

Player-Generated Content

Game Design
Fall 2023

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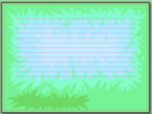




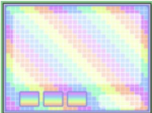





What is Player-Generated Content

- Also known as user-generated content (UGC)
- Allows players to expand base gameplay after release of a game
- Can come in many forms
- Creates a treasure trove of data

Messages



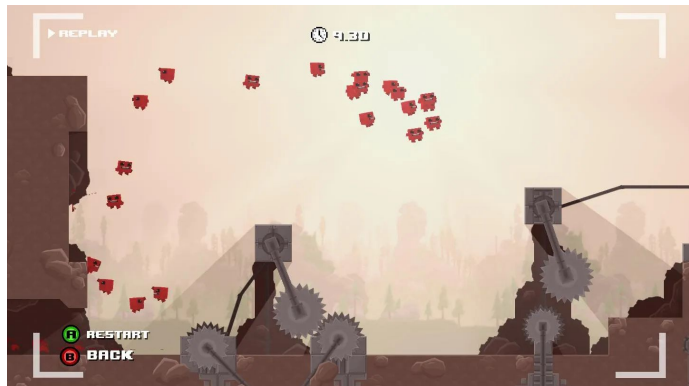
Elden Ring

 Bubble Mail Stationery featuring a print of colorful letter sets. Let a Pokémon hold it for delivery.	 Flame Mail Stationery featuring a print of flames in blazing red. Let a Pokémon hold it for delivery.	 Grass Mail Stationery featuring a print of a refreshingly green field. Let a Pokémon hold it for delivery.
		
 Heart Mail Stationery featuring a print of giant heart patterns. Let a Pokémon hold it for delivery.	 Mosaic Mail Stationery featuring a print of a vivid rainbow pattern. Let a Pokémon hold it for delivery.	 Snow Mail Stationery featuring a print of a chilly, snow-covered world. Let a Pokémon hold it for delivery.
		
 Space Mail Stationery featuring a print depicting the huge expanse of space. Let a Pokémon hold it for delivery.	 Steel Mail Stationery featuring a print of cool mechanical designs. Let a Pokémon hold it for delivery.	
		

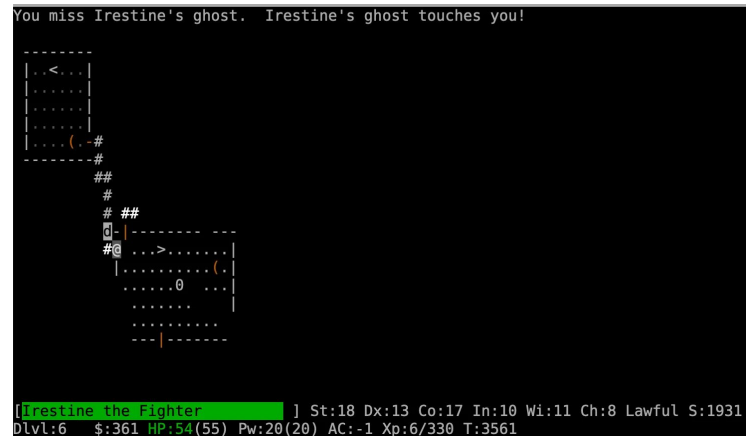


Pokemon

Ghosts



Super Meat Boy



Nethack



Mario Kart

Ghosts (generalized)



Forza Drivatars

Ghosts (Research)



Figure 2: Several bloodstains in a dungeon.

The Dark Souls of Archaeology: Recording Elden Ring
(Nicholls, 2022)



(b) Runner



(c) Survivalist



(d) Monster Killer



(e) Treasure Collector

Monte-Carlo Tree Search for Persona Based Player Modeling
(Holmgård, 2015)

Game Assets



Animal Crossing

Game Assets (Research)



Minecraft
Interactive Latent Variable Evolution for the Generation of Minecraft Structures
(Merino 2023)

Levels

Levels: Mario Maker

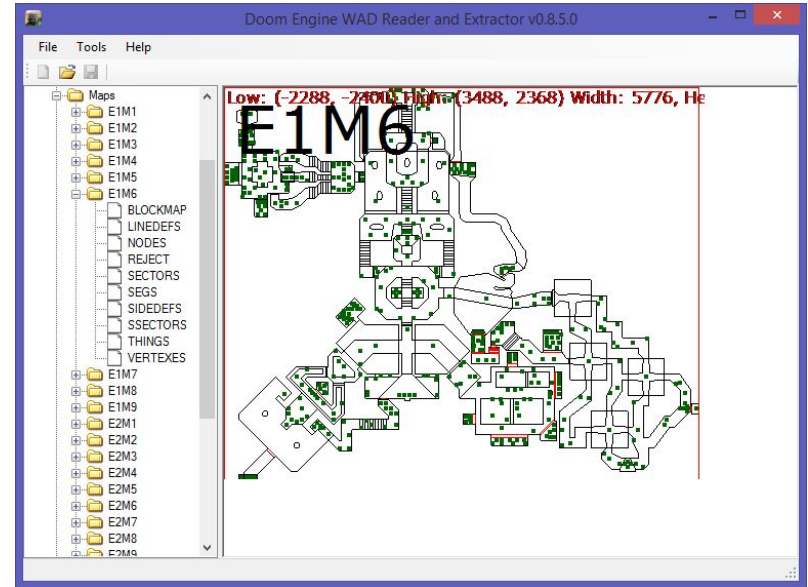


DOOM WAD files

"Unofficial" player-generated content

Spread via CD-ROMs, BBSes, FTP servers...

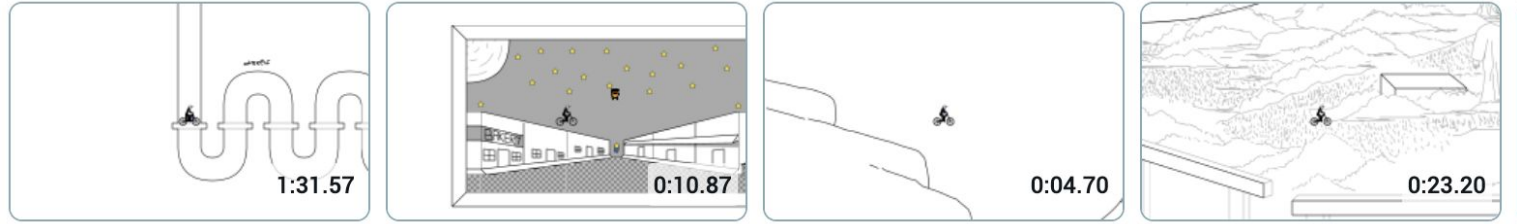
The file format (WAD) was easy to understand and edit



How far could you take a WAD?



Indie Games made for Levels Creation



LineRider



Unreal Tournament

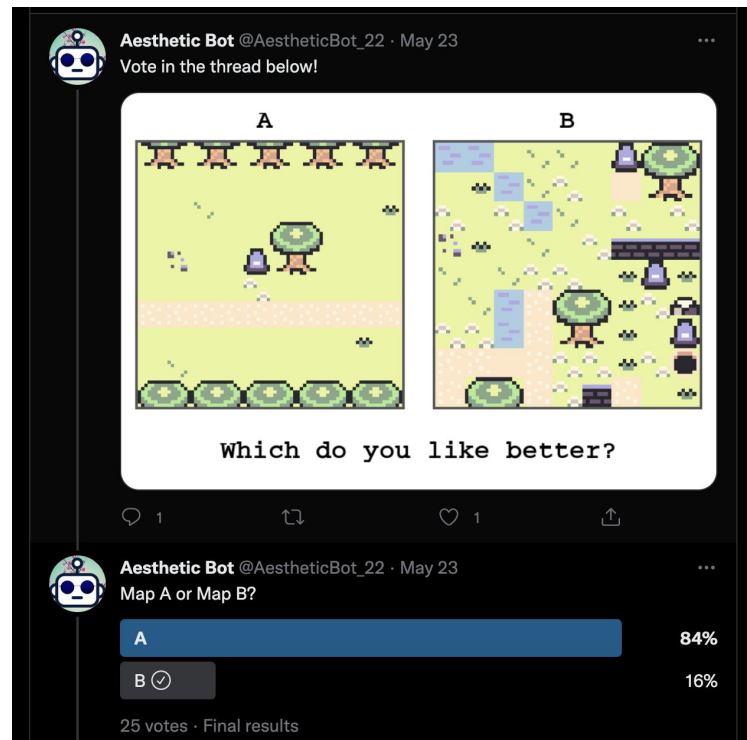


Super Dungeon Maker

Levels (Research)



Baba is Y'all
(Charity 2020)



Aesthetic Bot
(Charity 2022)

Games in Games



Roblox



WarioWare D.I.Y

Recommendations

Player voting

Most played levels

...personalized recommendations?
(We haven't seen it)



Mods for Games



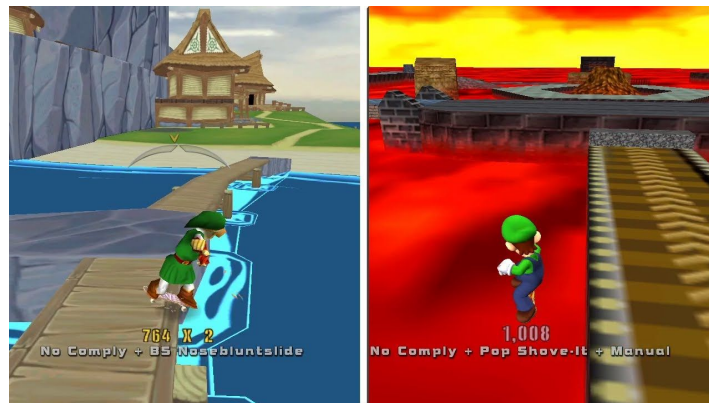
GTA 5



Skyrim



Stardew Valley



Tony Hawk's Underground 2

Mods to make NEW Games



ROM Hacks



garry's mod



Sonic RoboBlast 2

Trends of Player-Generated Content



Zelda: Breath of the Wild



Zelda: Tears of the Kingdom

How to add Player-Generated Content to your game

What you'll need:

- Dedicated userbase
- A solid database scheme
- A consistent server
- An in-game level / asset editor OR accessible source code
- Well-defined base gameplay
- Filters
- Ways for players to share content
 - Forums
 - Codes
 - In-game hub

Risks/complication

TTP

Intellectual Property

Outright harassment?

Needs for moderation

How to use Player-Generated Content

Obtaining:

- Ask the developers!
- Download source data from the content
- Scrape (🐙)
- Online resources

Possible use cases:

- More game design
- Data analysis
- AI model training
- AI content generation