

Gaming & AI

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Outline

- Video games as a highly profitable creative industry
- Video games as a complex subject matter
- Video games as a vehicle for creativity
- AI's role – case study on AI Dungeon



Video games as a highly profitable copyright industry

- 178 billion dollars worldwide in 2020
- 400% increase since 2007 when the iPhone was launched
- In 2020 revenues in VGs exceed revenues from the film industry (80.8 billion dollars) book industry (87.92 billion dollars) and the music industries (57.5 billion dollars)

MASTERING THE GAME

**Business and Legal Issues for
Video Game Developers**

A Training Tool



Video games as a complex subject matter

Nintendo, C-355/12

- “... videogames [...] constitute **complex matter** comprising not only a computer program but also graphic and sound elements, which, although encrypted in computer language, have a unique creative value which cannot be reduced to that encryption. In so far as the parts of a videogame, in this case, the graphic and sound elements, are part of its originality, they are protected, together with the entire work, by copyright in the context of the system established by Directive 2001/29.” [para 23]

Video games as a vehicle for creativity

Successive
creativity

Examples: UGC,
fan fiction,
streaming

See further: Amy Thomas, 'You Can Play', 2022 – CREATE, University of Glasgow – contracts (not copyright) as enablers of user creativity (30 popular game titles; seven different types of UGC activities) => "an almost Creative Commons-style system of user enablement"

In-game
creativity

AI's role and
prompt
engineering



February 2022



Opportunities and Challenges
of **Artificial Intelligence** Technologies
for the **Cultural and Creative Sectors**



AI and the creative industries

- Architecture, book publishing, fashion and design, film, museums and cultural heritage, music, news media, performing arts, visual arts, video games
- Benefits of AI:
 - cost-saving
 - increased efficiency
 - decision-making
 - discovering and engaging with new audiences
 - **inspiring human creation**

Procedural content generation (PCG)

- Adaptive games
- Algorithmically generating game content (levels, tasks, maps, characters)
- Benefits
 - Enhanced shelf-life of a game
 - Reduces development costs
 - Bolster creativity

AI Dungeon

- **Developed by Latitude**
 - US
 - Start-up (2019)
- **AI Dungeon**
 - Text-adventure game, generating storylines in response to player prompts
 - DO/SAY/STORY/SEE
 - Multi-player



Pick a setting...

- 1 Fantasy
- 2 Mystery
- 3 Zombies
- 4 Apocalyptic
- 5 Cyberpunk
- 6 Custom
- 7 Archive

Select a character...

- 1 Noble
- 2 Princess
- 3 Knight
- 4 Wizard
- 5 Witch
- 6 Ranger
- 7 Squire
- 8 Peasant
- 9 Fairy
- 10 Rogue

Enter your character's name...

You are Alilea, a princess living in the kingdom of Larion. You wake up in a big feather bed and hear clamoring outside your door. A knight rushes in to tell you that the king and queen are in danger! You throw on some clothes and rush out of your chamber to see what's going on.

The courtyard is in chaos.



Do What do you do?



The courtyard is in chaos.

🦿 You climb on the closest tree in order to see better.

You climb up on the nearest tree in order to have a better view of the battle going on below you.



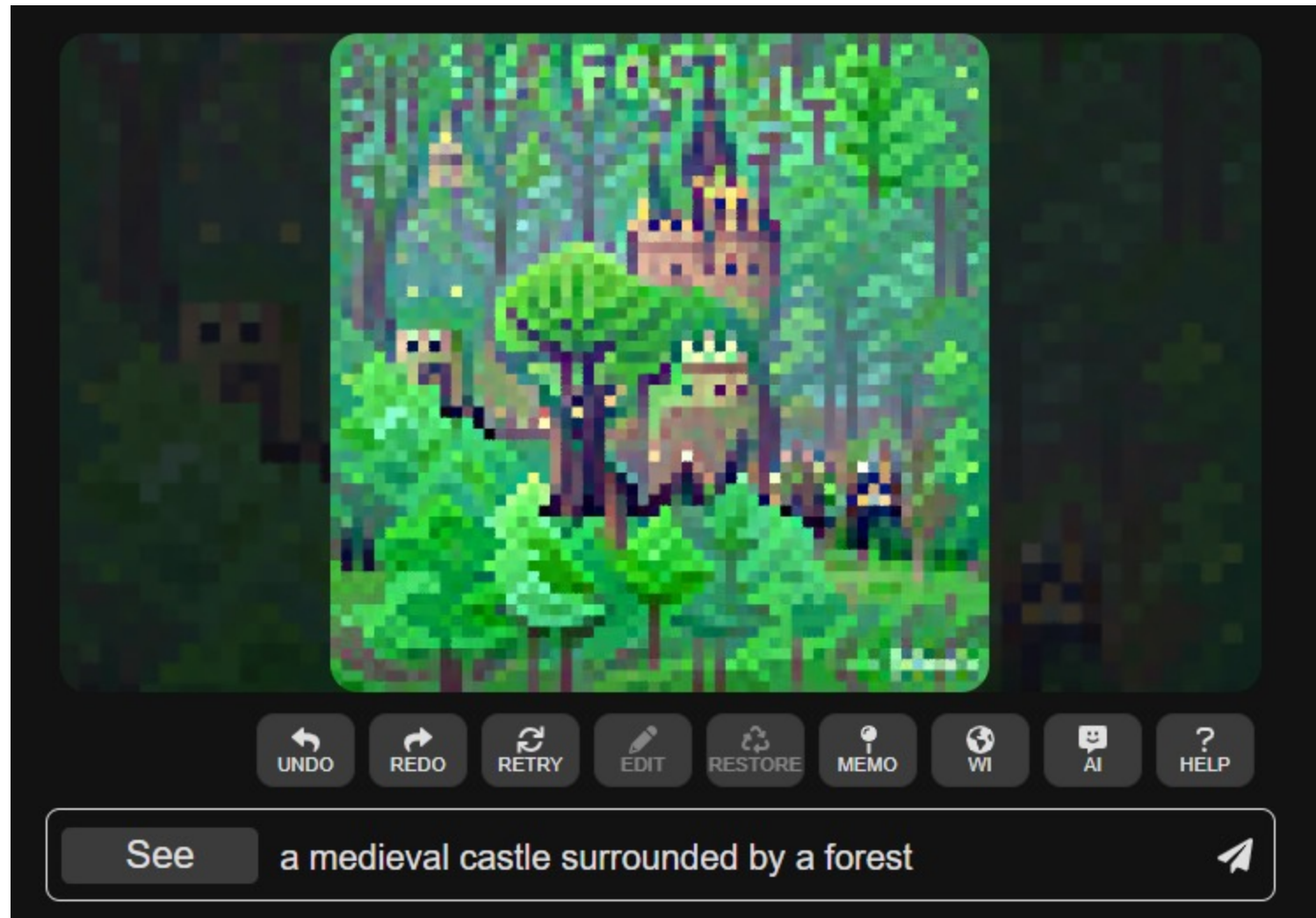
Do What do you do?



You climb up on the nearest tree in order to have a better view of the battle going on below you.

💬 You say "Who is the goblin with the pink ears?!"

You call out, "Who is the goblin with the pink ears?!"
Your voice echoes in the forest.



You are Alilea, a princess living in the kingdom of Larion. You wake up in a big feather bed and hear clamoring outside your door. A knight rushes in to tell you that the king and queen are in danger! You throw on some clothes and rush out of your chamber to see what's going on.

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⚡ ⚙

> Story Art Display ...

Want an improved experience?
Upgrade to AI Dungeon Premium!

Try it free

AI Model ⓘ PREMIUM Hydra ☐

 Griffin
Our free model,
interesting and
unexpected

▼

AI Version ⓘ

adventure-griffin-v1.2.0

Prompt Settings ⓘ

Memory

Enter important details about your
adventure for the AI to use when
generating the next sequence in the
story.

Ex. "Flor is a troll king who lives under
a giant mushroom in the forest."

Author's Note

Influence the AI's writing style with
directions.

Ex. "Use a very descriptive writing
style in 17th century language"

Banned Words

Enter word to ban, then press enter

🌐 World Info

✳ World Events

🔍 Inspect Input

💬 AI Feedback

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See

a medieval castle surrounded by a forest

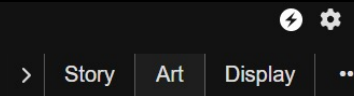


Image Source

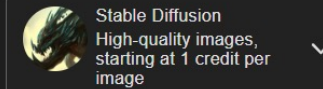


Image Generation Settings

Image Style

, high quality, realistic, 4k, HD, trending on ArtStation

Image Generation Cost

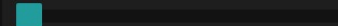


Advanced Settings

Steps

How many passes the model will make during the image generation.

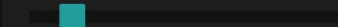
50



CFG Scale

How closely the image will be like your prompt. Higher values are closer to your prompt.

7



Sampler

k_lms



Copyright originality

- Human author
 - user
 - programmer
- Originality => author's own intellectual creation
 - 'Do' and 'say' may fall below the threshold
 - 'Story' – potentially, yes...
 - 'See'
 - Prompts enough for 'intellectual creation'?
 - Diffusion ML models dissection
 - Permissive open-source model

ARTIFICIAL INTELLIGENCE / TECH / LAW

Getty Images sues AI art generator Stable Diffusion in the US for copyright infringement



An illustration from Getty Images' lawsuit, showing an original photograph and a similar image (complete with Getty Images watermark) generated by Stable Diffusion. Image: Getty Images

/ Getty Images has filed a case against Stability AI, alleging that the company copied 12 million images to train its AI model 'without permission ... or compensation.'

By **JAMES VINCENT**

Feb 6, 2023, 4:56 PM GMT | [16 Comments](#) / [16 New](#)



Legal News

Getty Images taking UK action against Stability AI for copyright infringement in AI training



Published on: 24 January 2023

Published by a [LexisNexis IP expert](#)

- Getty Images taking UK action against Stability AI for copyright infringement in AI training

Article summary

TMT analysis: Sarah Chittock, associate at Marks & Clerk, considers the first major intellectual property (IP) dispute within the UK concerning copyright infringement in artificial intelligence (AI) training. [Sign in](#) or [take a trial](#) to read the full analysis.

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Points for further discussion

Input issues
(TDM) – fair
use? Fair
dealing?

Patents and
non-player
characters
(NPCs)

Contracts –
terms of service
(ToS)

**Many thanks.
Questions?**

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