

AI in Creative Technologies: Fostering Critical Engagement through Teaching and Practice

Presented by Dan Cox, Greg Corness, Simone Downie,
Chris Lackey, and Kristin Carlson

Teaching and Learning Symposium | ISU

Overview

01

Presentation

- Faculty intros

02

Open panel discussion

- What we're hearing the classroom
- Re-framing the conversation as educators
- Facing our own anxieties

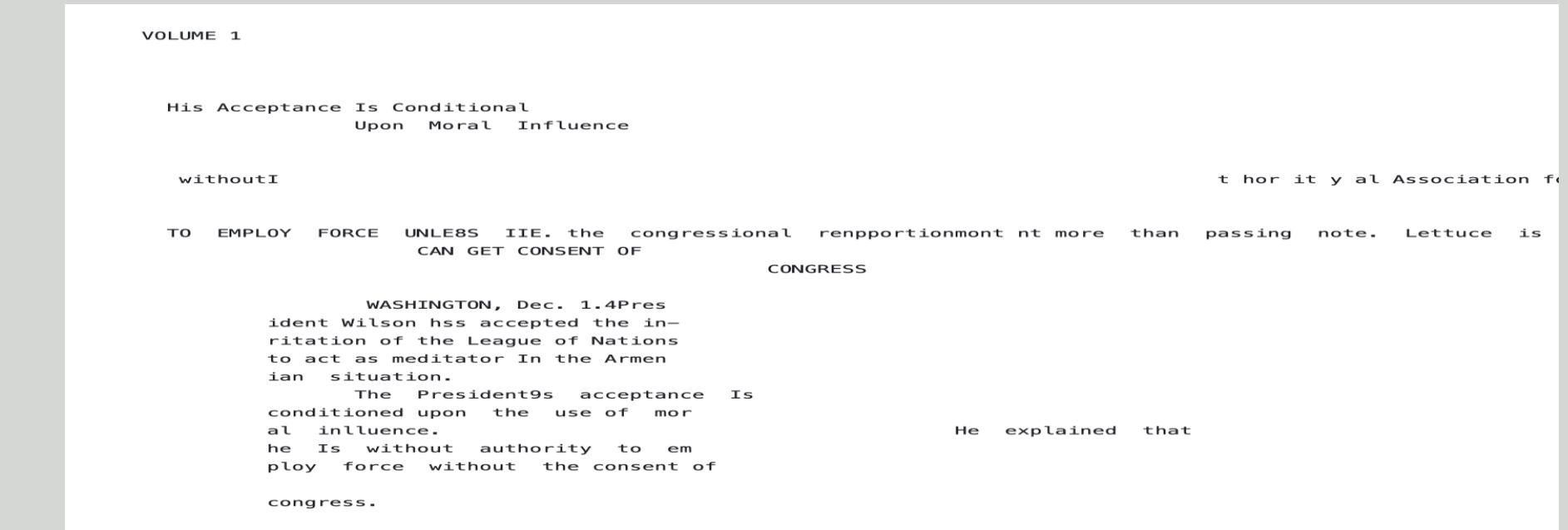
Faculty Intros

cool stuff we do

Dan Cox

Assistant Professor of Game Design

- Has created small language models for historical research.
- Uses GitHub Copilot (development tool) as part of code work.
- Teaches how to use generative AI with game development



cm-packer

A command-line tool for packing and unpacking IMSCC (IMS Common Cartridge) files used by Canvas LMS and other learning management systems. This tool follows the Common Cartridge 1.4 standard.

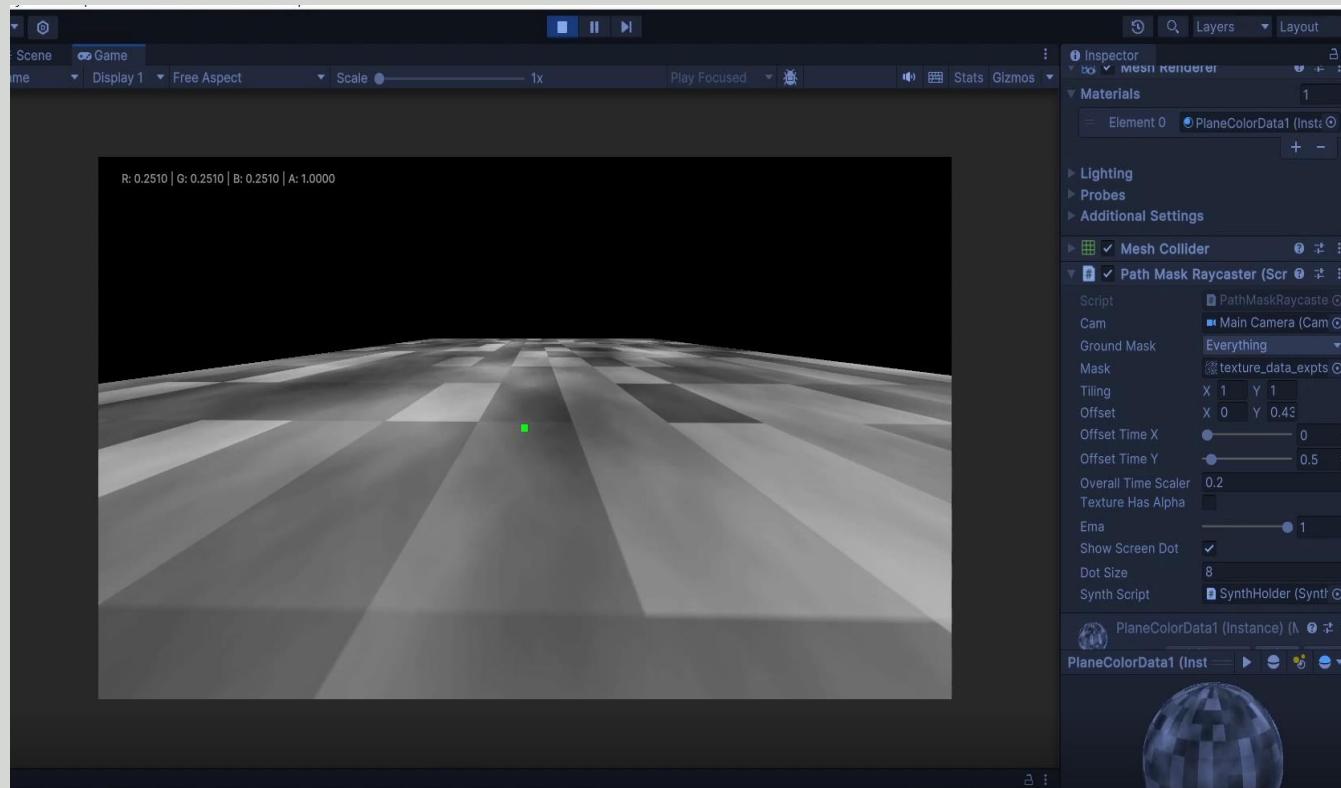
Features

- **Unpack IMSCC files:** Extract and parse IMSCC files (ZIP format) into organized folders and files.
- **Pack directories:** Convert folders and files back into valid IMSCC files.
- **Remap content:** Reorganize unpacked IMSCC content into human-readable folder structures based on course organization.
- **Metadata parsing:** Automatically parse and generate manifest metadata.

Christopher Lackey

Assistant Professor of Creative Technologies

- Generative and procedural media, repurposing data for creative ends
- Human-computer interaction, custom controllers, installations
- Game design and development



LLM Assistant Behavior Builder!

Adjust defaults on the left → watch rules update on the right → copy/paste the SYSTEM RULES into ChatGPT (or any LLM). Then ask questions as usual. You can make adjustments to the rules during the chat with phrases such as "Use bullet points" or "Use more conceptual thinking". If you want to change overall behavior, you can choose new settings on this page and copy/paste the new system rules into your chat again.

Controls

Preset (sets values below) **Tutor**

Behavior

Role **Tutor**

Breadth (Exploratory ↔ Direct) **Exploratory**

Grounding (Concrete ↔ Abstract) **Concrete**

Risk (Conservative ↔ Speculative) **Balanced**

Delivery

Verbosity **Thorough**

Structure **Headings**

Learning options

- Include one concrete example when helpful
- Call out common misconceptions / mistakes
- Ask one quick check-for-understanding question (when appropriate)
- Provide 3 short practice questions (with brief answers)
- End with "next steps" suggestions
- Provide 2 reflection prompts (for journaling/discussion)

SYSTEM RULES [Copy SYSTEM RULES](#)

SYSTEM RULES:

AUTHORITY

- The following rules define default behavior for all responses.

ROLE

- Write as a tutor: prioritize understanding and learning over speed.

BEHAVIOR

- Explore multiple plausible approaches before settling on a recommendation.
- Surface tradeoffs and alternatives when they are meaningfully different.
- Ask clarifying questions when they would materially improve the answer.
- Favor concrete examples and specific scenarios over general principles.
- When explaining, start with a tangible example before generalizing.
- Be grounded; when you infer beyond the given information, label it as an inference.

DELIVERY

- Be thorough. Include enough detail that a motivated reader can apply the advice.
- Use short headings to organize the response when it improves readability.
- Under each heading, use short paragraphs.

LEARNING OPTIONS

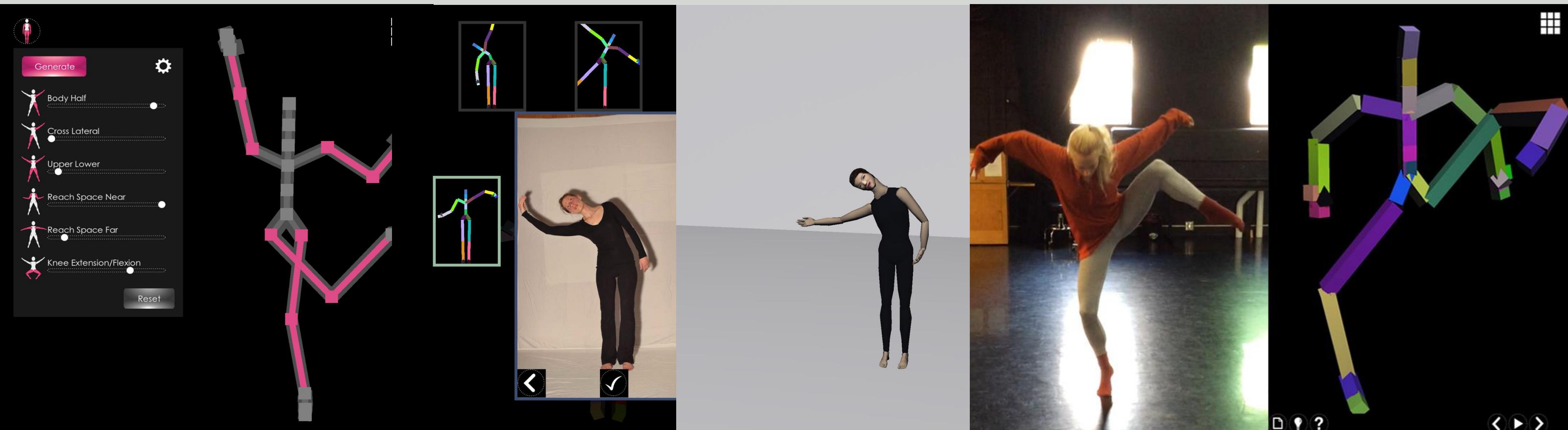
- Include one concrete example when it would improve clarity.
- Call out common misconceptions or mistakes when relevant.
- When appropriate, ask one quick check-for-understanding question.
- When appropriate, provide 3 short practice questions with brief answers.
- End with a short "next steps" list of suggested actions.



Kristin Carlson

Associate Professor of Creative Technologies

- Creativity support tools
- Works with movement, motion, and interaction
 - Uses AI in brainstorming and iteration



Simone Downie

Assistant Professor of Game Design + Animation



MURDER ON MANSION HILL

Greg Corness

Assistant Professor of Game Design

Philosophical Stance: Our beliefs about the world and the agents in it are built from our experience

My Sandboxes:

- Generative algorithms for music
- Understanding human perception of structure
- How humans perceive agency in a system

- Human interaction with autonomous media agents
- Modeling social cues in robot and media agents
- Modeling processes for perceiving and projecting intention

Student concerns

and how we can respond

Re-framing

- **STUDENT ANXIETY**
 - AI will replace jobs

- **TEACHING PERSPECTIVE**
 - AI will define jobs

Re-framing

- **STUDENT ANXIETY**
 - AI will replace jobs
 - **AI is theft**

TEACHING PERSPECTIVE

- **AI will define jobs** ○
- **AI can be used ethically or not** ○

Re-framing

STUDENT ANXIETY

- AI will replace jobs
- AI is theft
- AI creates soulless 'slop'

TEACHING PERSPECTIVE

- AI will define jobs
- AI can be used ethically or not
- AI can be a creative partner

Re-framing

STUDENT ANXIETY

- **AI will replace jobs**
- **AI is theft**
- **AI creates soulless 'slop'**
- **AI is killing the environment**

TEACHING PERSPECTIVE

- **AI will define jobs**
- **AI can be used ethically or not**
- **AI can be a creative partner**
- **AI doesn't equal datacenter**

TEACHING ANXIETY

- **Recipe Syndrome: Students code/ write/ design for a solution without understanding why/ the process/ how**

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Re-framing Reversed

TEACHING ANXIETY

- **Recipe Syndrome:** Students code/ write/ design for a solution without understanding why/ the process/ how
- **Fear/ rejection of AI use because it is “bad”**
- **Students have strong concerns over AI in work THEY want to do, but no comprehension of how it is already baked into their tools**
- **AI “magic” obfuscates the tech that students are using (apps have already contributed to this)**
- **Trash in, trash out**

Thank you!

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Accessible AI tools for students

From an Intro to Board Games perspective

Understanding a rulebook



SECOND EDITION Gloom

The Game of Inauspicious Incidents & Grave Consequences

The world of *Gloom* is a sad and benighted place. The sky is gray, the tea is cold, and a new tragedy lies around every corner. Debt, disease, heartache, and packs of rabid flesh-eating mice — just when it seems things can't get any worse, they do. The only consolation comes from the knowledge that yours really is the most tragic tale of them all, and there's some satisfaction in putting others' travails to shame by telling your own morbid misadventures.

OBJECTIVE

In the *Gloom* card game, you control the fate of an eccentric family of misfits and misanthropes. Your goal is sad, but simple: you want your Characters to suffer the greatest tragedies possible before passing on to the well-deserved respite of death, while keeping your opponents' Characters happy, healthy, and annoyingly alive. And along the way you'll detail the unfortunate incidents resulting in their miserable demise.

You'll play Modifiers from your hand on top of Character cards, describing the horrible mishaps you inflict on your own Characters to lower their Self-Worth scores, while trying to cheer your opponents' Characters with happy occasions that pile on positive points. When one of your family members finally suffers an Untimely Death, that Character and all the tragic circumstances leading to his passing are set aside until the end of the game.

When you discard cards, set them face up next to the draw pile, creating a discard pile. If the draw pile ever runs out, reshuffle the discard pile to create a new one.

Now you're ready to torment your Characters! The player who's had the worst day goes first; if you've all had equally miserable days, the owner of the game takes the first turn. Play continues in a clockwise direction.

COMPONENTS

Gloom is a card game for 2 to 5 players, ages 13 years and up. Game play takes about an hour. In addition to this rules sheet, *Gloom* includes 20 Character cards, 2 reference cards, 57 Modifier cards, 11 Event cards, and 20 Untimely Death cards.

GAME PLAY

When it's your turn, you *make 2 plays* then *draw back up* to your hand limit, in that order.

Make 2 Plays

First, make 2 of the following plays. It's fine to make the same play twice (except Untimely Deaths).

Play a Modifier: As either play, place a Modifier card from your hand on any living Character, even if it's not your own. If the Modifier has an immediate effect, resolve it right away. Modifiers also add a story icon and/or contribute the Self-Worth points along their left edge to the Character's Self-Worth score. You'll usually want to play Modifiers with positive points on your opponents, and those with negative points on yourself.

Play an Event: As either play, reveal an Event card from your hand, follow the effect instructions, then discard it.

Play an Untimely Death: As your first play, place an Untimely Death card from your hand on any living Character with a *negative Self-Worth score*, even if it's not yours. You can't play an Untimely Death as your second play, but a Modifier or Event may let you use it as a "free play." The game ends when the last Character in any family dies.

Discard Your Hand: As either play, you may discard your entire hand. However, you don't get new cards until the end of your turn; if you discard as your first play, you won't have any cards to use for your second play!

Pass: You don't have to make one or both plays if you don't want to.

Draw Back Up

After you've made your 2 plays, draw until the number of cards in your hand is equal to your current draw limit. Unless it's altered by card effects, *your draw limit is 5 cards*.

You aren't forced to discard cards; if you end up with 7 cards in your hand and your draw limit is 5, you simply don't draw until you have fewer than 5 cards. Once you've drawn, the player to your left begins his turn.

Free Plays

Some Modifier and Event cards allow you to play additional cards as "free plays"



that don't count toward your 2 standard plays. If a card lets you use an Untimely Death card as a free play, it doesn't matter if it's your first play or second.

STORYTELLING

Half the fun of *Gloom* is the stories that unfold as the game progresses. On your turn, it's up to you to explain the effects of your plays and how these tragic events have come to pass.

For example, you play Was Trapped On A Train on Professor Helena Slogar. Why was she on the train? How was she trapped? And if your opponent later decides Helena Was Married Magnificently, how did she meet her future spouse while imprisoned there?

There are no right answers to these questions, and it's up to you how deeply you delve into these tales of tragedy. But when you play a card, try to explain how it fits that Character's story ... you'll have more fun if you do!

THE CARDS

The basic *Gloom* game uses 4 types of cards: *Characters*, *Modifiers*, *Events*, and *Untimely Deaths*. Cards are resolved in the order in which they're played.

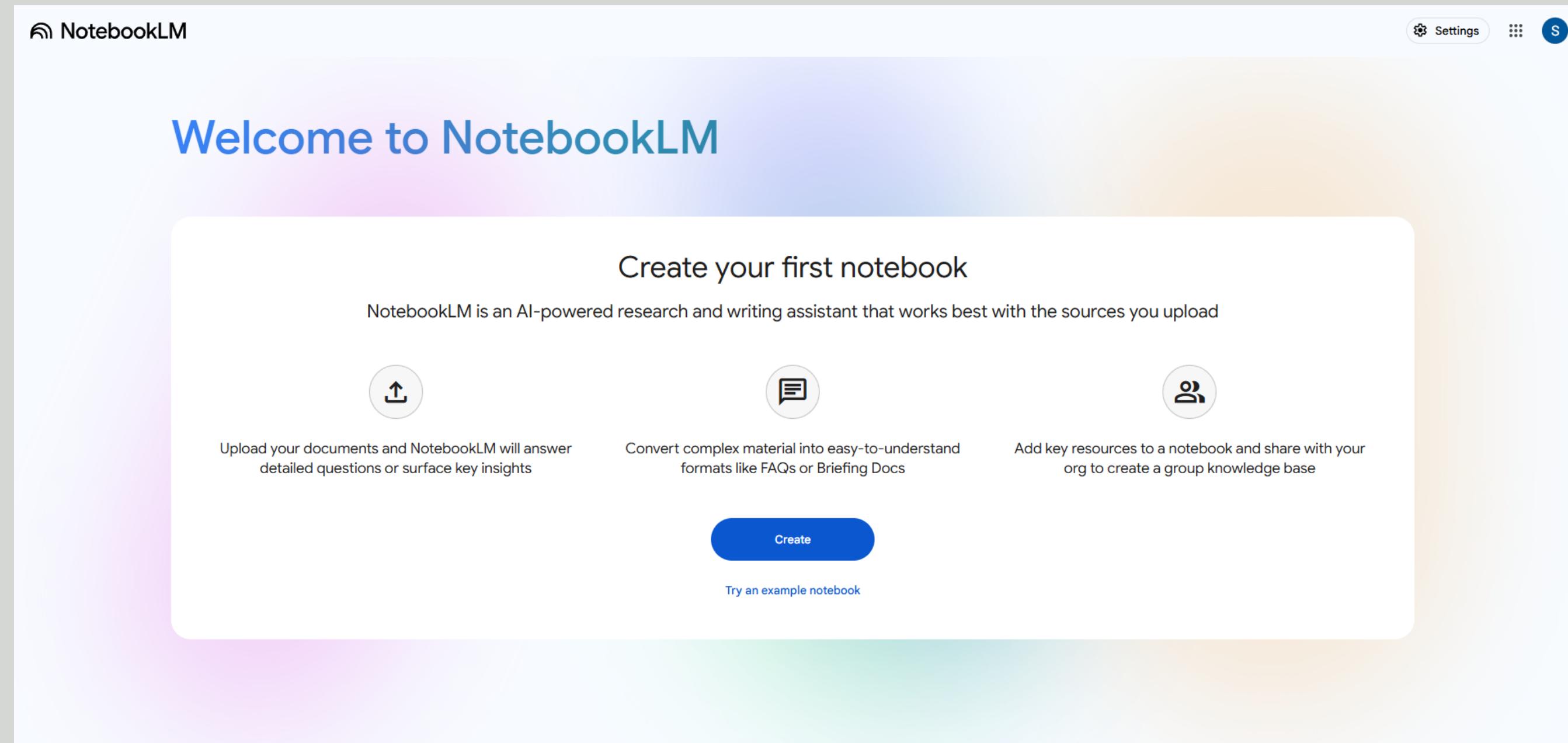
The cardinal rule of the game is that *you only pay attention to card elements you can actually see*. Ignore those you can't. So a Character's Self-Worth score is the sum of its visible points. A continuous effect continues until its effect text is covered. And while a persistent effect is harder to remove, as soon as both its upper right icon and center illustration are obscured, the effect ends.

Common Card Elements

Cards include one or more of the following elements:

Self-Worth Points: These are the numbers on the left side of the card, and there are 3 spaces for them. Combine all of the *visible* points on a Character to determine its Self-Worth score. Add the scores of your *dead* Characters together to get your total Family Value. Remember: living Characters never contribute to your Family Value.

Understanding a rulebook



The screenshot shows the NotebookLM interface. At the top, there is a navigation bar with the logo 'NotebookLM', a gear icon for 'Settings', and a user icon. The main heading 'Welcome to NotebookLM' is displayed in a large, blue, sans-serif font. Below the heading, a central call-to-action box is titled 'Create your first notebook' in bold black text. The box contains three sections: 1) 'Upload' (represented by an upward arrow icon), with the text 'Upload your documents and NotebookLM will answer detailed questions or surface key insights'. 2) 'Convert' (represented by a document icon), with the text 'Convert complex material into easy-to-understand formats like FAQs or Briefing Docs'. 3) 'Share' (represented by a person icon), with the text 'Add key resources to a notebook and share with your org to create a group knowledge base'. At the bottom of the central box are two buttons: a blue 'Create' button and a smaller 'Try an example notebook' button. The background of the interface features a horizontal gradient from light blue to light orange.

Understanding a rulebook

The screenshot displays the NotebookLM interface, a digital workspace for analyzing and summarizing information from multiple sources. The main content area is titled "Gloom: The Game of Inauspicious Incidents Rules".

Sources: A sidebar on the left lists four sources: "GLOOM - Learn How To Play With Gamerules.com", "Gloom : r/boardgames", "How to Play Gloom | Roll For Crit", and "gloom2-0rules.pdf".

Chat: The central area contains a summary of the game Gloom, its objectives, and mechanics. It includes a "Save to note" button, an "Add note" button, an "Audio Overview" button, and a "Mind Map" button. A search bar at the bottom asks, "What is the central objective of Gloom, and what are the primary game mechanics used to achieve it?"

Studio: The right sidebar contains sections for "Audio Overview" (with a "Load" button), "Notes" (with buttons for "Study guide", "Briefing doc", "FAQ", and "Timeline"), and a "New Note" section with three collapsed items: "Gloom: Gameplay and Objectives", "Gloom Card Game Overview", and "Gloom: Gameplay, Strategy, and Narrative".

At the bottom of the interface, a note states: "NotebookLM can be inaccurate; please double check its responses."

Understanding a rulebook

I hear you have to tell stories to play this game. When do I tell a story? What kind of story?

Yes, storytelling is a significant part of playing Gloom 1 You are encouraged to tell a story whenever you play a card onto a character 1 .

Here's more detail on when and what kind of story you should tell:

- **When to tell a story:** You should add to the story whenever you play a card onto a character 1 . This includes when you play a Modifier card, an Event card, or an Untimely Death card 1
- **What kind of story to tell:**
 - The stories should generally explain the effects of your plays and how these tragic events have come to pass 3 . You should try to explain how the card you played fits into that character's ongoing story 3 .
 - You can use the flavor text on the cards, which has no direct effect on the game, to influence your storytelling 4 . You are encouraged to read it out loud 4 .
 - The effects and the name of the card you play should also influence your story 1 .
 - The goal of the game is to make your family the most miserable 5 ... , so your stories will likely involve tragedies and misfortunes 3 The game is described as a "delightfully Dow and dreary storytelling game of murder and Misfortune" 6 and involves "spinning tells of woe" 5 and "morbid misadventures" 8 .
 - The tone can be one of "depression humor guided improv" 9 . Players often enjoy creating "little stories for each family member and connecting them as you play cards" 10 .
 - There are no right or wrong answers for the stories, and it's up to you how deeply you delve into these tales of tragedy 3 .

Essentially, every time you play a card on a character, you should weave it into the narrative of that character's miserable life, explaining how the event described on the card contributes to their overall negative self-worth and eventual demise 3

Save to note



I can't tell which cards are modifier cards and which are event cards. Do they look different? When do I play them?

Yes, Modifier cards and Event cards do look different 1 .

• Modifier Cards:

- Have a **black text plate with white text**, similar to Character cards 2
- Always have **Self-Worth points** displayed on the left side 3
- Many have **story icons** 3
- Most do not have a central image, except for those with persistent effects 3 .
- You play a Modifier card from your hand on any **living Character** as either of your two plays on your turn, even if it's not your own 3
- If the Modifier has an **immediate effect**, it is resolved right away 4
- Modifiers add a story icon and/or contribute their Self-Worth points to the Character's Self-Worth score 4 .
- Generally, you'll play Modifiers with negative points on your own family and positive points on your opponents 3
- Multiple Modifier cards can be played on the same Character 3 .

• Event Cards:

- Have a **grey text plate with red text** 1 .
- Have a **red central image** showing all the story icons 1 .
- Are **single-use cards** 1 .
- You play an Event card as either of your two plays on your turn 4 .
- When played, you reveal the Event card from your hand, **follow the effect instructions**, and then **discard it** 1

In summary, you can visually distinguish Modifier cards by their black text plate and Event cards by their grey text plate with red text and a red central image. You can play both types of cards as one of your two plays on your turn 4 .

Start typing...

1 source



Describe how a player determines their Family Value.

What are the four basic card types in Gloom?



Understanding a rulebook

Studio > Note

Gloom: Gameplay and Objectives

(Saved responses are view only)

Frequently Asked Questions about Gloom

- **What is the primary objective of the game Gloom?** The main goal in Gloom is to make your family of characters as miserable as possible by inflicting negative modifiers on them and weaving tales of their woe. Ultimately, you want your entire family to die with the lowest cumulative visible self-worth score. The player with the lowest total score at the end of the game wins, signifying their family endured the most profound tragedies.
- **How do you play Gloom and what are the key actions on a player's turn?** Gloom is played over a series of turns, with each player controlling a family. On your turn, you typically take two actions, after which you draw back up to five cards (unless modified). Your actions can include playing a card (modifier, event, or, as a first action and under certain conditions, a death card), discarding your entire hand, or passing. When playing a card, especially a modifier, you are encouraged to narrate how the event befalls the character, contributing to the storytelling aspect of the game.
- **What are the different types of cards in Gloom and what are their general purposes?** There are four main types of cards in Gloom:
 - **Character Cards:** These represent your family members and have no initial self-worth or effects. They are the targets of other cards.
 - **Modifier Cards:** These cards are played on living characters (including opponents') to alter their self-worth score, either positively or negatively. They often have immediate, response, continuous, or persistent effects and may feature story icons.
 - **Event Cards:** These are single-use cards with immediate effects that impact gameplay and are then discarded.
 - **Untimely Death Cards:** These cards are used to kill off your characters, but can typically only be played as your first action on a character with a negative self-worth score. Only dead characters contribute to your final score.
- **How do self-worth points work and how do they determine the winner?** Self-worth points are numerical values found on the left side of modifier cards. When played on a character, the visible self-worth points contribute to that character's overall score. You want your own family members to accumulate negative self-worth points. At the end of the game, once all members of one player's family are dead, each player totals the visible self-worth points on their own dead characters. The player with the lowest total self-worth score wins the game.

Studio

Audio Overview

Gloom: The Game of Inauspicious Incidents Rules

02:04 / 16:08

Interactive mode **BETA**

Notes

+ Add note

Study guide

Briefing doc

FAQ

Timeline

Gloom: Gameplay and Objectives

Frequently Asked Questions about Gloom What is the primary objective of the game Gloom? The main goal in Gloom is to make your family of characters as...

Gloom Card Game Overview

Gloom Briefing Document Date: October 26, 2023 Subject: Review of Gloom Card Game based on Provided Sources This document provides a detailed overview ...

Gloom: Gameplay, Strategy, and Narrative

Gloom Study Guide Quiz What is the primary objective for players in the game Gloom? Describe the four different card types found in the Gloom base game....

Streamlining feedback

uploadsConverted_591ff_20140423223028_enhanced Q Search

Nick 5:24
Yeah. And it gives the defender information because they know well they don't know what's coming at

Susan 5:29
it. Unless I'm going out. I don't grab off the face up. Yeah, I'm that player. I'm always facedown unless I'm calling out because I'm not going to give you that information. Because I know what I'll do with it. I know he's too smart. I have to be careful. I like it. I'm not a dyno person. I'm like the last person in the world to know anything about dinosaurs. But I like it.

Gary 5:59
I think the most fun part is telling the story of your attack, and then then telling the story. And if there was more stuff to add to that story, like you know, I don't know what I'm attacking with my Stegosaurus you know, there's some way to include more than just I'm attacking with sorcs attacking with a fire breathing apparatus or something like that.

Susan 6:20
Make sound effects like you have to war

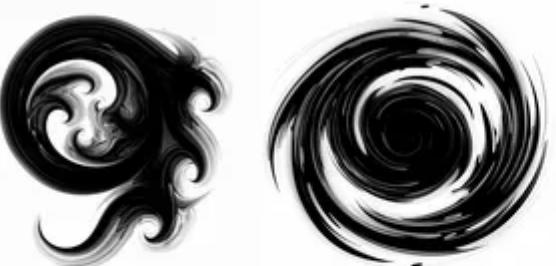
6:42 7:54

OtterAI's Transcription of a Playtest Session

Art

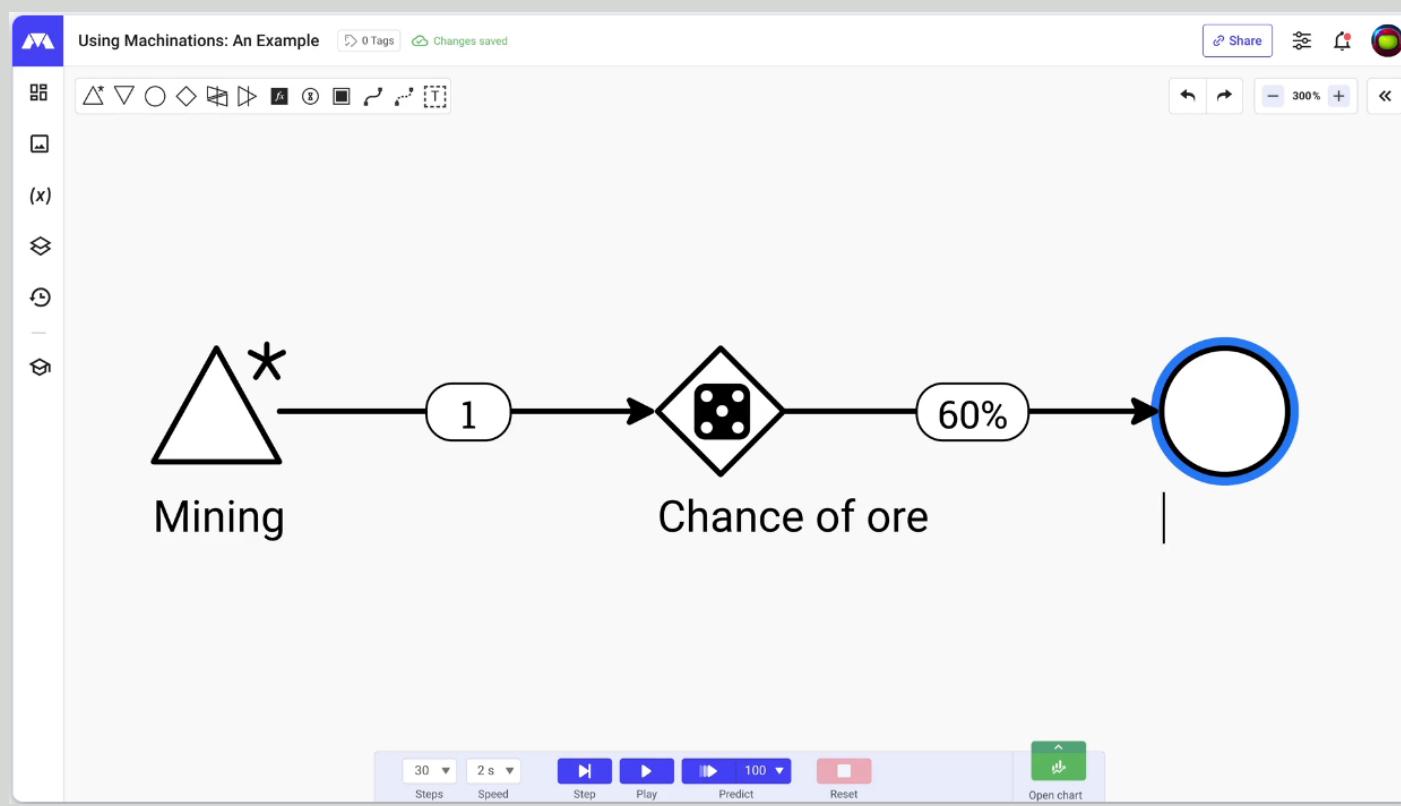
Some minor suggestions for the art (which again, I really like)

1. On the candle tracker, the unlit candle makes sense to be last in line, be shorter than the others, and have a wisp of smoke going up from the wick. Helps to sell the effect, and to make the object more instantly recognizable. I also feel like it makes more game sense to have lighting the candle be first on the track.
2. The rotate graphic is the only one that is out of theme. Maybe use something more like these (I had AI generate these):



Hey, I really like where you are going with this game! It just needs a richer player experience. Thanks for making it. I will play it again...

Testing designs



AI-based Playtesting of Contemporary Board Games

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Computer-Aided Game Development: Balancing Variable Player Powers

 Michael Van Biesbrouck • @mlvanbie | JAN 10, 2019 2:07 PM

 21  5.01  11 Comments 

I've used [Stephen Tavener's Ai Ai](#) to balance powers for both [Santorini](#) and my own game [Jotunheim](#). This article explains what I do, what it's good for and what it doesn't do.

Creativity Support Tools

iDanceForms and Cochoreo:

- Supports user expertise
- Engages with user habits and bias
- Helps to motivate and provoke users to “get out of a rut”

