

A Medium for Us All

Humanities and Engineering Collaborations in Retro Game Studies

Aleksander Franiczek (Independent Scholar, English PhD Graduate)

Cristiano Politowski (Ontario Tech University, Assistant Professor in Computer Science)



About Me

- Started academia as an English literature and critical theory student at Western University.
- Was always interested in how storytelling differed across media (novels, movies, theatre, videogames).
- Completed PhD at University of Waterloo focused on media studies and game studies.
- Research specialization on Narrative Design, role-playing game (RPG) history, and theory around player experience.
- What about the classics??



About Cristiano

- I am an Assistant Professor at Ontario Tech University, within the Computer Science group in the Faculty of Science.
- My research interests include Video Game Development, Software Testing, Artificial Intelligence for Software Engineering (AI4SE), Deep Reinforcement Learning, and Empirical Software Research.

Discipline-Specific Game Studies



“Story doesn’t matter in videogames.”



“I play videogames mainly for the story.”

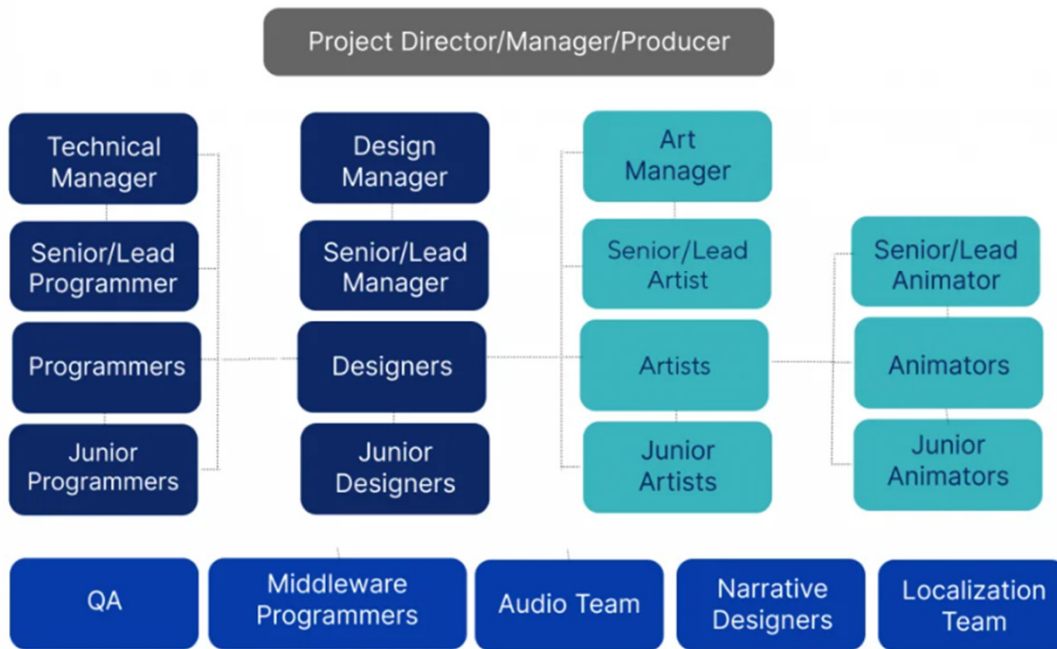
Interdisciplinary Game Studies



Game Development is Interdisciplinary

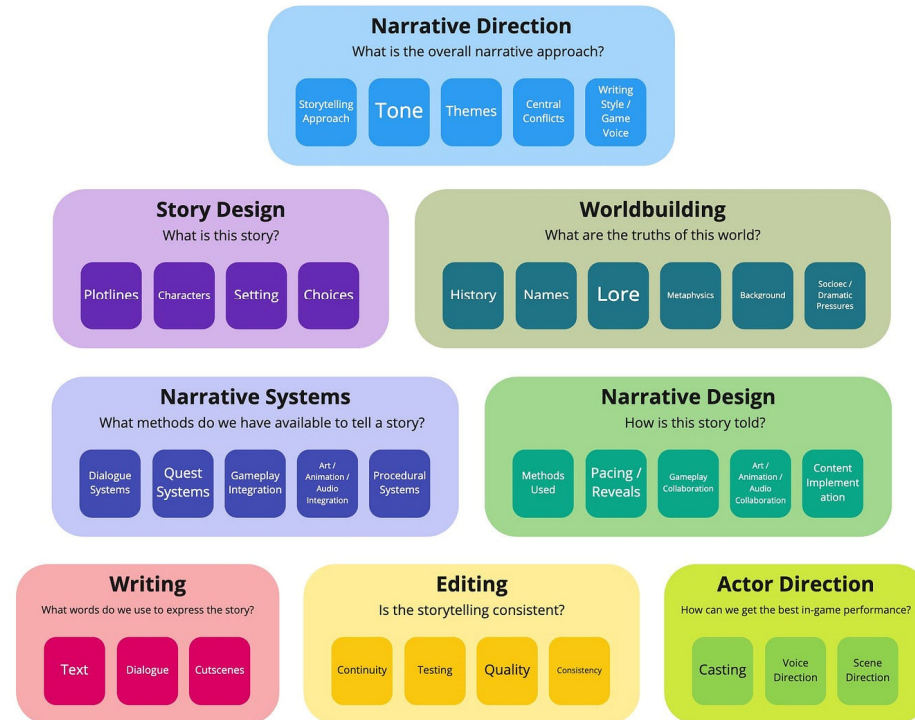


Key Roles in AAA Game Development



Job Functions in a Narrative Team

Things that a narrative team typically has to cover - non-exhaustive!



GC

Games and Culture

To: Aleksander Franciczek; aleksfraniczek@gmail.com
Cc: gamesandculture@sagepub.com

☺ Reply ↶ Reply all → Forward | 📎 🗄️ ⋮

Sat 2025-06-07 3:12 AM

Dear Author:

Thank you for your submission to Games and Culture "Iterating a Game Series' Identity : Mixed-Methods Analysis of the Creative Process Developing Dragon Quest I-VI" (Manuscript ID: GAMES-25-0322)As there is a high volume of high-quality material for. We are still a paper-based journal where you will find a suitable home for your paper 'Journal of Virtual Worlds'.

Thank you again for your submission. I hope



but which we do not have sufficient space or context. We wish you good luck and hope you try the journals 'Games and Simulation' or

↶ Reply all → Forward | 📎 🗄️ ⋮

Mon 2024-12-09 9:49 AM

, and IV, to the GAS Workshop. We

total of 18 submissions, of which only 7

↶ Reply all → Forward | 📎 🗄️ ⋮

Wed 2025-07-23 4:36 PM

📧 You forwarded this message on Wed 2025-07-23 7:13 PM

Hello Aleksander,

We want to thank you again for submitting your article "Iterating a Game Series' Identity : Mixed-Methods Analysis of the Creative Process Developing Dragon Quest I-VI" to *ROMchip*. Unfortunately, I'm afraid that the editors have decided not to send it out for external review. I can, however, tell you that this had more to do with "fit" than with issues of quality, as your article is not chiefly engaged with the *historical* questions and methods that our readers expect. We do believe the piece has merit, and encourage you to try submitting the article to a game studies journal.

We wish you the best of luck in finding a home for your research

LB

Logan Brown

To: Aleksander Franciczek

Mixed-Methods Value for Retro Game Study (Computer Science)

- **Self-Contained.** Old games shipped complete and unchanging.
- **Design Transparency.** Tight memory limits forced design choices.
- **Verifiable Truth.** The game's code and data are inspectable by fans.
- **Comprehensive Study.** The game is small enough to analyze completely.
- **Repeatable Execution.** Ensure predictable runs == repeatable experiments.
- **Community Data.** Mods, wikis, and speedruns create a vast body of extra data.
- **Pure Concept.** A clear example of a core concept (e.g., "branching story + turn-based combat") without “modern” features.

Slide 8

AF1 Cristiano slide

Aleks Franczek, 2026-06-03T16:53:11.006

Mixed-Methods Value for Retro Game Study (Humanities)

- Connect player experience to concrete measurements of game elements.
 - Gameplay experiences are an important way of analyzing a game, but it is not the sum of what a game is.
- Trace key game design and aesthetic innovations historically.
 - The continued relevance and influence of old games makes better understanding them always valuable.
- Consider all aspects of a videogame's interdisciplinary creation and textuality (Aycock and Finn).
 - E.g. How classic videogames are molded by their creation on original hardware and through modding practices.

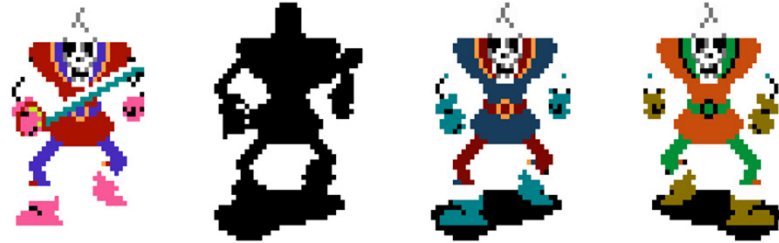


Project 1

Iterating Identity:

Studying the Creative Process Developing *Dragon Quest I-VI*

Purpose



- Practically speaking, the goal of a videogame studio developing and iterating on a series is to provide a better product with each new entry while reusing assets to simplify the process.
- But what is *better*?
- Differentiating tangible (quantitative) vs intangible (qualitative) appeal.
- The goals of this project are to:
 1. Further understand the kinds of creative decisions developers make in trying to iterate towards a better product (especially when constrained by hardware).
 2. Touch on the intangible factors that complicate this goal.
 3. Consider how individual games come to have unique identities and appeal within the series that contains them.

Why Dragon Quest?

1. Historically significant console RPGs that helped define the Japanese Role-Playing Game (JRPG) sub-genre.
2. Steeped in tradition, showcasing the value and potential of subtle iteration over reinvention.
3. Classic games developed with small teams and modest hardware.



Quantitative Method

1. Empirical Data Collection
 - Multiple dimensions (character attributes, game mechanics, etc).
 - Multiple sources (game manuals, wikis, fandoms, etc).
2. Structured Data Organization
 - Clean the datasets.
3. Data Validity & Reliability
 - Accuracy and consistency of the data.
4. Quantitative & Qualitative Insights
 - Create clear visualizations (charts, graphs) to illustrate trends, correlations, and insights.
 - Bridge quantitative metrics with qualitative research questions.

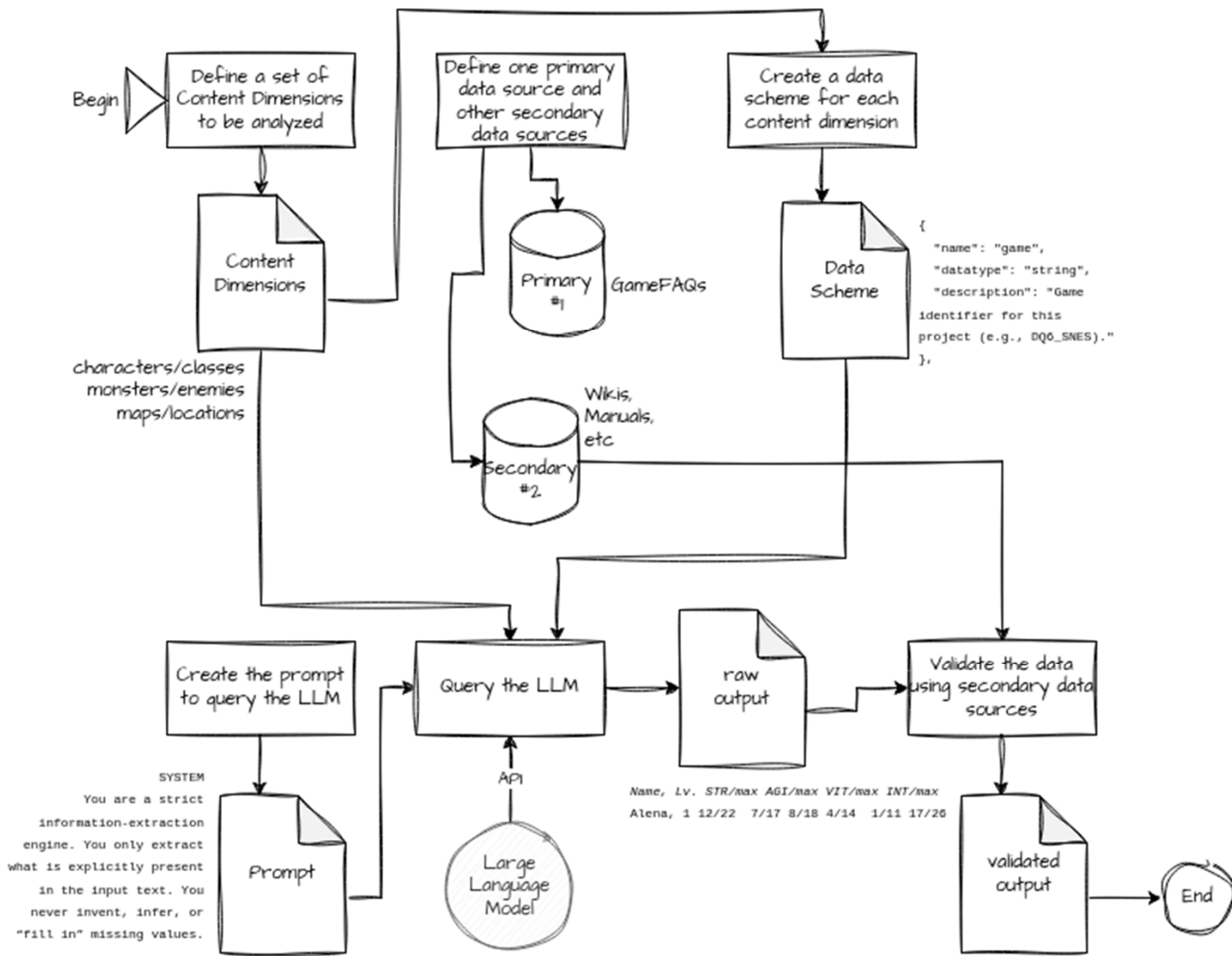
Outcome: Provides robust, replicable datasets for nuanced analysis.

Slide 13

AF1 Cristiano slide. Maybe you want to update this to discuss the pipeline you did for the paper?

Can also make a new slide to cover that if you want

Aleks Franiczek, 2026-06-03T18:33:20.717



Sources used for the qualitative data.

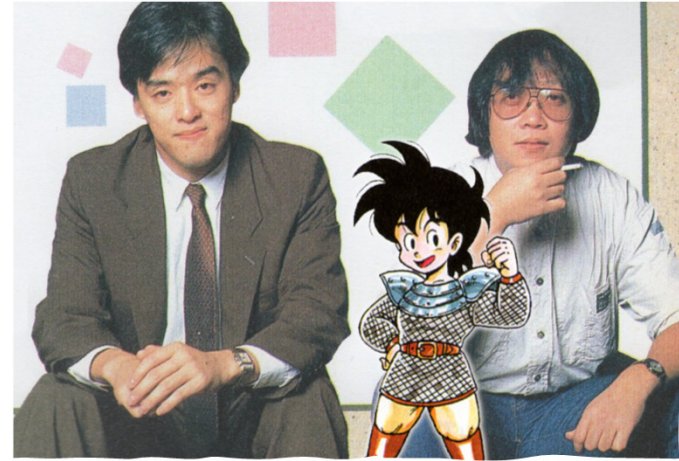
Source	Purpose	Links
Official manuals & strategy guides	Ground-truth rules, wording	<ul style="list-style-type: none"> ● Prima's Official Strategy Guide ● BradyGames Official Strategy Guides
Fan / wiki repositories	Attributes, enemy stats, item lists	<ul style="list-style-type: none"> ● https://www.woodus.com/ ● https://dragonquest.fandom.com/ ● https://dragon-quest.org/
Gameplay database	Release metadata, completion times	<ul style="list-style-type: none"> ● https://www.igdb.com/
Map archive	Exact tile layouts, pixel size	<ul style="list-style-type: none"> ● https://www.realmofdarkness.net/dq/games/
Script dump archive	Narrative text, word counts	<ul style="list-style-type: none"> ● https://nayukaaaaa.nomaki.jp/wp/
Hardware databases	ROM sizes, PCB revisions	<ul style="list-style-type: none"> ● https://nescartdb.com/ · https://snescentral.com/gameslist.php
Community forums	Edge-case mechanics, expert insight	<ul style="list-style-type: none"> ● https://gamefaqs.gamespot.com/

Qualitative Method

- **Game analysis** (Fernandez-Vara)
 - Game genre
 - Technological Context
 - Socio-Historical Context
- **Development Context** (platform studies and paratexts)
 - Evolving development team (MobyGames)
 - Hardware specifications (NesCartDb, SNES Games Database)
 - Critical reception (Video Game History Foundation Archive)
 - Game packaging (Internet Archive)
 - Developer Interviews (Shmuplations)
- **Formal Differences** (analytical memoing)
 - Combat and Progression
 - Exploration and World Design
 - Story and Narrative Design
 - Assets

Outcome: *Note what makes each new game ‘improved’ and/or ‘unique’*

Hypotheses



Developer perspective: The first six *Dragon Quest* games demonstrate quantifiable progressive improvements to the series through the inclusion of new and often greater amount of assets (mechanics, monsters, maps, text, music) and creative iteration on a relatively fixed game design.

Player perspective: The changes brought on by this pursuit for improvement leads to qualitative differences between individual titles that can make an older iteration more appealing than a newer one.

Project/Presentation Scope

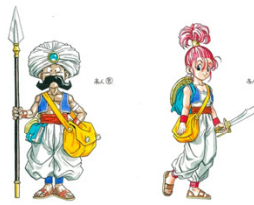
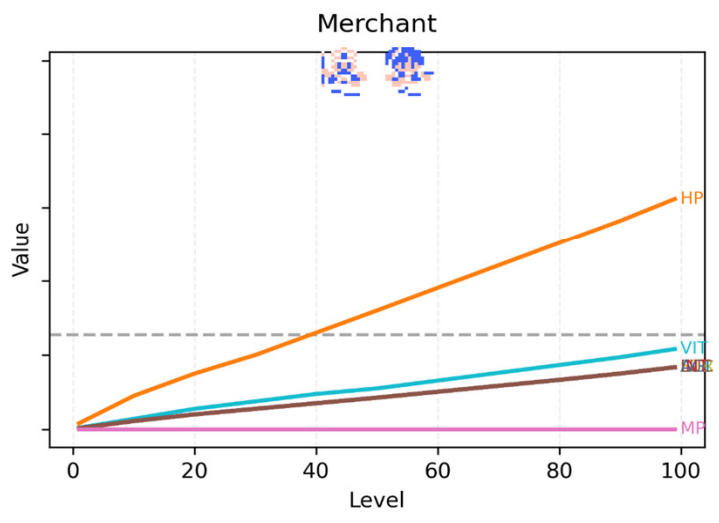
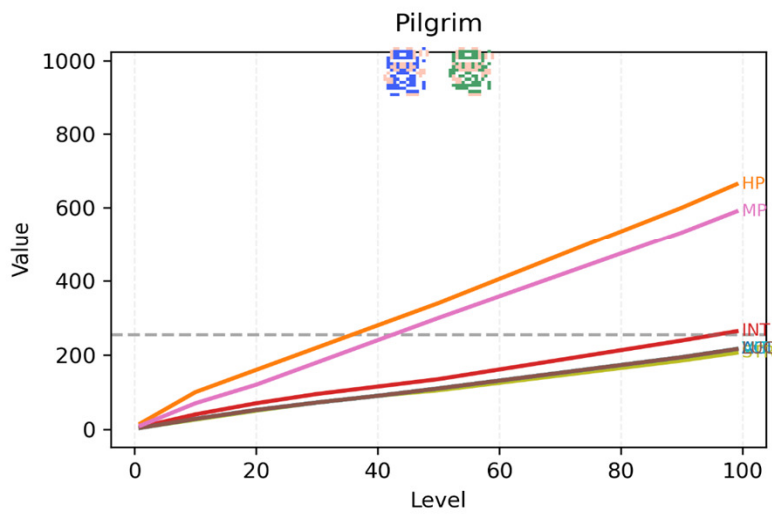
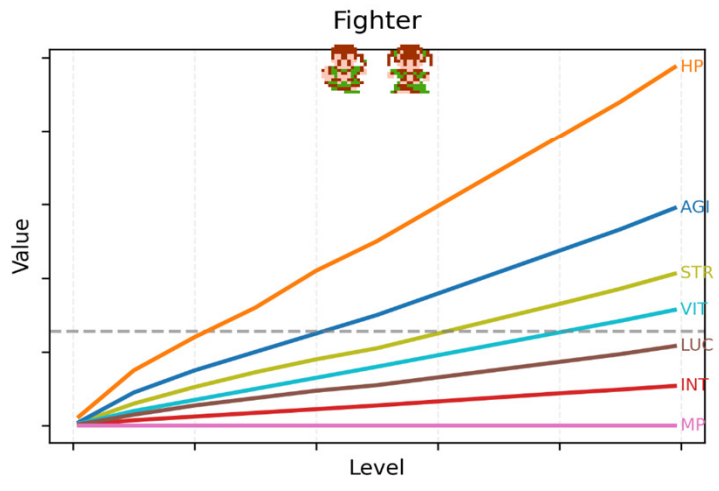
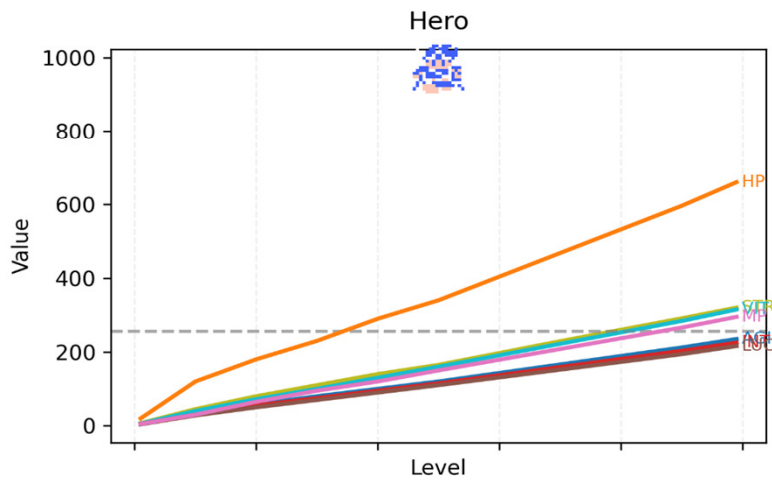
- **Link 1:** Design, Character Portrayals, and Stat Progressions
 - **RQ1.** How does the series use RPG systems and characterization as a way to iterate game design and narrative design?
- **Link 2:** Asset Representation and Evolution
 - **RQ2.** How does (or doesn't) the progressively larger chip sizes allow the developers to iterate and add appeal to the series' design and aesthetics?

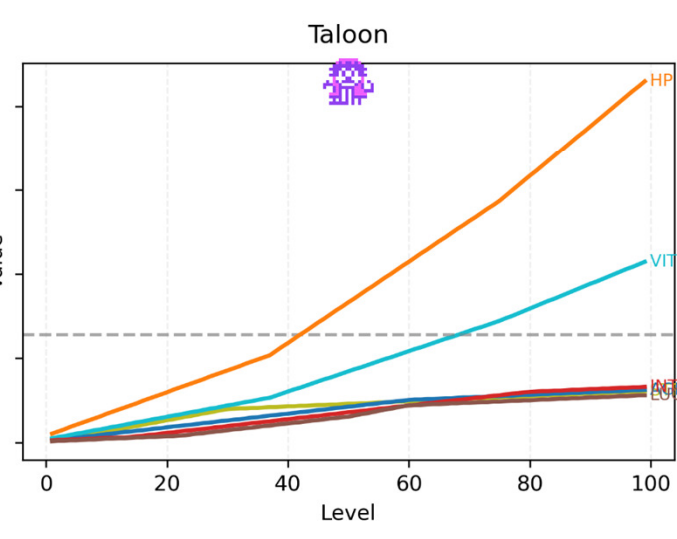
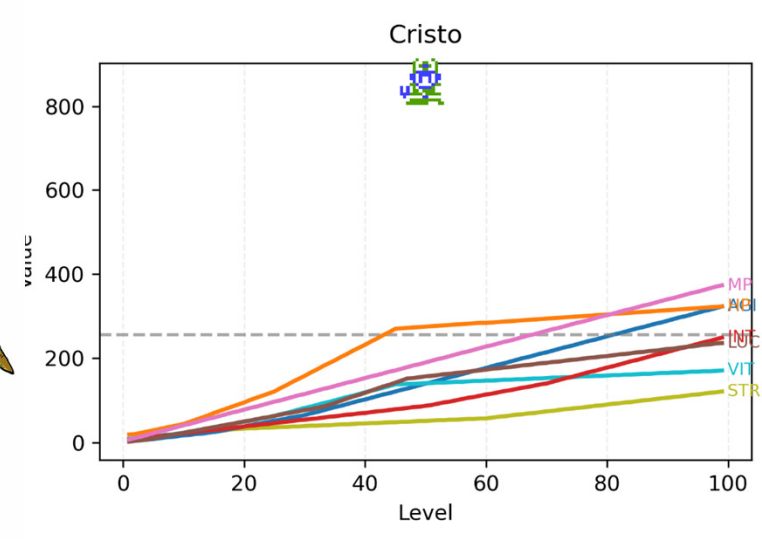
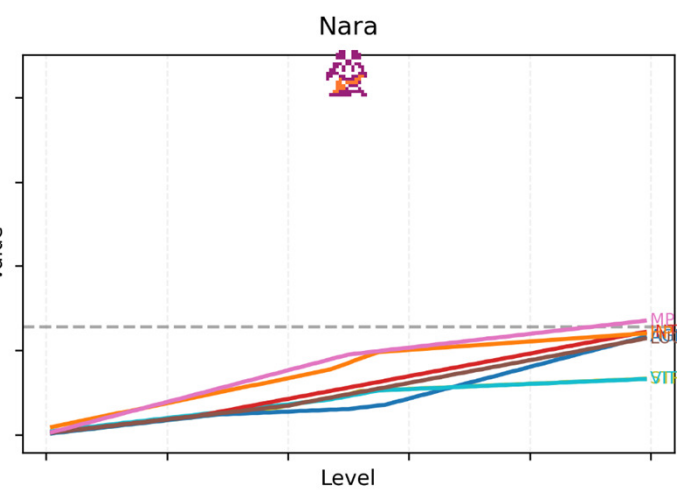
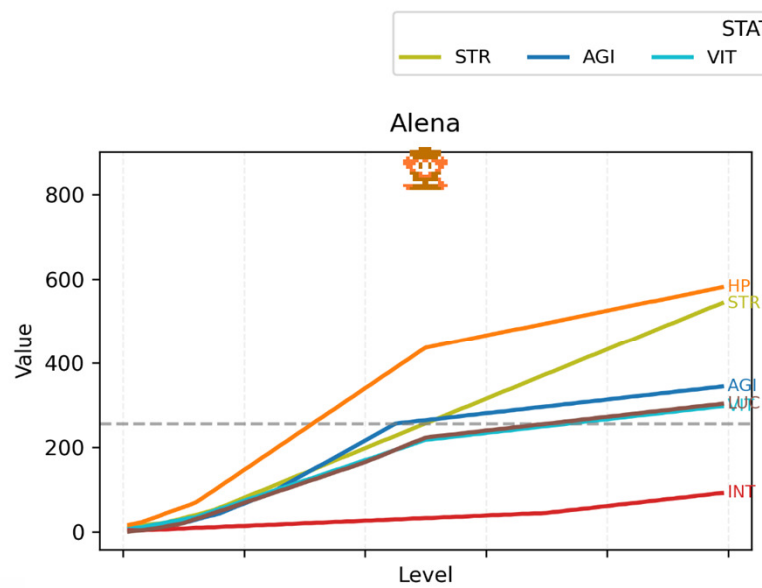
Link 1: Design, Character Portrayals, and Stat Progressions

Evolutions in game mechanics throughout the series

Feature	DQ1	DQ2	DQ3
Max active party	1	3 (fixed)	4 (custom)
Custom classes / respec	—	—	Yes (class change)
Enemies	Introduced: 40 Reused: —	Introduced: 78 Reused: 4	Introduced: 132 Reused: 17
Enemy formation size	1	≤ 8, grouped	≤ 8, grouped
Targeting types	Single	Single · Group	Single · Group · All
Skills/Spells	Introduced: 10 Reused: —	Introduced: 15 Reused: 7	Introduced: 39 Reused: 21
Status variety	Introduced: 2 Reused: —	Introduced: 2 Reused: 2	Introduced: 1 Reused: 4

Feature	DQ4	DQ5	DQ6
Party system	Yes (4)	Yes(3)	Yes(4)
Class customization / jobs	No	No	Yes
Monster recruitment	No	Yes	Yes (basic)
AI party control / tactics	Yes (mandatory)	Yes	Yes
Day-night cycle	Yes	Yes	No
Character-driven narrative	Yes	Yes	Yes (less)
Vocation / skill-mastery system	No	No	Yes (advanced)

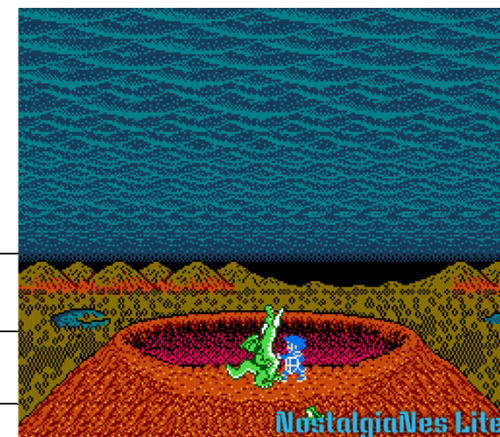
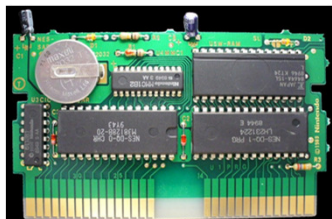




Link 2: Asset Representation and Evolution

Chip sizes, Maps, Playtime, Monsters/Sprites, Text

Chip sizes

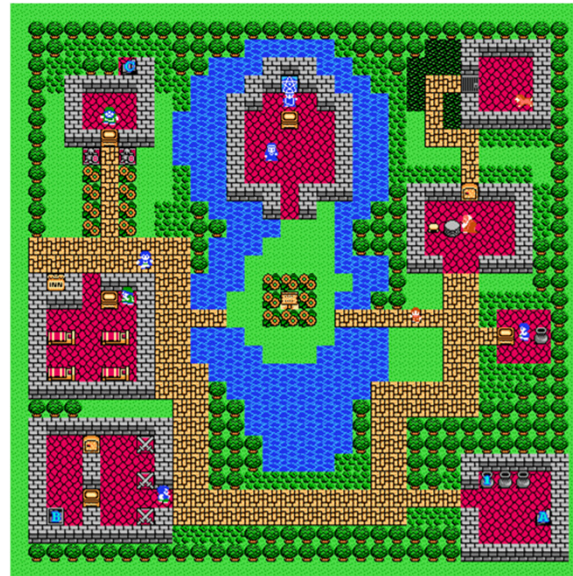


Game	Console	Region	Release	ROM Capacity	Details
DQ1	FC	JP	May, 1986	64 KB	PRG0: 32 KB; CHR0: 32 KB; WRAM: 0 KB; VRAM: 0 KB
DQ1	NES	NA	August 1989	80 KB	PRG0: 64 KB; CHR0: 12 KB; WRAM: 8 KB; VRAM: 0 KB
DQ2	FC	JP	January, 1987	128 KB	PRG0: 128 KB; CHR0: 0 KB; WRAM: 0 KB; VRAM: 8 KB
DQ2	NES	NA	September 1990	256 KB	PRG0: 256 KB; CHR0: 0 KB; WRAM: 8 KB; VRAM: 8 KB
DQ3	FC	JP	February, 1988	256 KB	PRG0: 256 KB; CHR0: 0 KB; WRAM: 8 KB; VRAM: 8 KB
DQ3	NES	NA	March 1992	512 KB	PRG0: 512 KB; CHR0: 0 KB; WRAM: 8 KB; VRAM: 8 KB
DQ4	FC	JP	February, 1990	512 KB	PRG0: 512 KB; CHR0: 0 KB; WRAM: 8 KB; VRAM: 8 KB
DQ4	NES	NA	October 1992	512 KB	PRG0: 512 KB; CHR0: 0 KB; WRAM: 8 KB; VRAM: 8 KB
DQ5	SFC	JP	September 1992	12 Mb	ROM Speed: 200 ns (SlowROM); ROM Bank: LoROM; SRAM Size: 64 Kb
DQ6	SFC	JP	December 1995	32 Mb	ROM Speed: 120 ns (FastROM); ROM Bank: HiROM; SRAM Size: 64 Kb

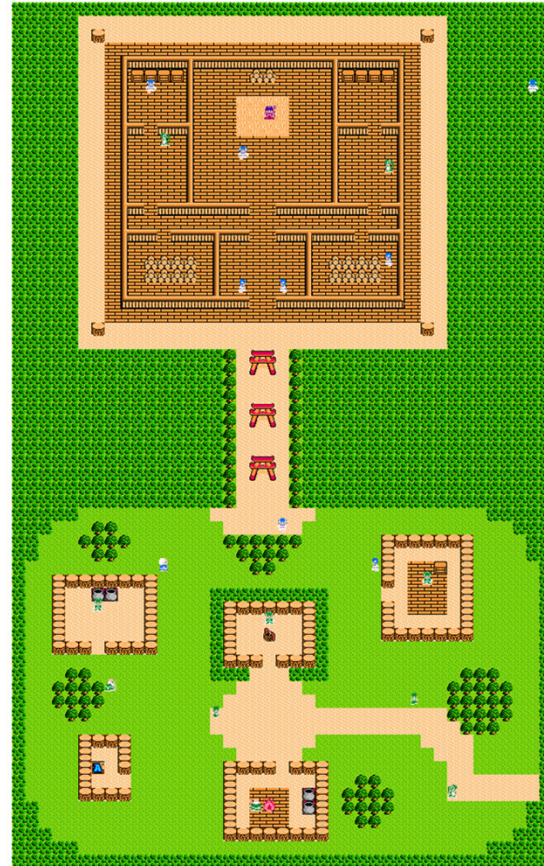
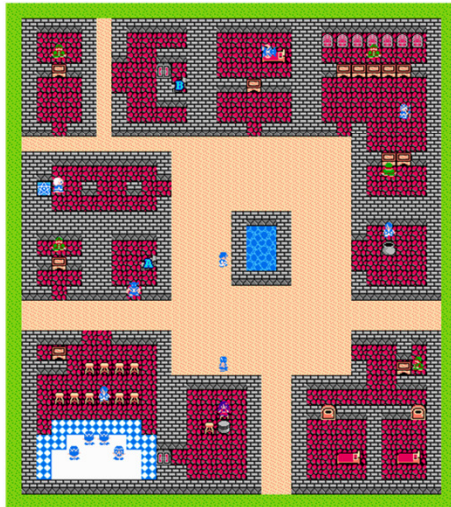


Game Maps (Famicom)

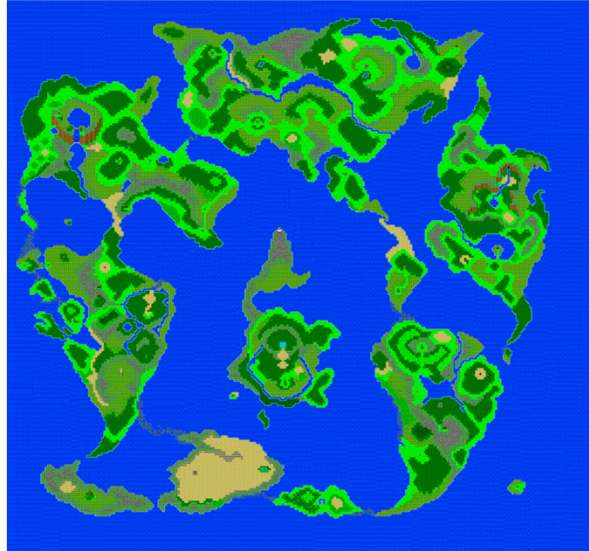
- Overworlds
- Towns
- Dungeons
- Shrines/Houses

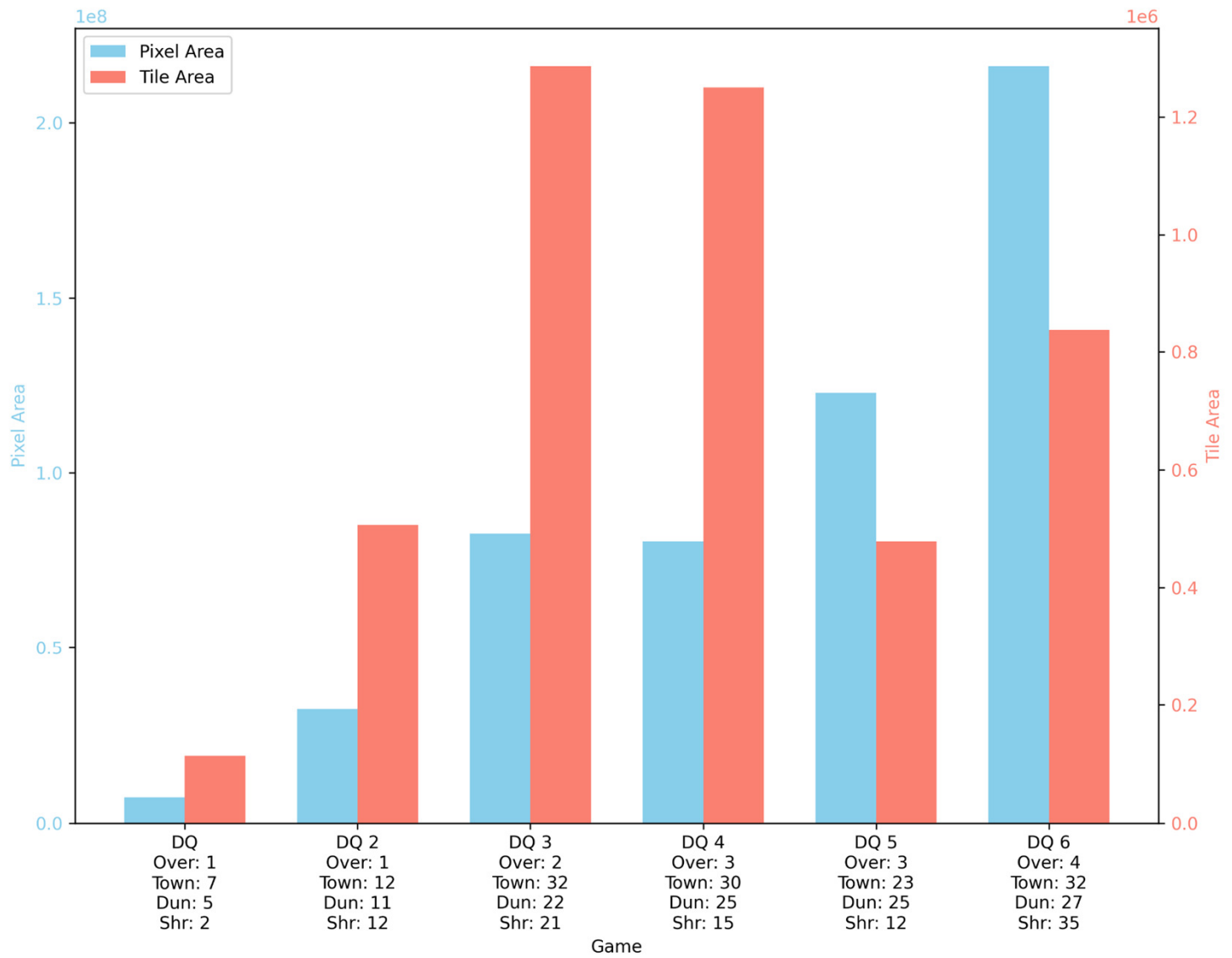


DQ3's Assaram (left) and Jipang (right).

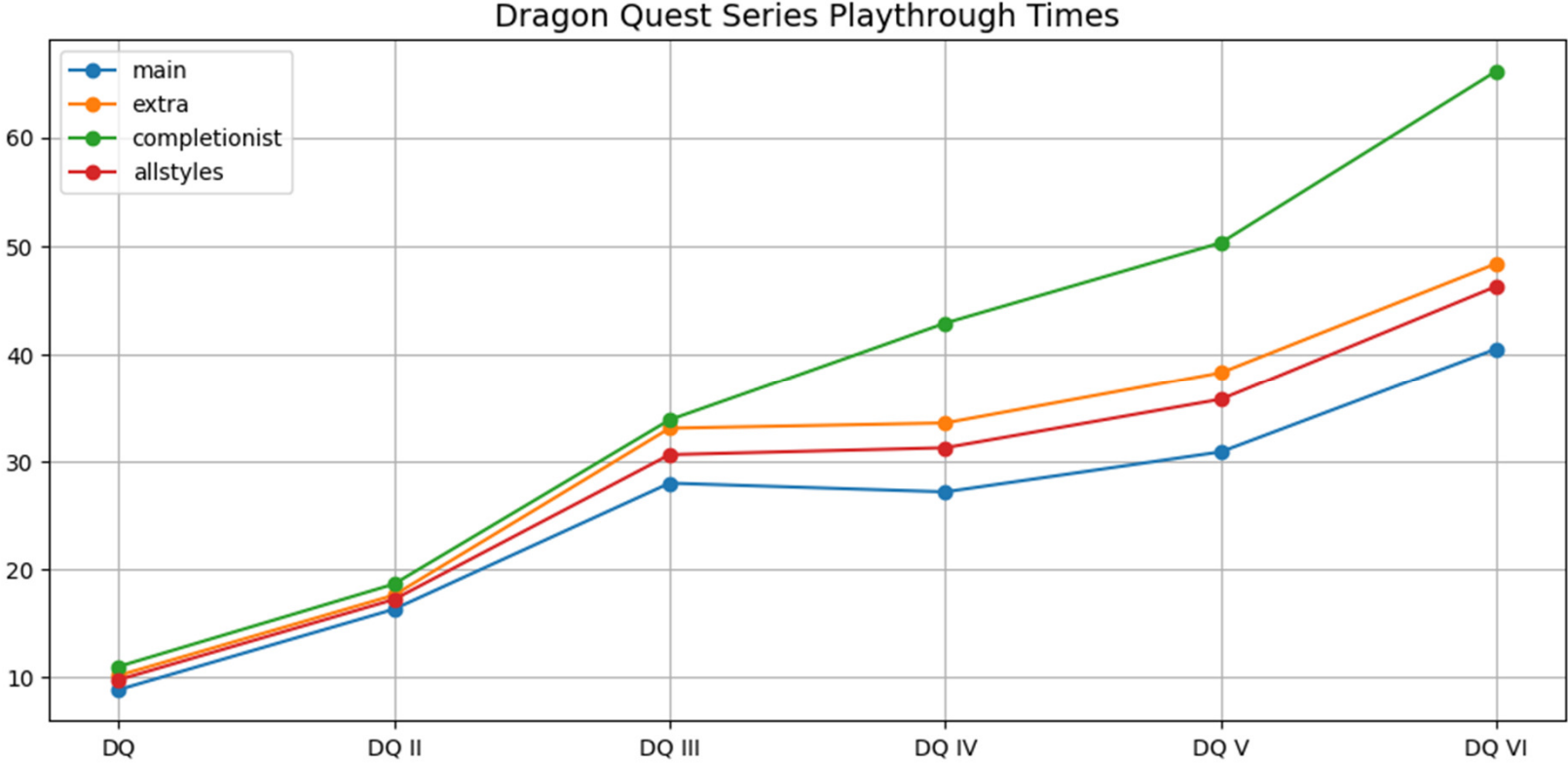


Maps (Super Famicom)



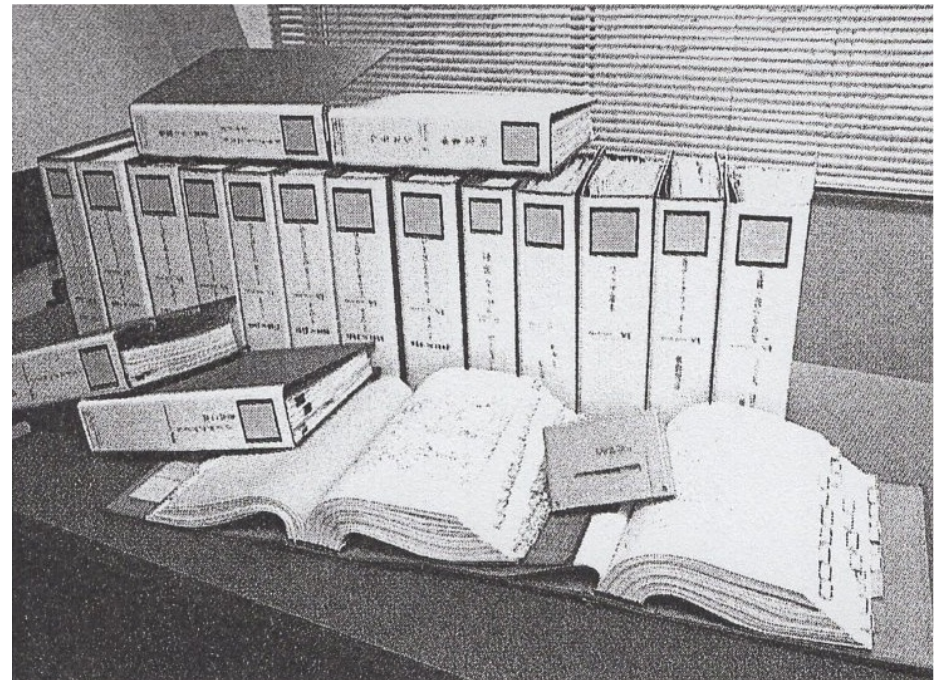


How long to beat



Estimated number of words (Japanese Text) per game

Game	Words
DQ	6707
DQ2	19716
DQ3	25754
DQ4	65281
DQ5	65290
DQ6	289784



Discussion: Creatively Scoping Game Design

- RPG genre conventions (e.g. character stats, location types) can be leveraged for new innovations in game narrative.
- “**hedonic** motivation vs **eudaimonic** motivation” (Daneels et al.)
 - DQ4 and DQ5 offer early examples of “poetic gameplay”
- These technical leaps aren’t only significant for game design innovation, but presentation, worldbuilding, and narrative design.



Further Application

- Replicable LLM-assisted pipeline can be applied to studies with a similar focus on tracing historical iterations and comparing elements between selections of games.
 - E.g. Games within the same genre from different series
 - E.g. Technical and aesthetic comparisons across platforms
- This method provides potential for more precise and nuanced approaches to cross-game analysis and game design education.



Final Fantasy VI (SNES, 1994)



Phantasy Star IV (Genesis, 1993)

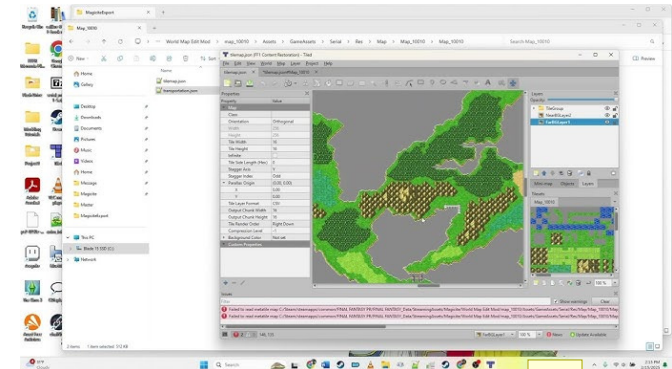


Project 2

Rewriting Nostalgia in Official and Unofficial Iterations of *Final Fantasy IV*

Official vs Unofficial Game Iteration

- “Official” = licensed by the publisher with rights to the IP
- “Unofficial” = fan-made creation
 - **Modding** development involves the use of external software development kits (i.e. community tools).
 - **ROM Hacking** is done with a hex editor, allowing changes to binary data, and game or platform-specific user tools.



AF1

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wrxwrx@blue.achill: ~  
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00000010  55 42 4c 49 43 20 22 2d 2f 2f 57 33 43 2f 2f 44 PUBLIC "-//W3C//D  
00000020  54 44 20 58 48 54 40 4c 20 31 2e 30 20 54 72 61 TD XHTML 1.0 Tra  
00000030  6e 73 69 74 69 6f 6e 61 69 2f 2f 45 4e 22 20 22 ntional//EN "  
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00000050  67 2f 54 52 2f 79 68 74 6d 6c 31 2f 44 54 44 2f g/TR/xhtml1/DTD/  
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00000140  61 67 65 2c 2c 31 36 38 20 42 43 2c 31 38 35 34 age,,168 BC,1854  
00000150  2c 31 38 39 33 2c 31 39 31 32 20 69 6e 20 62 61 ,1893,1912 in ba  
00000160  73 65 62 61 6c 6c 2c 31 39 32 39 2c 31 39 34 31 seball,1929,1941  
00000170  2c 31 39 36 39 2c 31 39 36 2c 31 39 38 36 20 ,1969,1986,1986  
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```

AF1 Feel free to expand based on software engineering knowledge
Aleks Franczek, 2026-06-04T16:32:11.029

Purpose

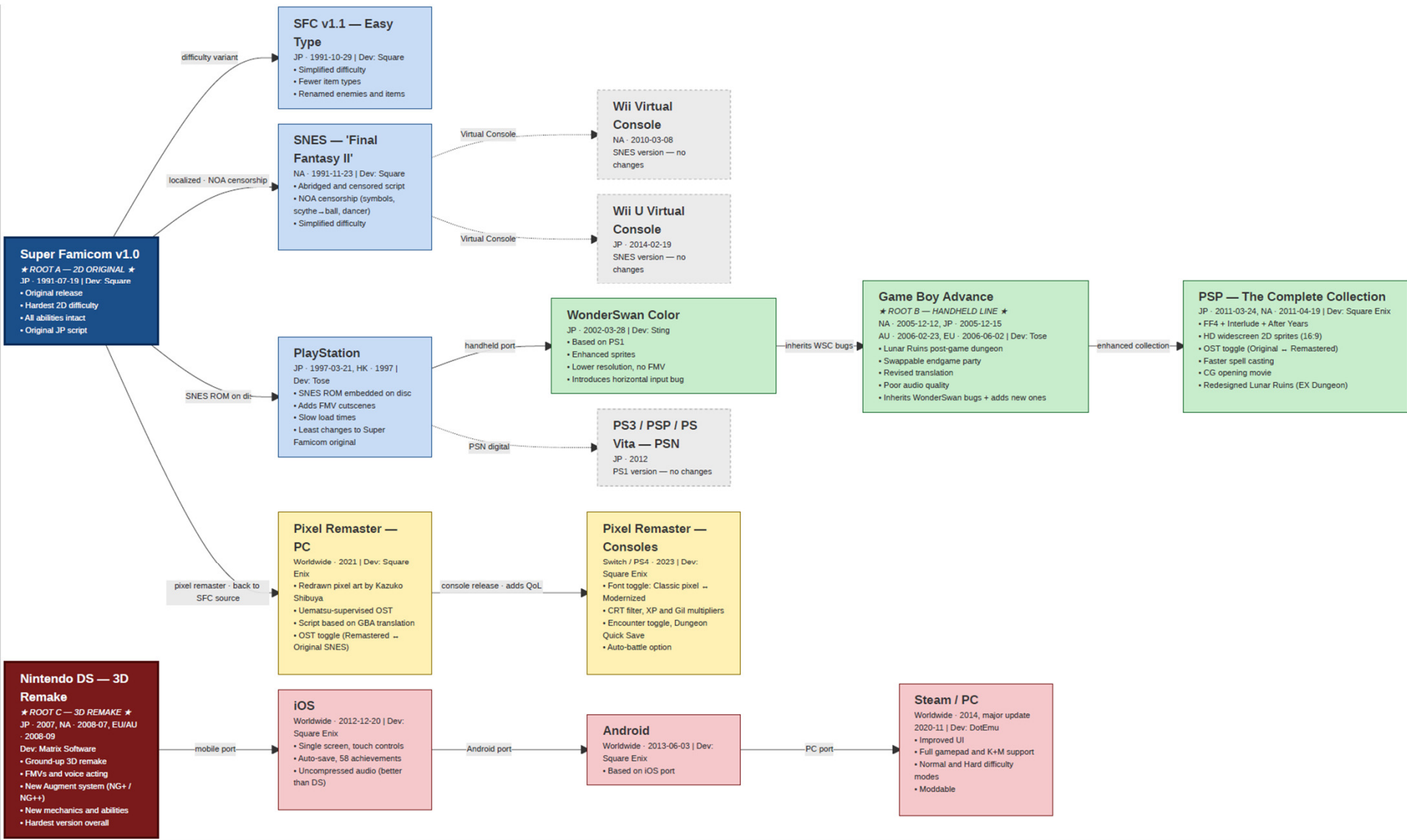
- It is reductive to talk about games as a single “final product” when they are **rereleased multiple times** by publishers and **continually tinkered with** by fans in modding communities.
- To understand the **unstable textuality** of a retro game from a combined CS and Humanities perspective, and how nostalgia influences creative pursuits of publishers and players alike.
- Incorporation of quantitative method brings in **concrete data based on version differences** that allows us to better conceptualize and articulate this shifting textuality across official and unofficial iterations.

Interdisciplinary Method

- Build a **structured dataset** for *Final Fantasy IV* that covers official releases and community-made modifications, then used it to compare how developers and players alter the same underlying game.
- **Sources** included game manuals, strategy guides, fan-maintained wikis, archival databases, comparison videos, and community websites for fan creations (*ROMhacking.net* and *Nexus Mods*).
- Modelled **mechanical**, **aesthetic**, and **balance** changes as three elements that shift between official and unofficial versions.
- **Qualitatively**, the results let us say, in concrete terms, what developers and fans tend to change in *FF4*, and how those changes map onto different visions of what the most “definitive” or “nostalgic” version of the game looks like based on theories of nostalgia.

Research Questions

- How do official (e.g. ports, remasters) and unofficial (e.g. mods, hacks) versions of a single game, like *Final Fantasy IV*, complicate our idea of a videogame as a single text? How are these practices related to research on nostalgia?
- To what extent can we conceive of Final Fantasy IV's variations as driven by nostalgia? Do both official and unofficial variations mobilize nostalgia in the same way?
- **Hypothesis:** Mods and hacks work as a **creative struggle for a personal “ideal” version of the game** that developers haven't (and perhaps cannot) offer.



Legend

- Root A — 2D Original
- Root B — Handheld I
- Root C — 3D Remak
- 2D Port / Variant
- Pixel Remaster
- Digital Re-release

Root A



(SNES, 1991)

Root B



(GBA, 2005)

Root C



(DS, 2007)



Pixel Remaster (PC, 2021)



Complete Collection (PSP, 2011)



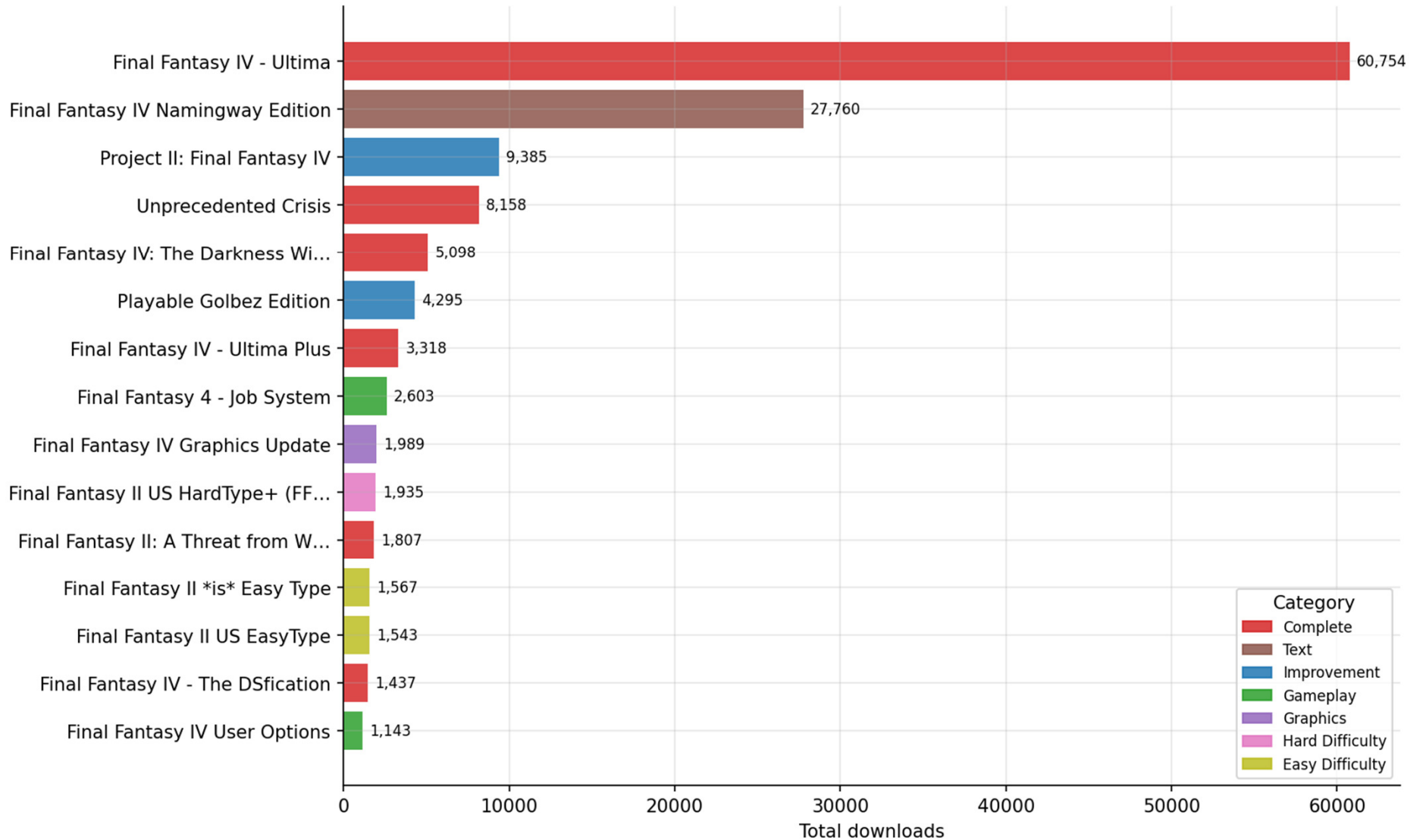
(Mobile, 2012)

Retro Aesthetics as Nostalgic

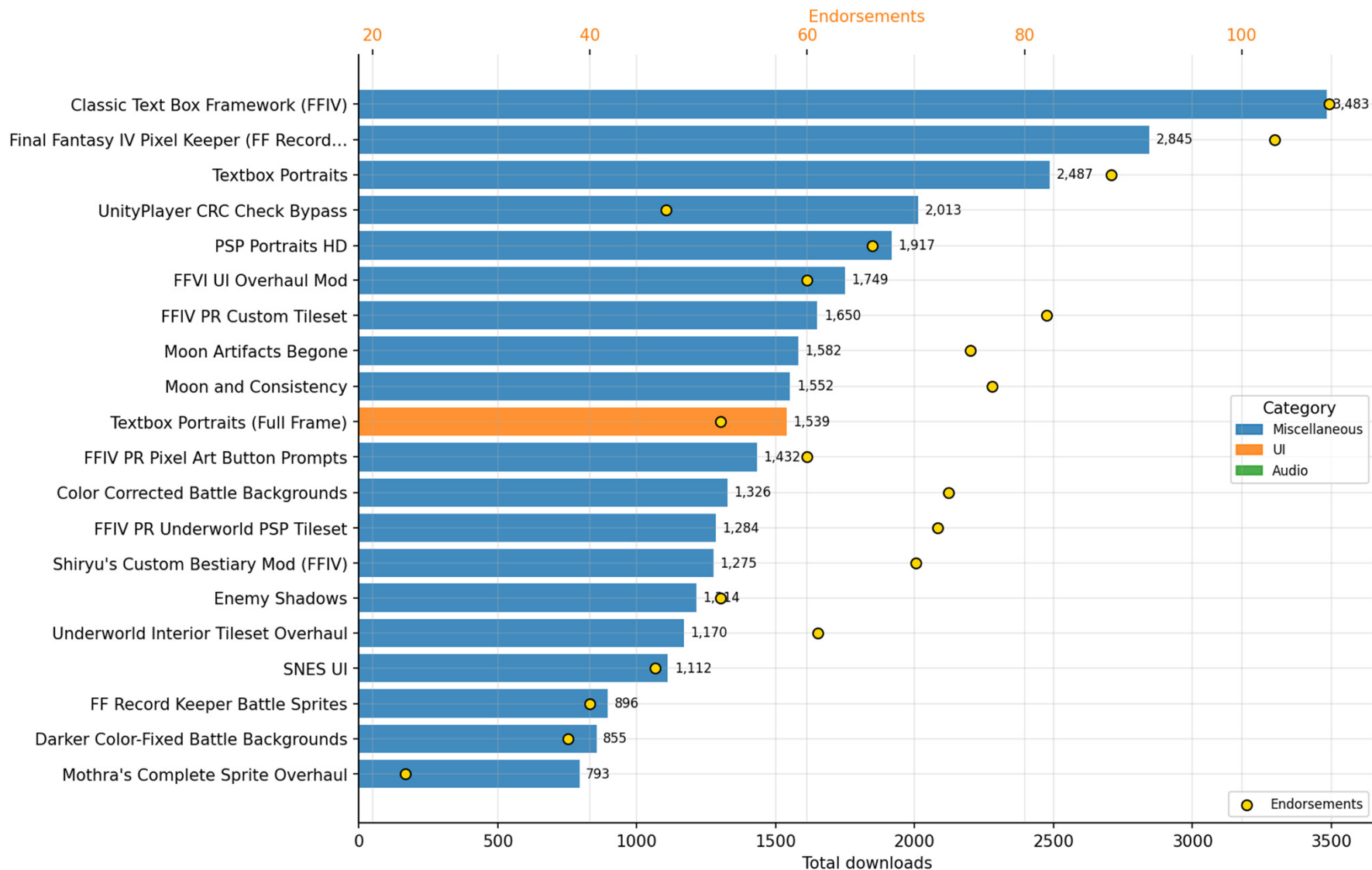


- “Culturally, nostalgia is a **heavily mediated experience manifested in the intense recycling of images, sounds, characters, styles, and narratives associated with recent pasts...** Thus, the **sensory experiences of gaming cannot be detached from the emotional experiences of the player** as human senses allow consumers to relive the past through nostalgic feelings” (Butcher and Toh 897)
- **Visuals and sound** are the aspects of nostalgic gaming experiences that most linger in our memories (Makai 2018).
- **Hypothesis:** faithful visuals and sounds are more nostalgically fulfilling than unchanged gameplay mechanics

Top 15 RHDN FF4 Hacks by Downloads

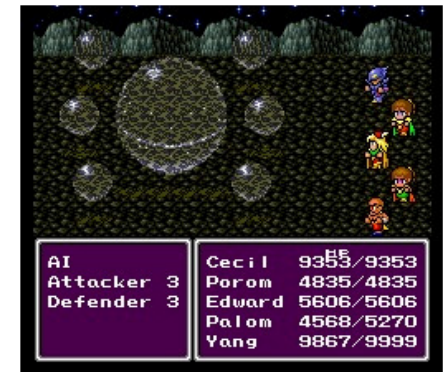


Top 20 Nexus Mods (FF4 Pixel Remaster) by Downloads



Mod/ROM Hack Classifications

- **Rebalancing** = keeping the core game intact with parameter changes in items/skills/characters
- **Overhauling** = adding/revising new content that builds on the core game
- **Aesthetic** = adding or modifying existing assets
 - E.g. adding character assets or music tracks from previous game versions (graphics, UI, portraits, audio, text, etc.)



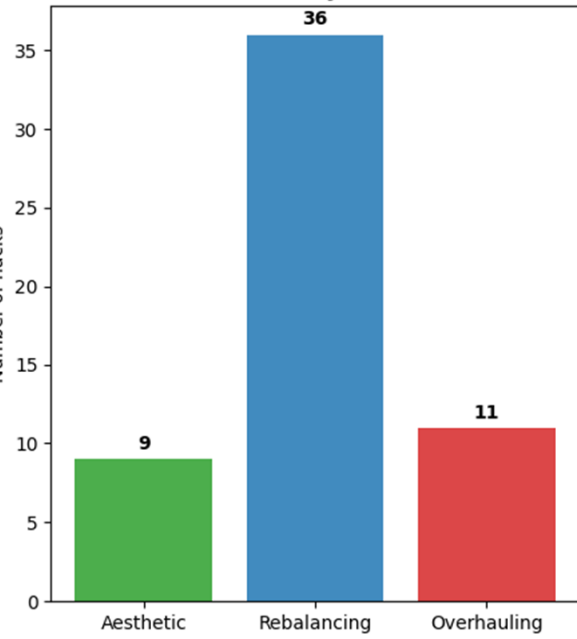
Final Fantasy IV Ultima
(60,797 Downloads)



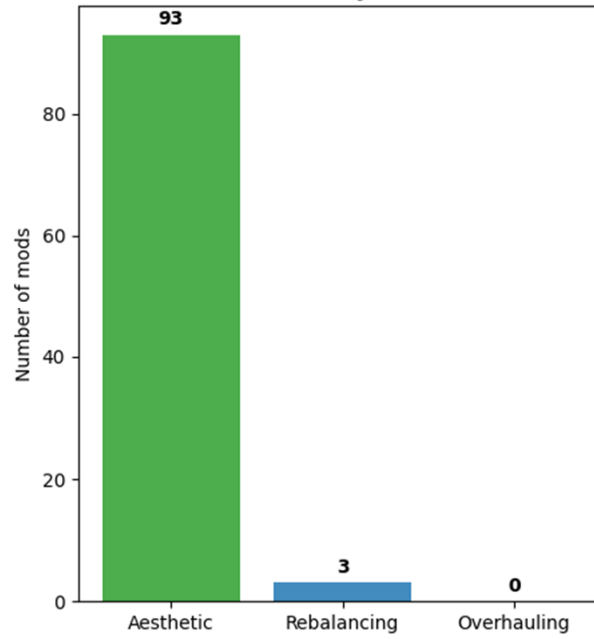
*Final Fantasy IV
Namingway Edition*
(27,819 Downloads)

Mod Classification Data

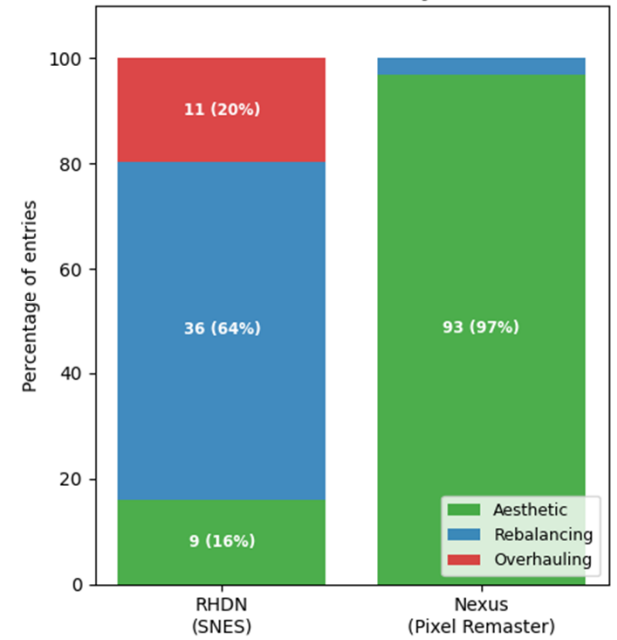
RHDN — Primary Label Count



Nexus — Primary Label Count

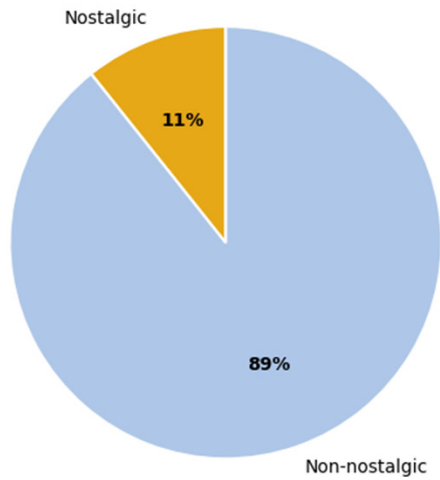


Classification Share by Platform

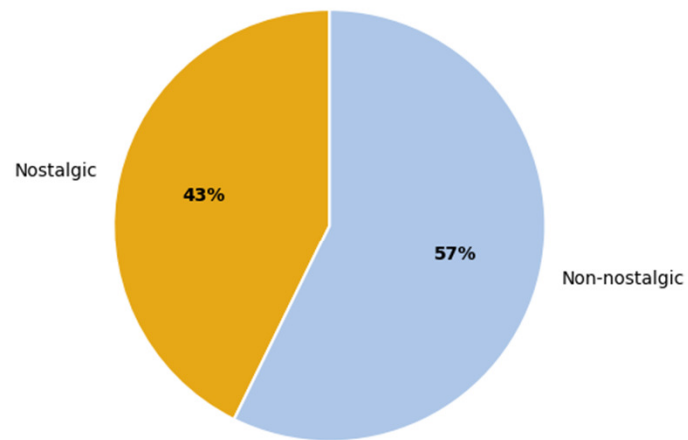


“Nostalgia” Classification

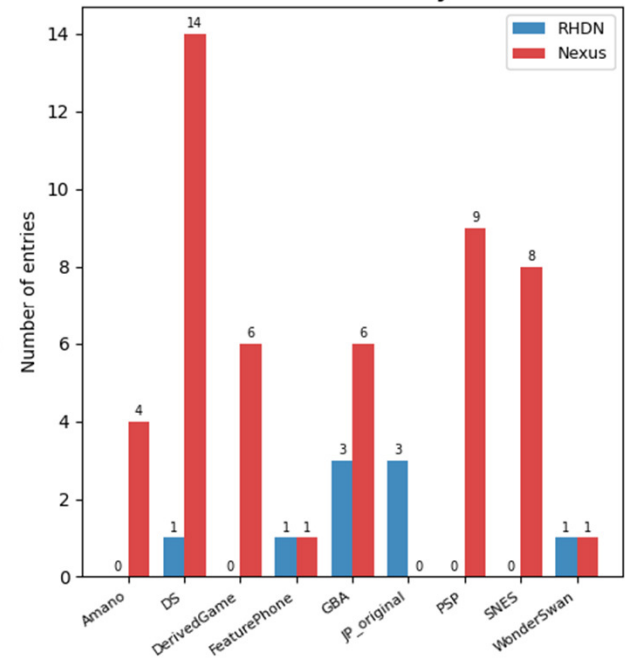
RHDN — Nostalgia Share
(n=56)



Nexus — Nostalgia Share
(n=96)



Platform References by Source



Discussion: Personalized Nostalgia



- There is no ‘real’ or ‘definitive’ version of FF4, particularly for those in modding and hacking communities, because they are able to customize the game to fulfill their individual nostalgia for it, while regular players can consume the work of modders.
- In tracing a classic game’s development history, unofficial releases are important to consider **alongside** official ones.
- Mods and hacks function as fans’ **creative struggle for a personal “ideal” version of the game** that developers can’t offer (and cannot exist in an objective sense)
- **Future work** on the project should involve research into community discussions for more exact data on which versions are the most played and appealing.

Questions for YOU (Going Forward)



- If you are a **Humanities/Arts** games researcher, what value could such quantitative methods add to your research practices?
 - What new approaches would you be able to take to your topics of interest?
- If you are a **Computer Science/Engineering** games researcher, what values could qualitative analysis add to your research practices?
 - How would this expand the purpose and intrigue of your work?

Thank you!

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