humanity out of it because you can't picture a forest in your head."*

**Vapid Output:** *"It physically hurts to see human beings rally around this and praise it for being formatted in a pretty way when there's nothing actually there."*

# Findings



## Ethical Concerns – Fairness

POSITIVE

**Fair Use:** *“Fair Use lets us take content and transform it legally, creating something new.”*

NEGATIVE

**Job Impact:** *“...creative types that feel threatened by AI taking creative jobs. Which, to be fair, is absolutely a thing that is/will be happening.”*

# Findings



## Ethical Concerns – Bias

**NEGATIVE**

**Perpetuation and Normalizing Harmful Stereotypes:** *"I added a Kuei Jin character (a somewhat problematic Asian vampire from older editions) thinking it'll mix it up. Nope, leaned into full stereotyping again. ... 'Diego 'Rattlesnake' Veracruz' from Hong Kong had a zen garden in his apartment and a magic katana and operated a sex trade out of a massage parlor."*



# Findings



## Ethical Concerns – Safety

NEUTRAL

**Disclosure:** *"I think the key element is: are your players okay with you using AI?"*

NEGATIVE

**Disappointment:** *"Finding out my GM had AI generated most of the session of her first homebrew oneshot was so disappointing."*

# Findings

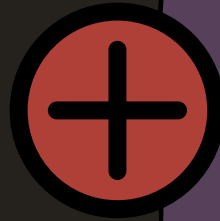


## Ethical Concerns – Other

**NEGATIVE**

**Sustainability:** *"The difference is I don't offer a paid service that scrapes hundreds of thousands of data sets online and then use up tons of wattage hours of electricity so that someone can generate a list of elvish names."*

# Findings



## Community Silencing

**Strict Moderation for AI Topics:** *"We do not allow AI generated content or AI tools to be posted to the sub[reddit]" (r/DnD)*



# IMPLICATIONS



# Implications



## Fairness

- Increase **transparency** about training data
- Establish **guidelines regarding IP** concerns in training data
- **Enforce legislation** and guidelines



## Bias

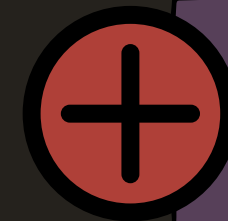
- Human-in-the-loop & customization
  - GMs should modify the outputs of AI tools to reflect desired identities
  - GMs should write prompts that explicitly include the identities they and their players wish to see

# Implications



## Safety

- **Discuss AI usage** openly and upfront with players
- **Disclose any AI tools** or outputs being used



## Sustainability

- Require AI tool companies to **disclose their resource and energy usage**
- **Update regulations** to address these resource and energy concerns



# Future Research

At the intersection of rapid AI adoption and the application of tabletop games for alternative experiential learning – **it is essential to thoroughly understand the ethical implications of AI integration.**

In light of the moderation practices on community subreddits, there is a pressing **need for additional mediated data collection** through interviews and focus groups.

The outcomes from this study can serve as a **groundwork for interview instruments.**



# Presentation References

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# Q&A

Thank you for your participation  
in today's session!

