

More people should play games!



Games should be difficult!



MARCH 18-22, 2024
SAN FRANCISCO, CA

Challenging or Approachable? (Pick Two)

John Austin
Pontoco



MARCH 18-22, 2024
SAN FRANCISCO, CA

How to 'Fix' Dark Souls

John Austin
Pontoco



#GDC2024

Challenging

Approachable



Challenging

Approachable



(Pick two)

What is.. difficulty?

Part 1

Defining Difficulty & Approachability

Approachability



Approachability



Approachability

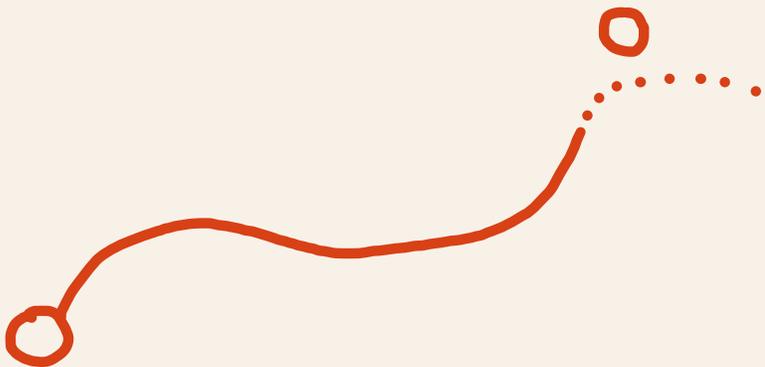


Approachability



Approachability:

How many people can engage with your game?

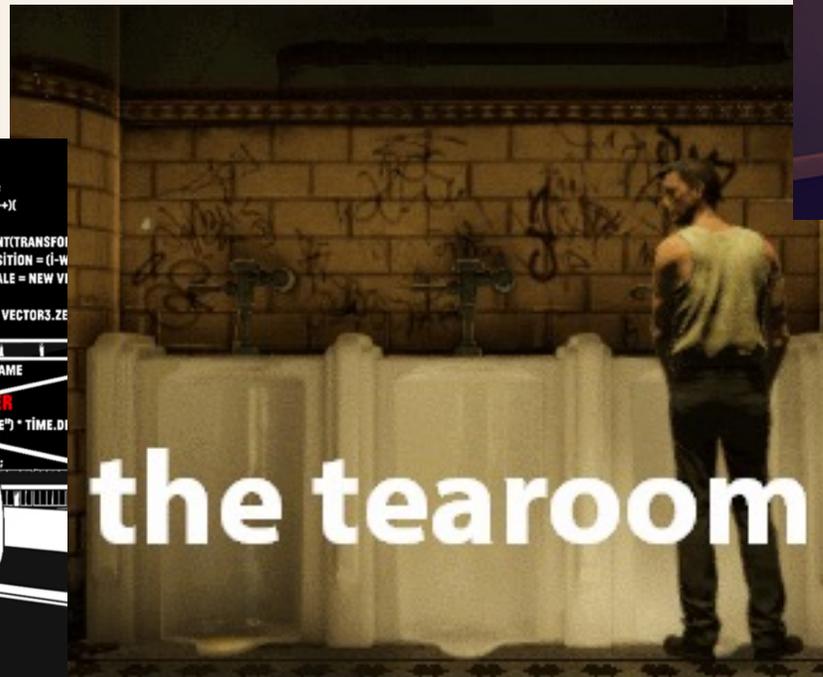


Approachability

- Approachability \neq Accessibility

Approachability

- Approachability \neq Accessibility
- It's a choice.



Defining Difficulty

Failure Rates?

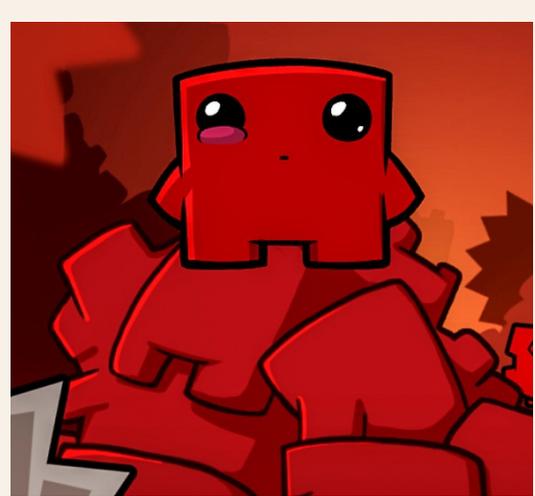
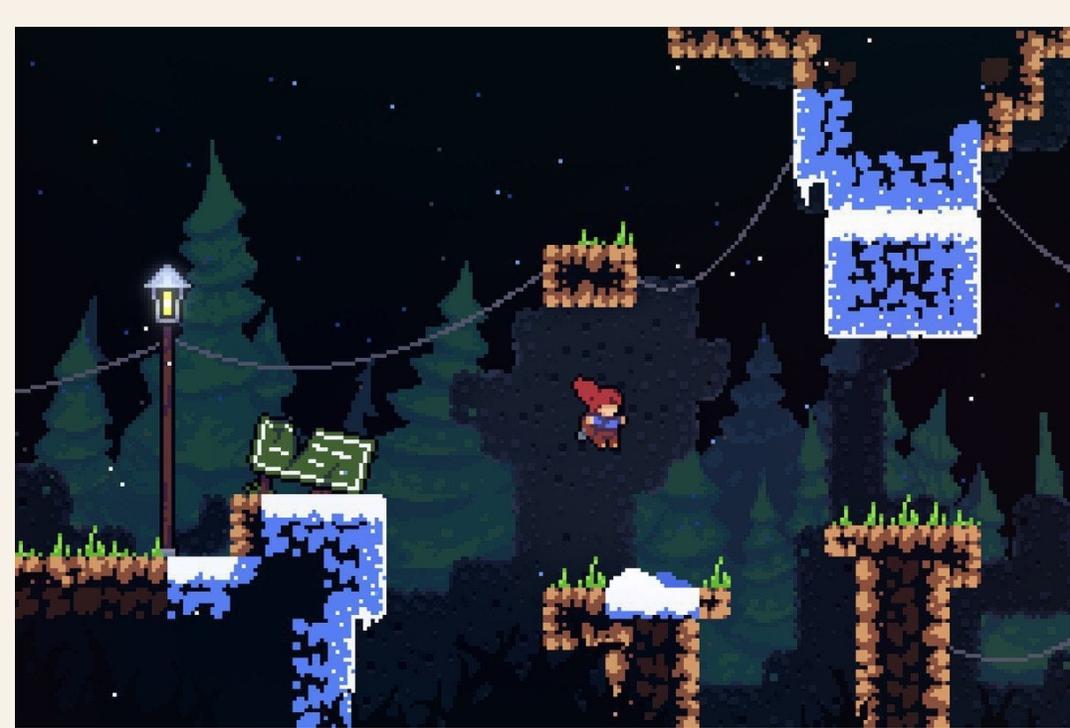


Failure Rates?

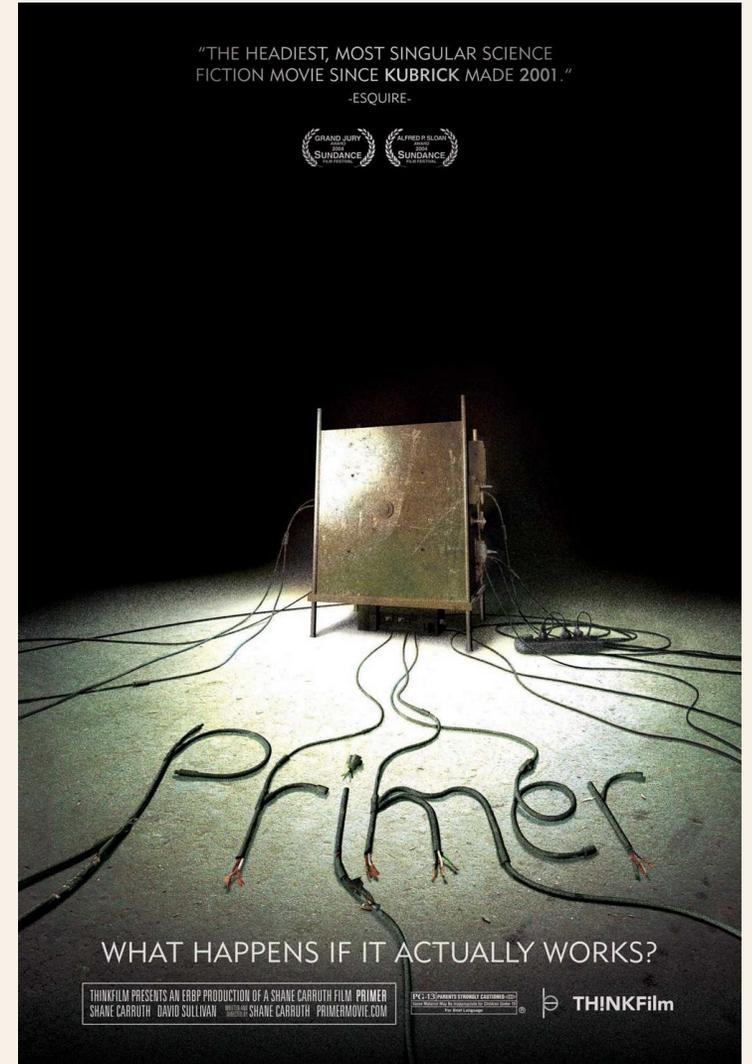
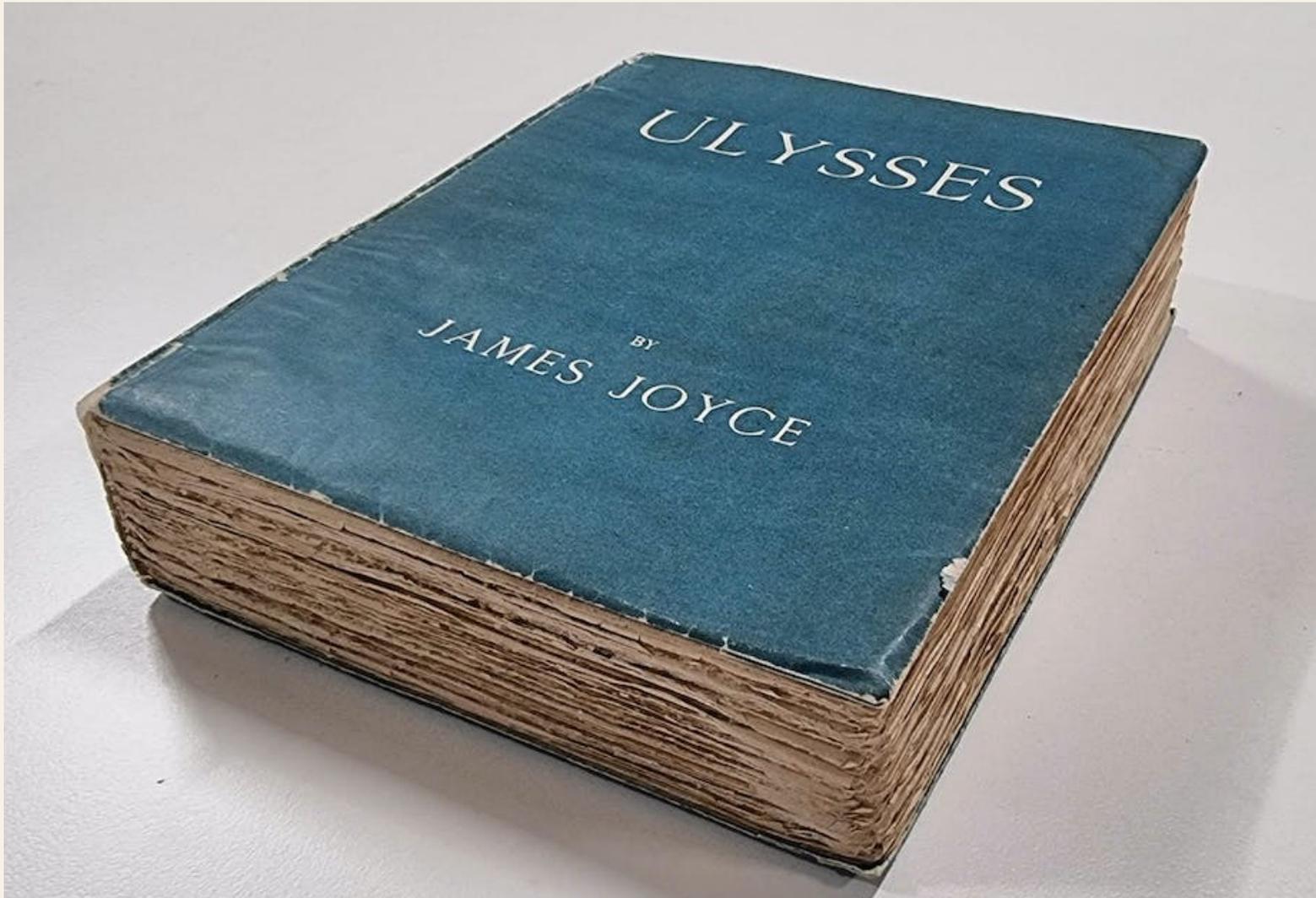


Hunting for Difficulty

Effort / Exhaustion?



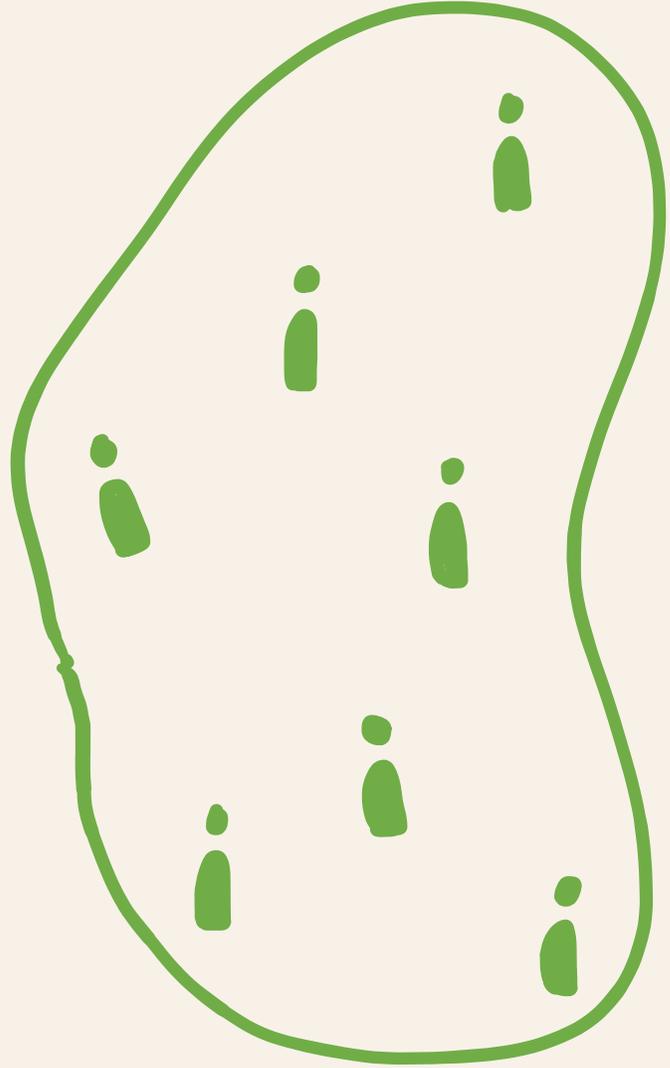
Difficulty: Not just for games

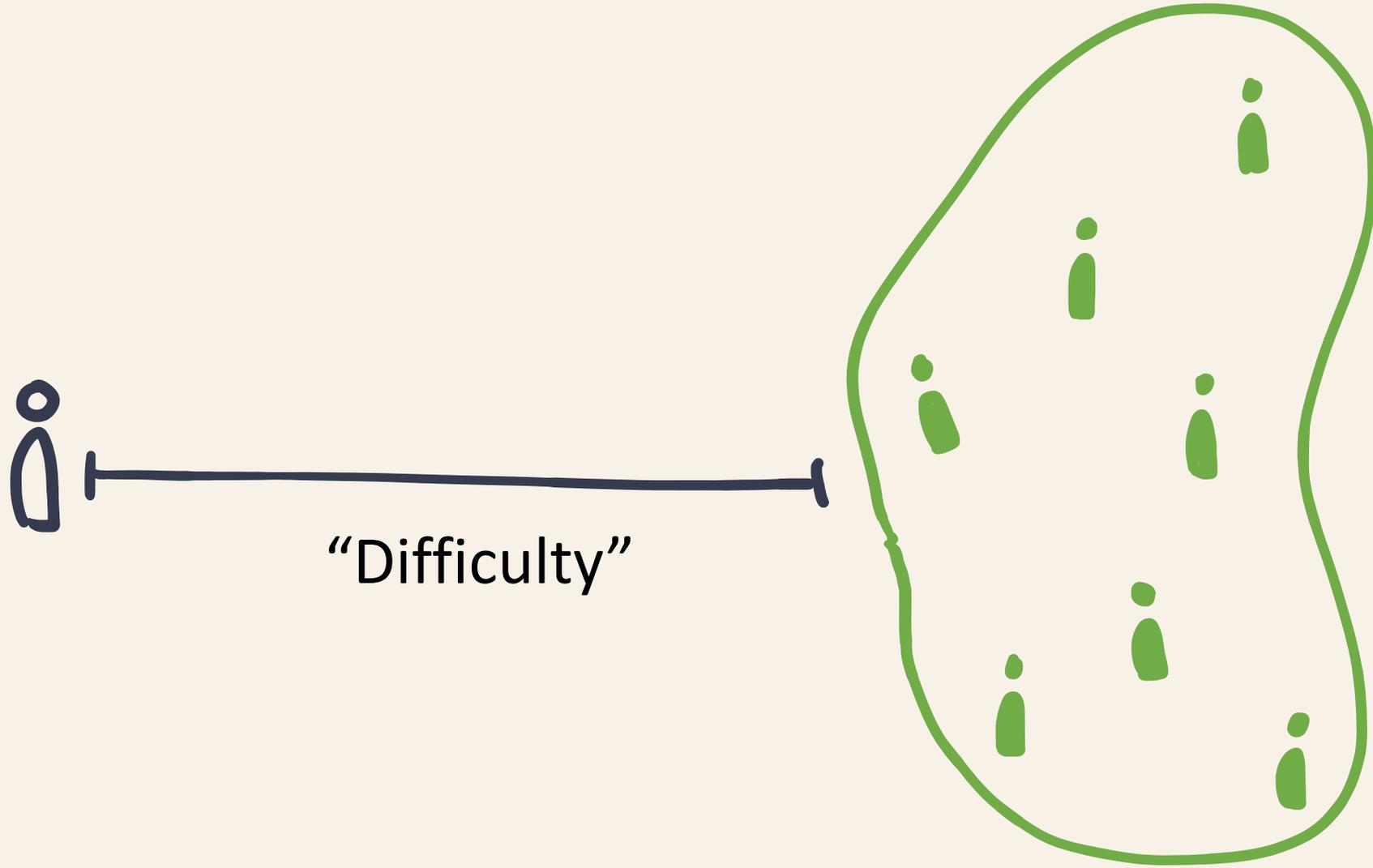


Difficulty

How much someone has to **change** to accomplish their goal.

i

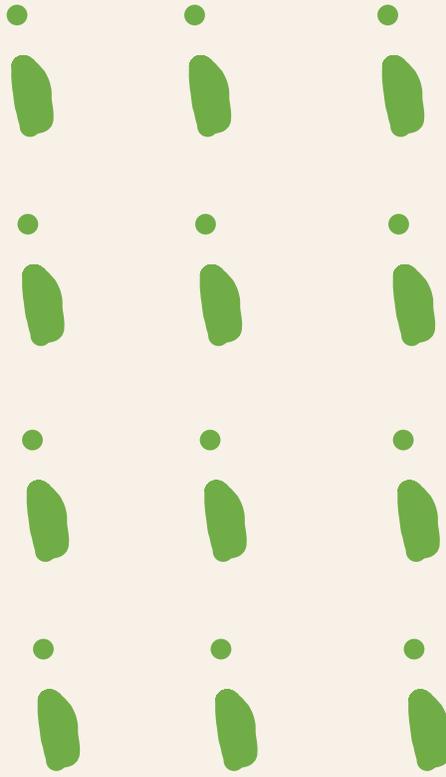
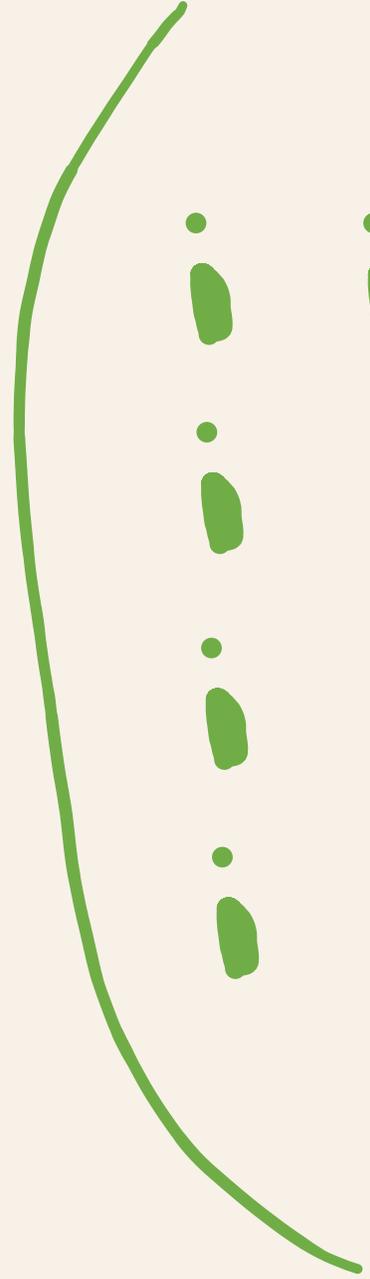
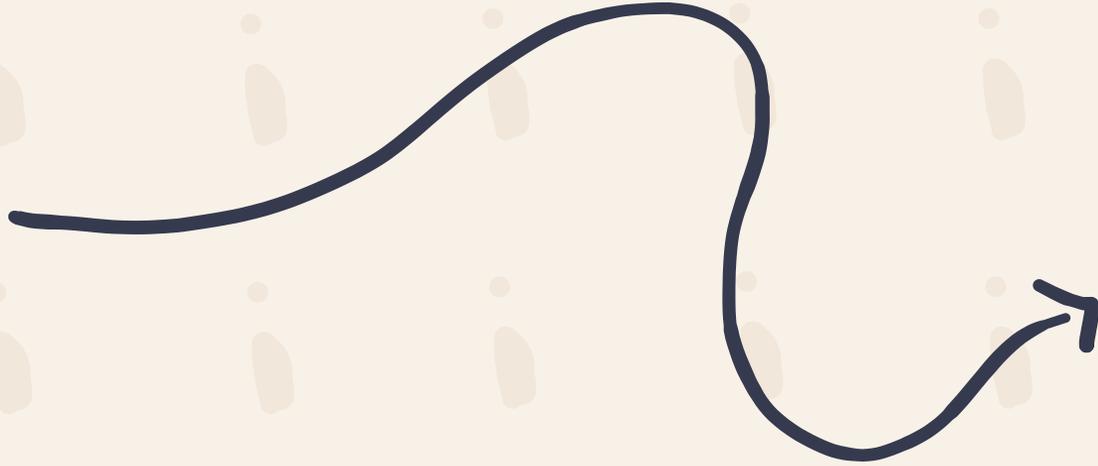




We like difficulty because growing feels good.



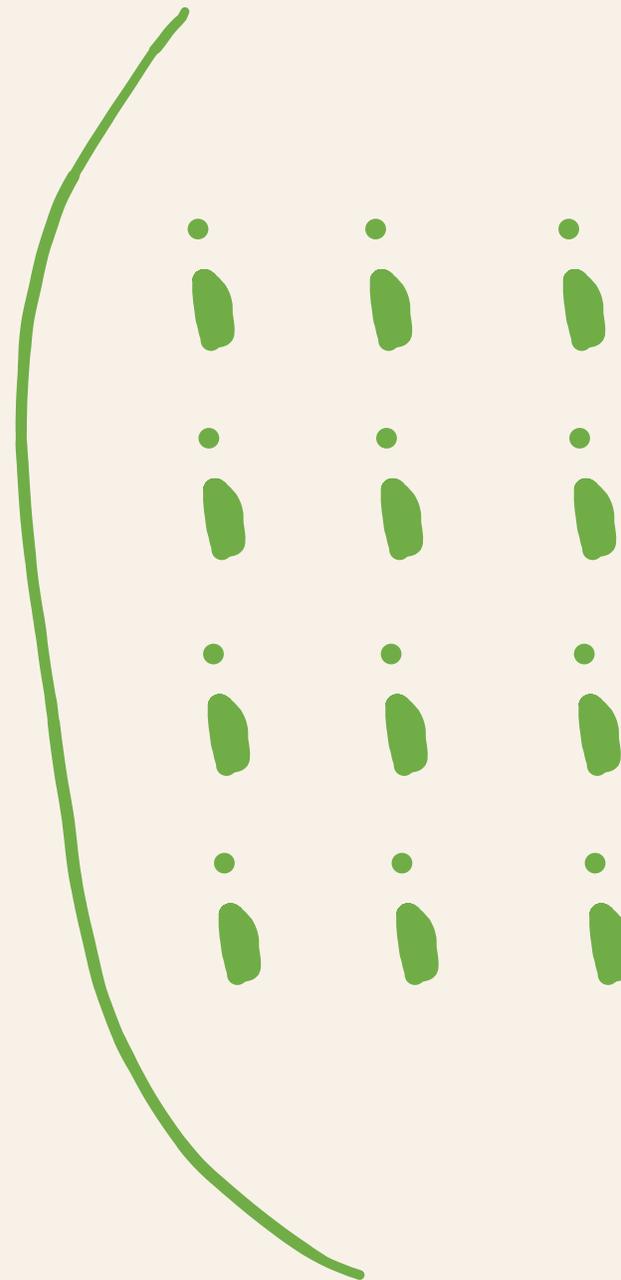
O



O



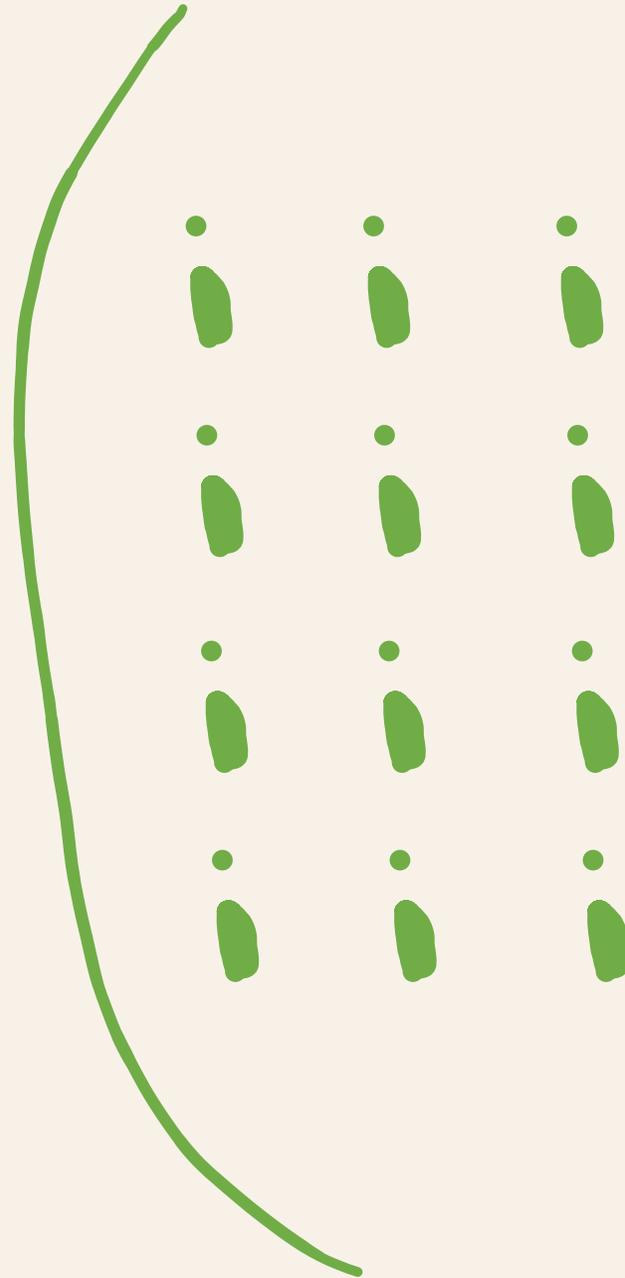
Difficulty



Approachability



Difficulty



Making a game approachable **improves the experience of learning**, rather than asking people to learn less.

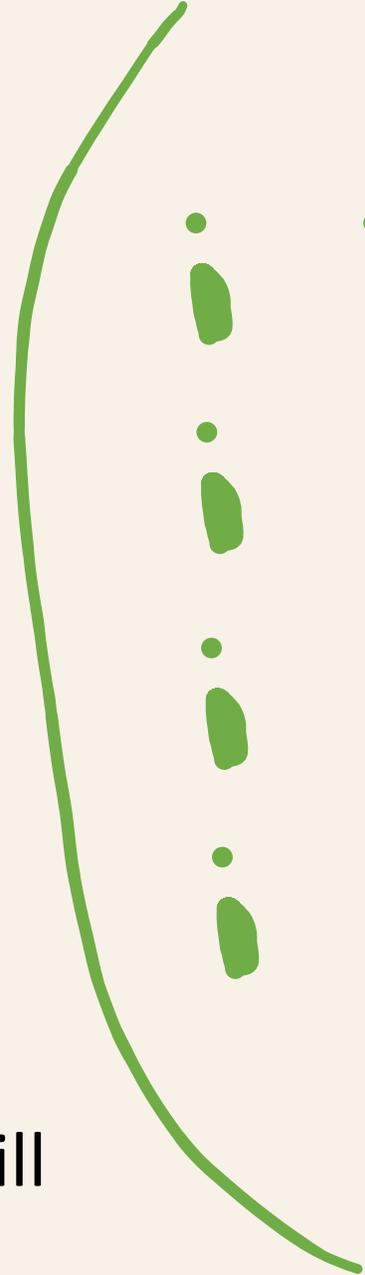
Part 2

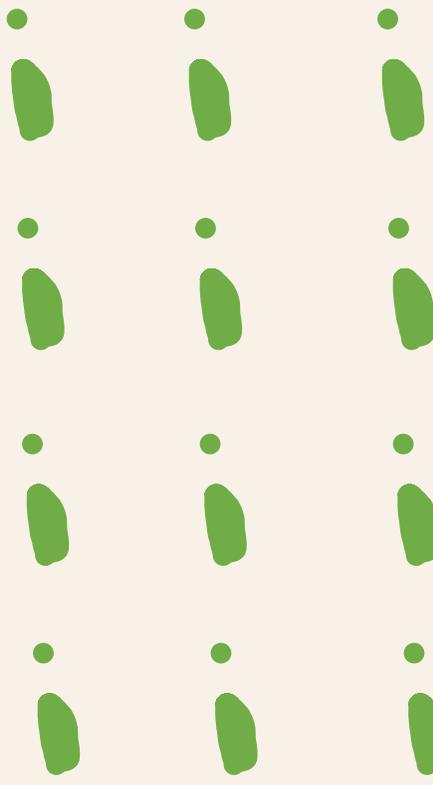
A romp through some approachable
mechanics

Low Skill



High Skill





Dynamic Difficulty Adjustment™

Auto-balancing numbers under the hood with heuristics.

- Removes some of the joy of difficulty.
- Usually also makes the game easier.

Not super interesting to me.



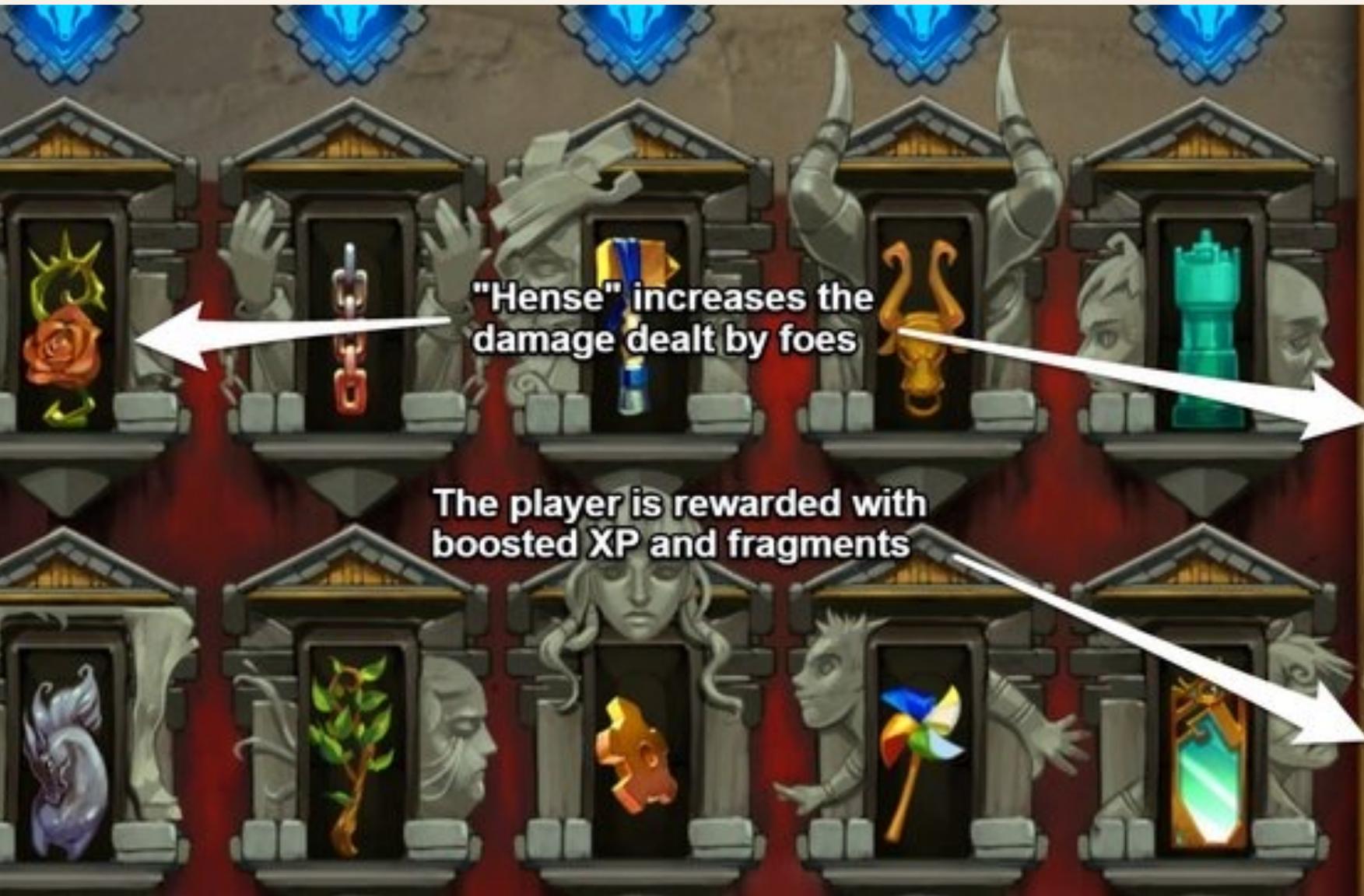
ASSIST MODE

- Game Speed < 50% >
- Infinite Stamina < ON >
- Air Dashes < Infinite >
- Dash Assist < ON >
- Invincibility < OFF >



BASTION





"Hense" increases the damage dealt by foes

The player is rewarded with boosted XP and fragments

Hense



Goddess of Pain and Pleasure

- Foes shall strike with greater ferocity.

They say the Veiled Widow is smiling beneath Her robes, Her body all scratches and scars.

75%
XP: +75%

- **Acobi** [Ah•KOH•bee]
 - Defeated enemies drop a bouncing spark with delayed detonation.
- **Lemaign** [La•MAIN]
 - The Kid's movement speed is slowed after connecting with an enemy attack.
- **Yudrig** [Yoo•jrig]
 - Touching enemies deals additional damage.
- **Roathus** [ROH•thus]
 - Enemies never drop Tonics upon defeat.
- **Micia**, [Mih•SI•a]
 - Enemies regen health over time.
- **Olak** [O•lihk]
 - Enemies randomly turn translucent; all attacks will pass through.
- **Garmuth**, [GAR•muth]
 - Enemies will randomly block and deflect attacks.

The idol system makes difficulty part of play.



(It's a puzzle)



PACT OF PUNISHMENT

"Infernal Contract Valid for Eternity in the Underworld of Hades"

TERMS

1. CHOOSE ANY **CONDITIONS**
2. FILL **HEAT GAUGE** TO 1
3. GET OUT USING THE **ADAMANT RAIL**



▶ Heat Gauge not full! Choose more Conditions.

BOUNTIES

WEAPON: RAIL

HEAT: 0



TARTARUS



ASPHODEL



ELYSIUM



STYX

CONDITIONS

	HARD LABOR	+0%	<input type="checkbox"/>	+	1	
	LASTING CONSEQUENCES	-0%	<input type="checkbox"/>	+	1	
	CONVENIENCE FEE	+0%	<input type="checkbox"/>	+	1	
	JURY SUMMONS	+0%	<input type="checkbox"/>	+	1	
	EXTREME MEASURES	0	<input type="checkbox"/>	+	1	
	CALISTHENICS PROGRAM	+0%	<input type="checkbox"/>	+	1	
	BENEFITS PACKAGE	+0	<input type="checkbox"/>	+	2	
	MIDDLE MANAGEMENT	◇	<input type="checkbox"/>	+	2	
	UNDERWORLD CUSTOMS	◇	<input type="checkbox"/>	+	2	
	FORCED OVERTIME	+0%	<input type="checkbox"/>	+	3	
	HEIGHTENED SECURITY	◇	<input type="checkbox"/>	+	1	
	ROUTINE INSPECTION	-0	<input type="checkbox"/>	+	2	
	DAMAGE CONTROL	0	<input type="checkbox"/>	+	1	
	APPROVAL PROCESS	-0	<input type="checkbox"/>	+	2	
	TIGHT DEADLINE	∞	<input type="checkbox"/>	+	1	



BEGIN ESCAPE

PROCESS LIMITERS



DETAILS

Superiority LIMITER

EFFECT WHEN IN USE
The Process will spawn in greater numbers.
- User Level Bonus: 6%

SYSTEM STATUS
10 Limiters Now in Use
User Level Bonus Total: 32%

Reset Limiter

Inspect

Back

ENDRIGA THE WIDOW

Effect: At the start of this Rite, your Pyre shall automatically suffer damage: -30 🔥

Note: Call upon the Titan Stars to rank up faster!

Interact to activate this Titan Star's effect.

Star of the blood-titan, once vanquished by Underking Ores of the Sea-Dominion.

PACT OF PUNISHMENT

"Infernal Contract Valid for Eternity in the Underworld of Hades"

TERMS

1. CHOOSE ANY CONDITIONS
2. FILL HEAT GAUGE TO 2 🔥
3. GET OUT USING THE ETERNAL SPEAR

Choose a Condition at right to earn more Bounties.

BOUNTIES

WEAPON: SPEAR

HEAT: 0 🔥



TARTARUS

ASPHODEL

ELYSIUM

STYX

CONDITIONS

HARD LABOR	+0%	+1	
LASTING CONSEQUENCES	-0%	+1	
CONVENIENCE FEE	+0%	+1	
JURY SUMMONS	+0%	+1	
EXTREME MEASURES	0	+1	
CALISTHENICS PROGRAM	+0%	+1	
BENEFITS PACKAGE	+0	+2	
MIDDLE MANAGEMENT	◇	+2	
UNDERWORLD CUSTOMS	◇	+2	
FORCED OVERTIME	+0%	+3	
HEIGHTENED SECURITY	◇	+1	
ROUTINE INSPECTION	-0	+2	
DAMAGE CONTROL	0	+1	
APPROVAL PROCESS	-0	+2	
TIGHT DEADLINE	∞	+1	

BEGIN ESCAPE

Hense

Goddess of Pain and Pleasure

- Foes shall strike with greater ferocity.

They say the Veiled Widow is smiling beneath Her robes, Her body all scratches and scars.

40%
XP: +40%

Exit
Renounce

Low Skill



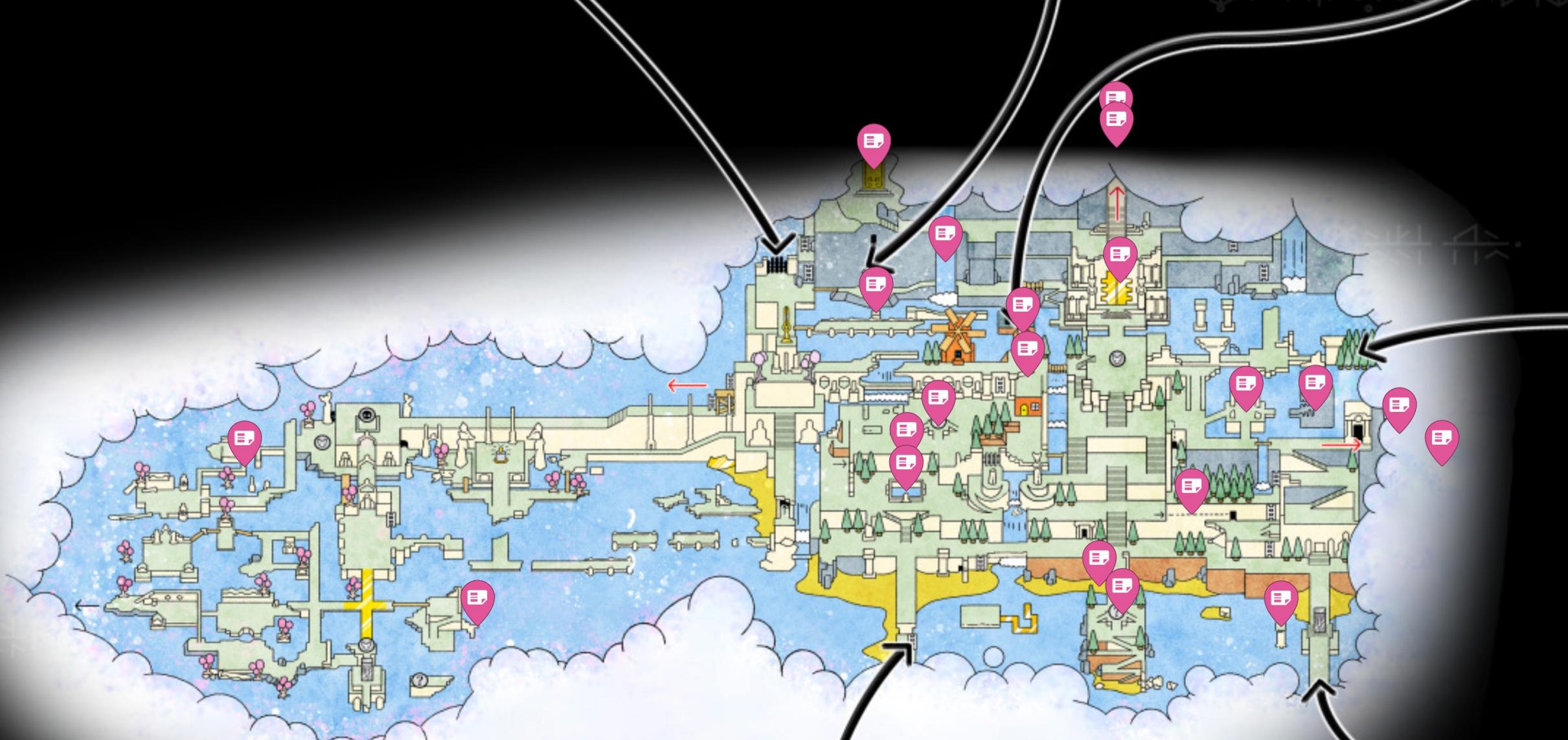
High Skill



It only makes the game harder!



Mechanization of Tutorials



WEST GARDEN

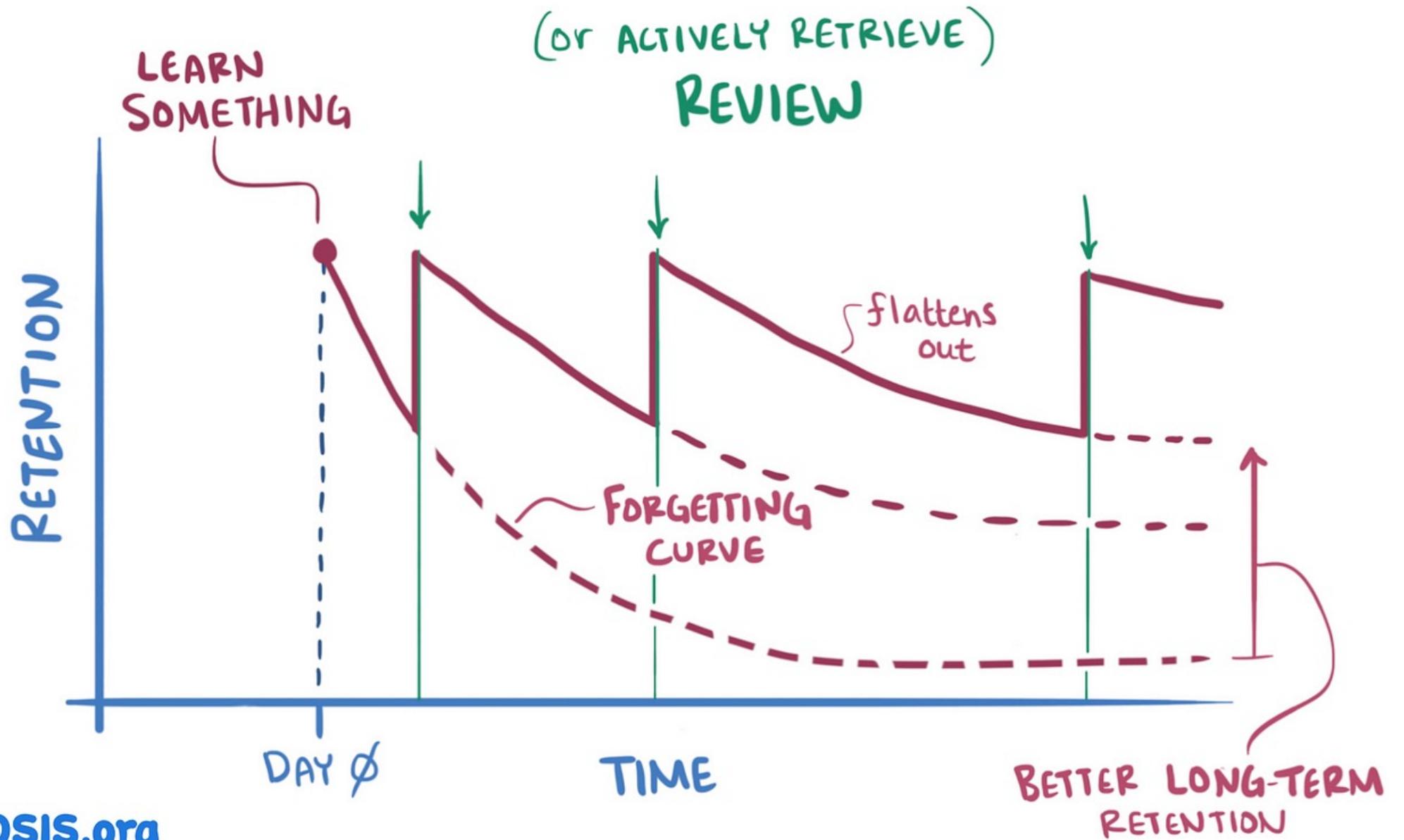
OVERWORLD

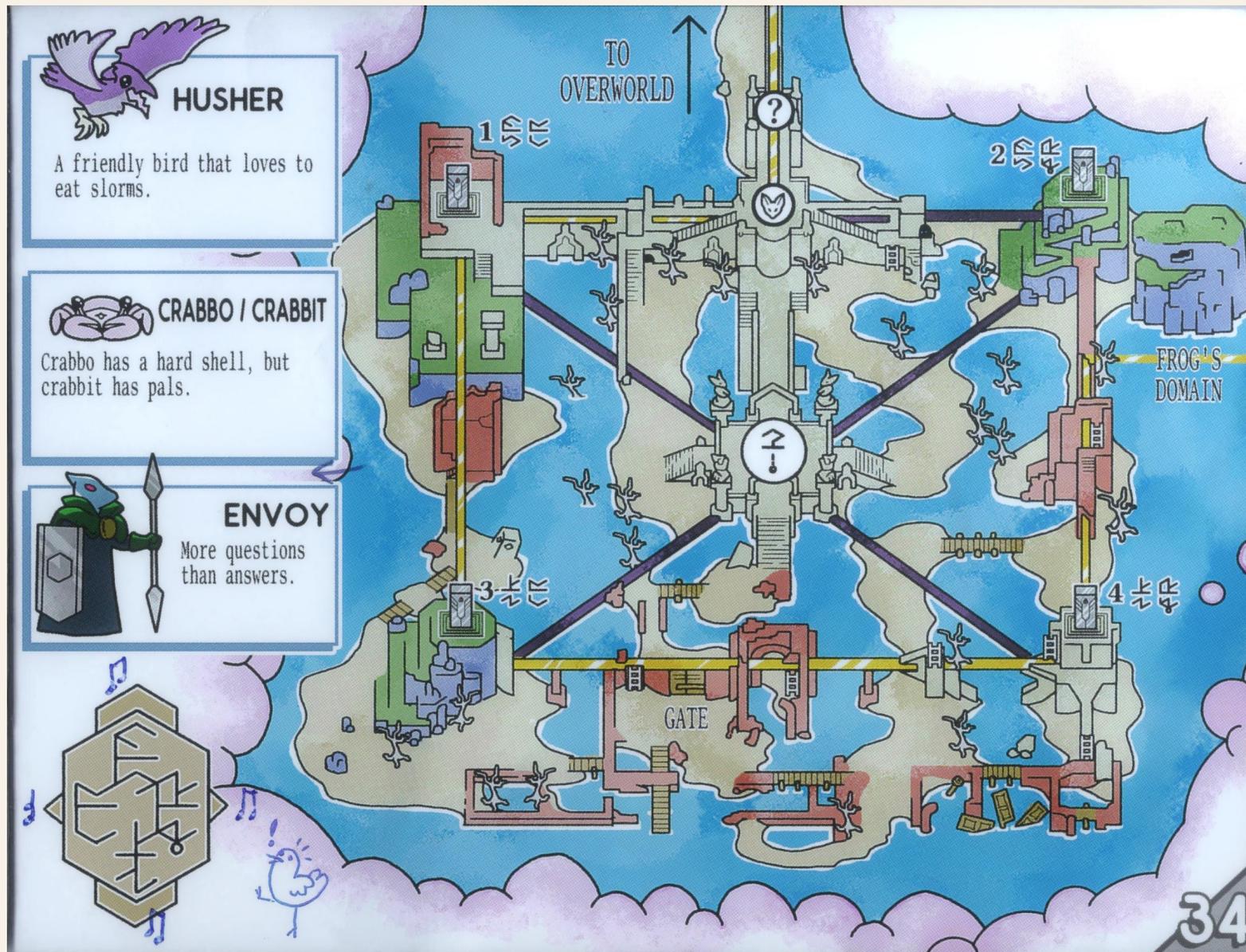
Tunic (Tutorialization)

- Slow-drip of information for better retention.
- Referenceable in case you forget.
- Supplies hooks rather than hand-holding.









Mechanization - you don't feel bad for using it!

MOMENT OF SAFETY

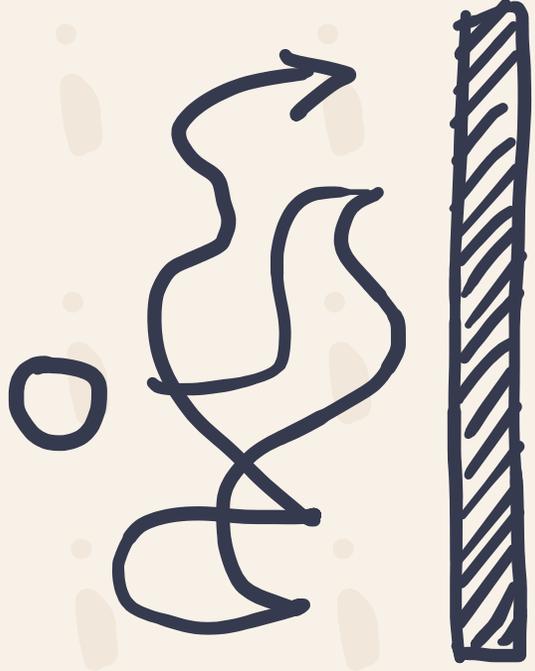
invulnerability

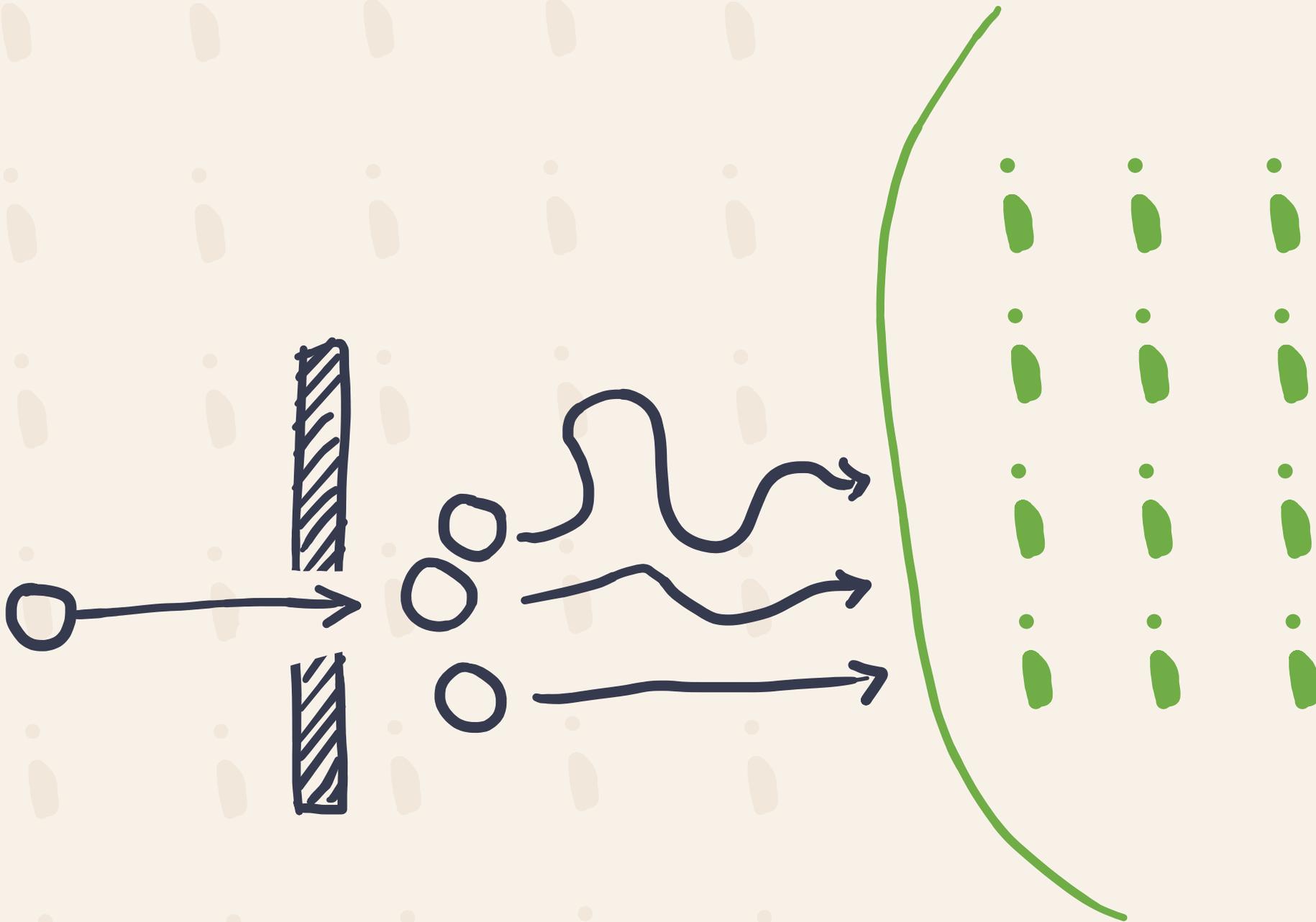


INVULNERABILITY



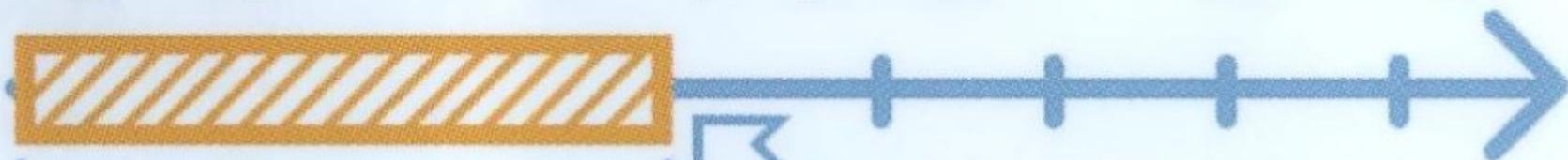
Check for
Dust!





MOMENT OF SAFETY

invulnerability



INVULNERABILITY



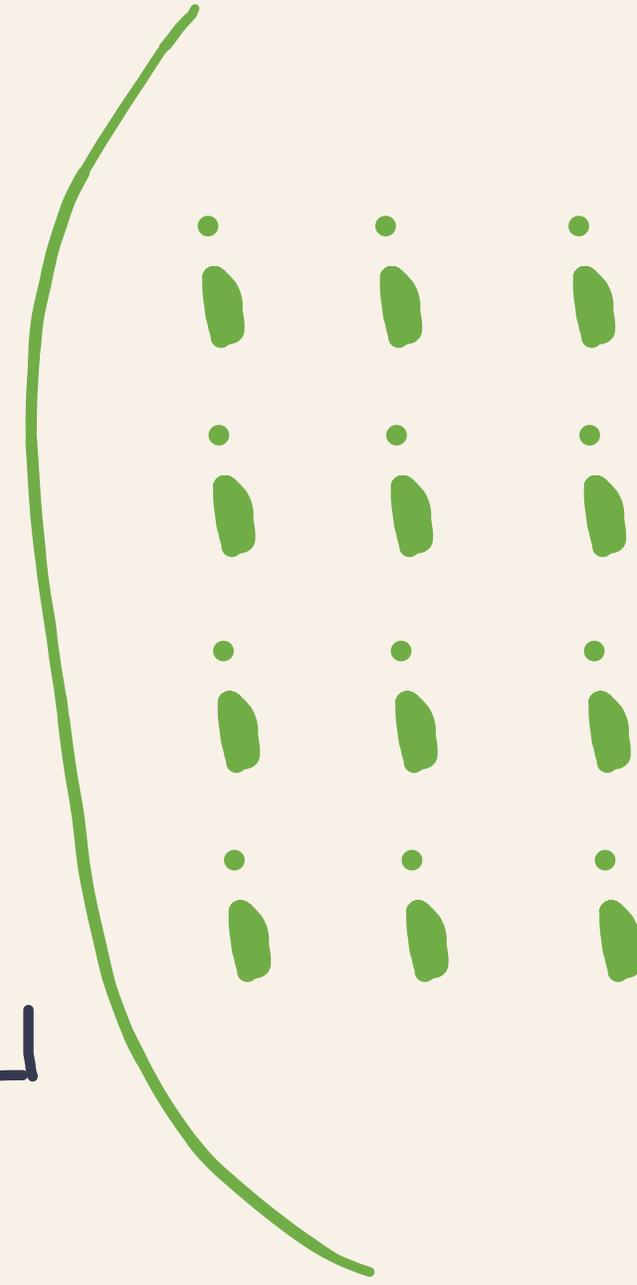
Check for
Dust!



On Ramp



Meaty Difficulty



Dark Souls [Join](#)
r/darksouls

[Posts](#) [Wiki](#) [Discord Server](#) [More FromSoft Titles](#) ▼

Create Post

Hot **New** Top ...

Posted by u/Hiram_Abiff_3579 12 minutes ago

[Vote](#) [Guide](#) **I was told master key isn't required..** [spoiler](#)

1/4

About Community

A community dedicated to Dark Souls I, game released for PC, PlayStation 3 and 4, Xbox 360/One, and Switch (Remastered).

Created Feb 2, 2011

673k
Cursed Undead

187
Souls

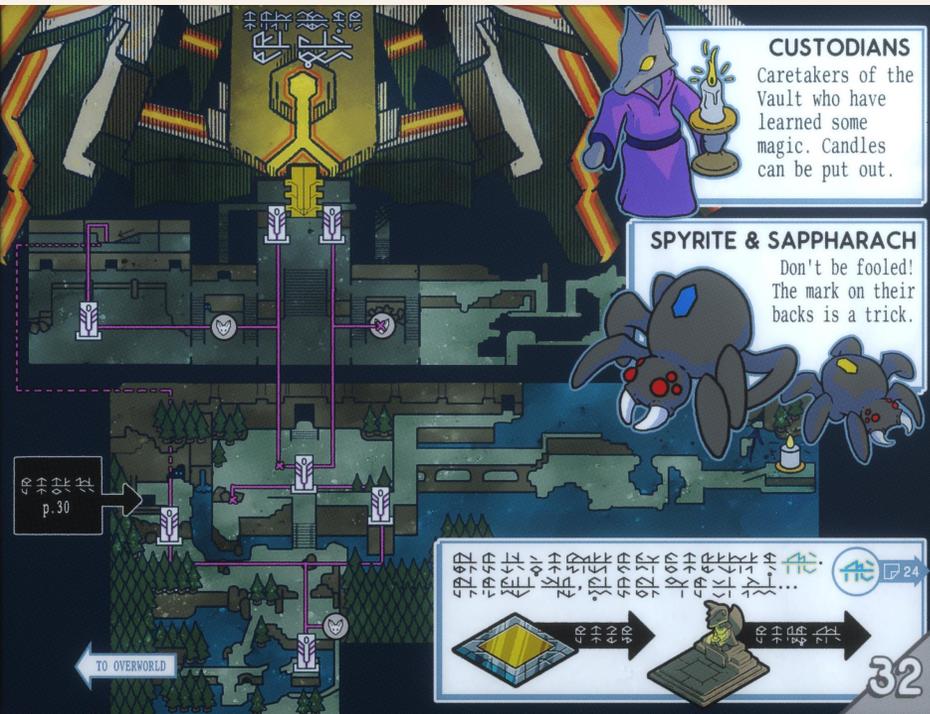
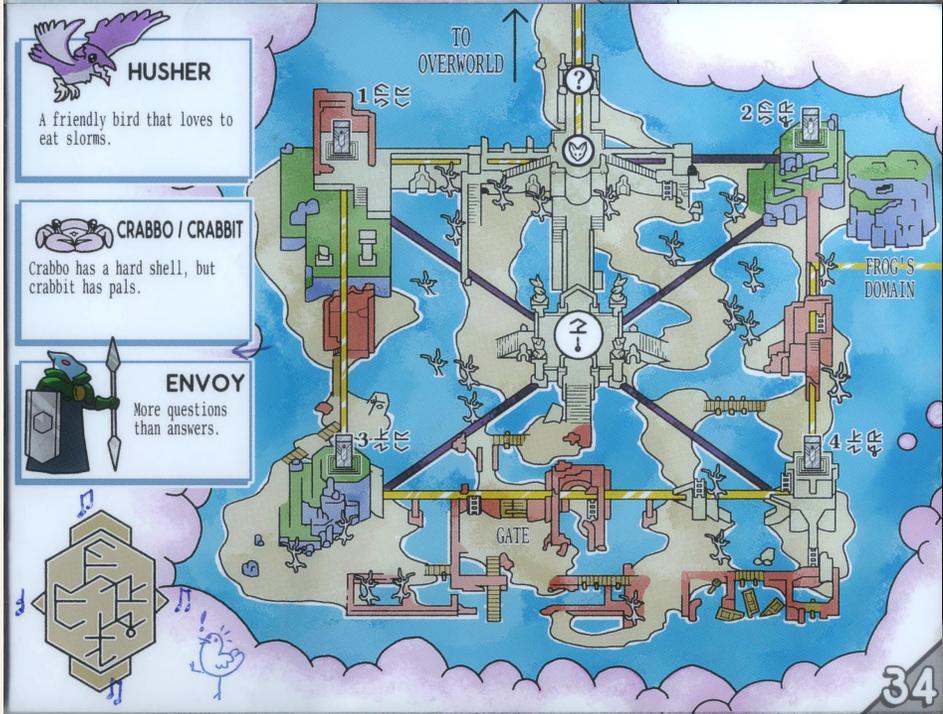
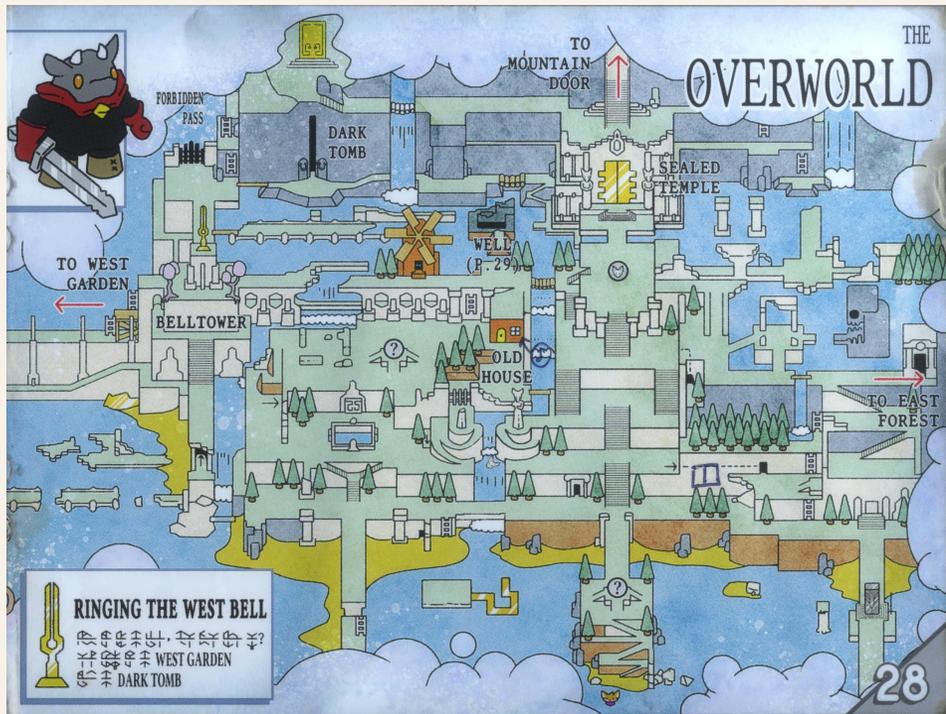
[Create Post](#)

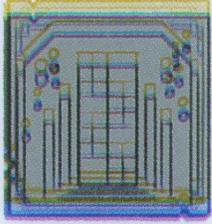
COMMUNITY OPTIONS ▼

Filter by flair

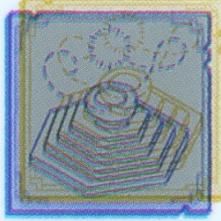
[Discussion](#) [Screenshot](#) [Help](#)

Dark Souls is **able to be difficult** because it leans on the community.

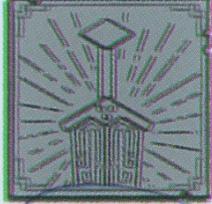




DOOR IN THE MOUNTAINS?
FAIRIES



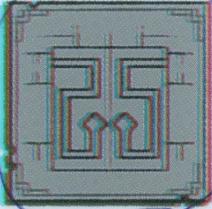
FAIRIES?
P. 47



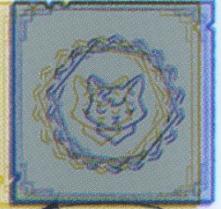
THE HERO'S GRAVE



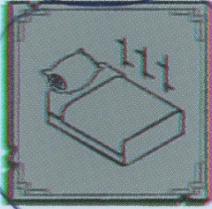
FAIRIES?



HOLY CROSS



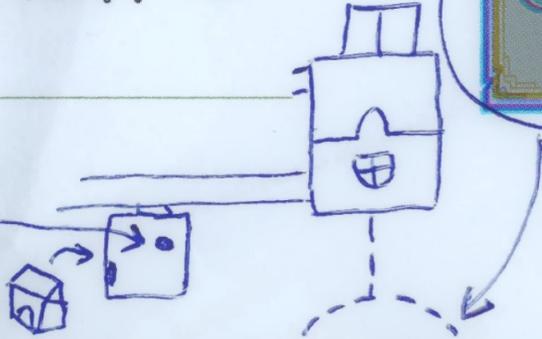
FAIRIES?



...



...



Thanks!

John Austin

Game Director, Pontoco

@johnaustin.bsky.social

@johnaustin@mastodon.gamedev.place

@kleptine (twitter)

<https://johnaustin.io>



END OF TALK

You found the secret overflow slides!

These slides aren't in the talk, but contain scattered thoughts about difficulty. Maybe you'll find some useful inspiration.

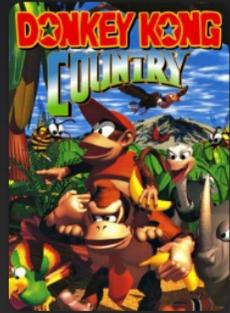
Difficulty

How much someone has to change to accomplish their goal.

What goal?



Speedrunning



Donkey Kong Country [1994]

Donkey Kong Series

SNES WiiVC WiiUVC +3

Discord Website

Leaderboards News Guides 3 Resources Forums 19 Streams Related 3 Stats

All Stages

101%

Any%

No Major Glitches

Old Summon

No Major Skips

RBO

All Bosses

Warpless

101% No Major Glitches

Blindfolded All Stages

All Winkys

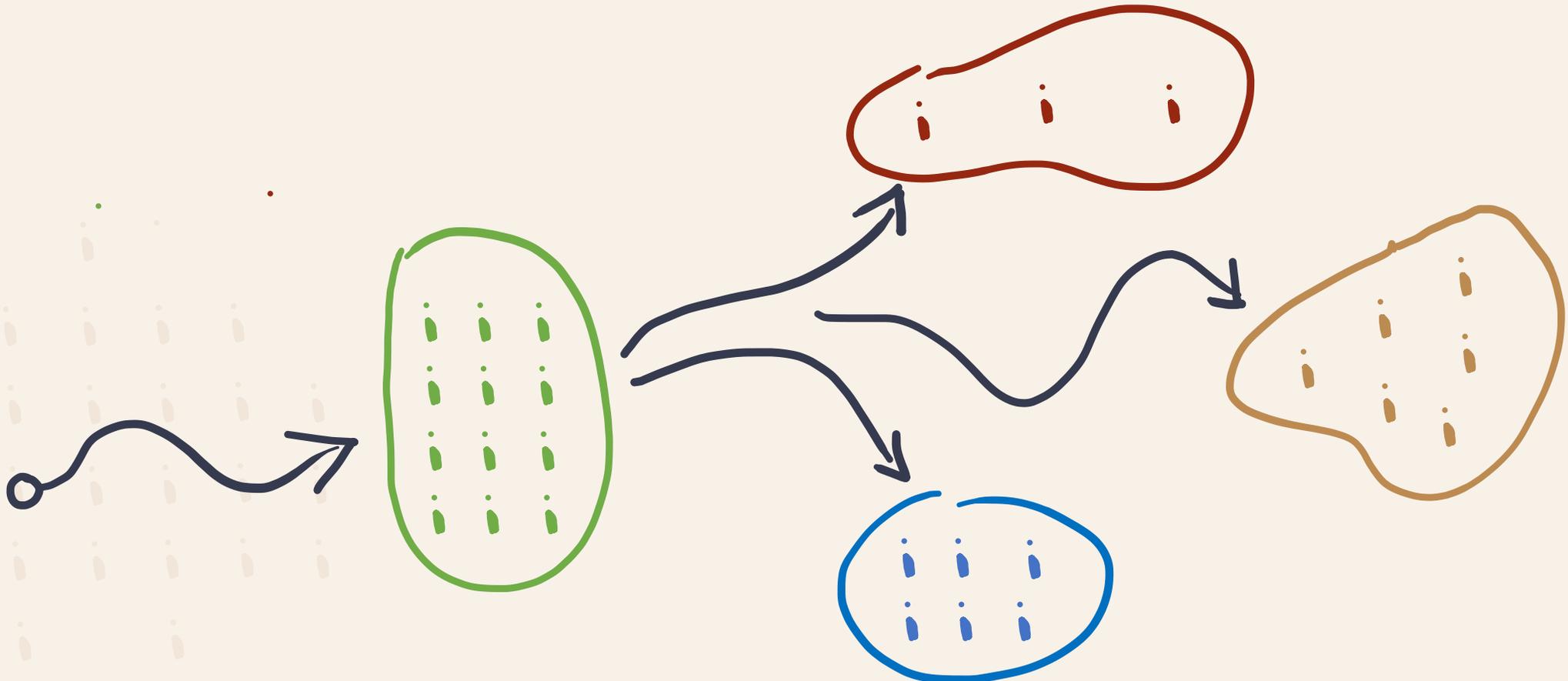
All Stages - 2 players 1 controller

All Stages - 2-Player Team

101% - 2-Player-Team

Legacy All Stages

Legacy Old Summon



Speedrunning

Goals are the mechanism by which we can lead players through the change space.

Games are kind of hung up on this concept of 'beating it'

Games are mountain ranges not mountains.

Presented Goals vs. Supported Goals

7
Demons

01:04:13



1989. **NEON WHITE**

A professional killer. In his past life, saved from eternal punishment.

White gambles with his humanity.

WHO DESERVES A PLACE IN HEAVEN?

sin: IDENTITY
sin: MEMORY
White and the team order
carries to create their
the domestic. "We'll let of heaven."

30

SR



Inscrutability (un-tutorials)



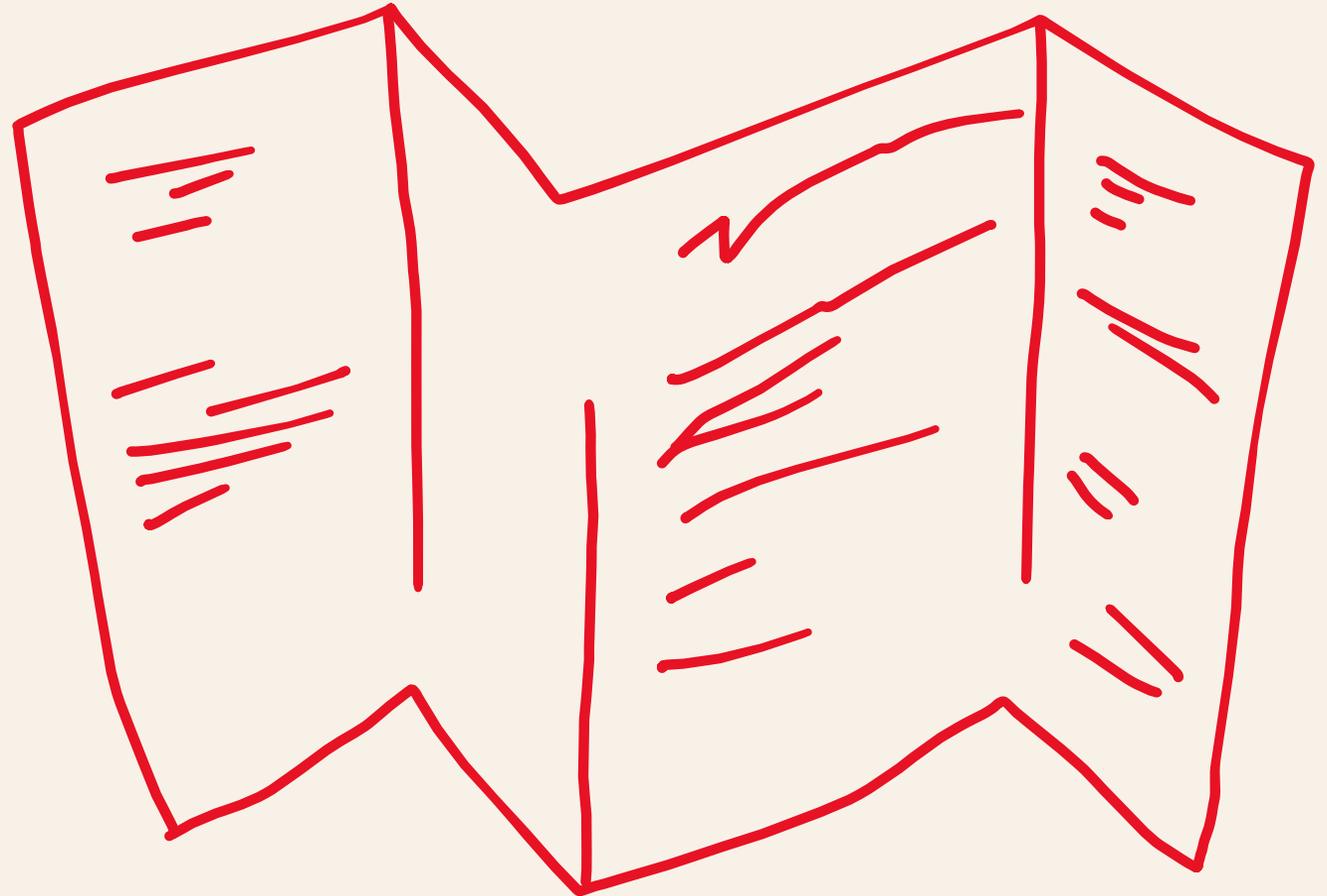
(consider this type of difficulty)

Inscrutability

Confusing

Foreign

(sub-type of difficulty)





Equipment

Select item to equip



Demon's Spear

Attack Type: Thrust Weapon Type: Spear

ATK

Physical	100	+46
Magic	0	+0
Fire	0	+0
Lightning	120	+0
Critical	100	

DmgReduction%

Physical	40.0
Magic	10.0
Fire	30.0
Lightning	30.0
Stability	26

ParamBonus

Strength	C	Dexterity	C	Resistance	-	Intelligence	-
----------	---	-----------	---	------------	---	--------------	---

ReqParam

Strength	12	Dexterity	10	Resistance	0	Intelligence	0
----------	----	-----------	----	------------	---	--------------	---

Aux Effects

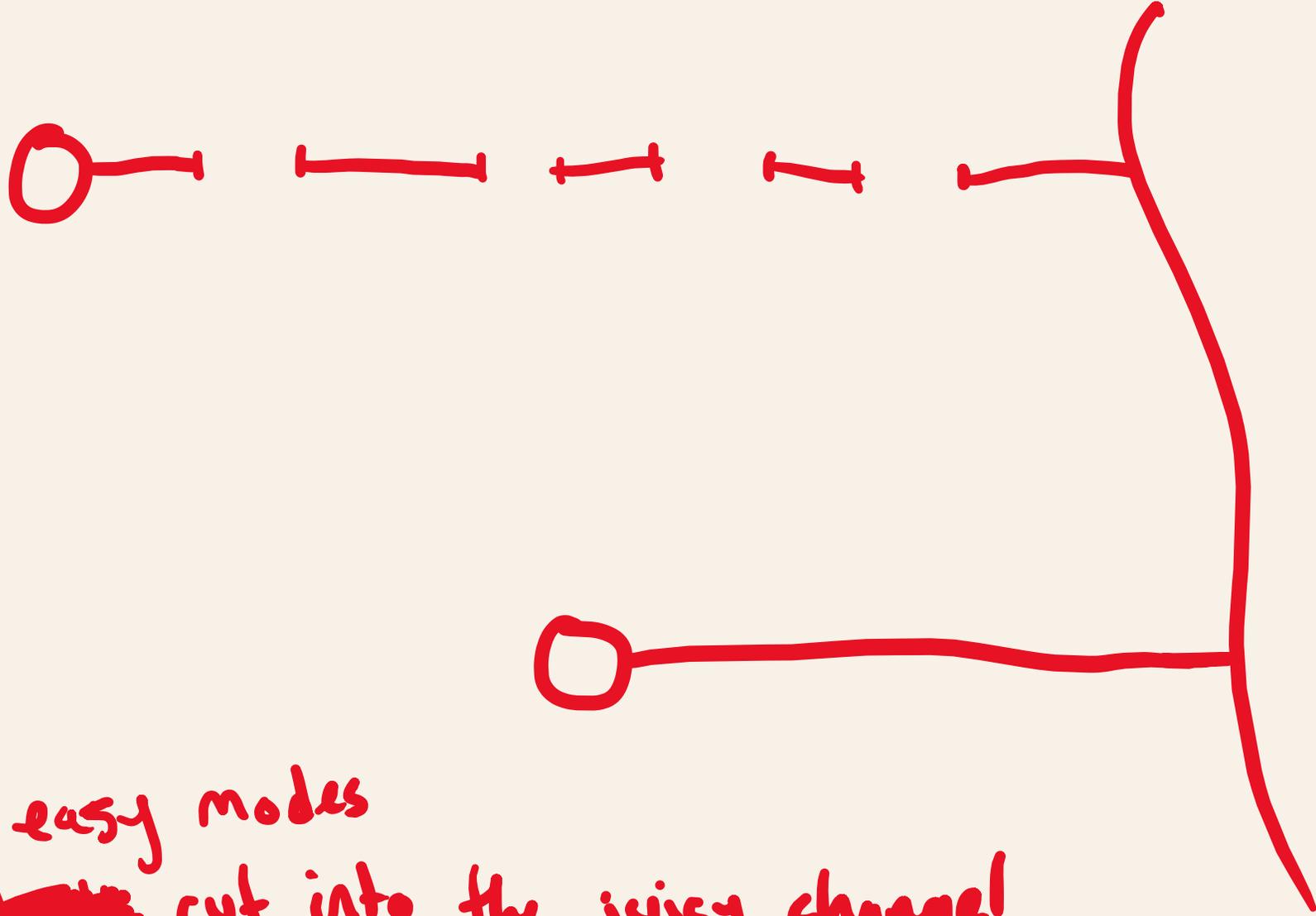
Health	0	Mana	0	Stamina	-	Stamina	-
--------	---	------	---	---------	---	---------	---

Durability 400/400

Weight 4.0

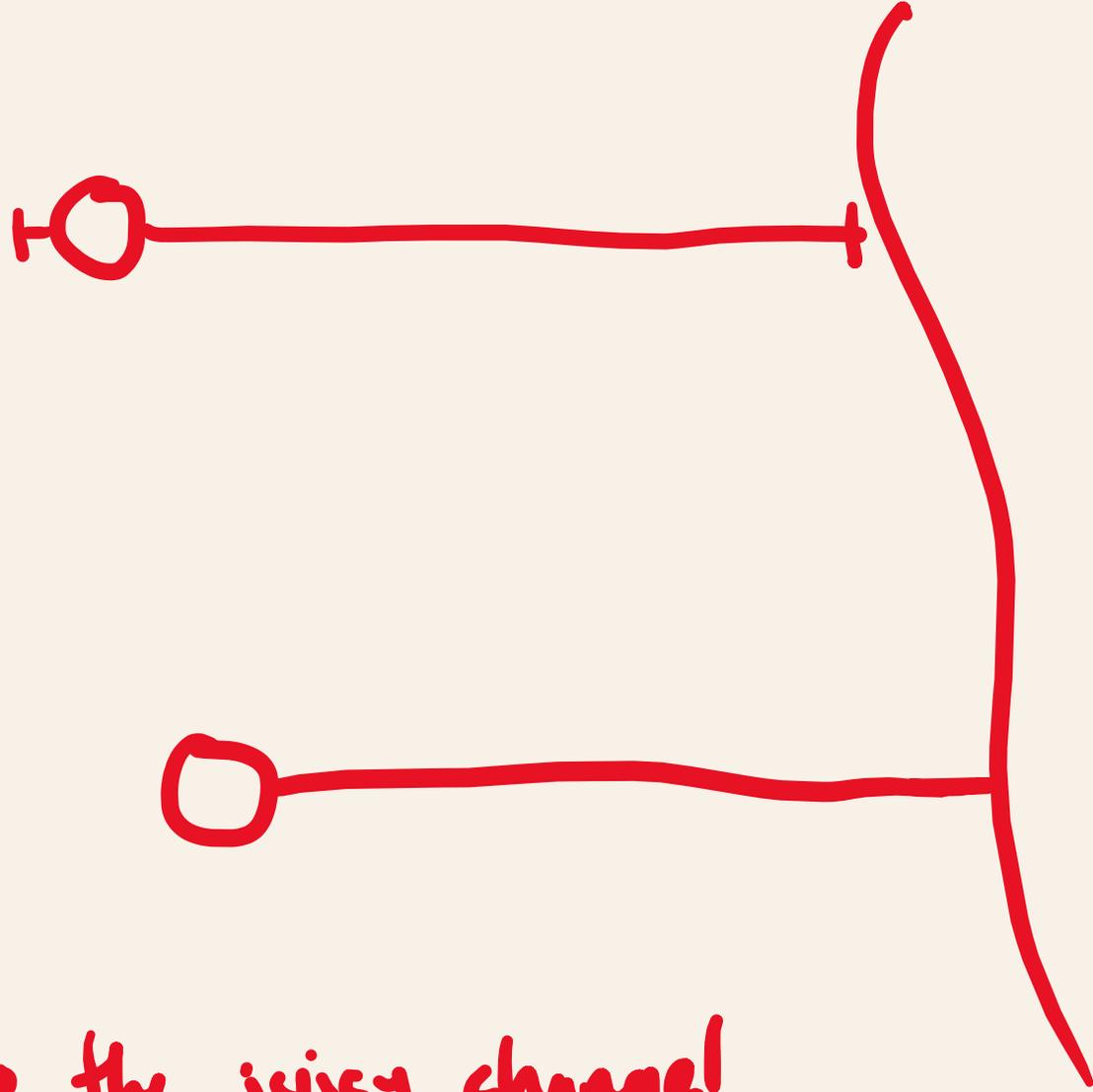
Edd	
Covenant	Darkwraith
Level	68
Souls	3800
Vitality	26
Attunement	16
Endurance	26
Strength	16
Dexterity	25
Resistance	11
Intelligence	12
Faith	18
Humanity	0

ⓧ:Select ⓐ:Equip ⓑ:Back ⓧ:Toggle Display Ⓨ:Toggle Status

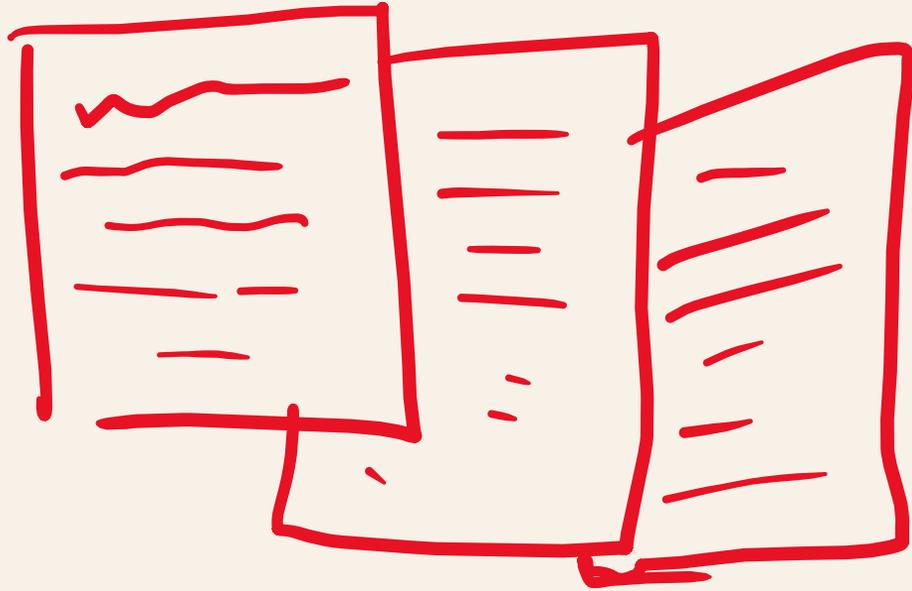
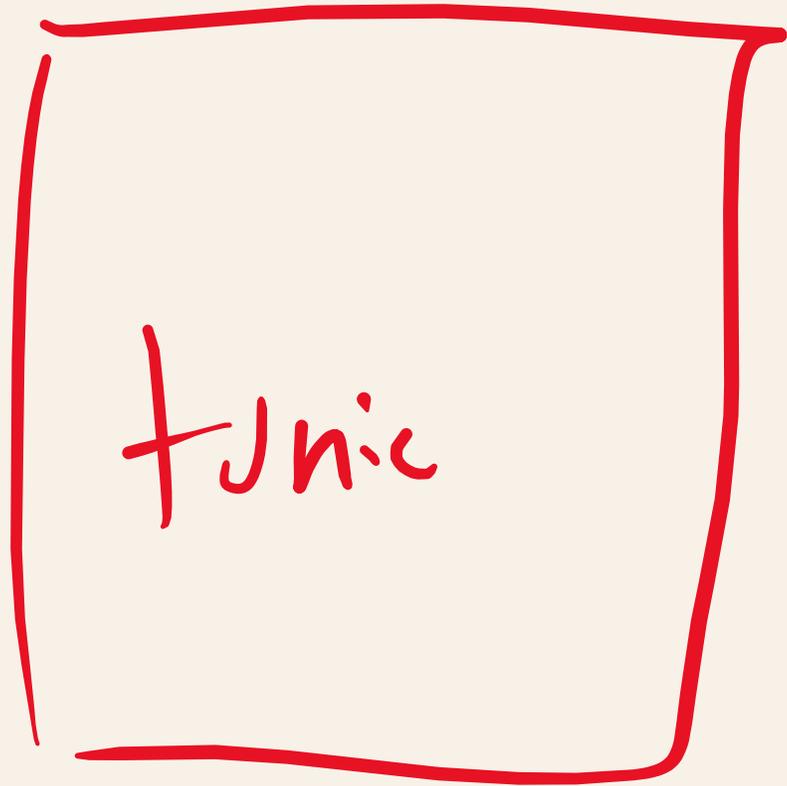


easy modes
~~hard~~ cut into the juicy change!

01

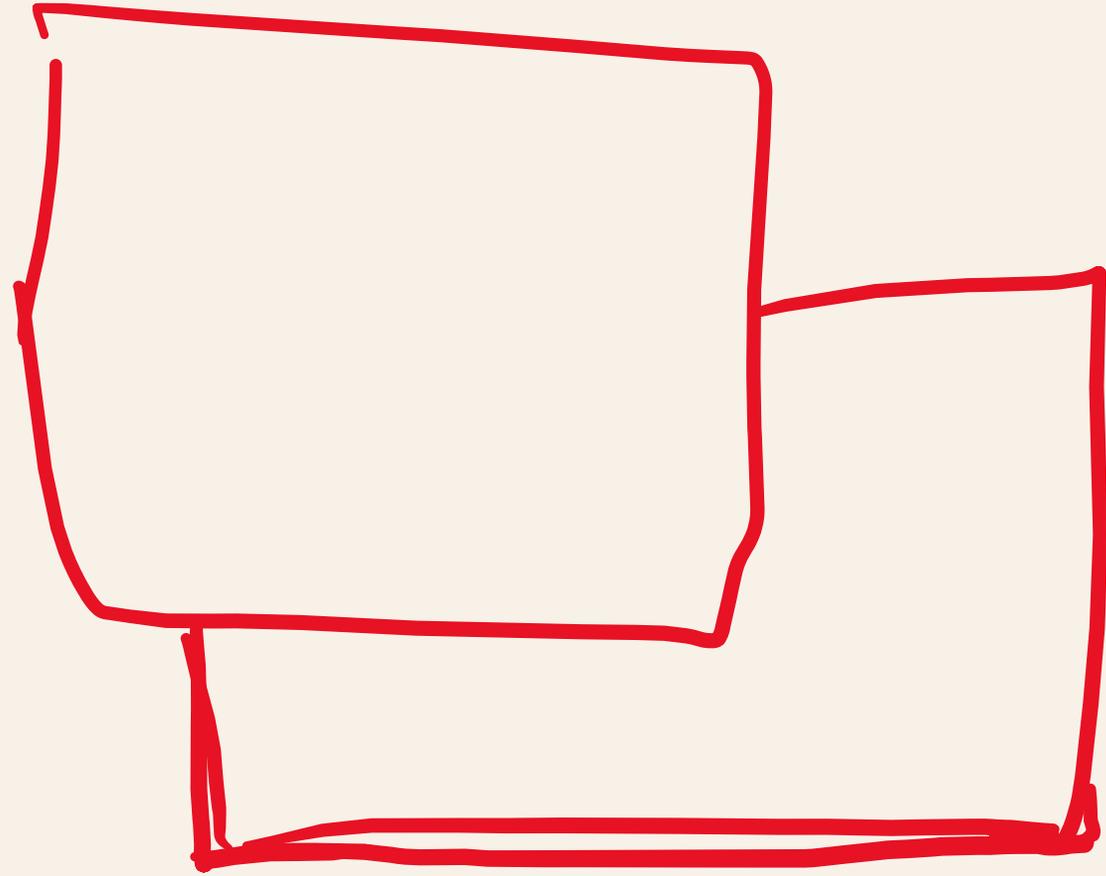


easy modes
~~but~~ cut into the juicy change!



tutorials scattered
treated as secrets

Cannot proceed until success

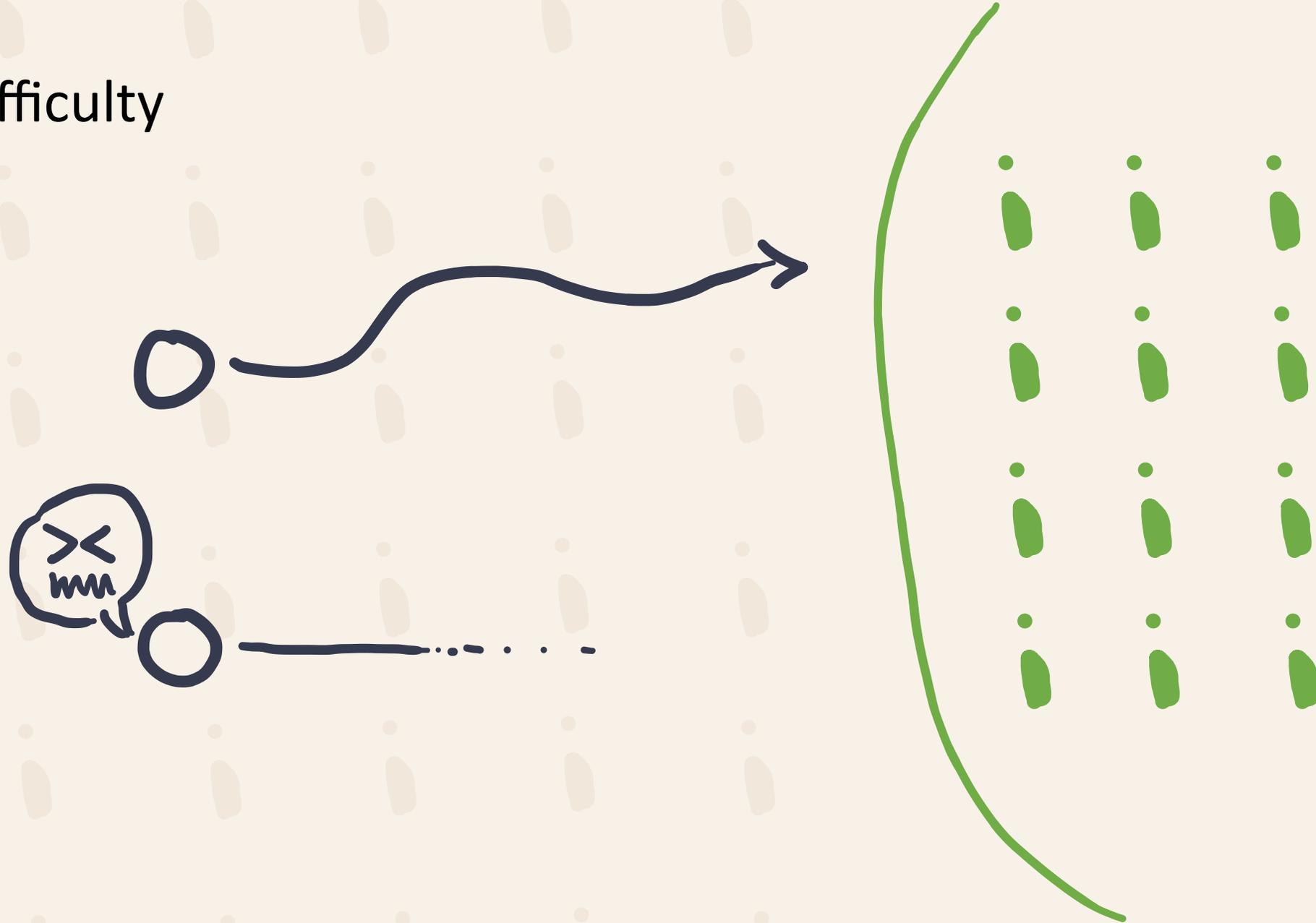


Some of the sexiest tutorials I've
ever seen

delivered at midpoint.



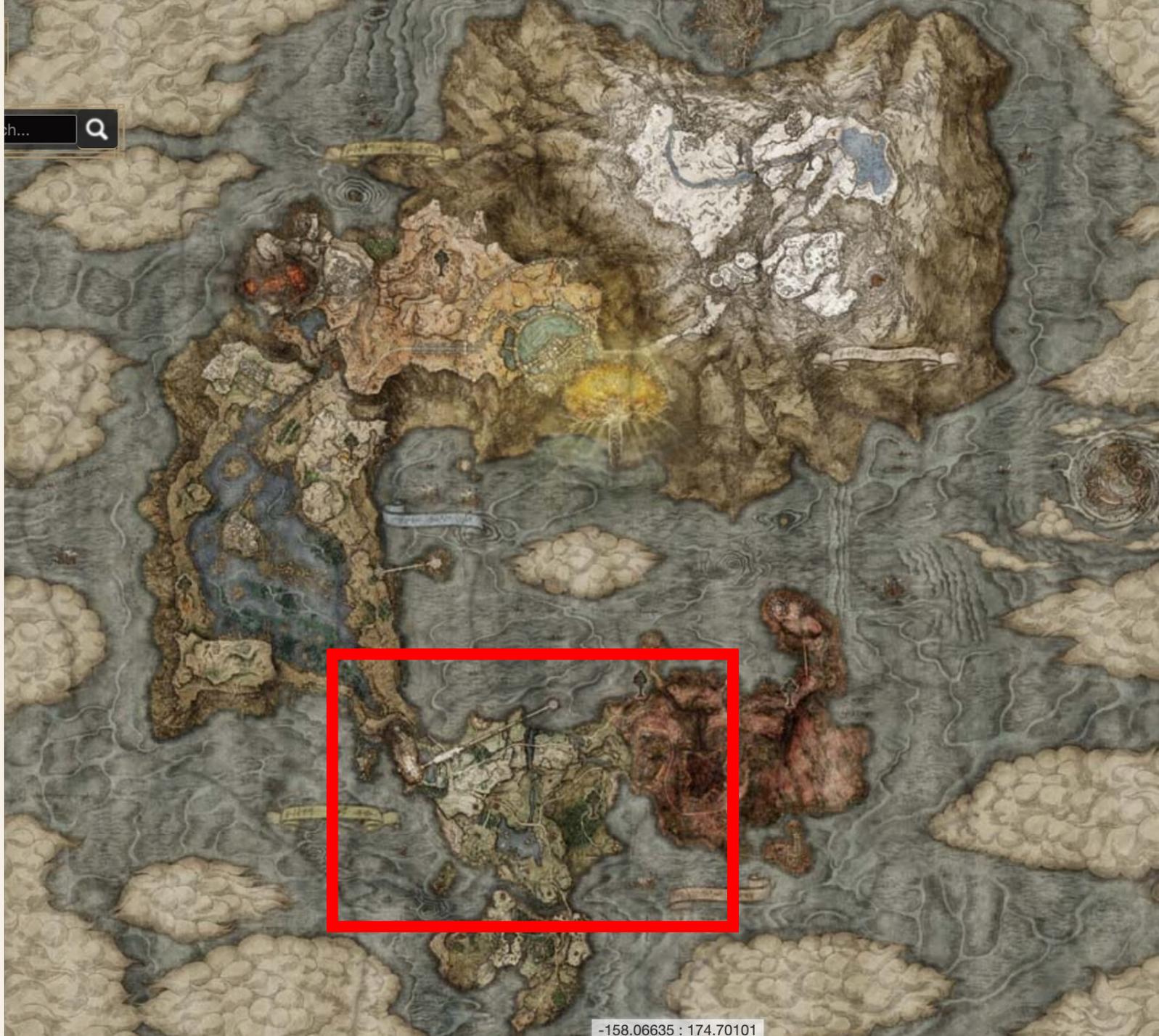
Perception of Difficulty

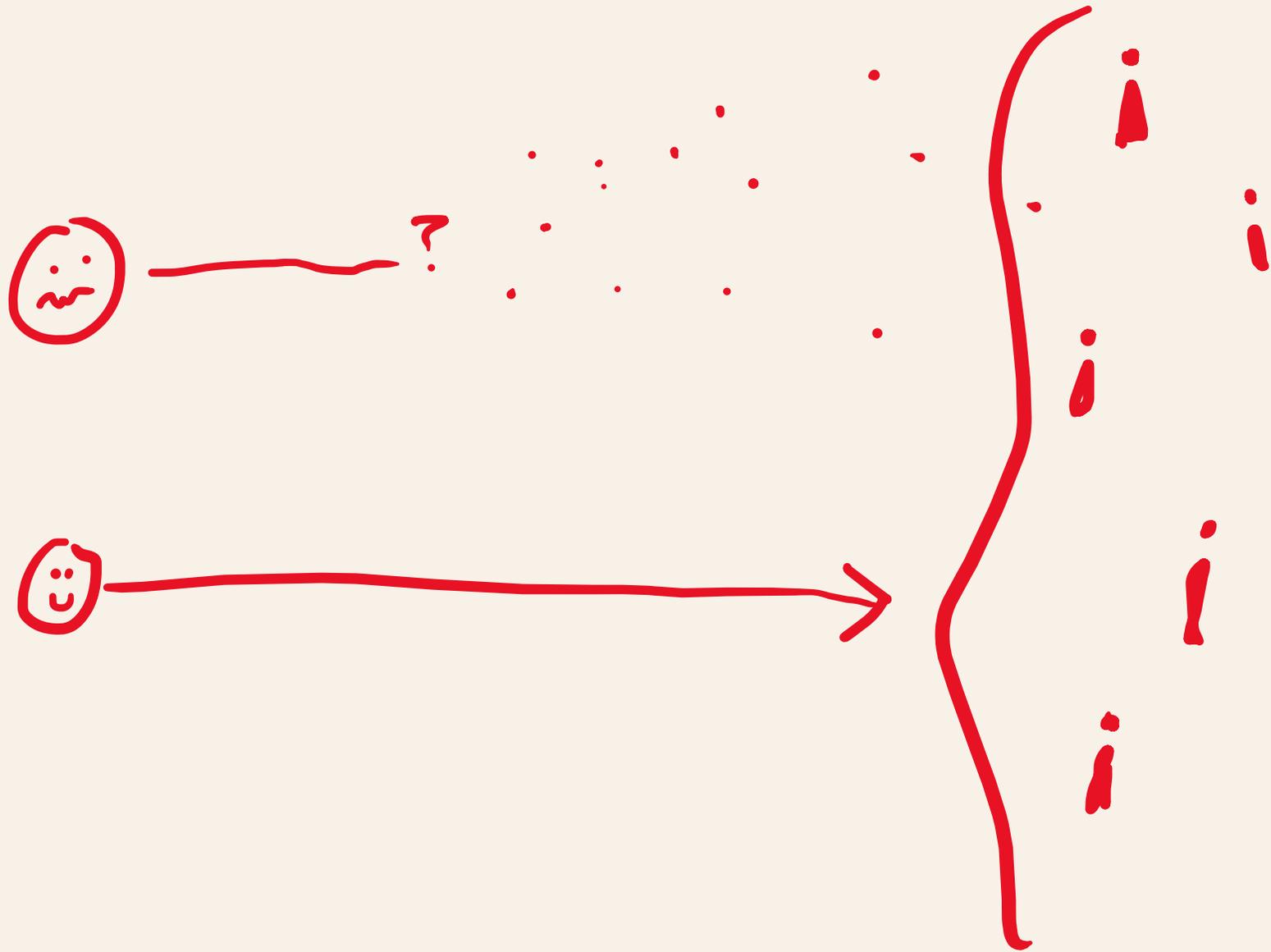


Obscure it!

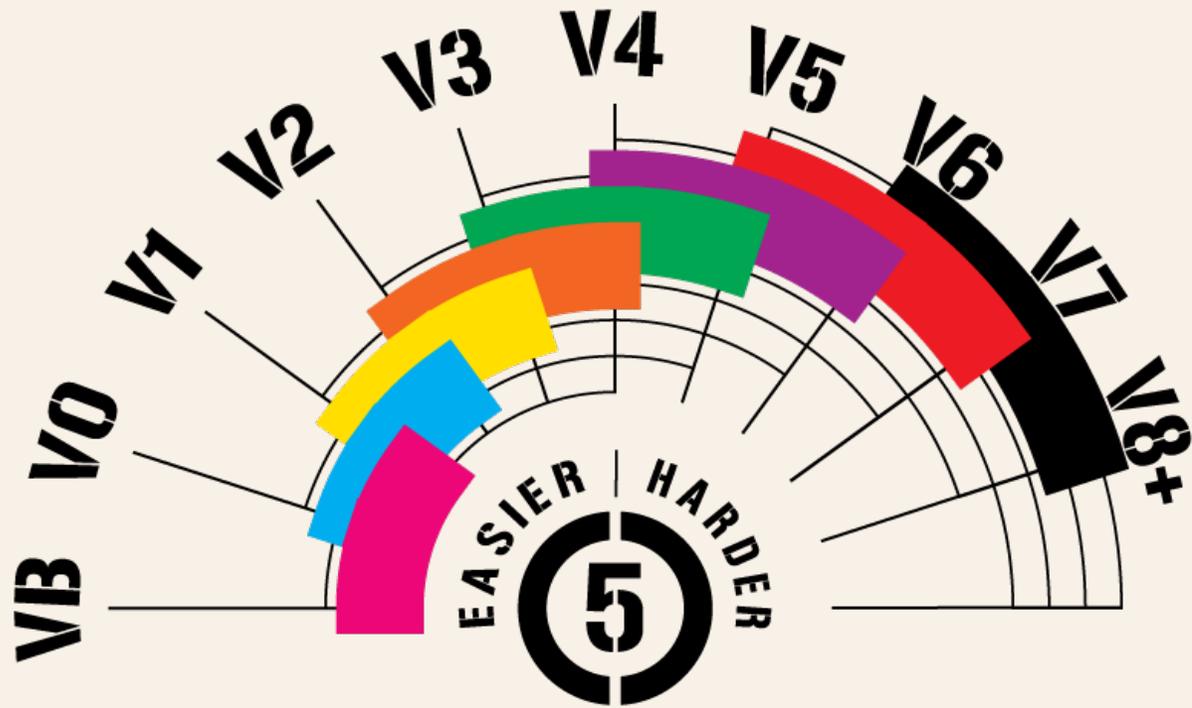








Strategy: Obscuring Difficulty

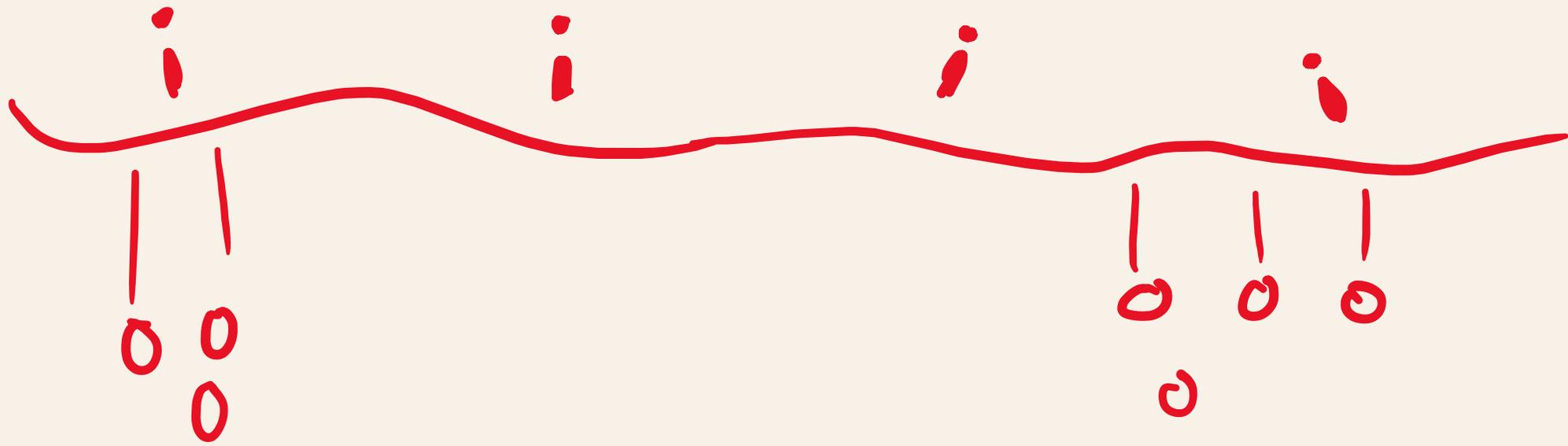




Gacha Game Difficulty



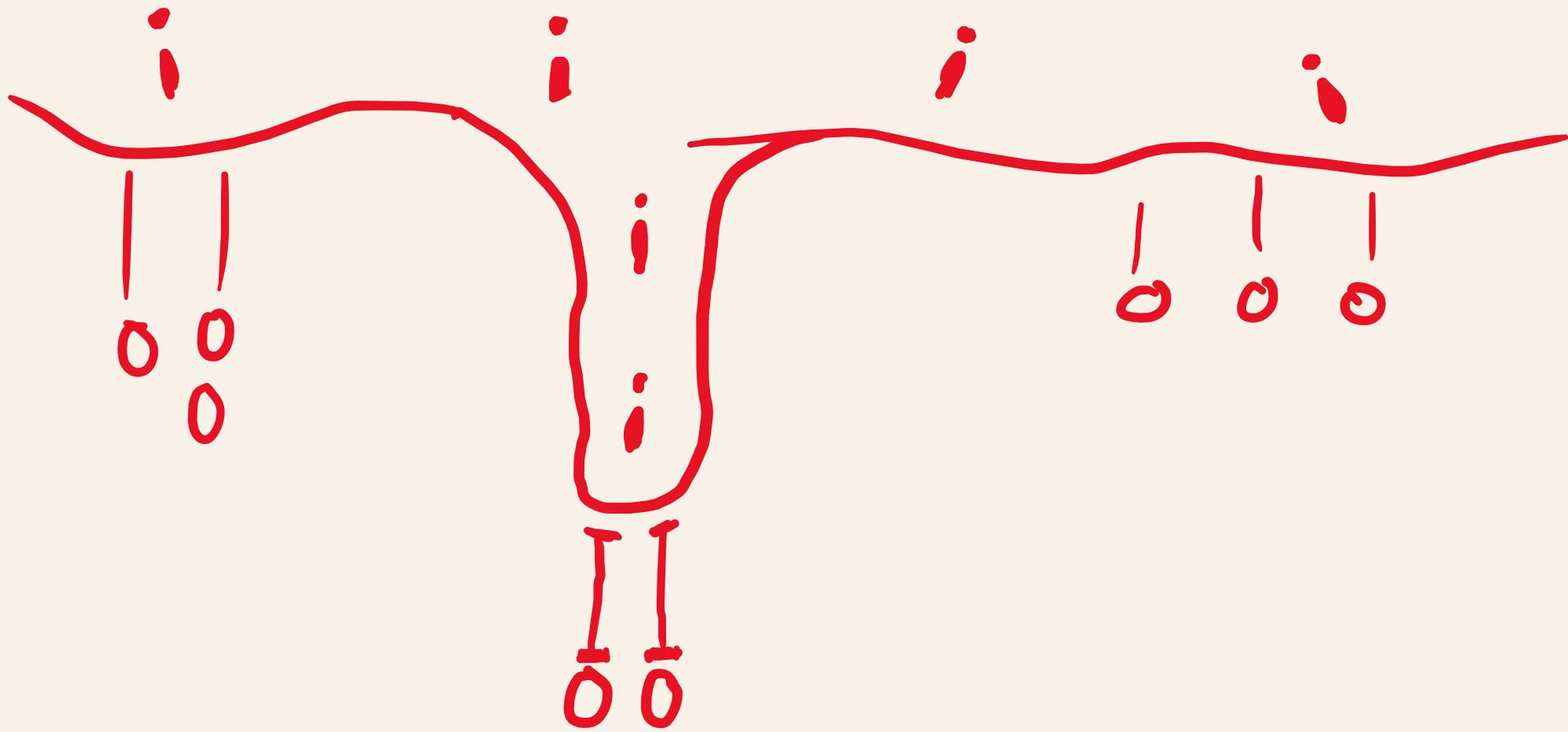
Roguelikes
(Hades, etc)

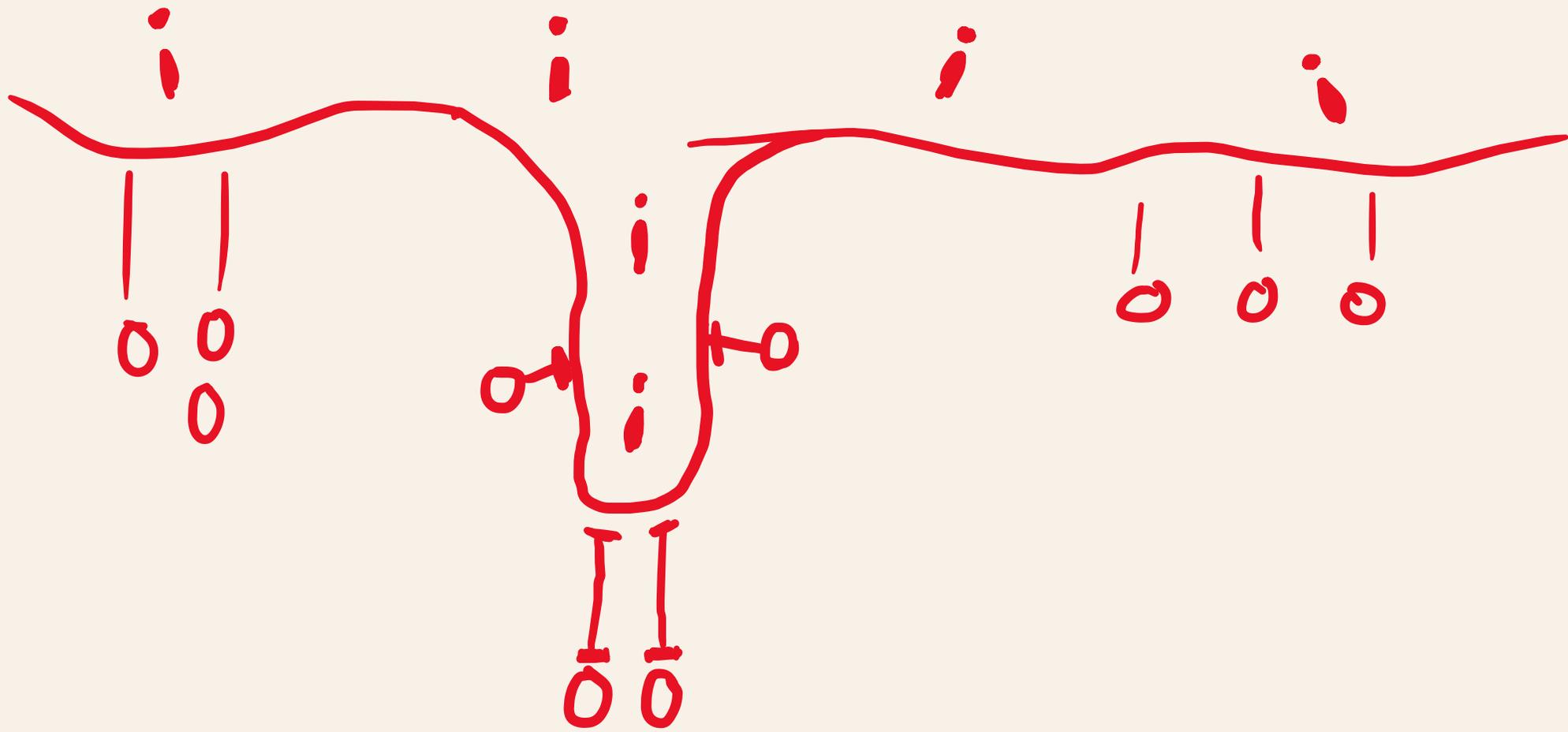


00



Specifically targets strategy, low-twitch skill players.

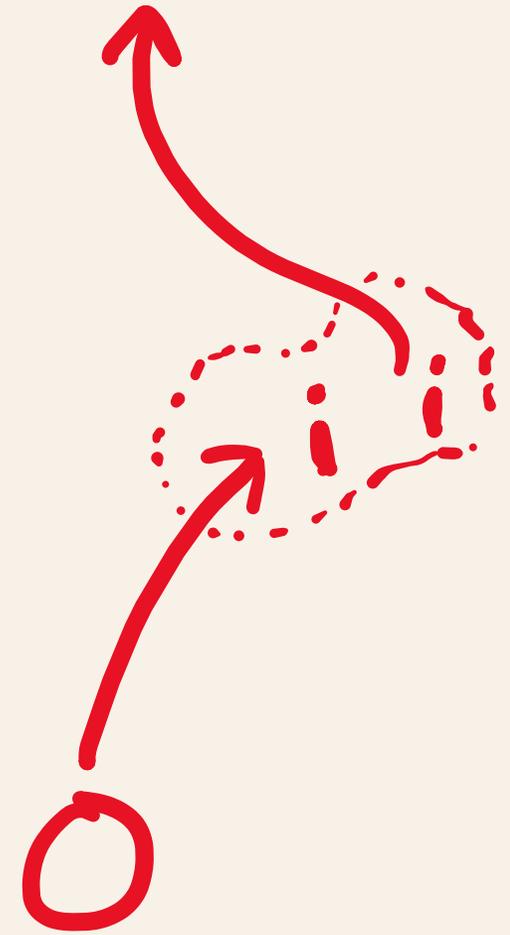
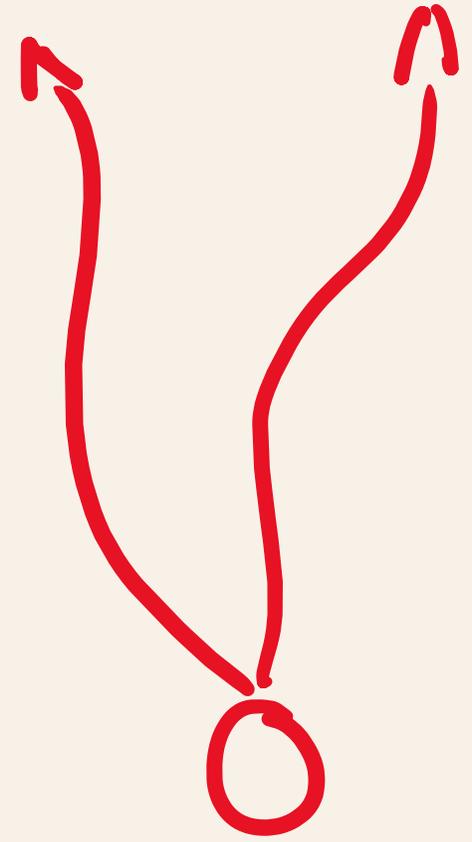




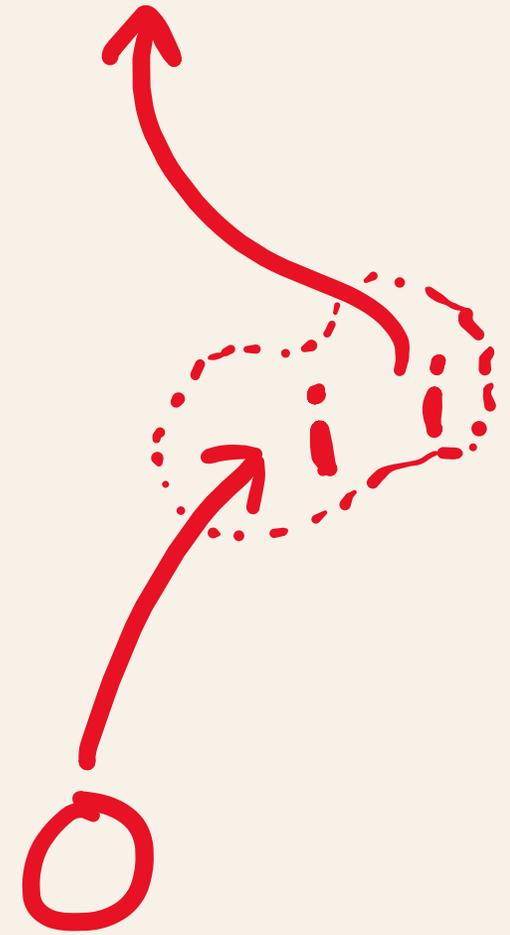
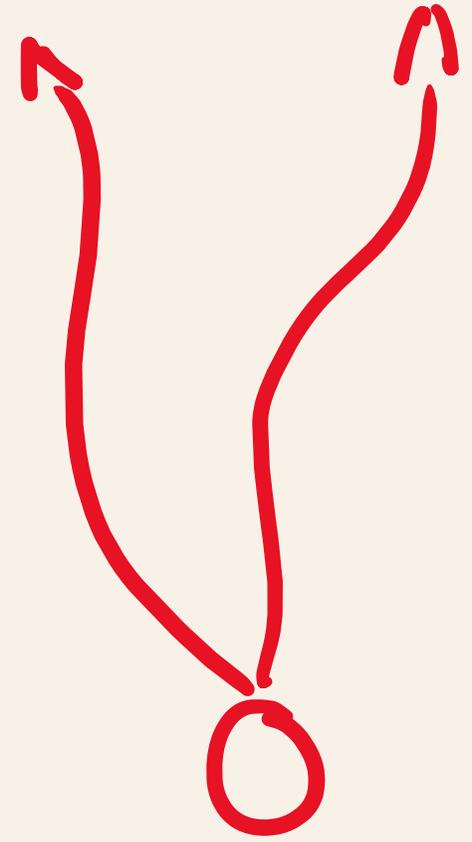


Have to be very careful about employing, because can accidentally grab the wrong people.

i i Difficulty Tolerance i i



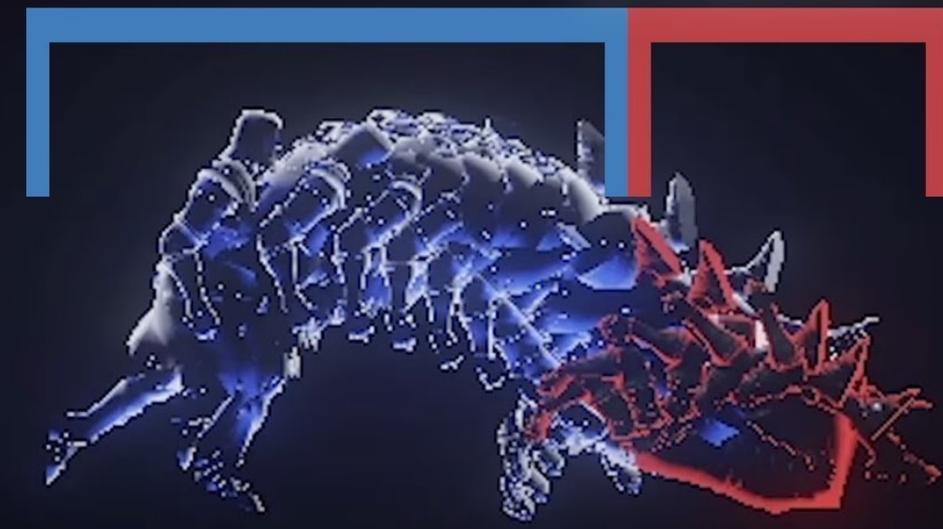
i i i b i i
Personal Islands



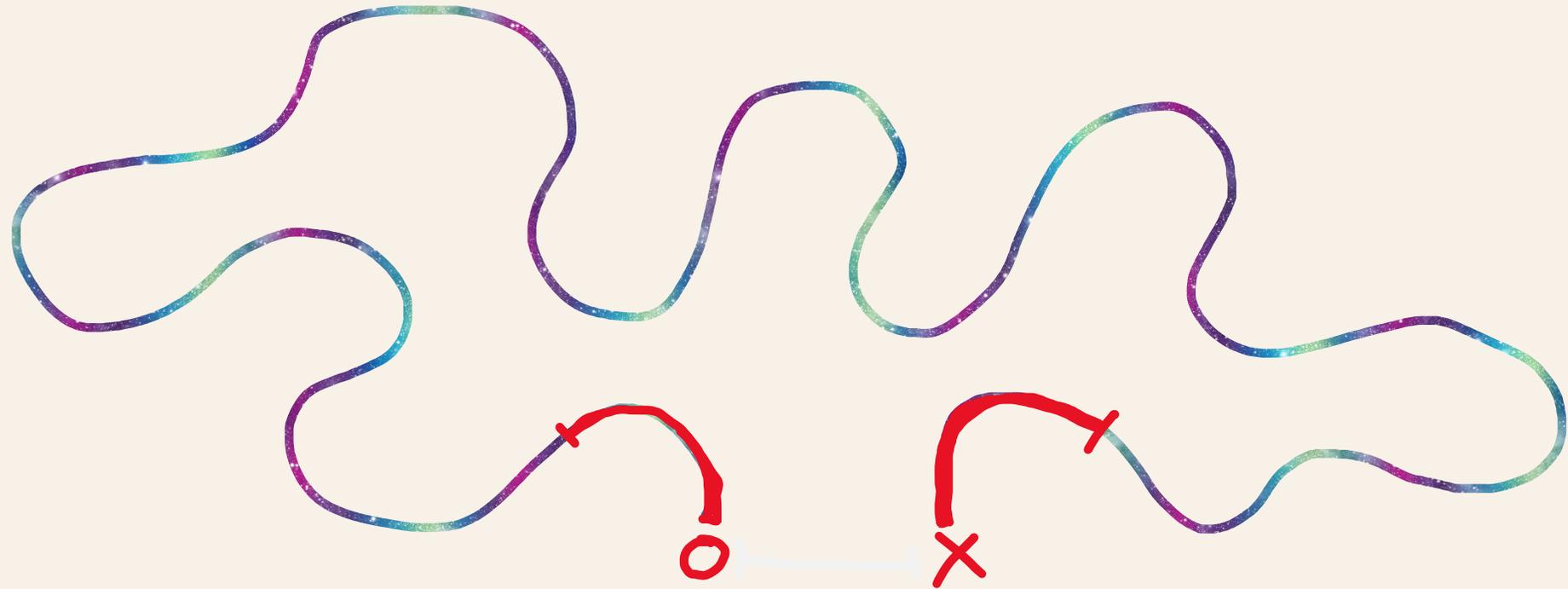
𐌲𐌿𐌿𐌹𐌸𐌰𐌸𐌹𐌺𐌰
TUNIC
𐌲𐌿𐌿𐌹𐌸𐌰𐌸𐌹𐌺𐌰



iFrames ✓ NO iFrames ✗



o — x



(Leaves game.)

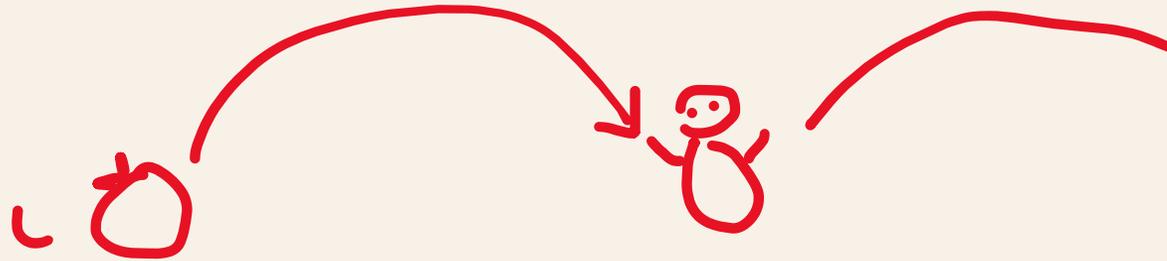
An aerial photograph of a city with a dense grid of streets and buildings. In the center of the image, there is a large, dark, circular void that appears to be a hole in the ground or a deep shadow. The void is surrounded by white, fluffy clouds that are scattered across the sky. The text "Call of the void" is written in a white, sans-serif font across the center of the dark void.

Call of the void

“on ramps”



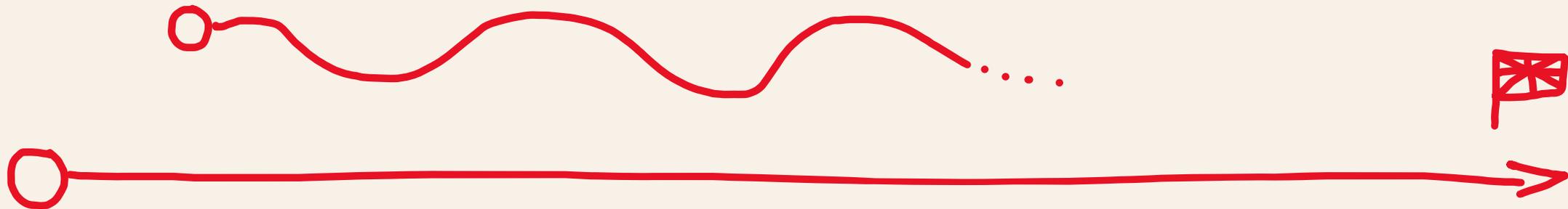
THE LAST CLOCKWINDER



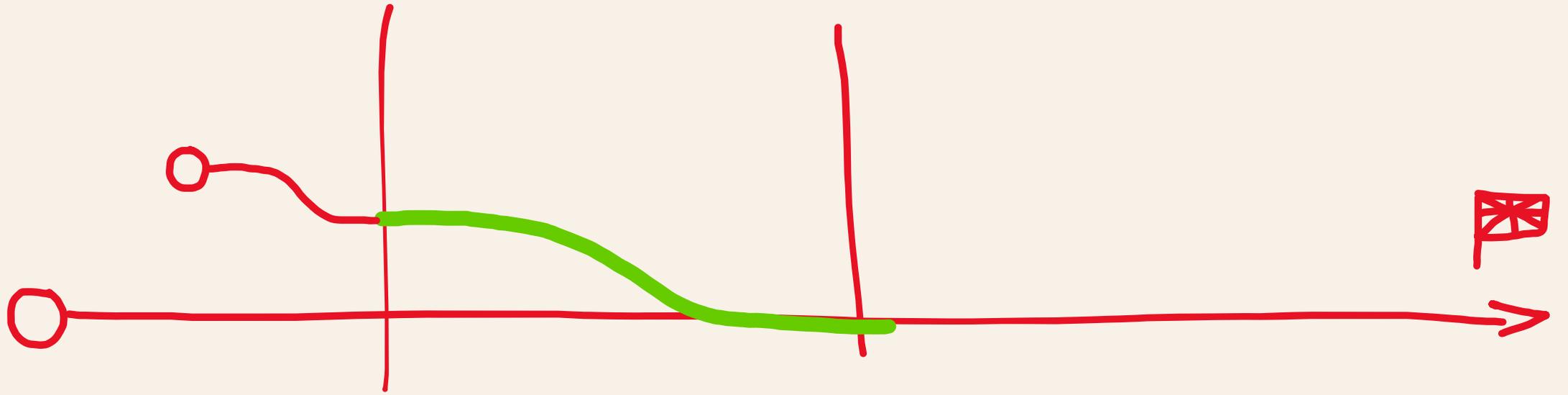
People wouldn't throw!
Fundamental skill missing.



“on ramps” / “detours”

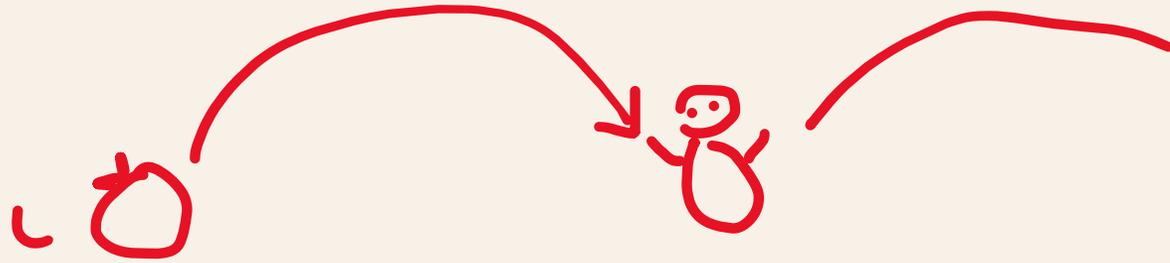


“on ramps” / “detours”



“on ramps”

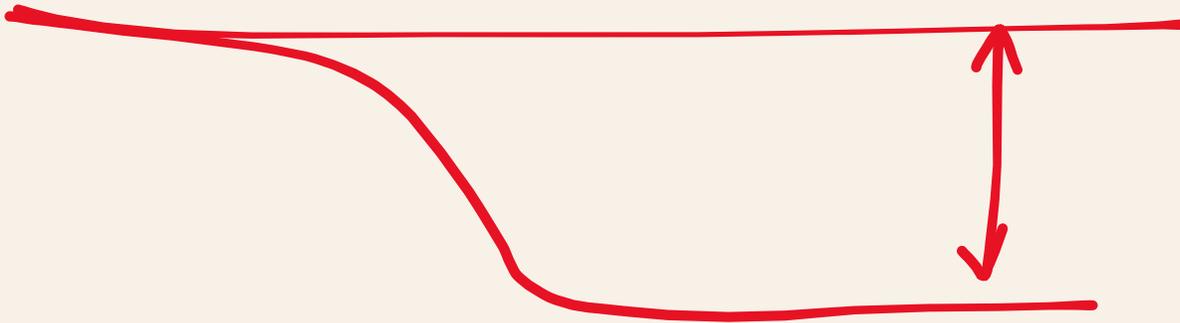




Hot potato mechanic.

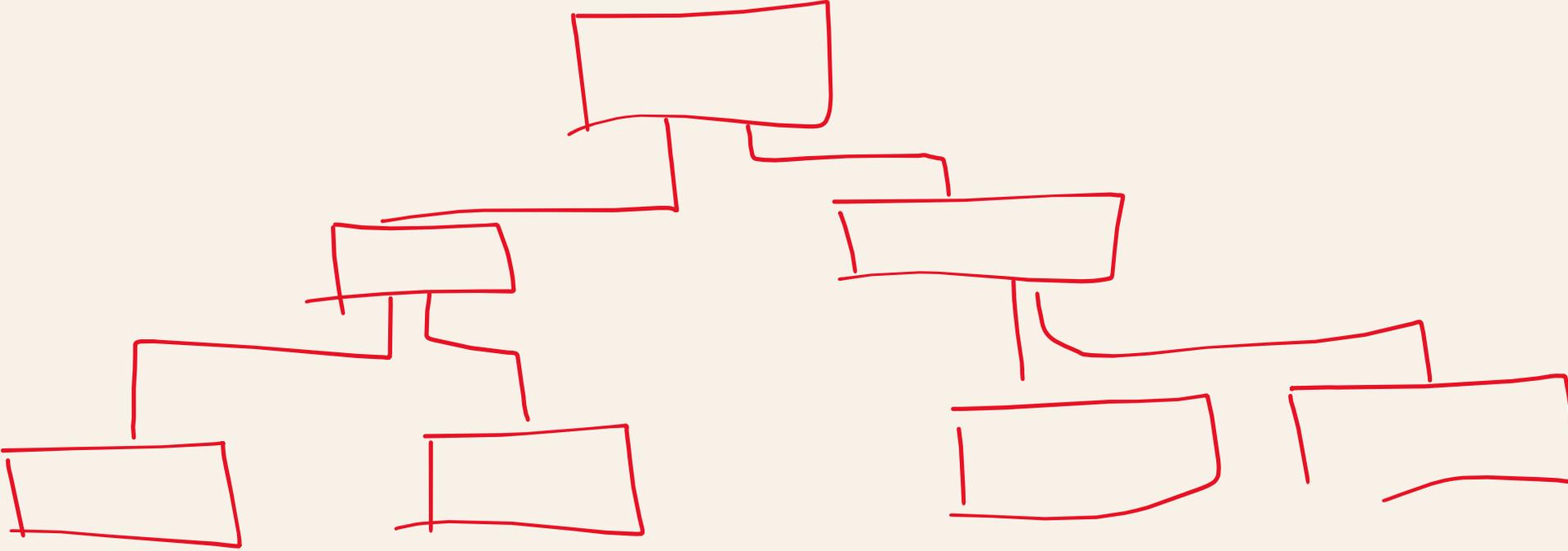
On Ramps

- A good on-ramp is double-duty. It isn't a content branch, it's a design branch. People play the same level, but get different value out of it.



Puzzle Game Design: Skill Trees

Sounds a lot like puzzle game design.

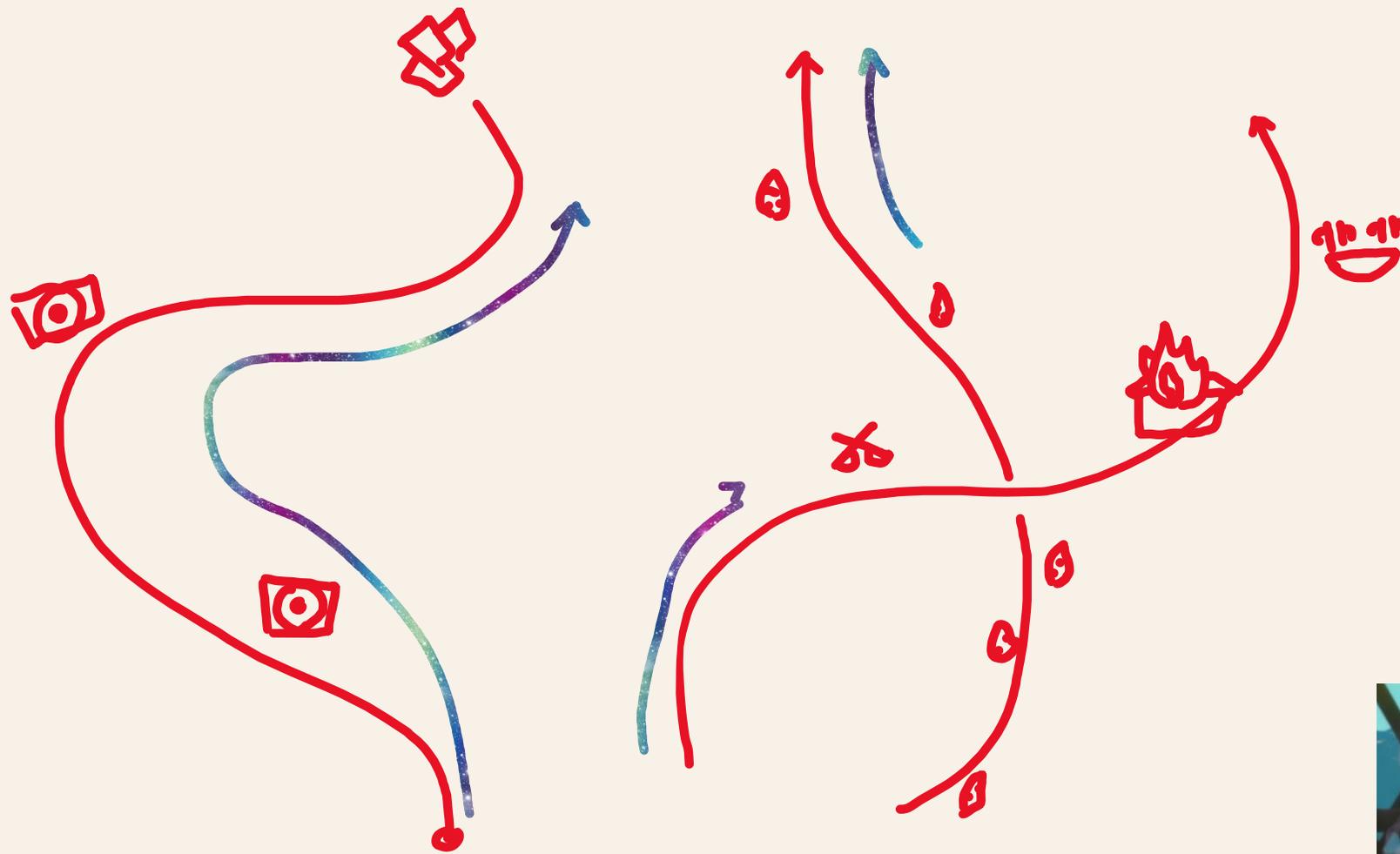


Puzzle Game Design: Skill Trees

All about learning!!! Give players multiple things to chew on and bounce between.

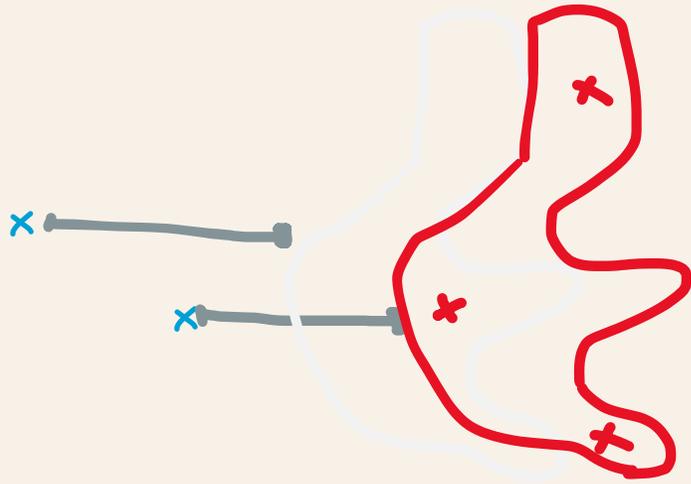


Kitchen Sink Game Design

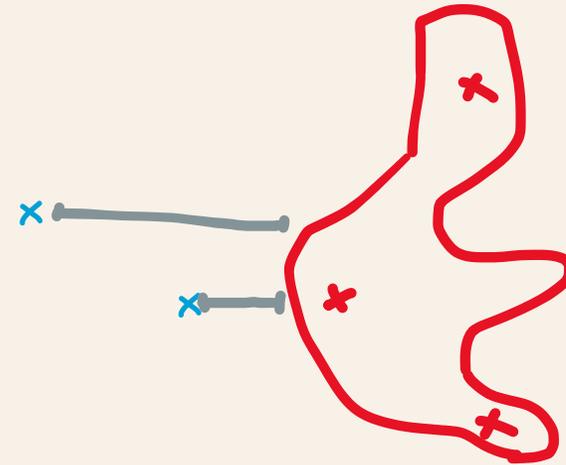


(Change on several paths.. Or largely.. Lack thereof.)

What do you mean you want your game to be 'difficult'?

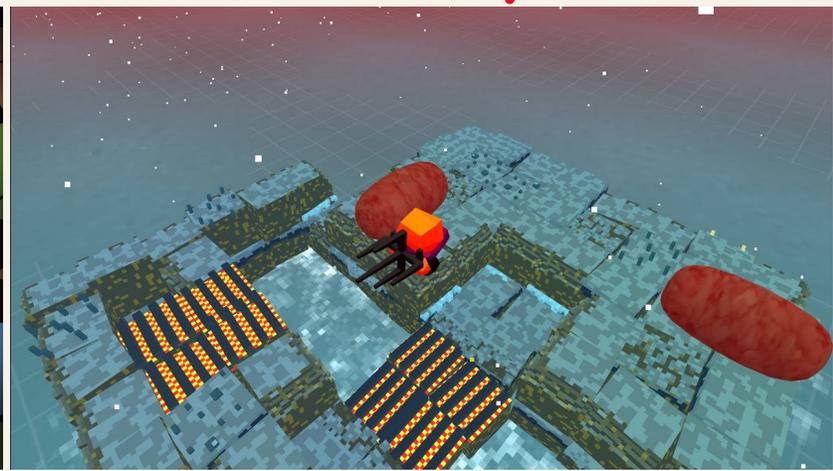
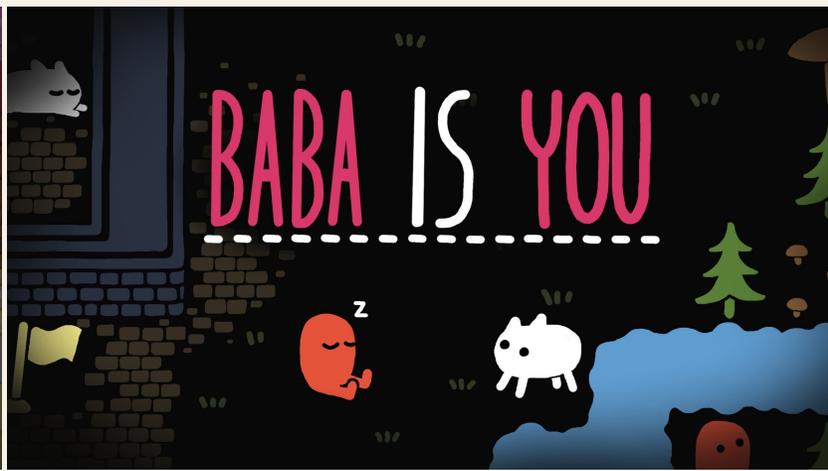
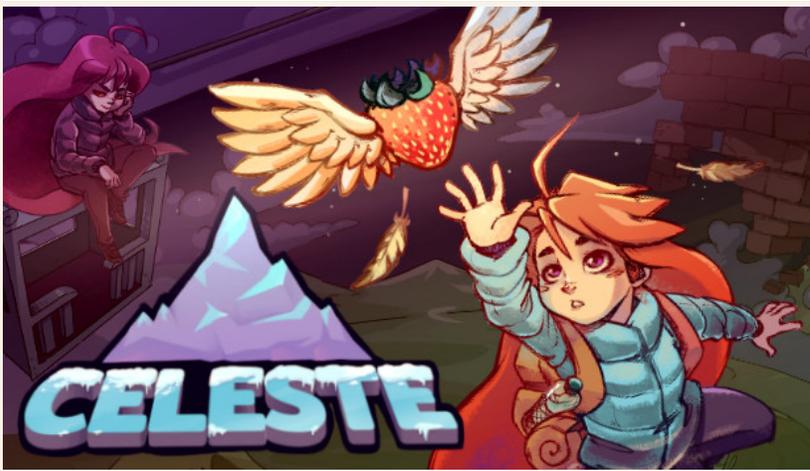
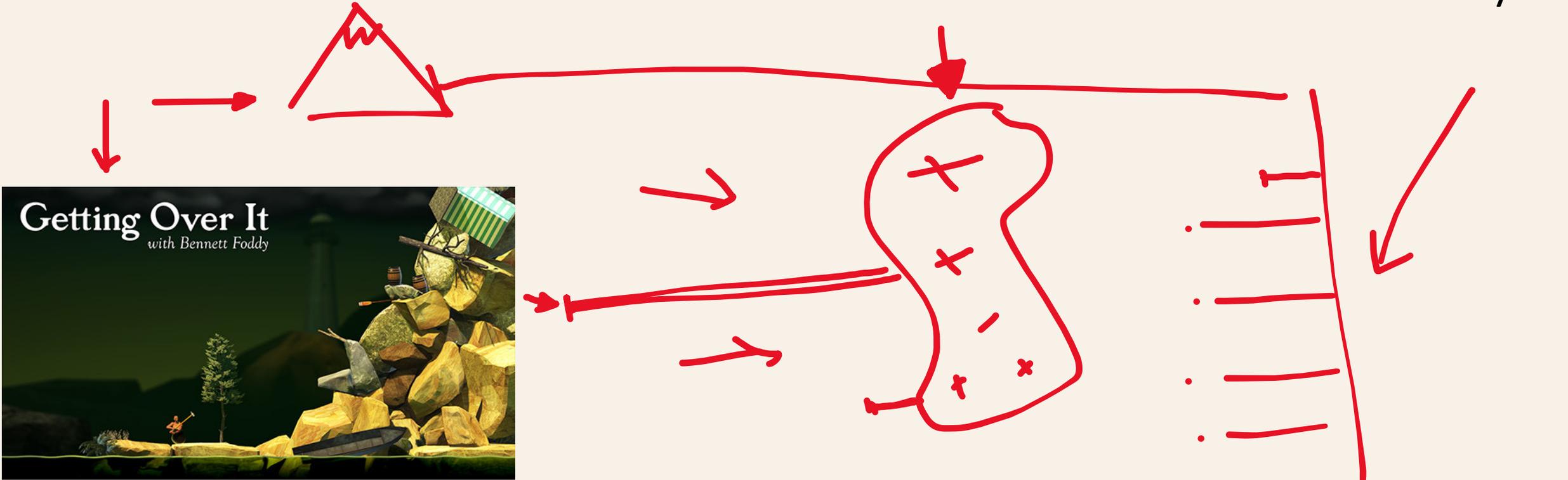


Relative Difficulty



Absolute Difficulty

Absolute Difficulty



Relative Difficulty

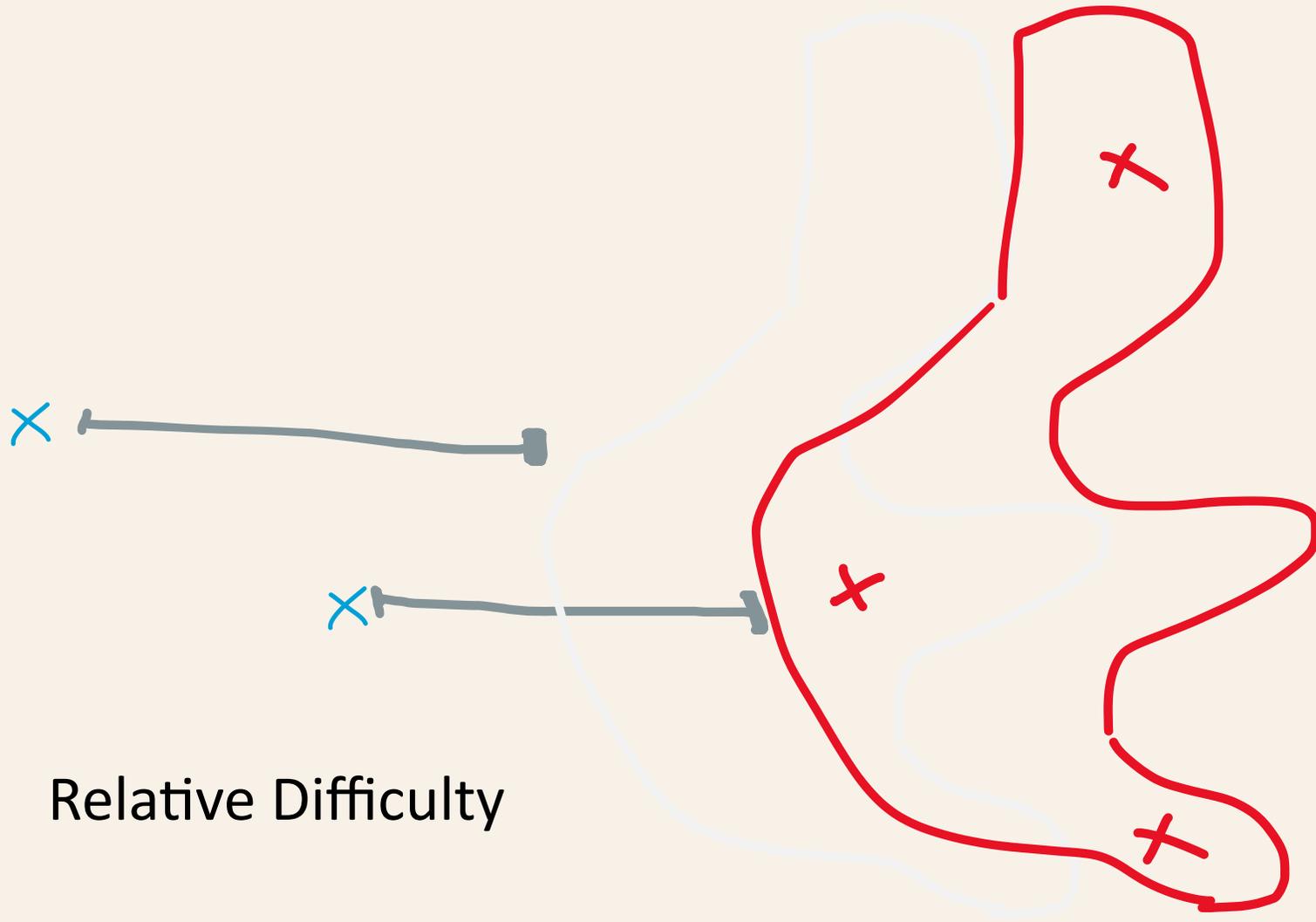
Hades

Rogue-Lites

Elden Ring

Inscription

Pretty Much Most Modern
Games,
lol

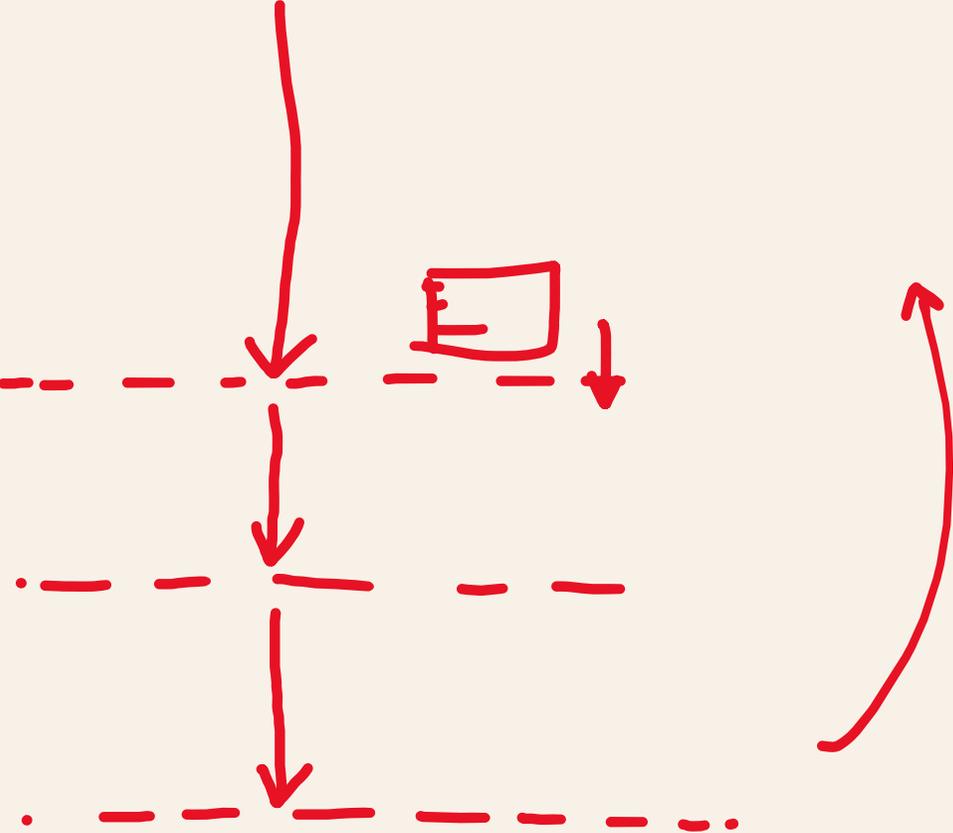
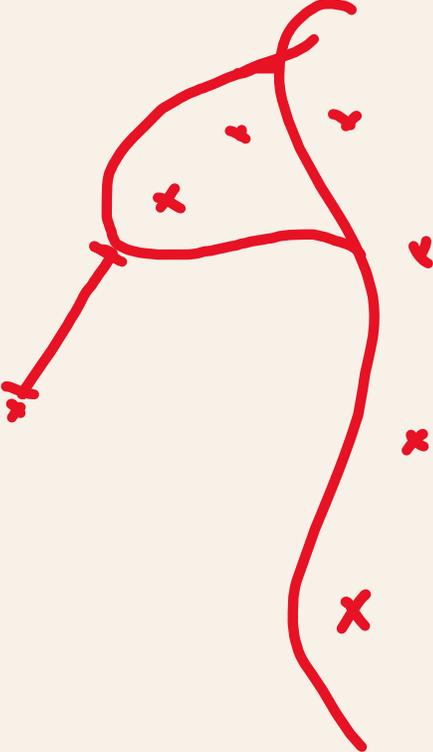


Relative Difficulty

DOME KEEPER



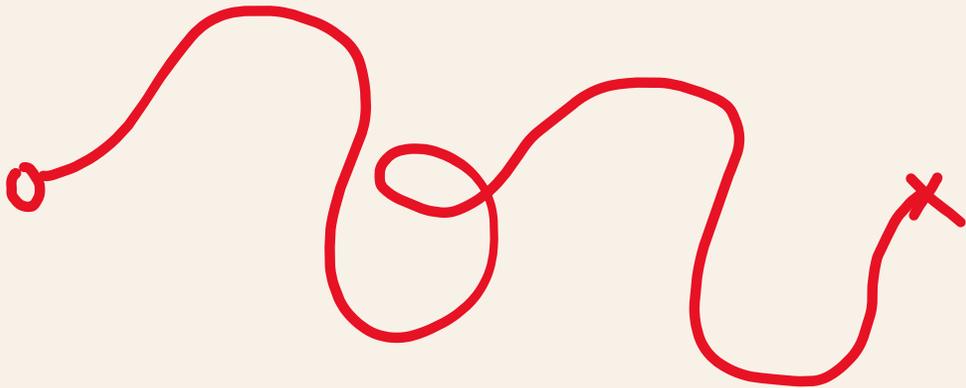
Loot Gambling – Double or Nothing



So should we make difficulty clear,
so people can self-sort?

Not necessarily!

Strategy: Gacha Difficulty

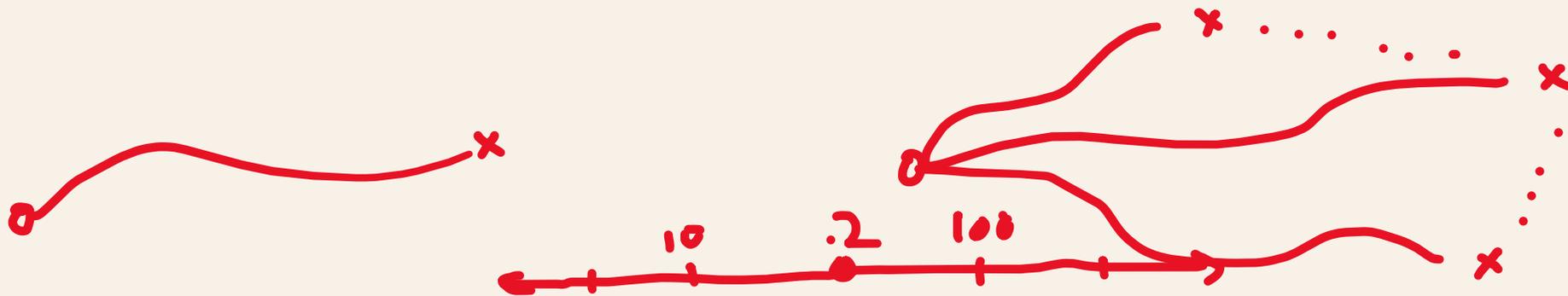
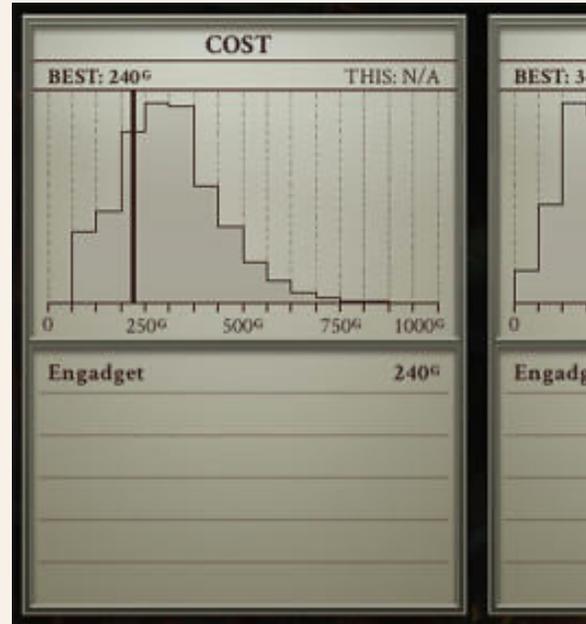


Nearly *all* games do this to some degree. Roguelikes especially.



Aka (trick people into learning)

Measurements – Zachtronics, The Last Clockwinder, Bridge Builder



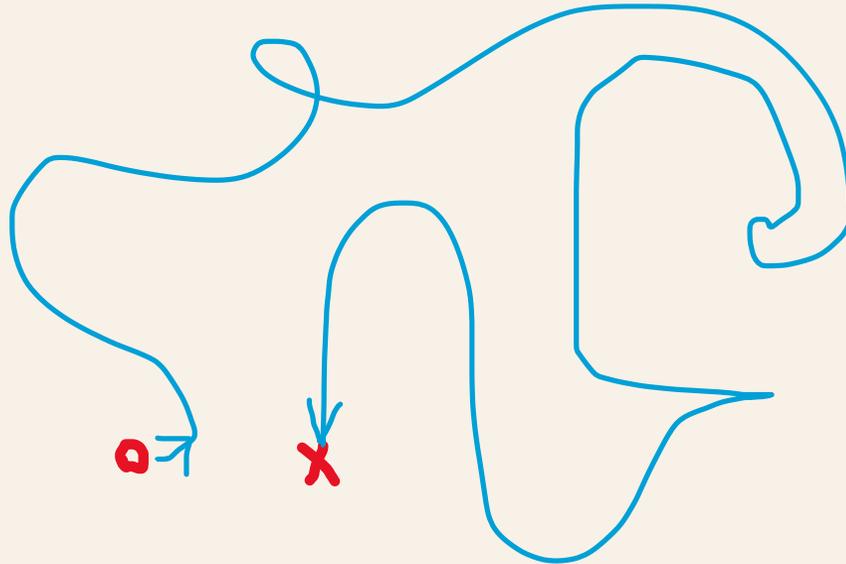
INSCRYPTION

KAYCEE'S MOD



“Shortest change path”

It almost feels like some 'change paths' are harder than others.
- objectively, i-frames is not a complex concept, but coming up with it yourself would
Be if you had no other input



The distance is close, but the change path is long!

Q: Is this hard? Or easy?

I suppose difficulty is measured on the shortest change path.



[deleted] · 7 yr. ago

I played the entire DS2 with 85 agility

lol

17 Reply Share



~~Sev Jay~~ · 7 yr. ago

~~Tag with Tech Tab~~

As did I. How the fuck was I supposed to know lol

9 Reply Share

Defining what makes something good is impossible.
There's no 'truth' here.

Valuation Studies

'What is a Good Tomato?' -

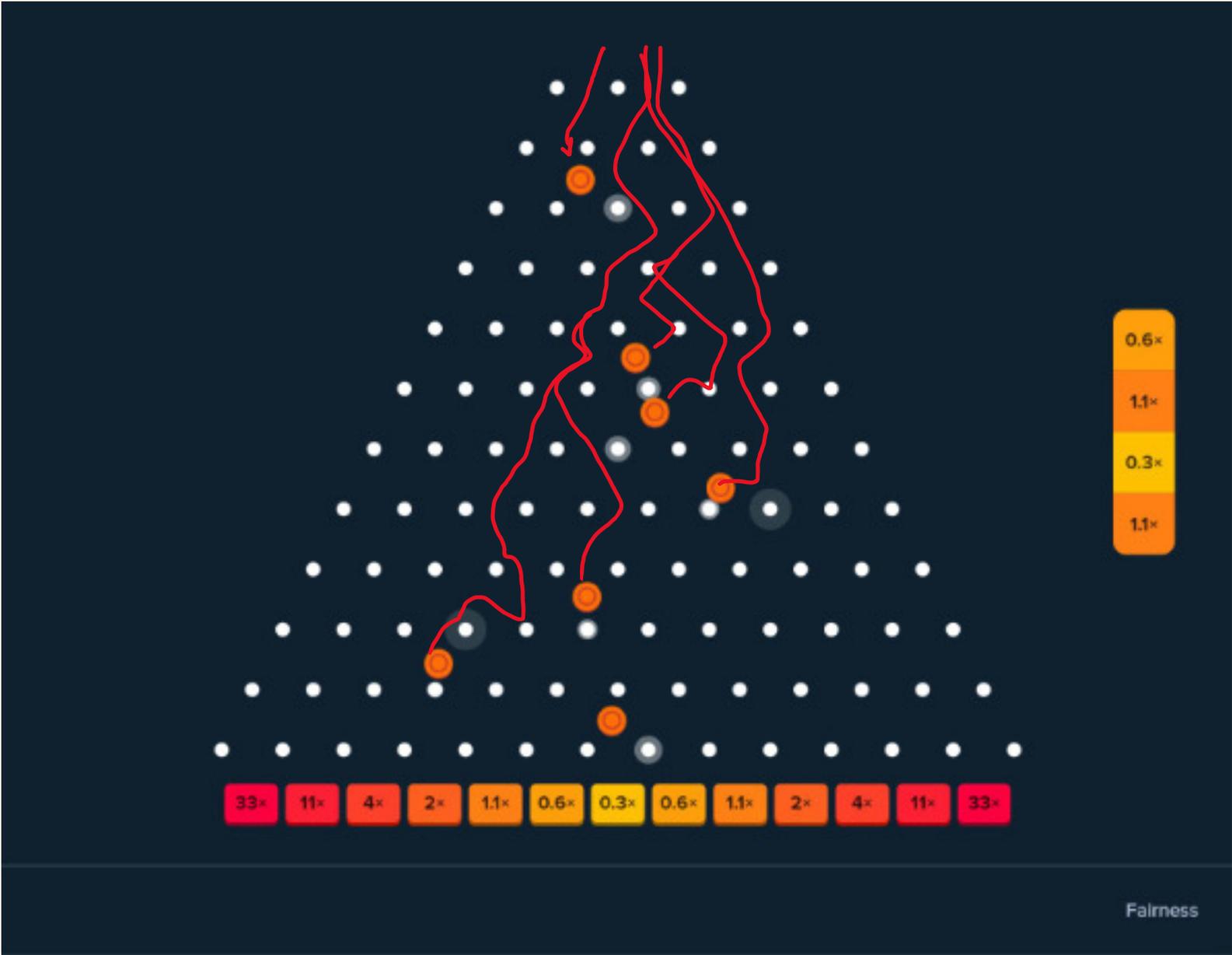
https://pure.uva.nl/ws/files/1748752/148182_410329.pdf

<https://valuationstudies.liu.se/>

https://en.wikipedia.org/wiki/Sociology_of_valuation

https://en.wikipedia.org/wiki/Art_valuation

(valuation tends to refer to 'financial valuation' but can be extended)



Hot take: Good game design is about managing the plinko board of learning.

Strategy: Self-Sorting

