

More people should play games!



Games should be difficult!



**MARCH 18-22, 2024**  
**SAN FRANCISCO, CA**

# Challenging or Approachable? (Pick Two)

John Austin  
Pontoco

**#GDC2024**





**MARCH 18-22, 2024**  
**SAN FRANCISCO, CA**

# How to 'Fix' Dark Souls

John Austin  
Pontoco



**#GDC2024**



Challenging

Approachable



Challenging

Approachable



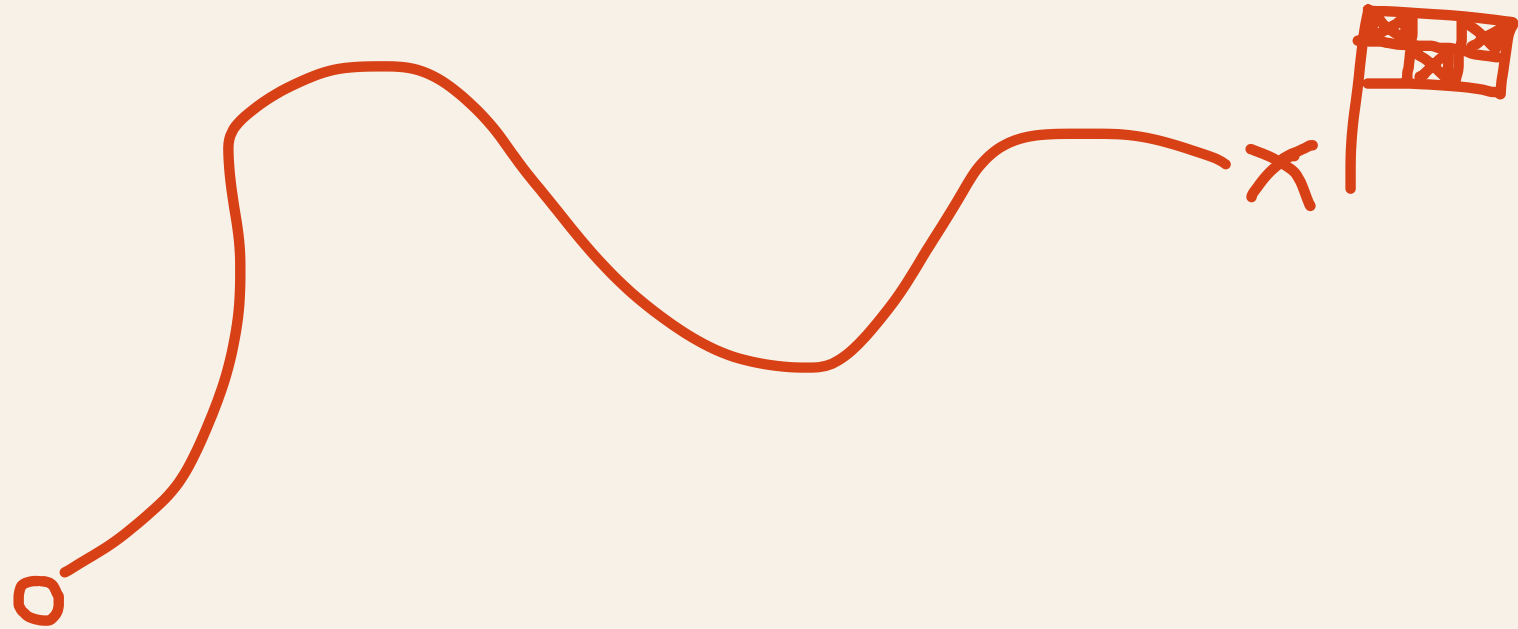
(Pick two)

What is.. difficulty?

Part 1

Defining Difficulty & Approachability

# Approachability



# Approachability





# Approachability

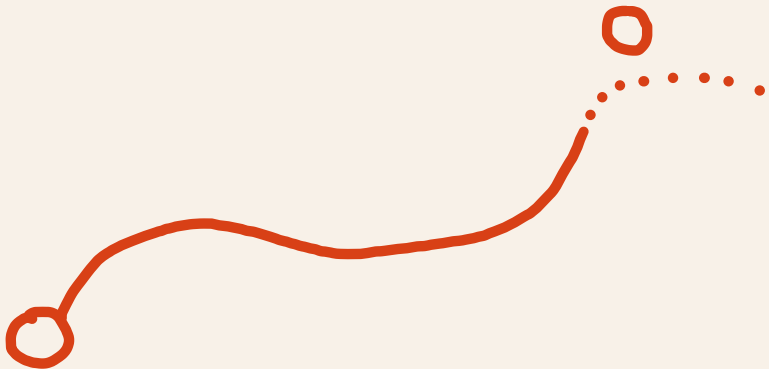


# Approachability



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?





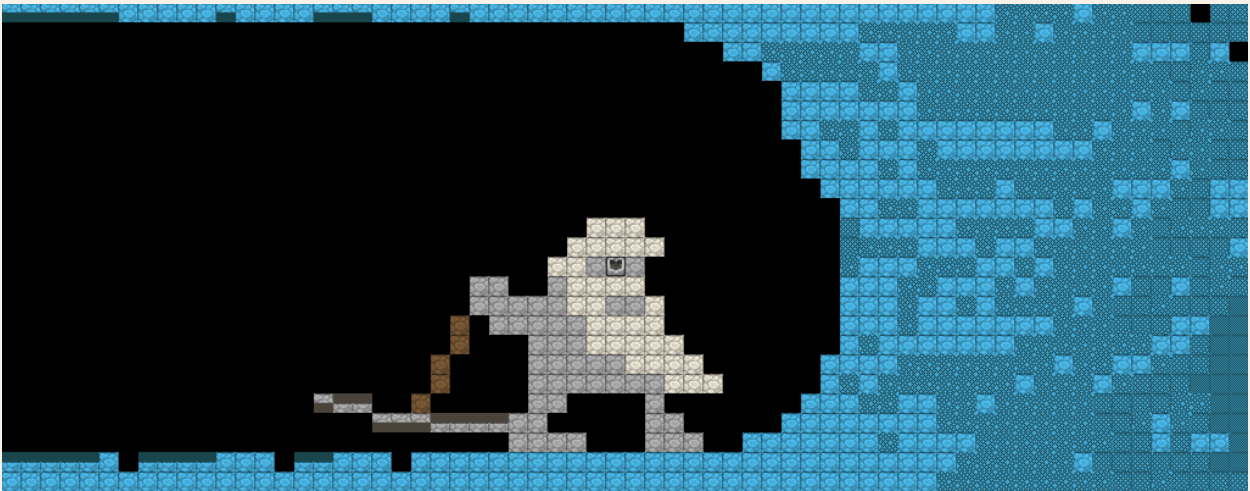
# Failure Rates?



Hunting for Difficulty

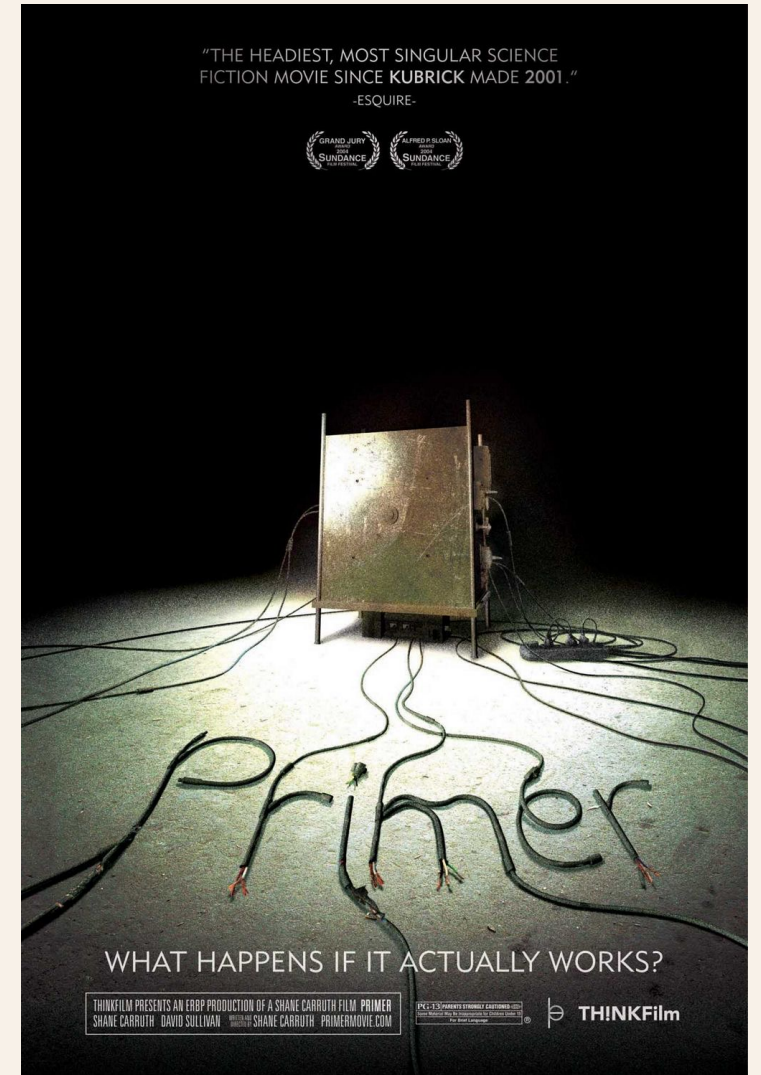
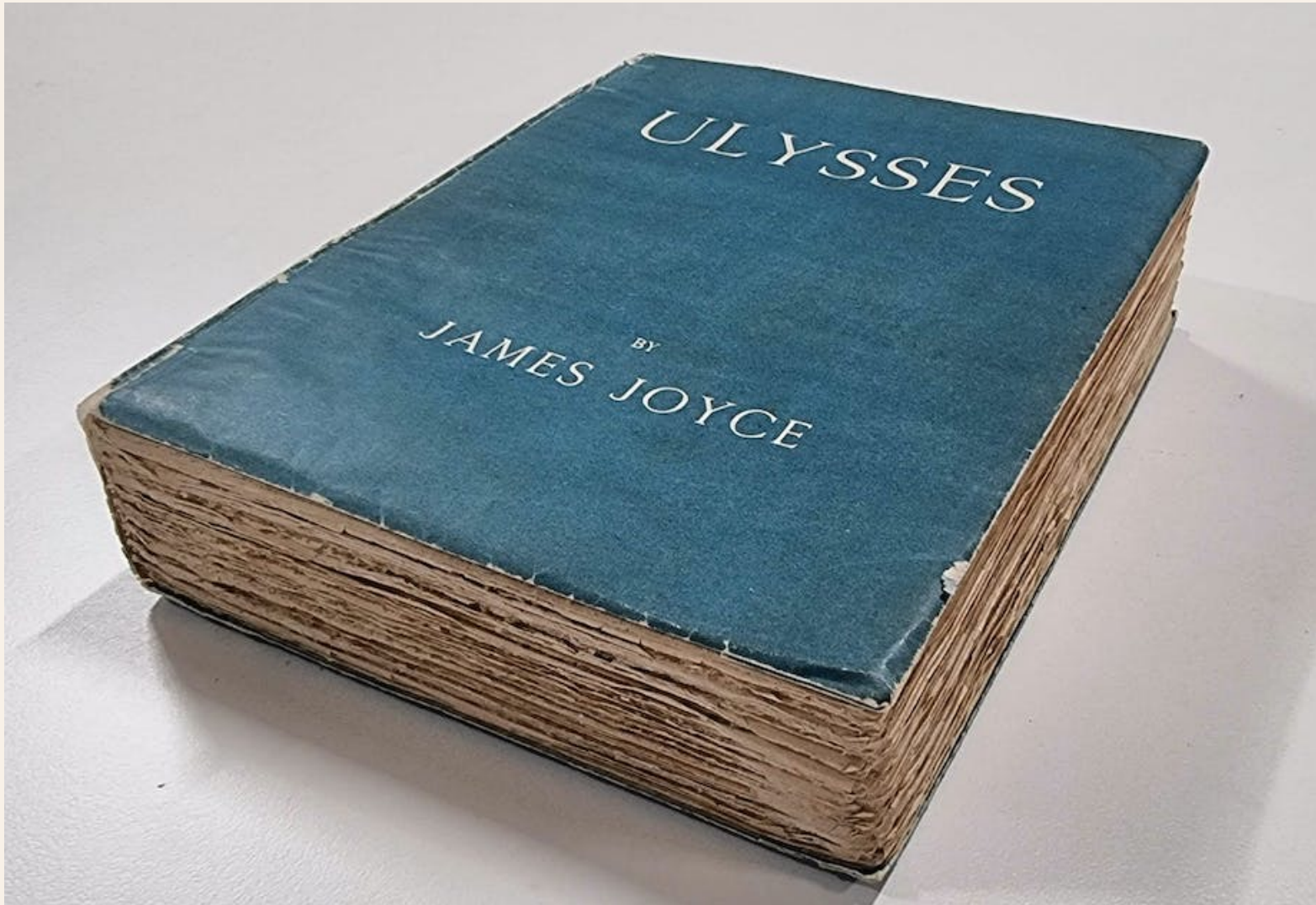


Effort / Exhaustion?





# Difficulty: Not just for games

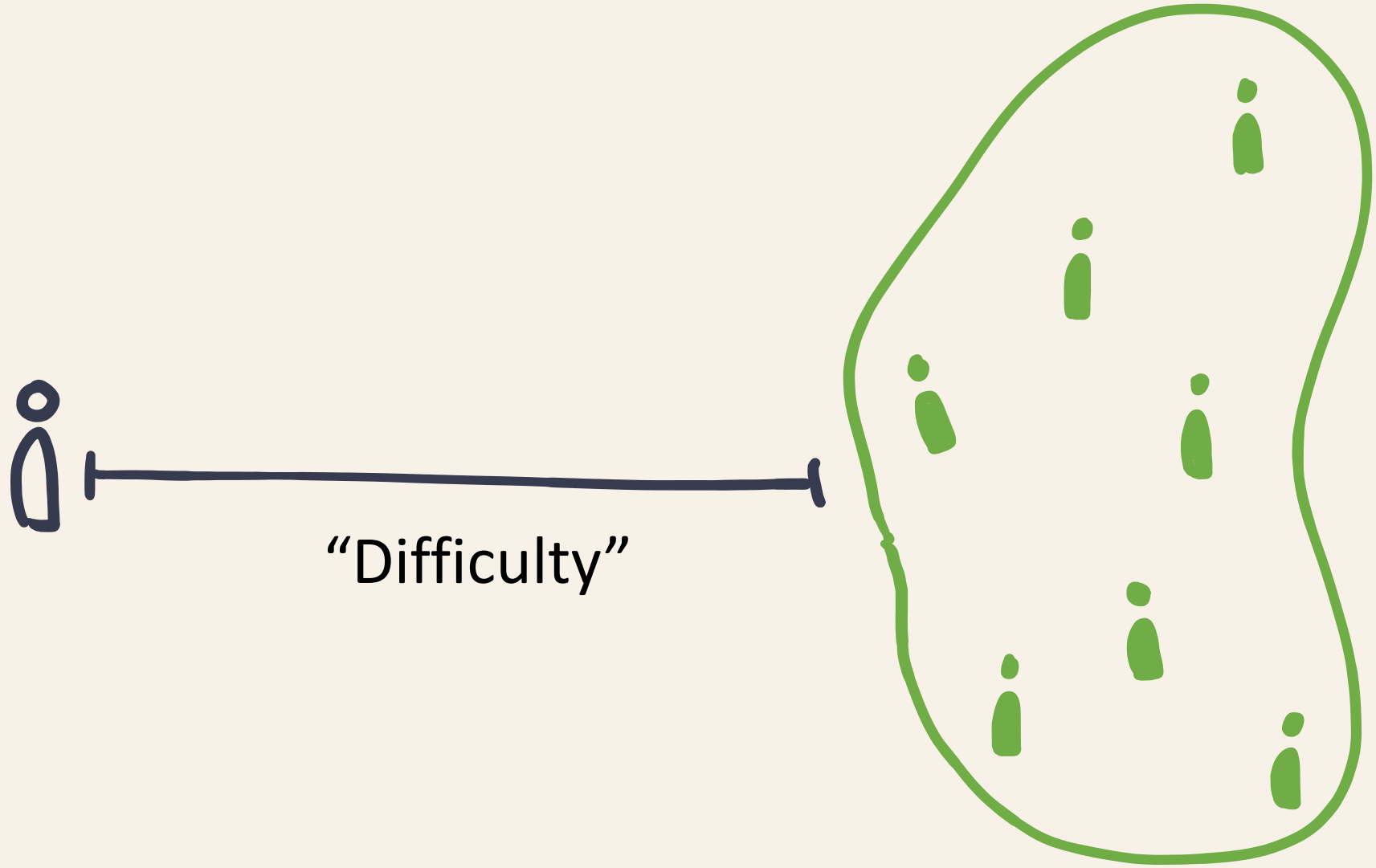


## *Difficulty*

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

i

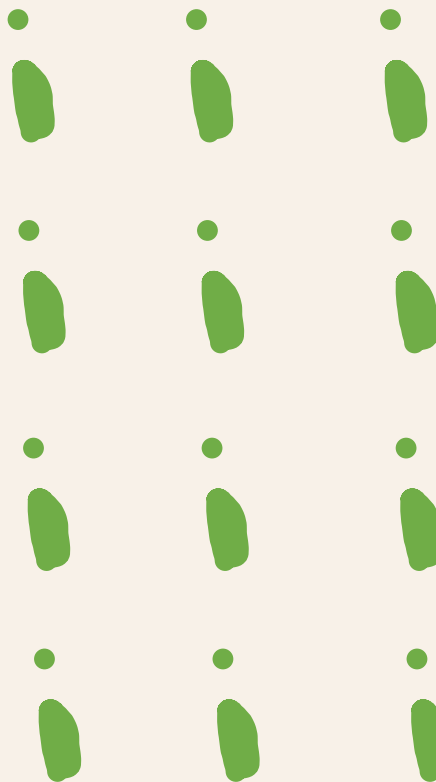
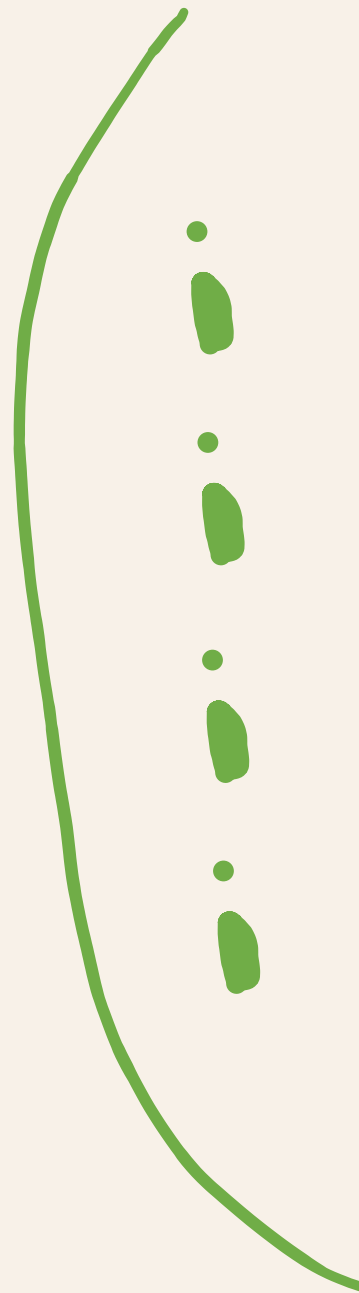




We like difficulty because growing feels good.

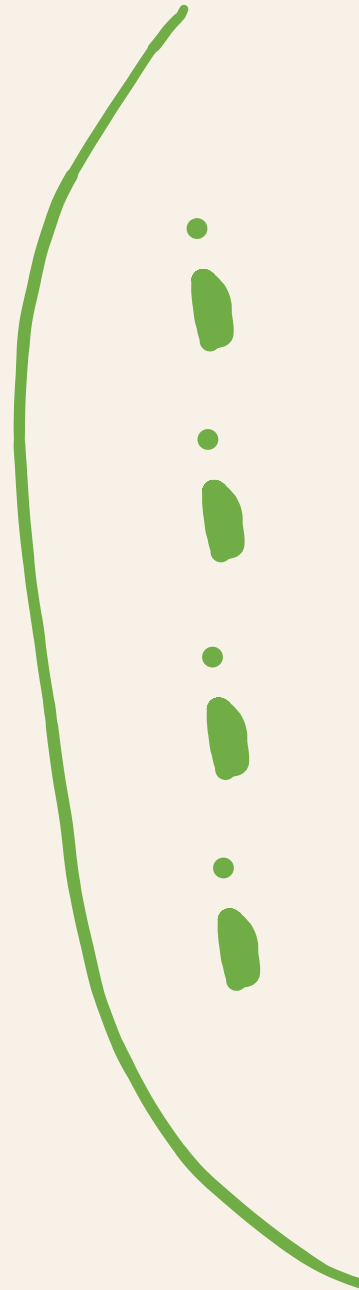








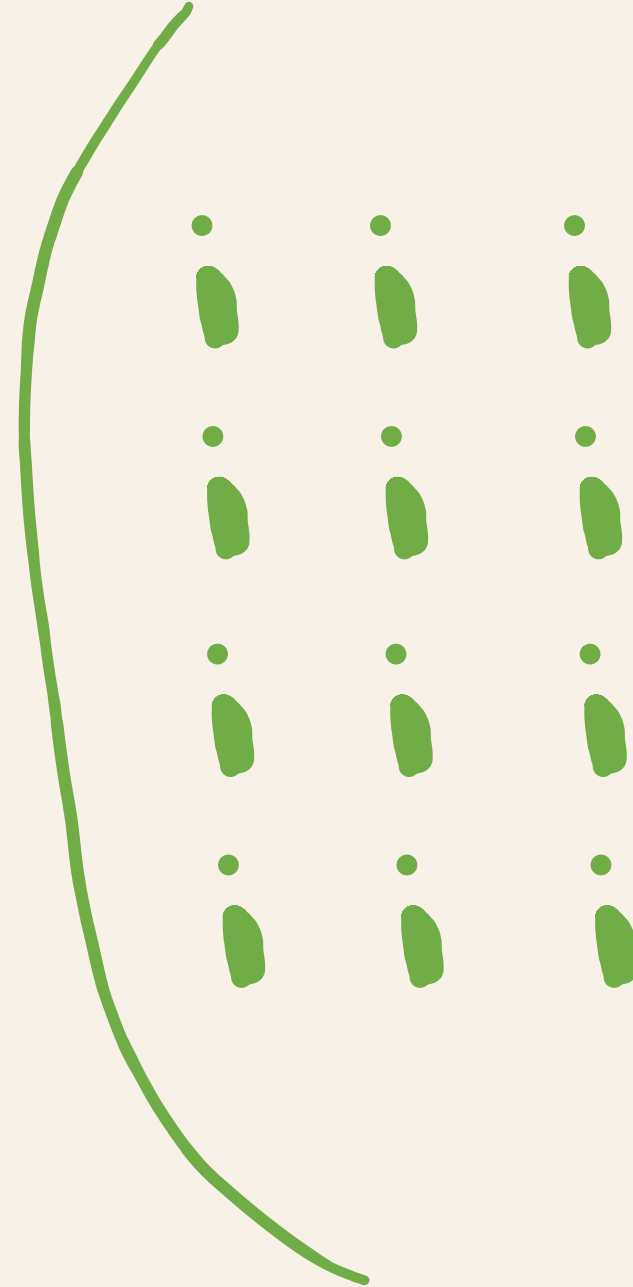
Difficulty



Approachability



Difficulty



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

## Part 2

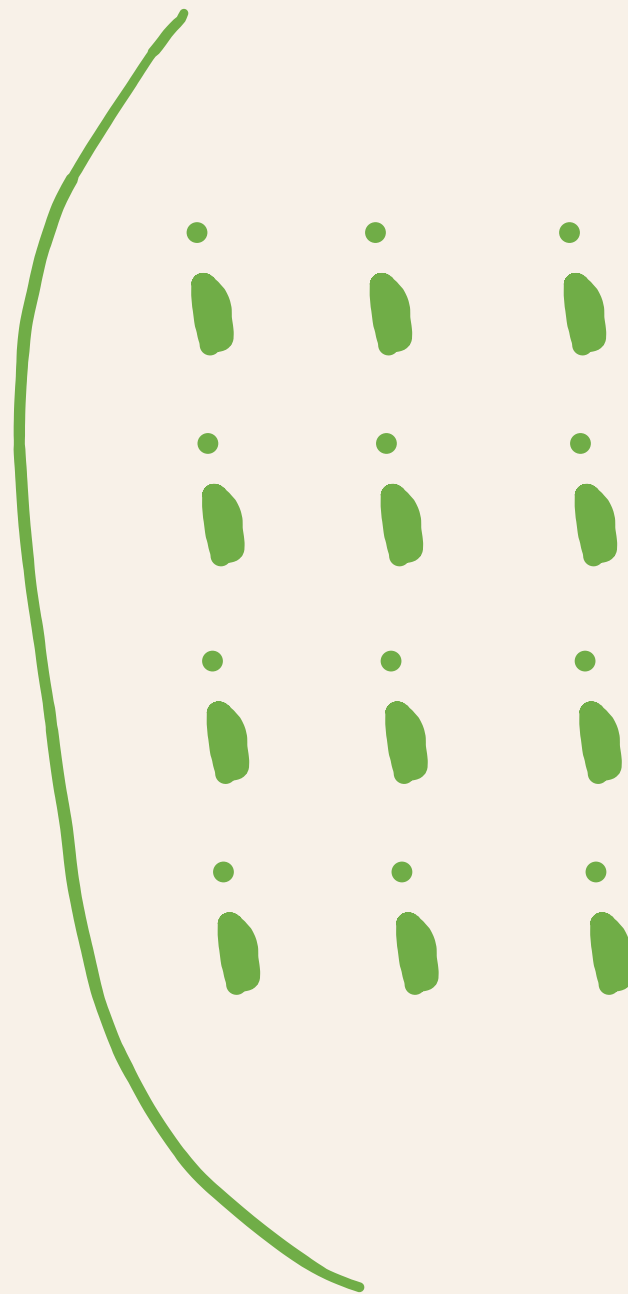
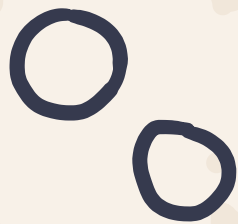
A romp through some approachable  
mechanics



Low Skill

The diagram illustrates a transition from a low-skill state to a high-skill state. On the left, under the label 'Low Skill', there is a single dark blue circle. In the center, two dark blue circles are arranged diagonally, representing an intermediate stage. On the right, under the label 'High Skill', there are two dark blue circles. A thick green curved line separates the low-skill region from the high-skill region. To the right of this line, there are three vertical columns of green circles, each containing five circles, representing a high-skill population. The background is a light beige color with a repeating pattern of small, stylized human figures in a light tan color.

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



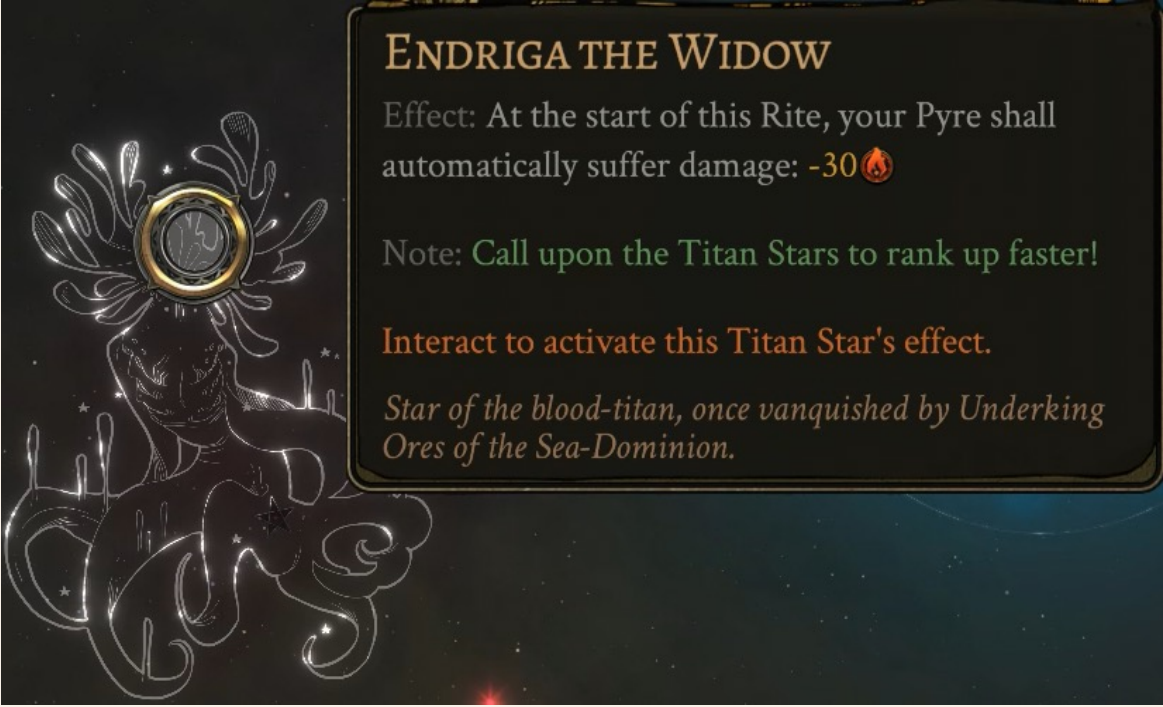
STYX

## 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



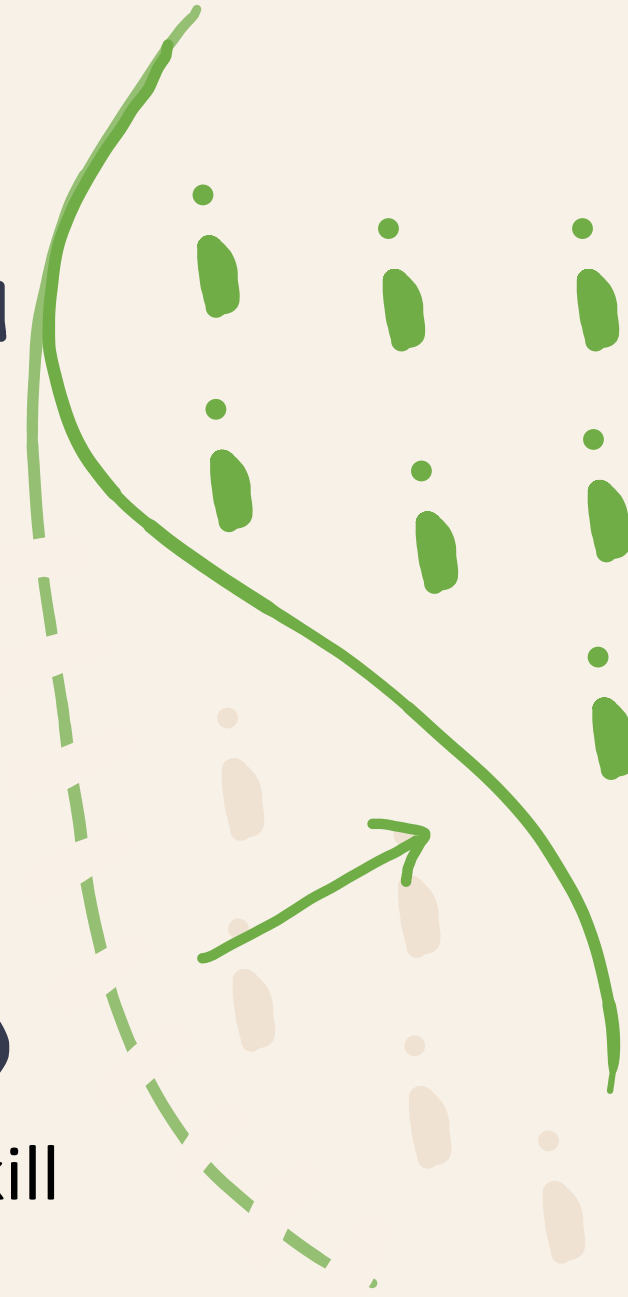




Low Skill



High Skill

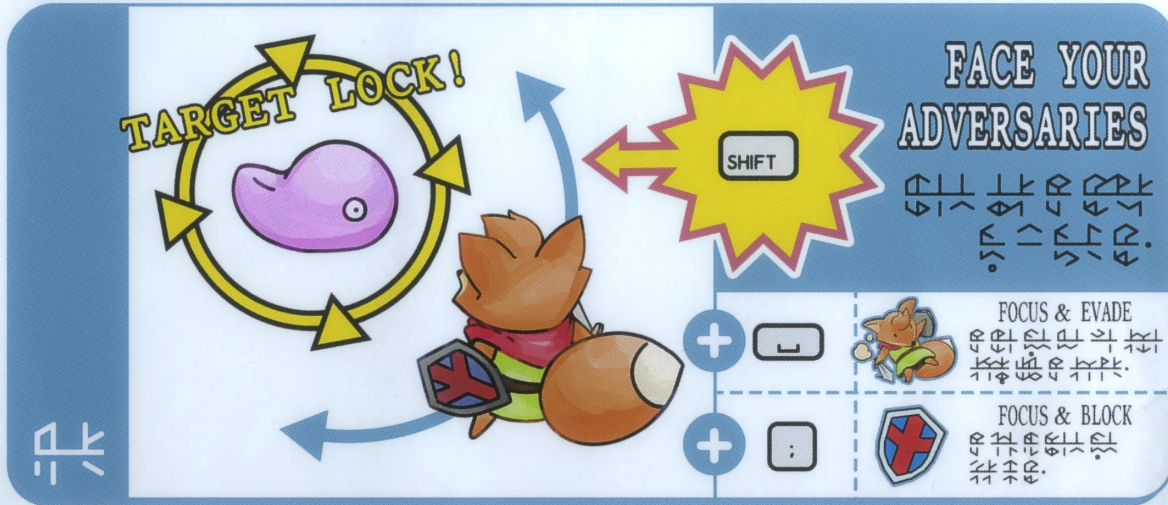
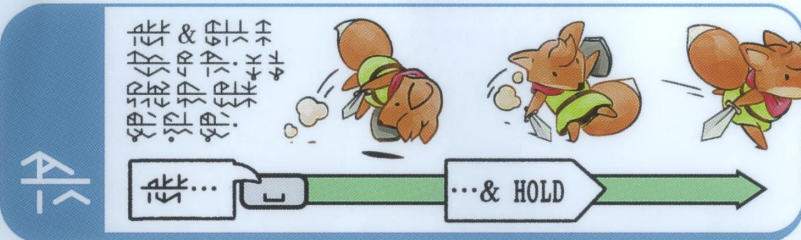
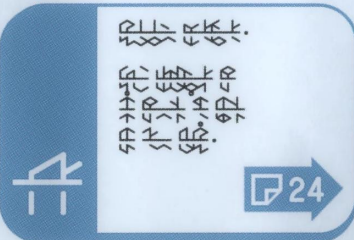
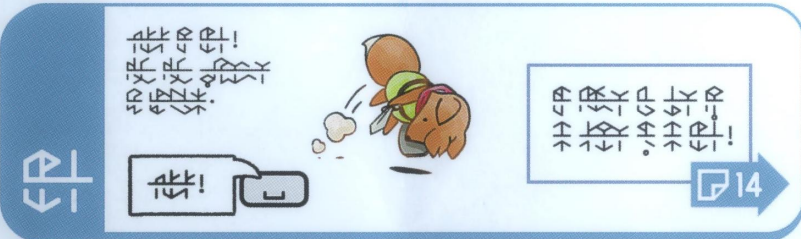
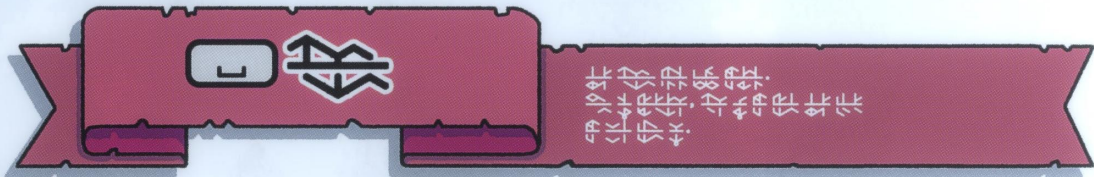


It only makes the game harder!

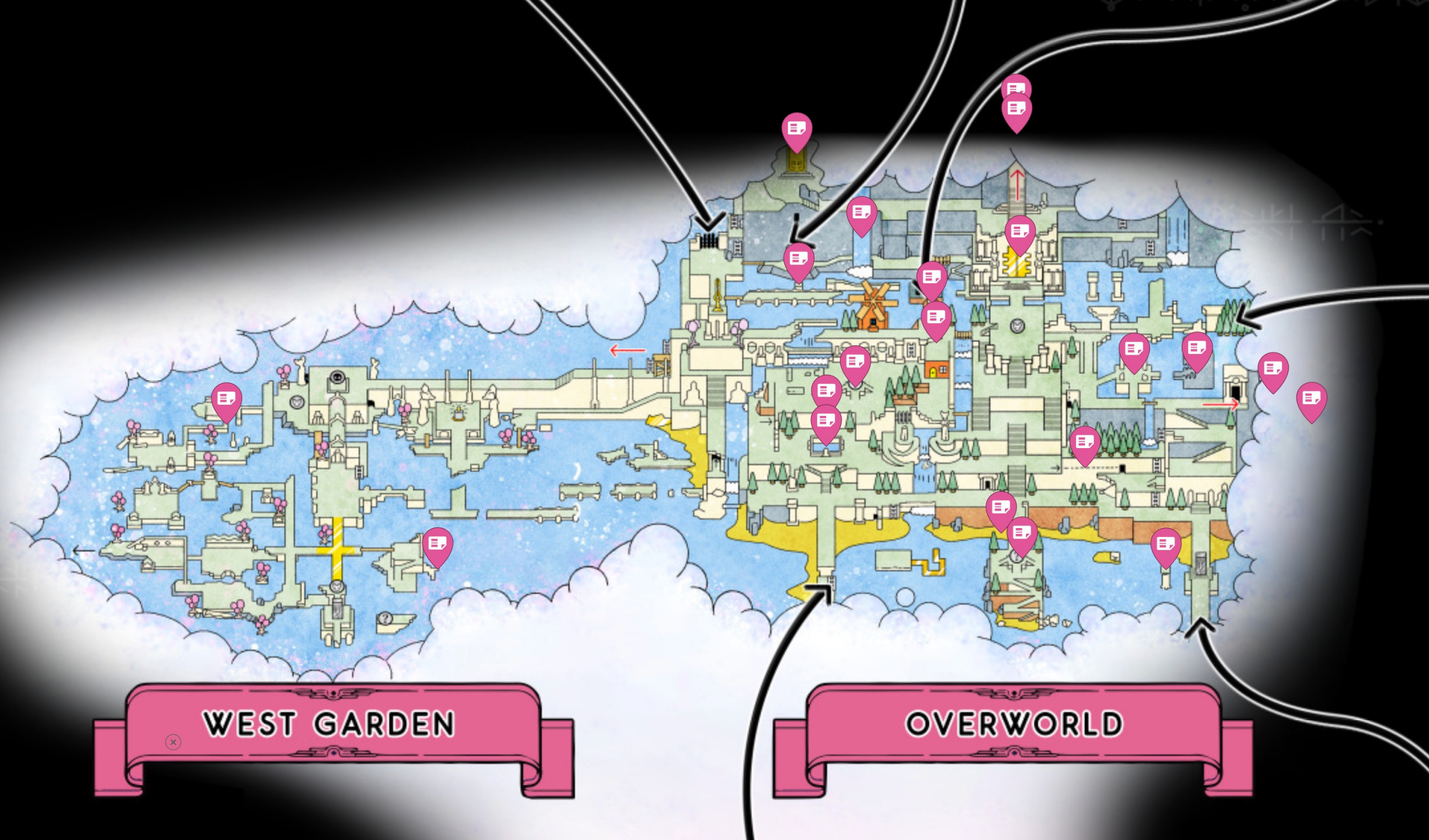


Mechanization of Tutorials









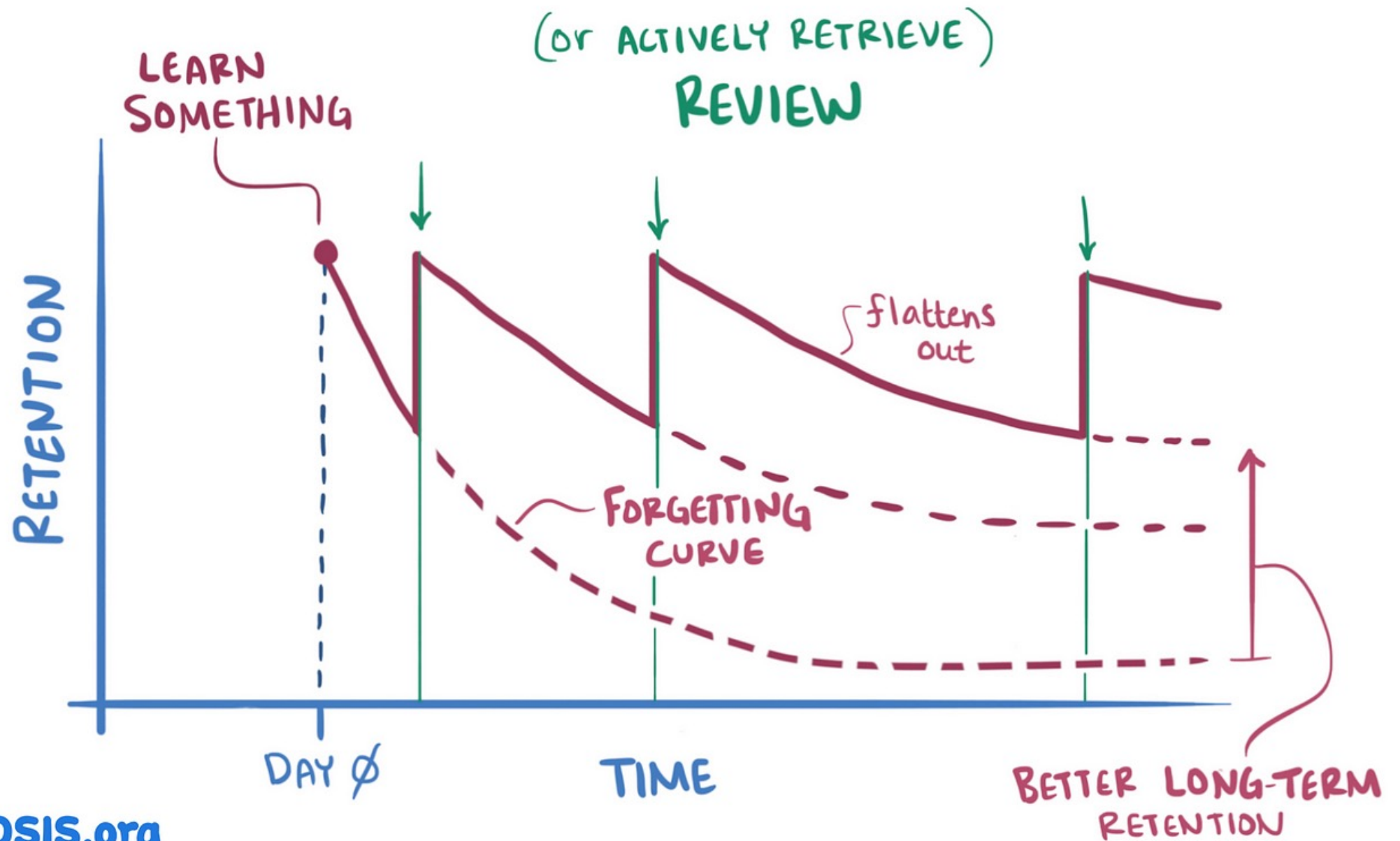


# Tunic (Tutorialization)

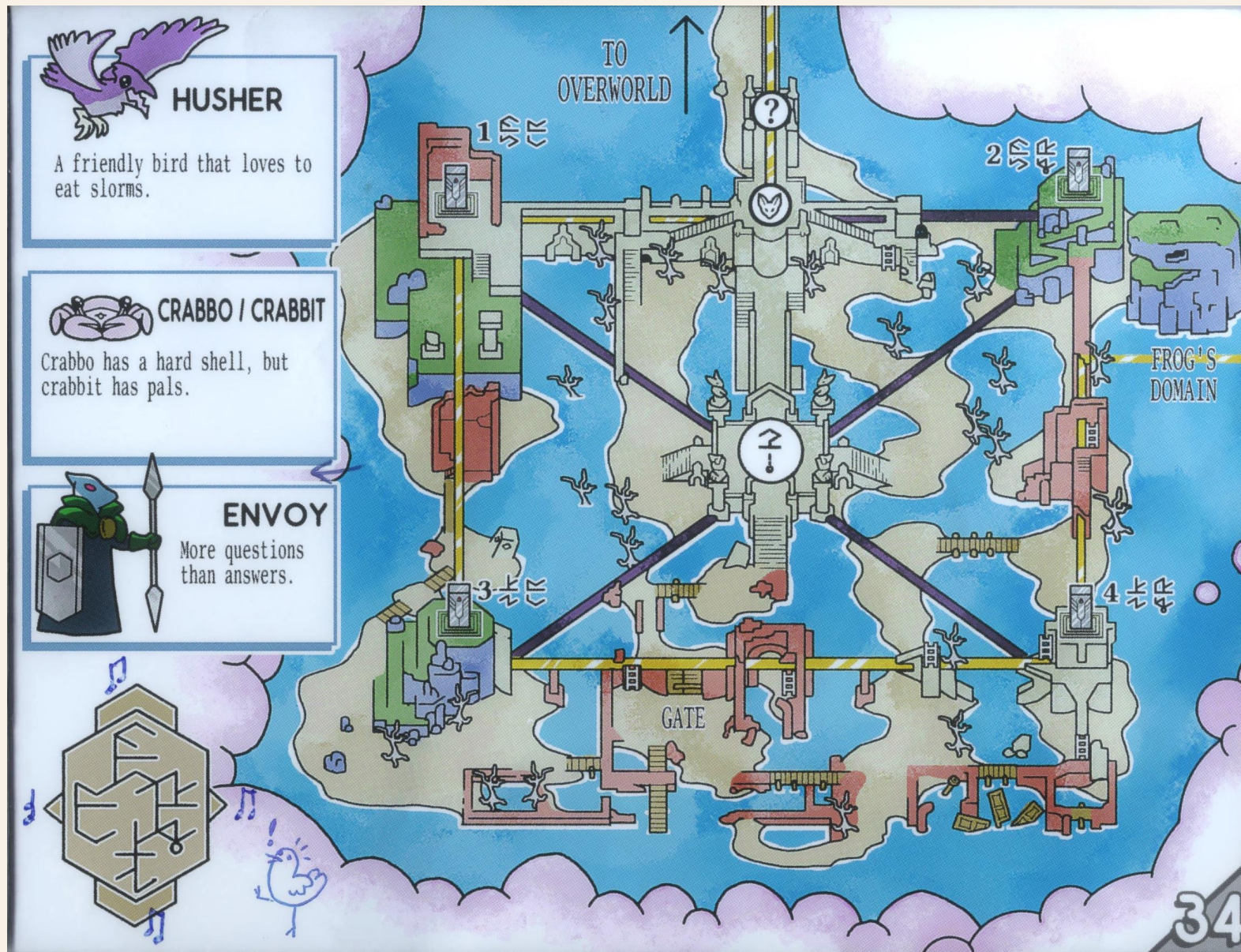
- Slow-drip of information for better retention.
- Referenceable in case you forget.
- Supplies hooks rather than hand-holding.









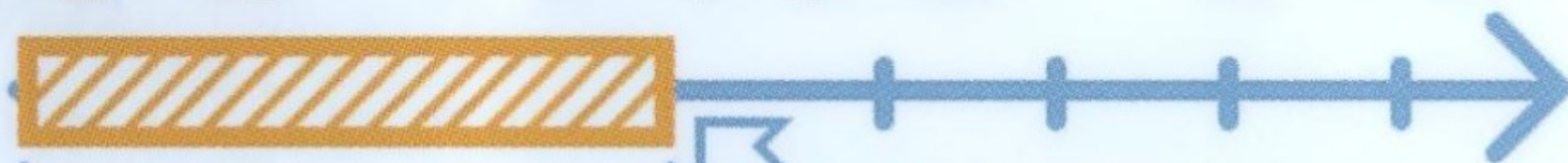


Mechanization - you don't feel bad for using it!



# MOMENT OF SAFETY

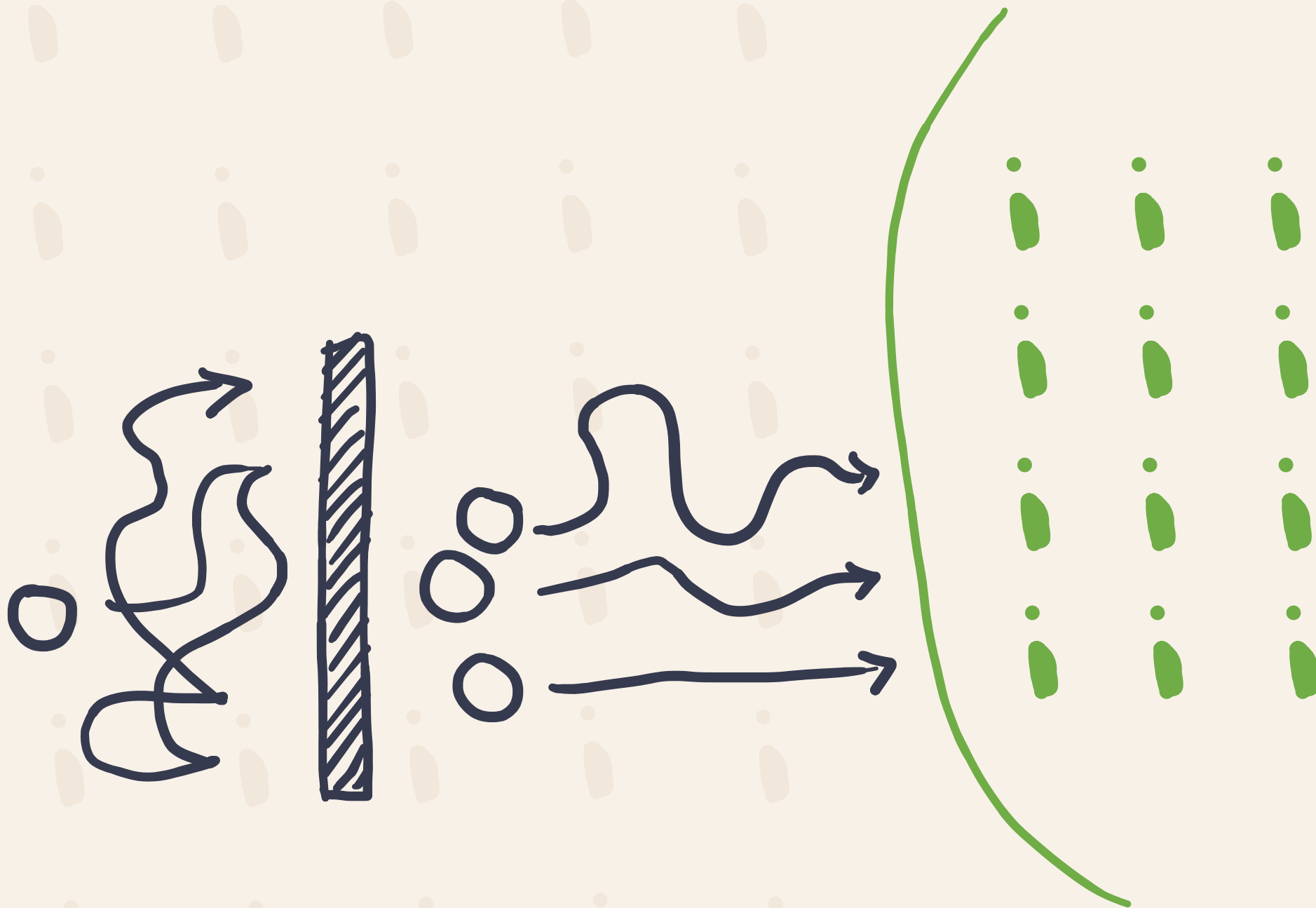
invulnerability

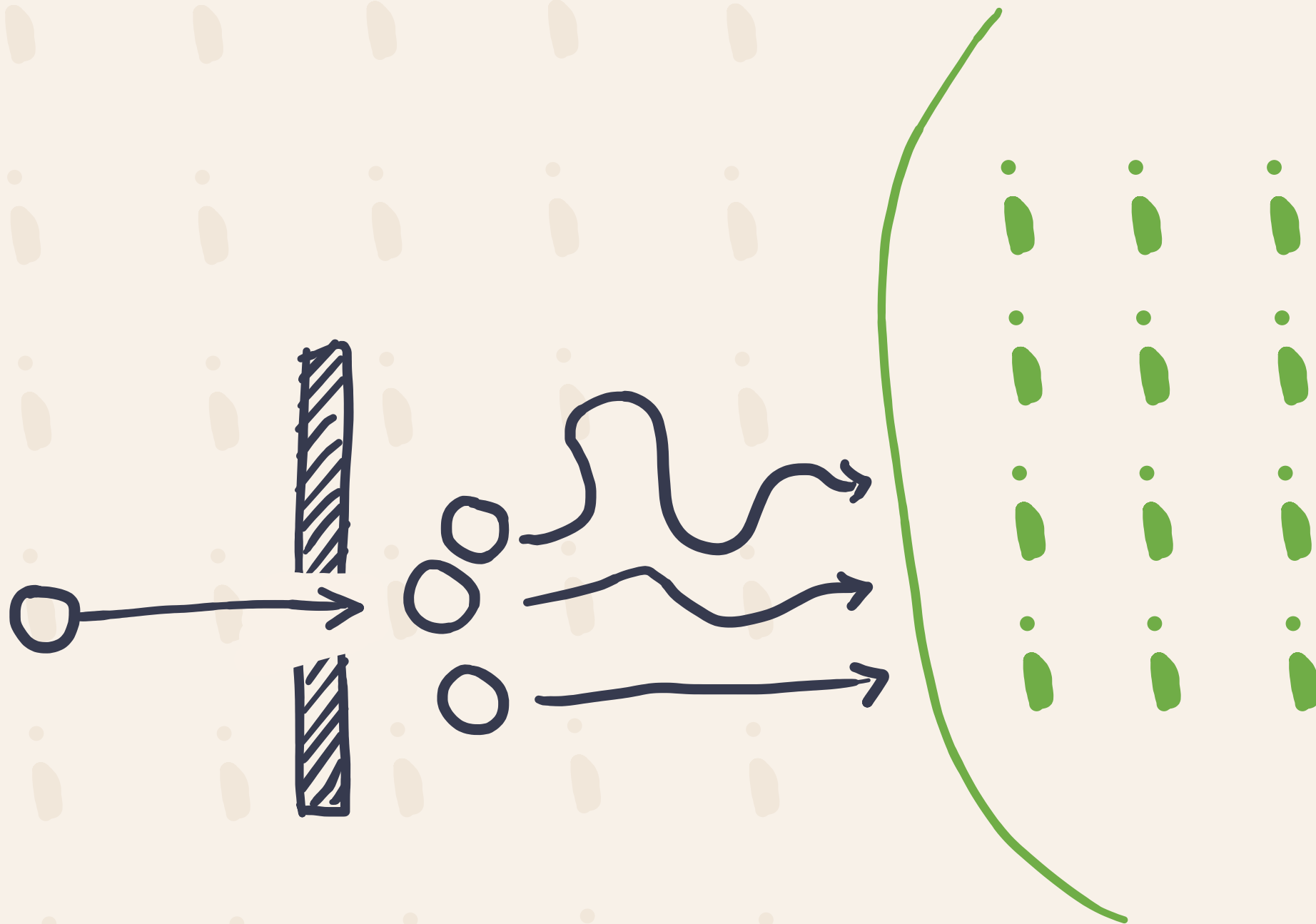


INVULNERABILITY



Check for  
Dust!

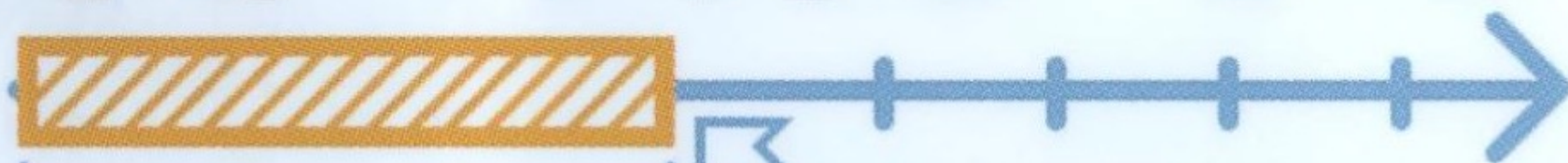






# MOMENT OF SAFETY

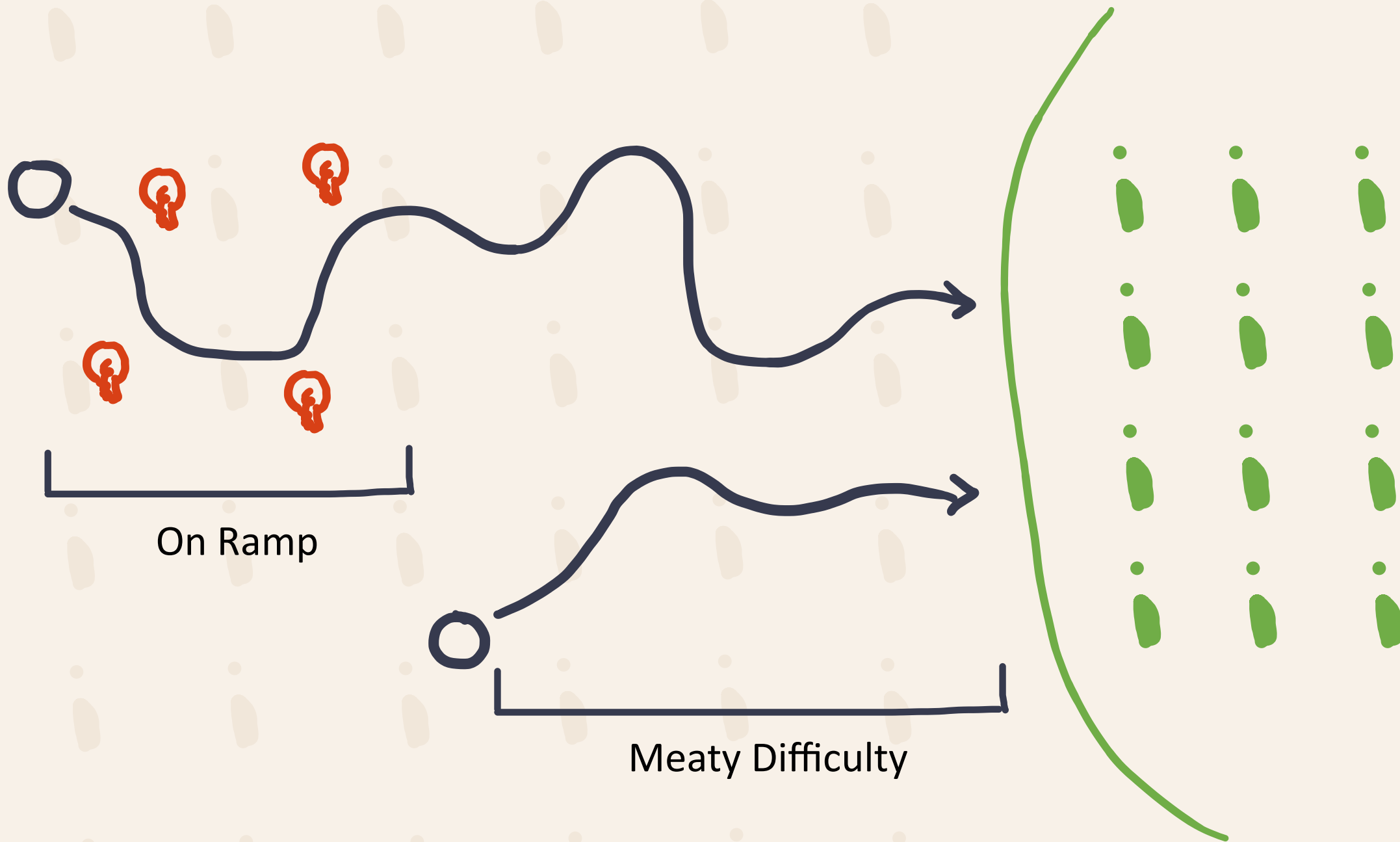
invulnerability

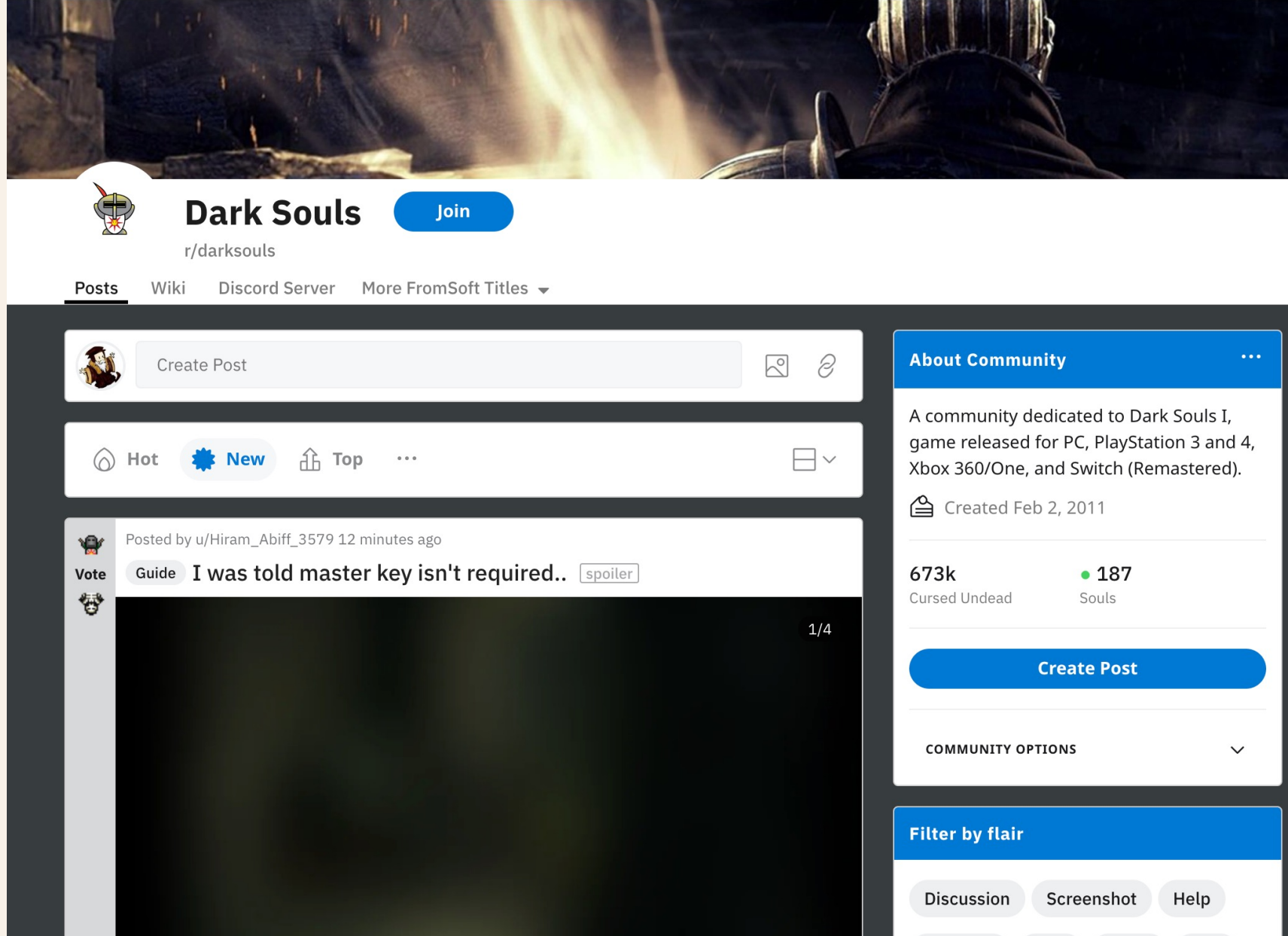


INVULNERABILITY



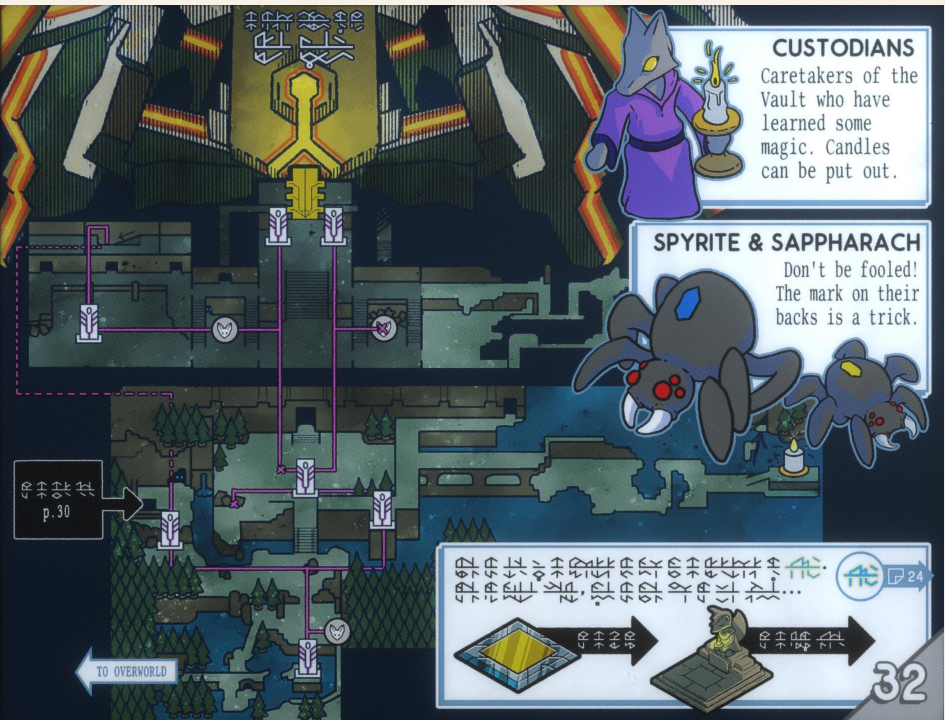
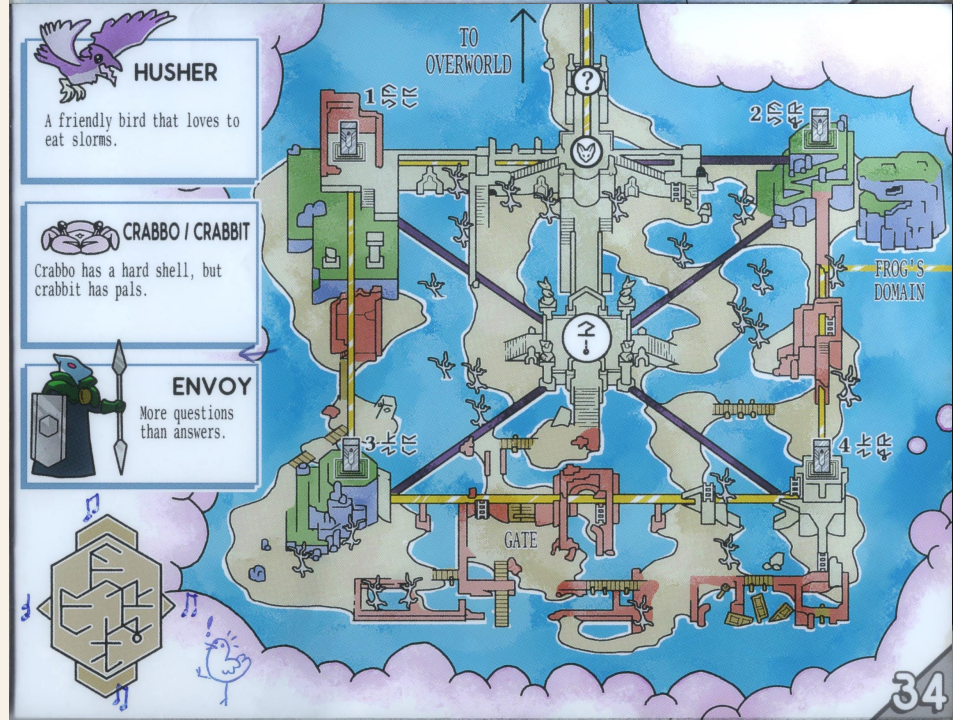
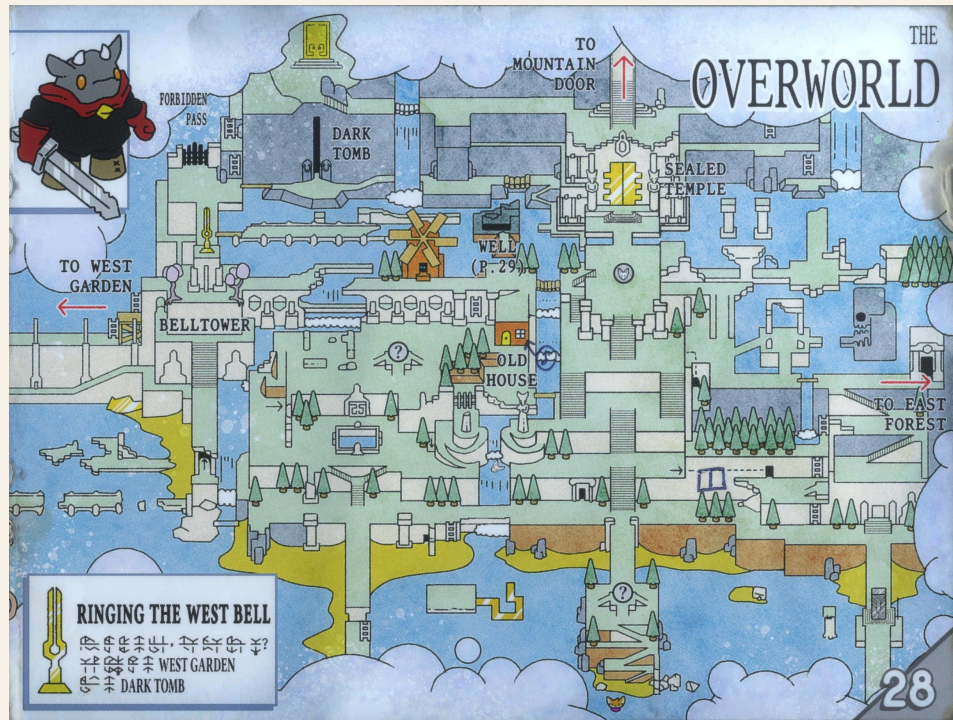
Check for  
Dust!



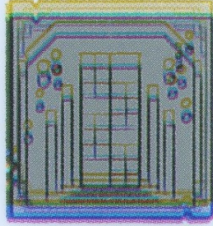


Dark Souls is **able to be difficult** because it leans on the community.

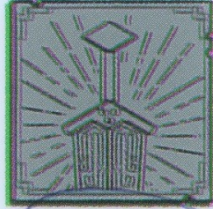




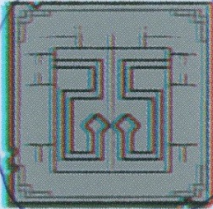




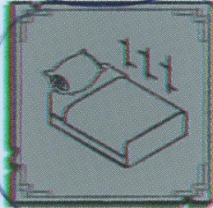
DOOR IN THE MOUNTAINS?  
 ...



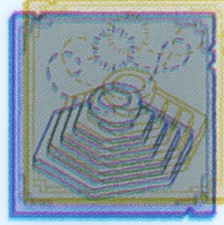
THE HERO'S GRAVE .  
 ...



HOLY CROSS .  
 ...



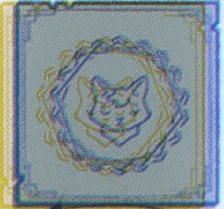
...  
 ...



FAIRIES ?  
 P.47 ...



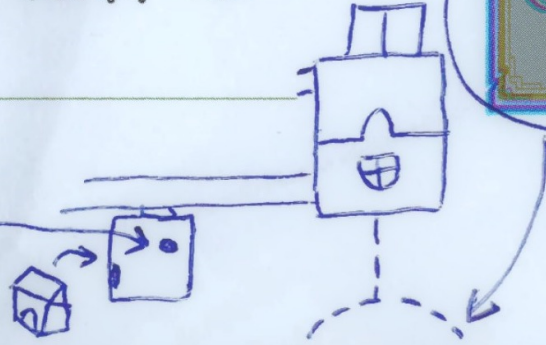
...  
 ...



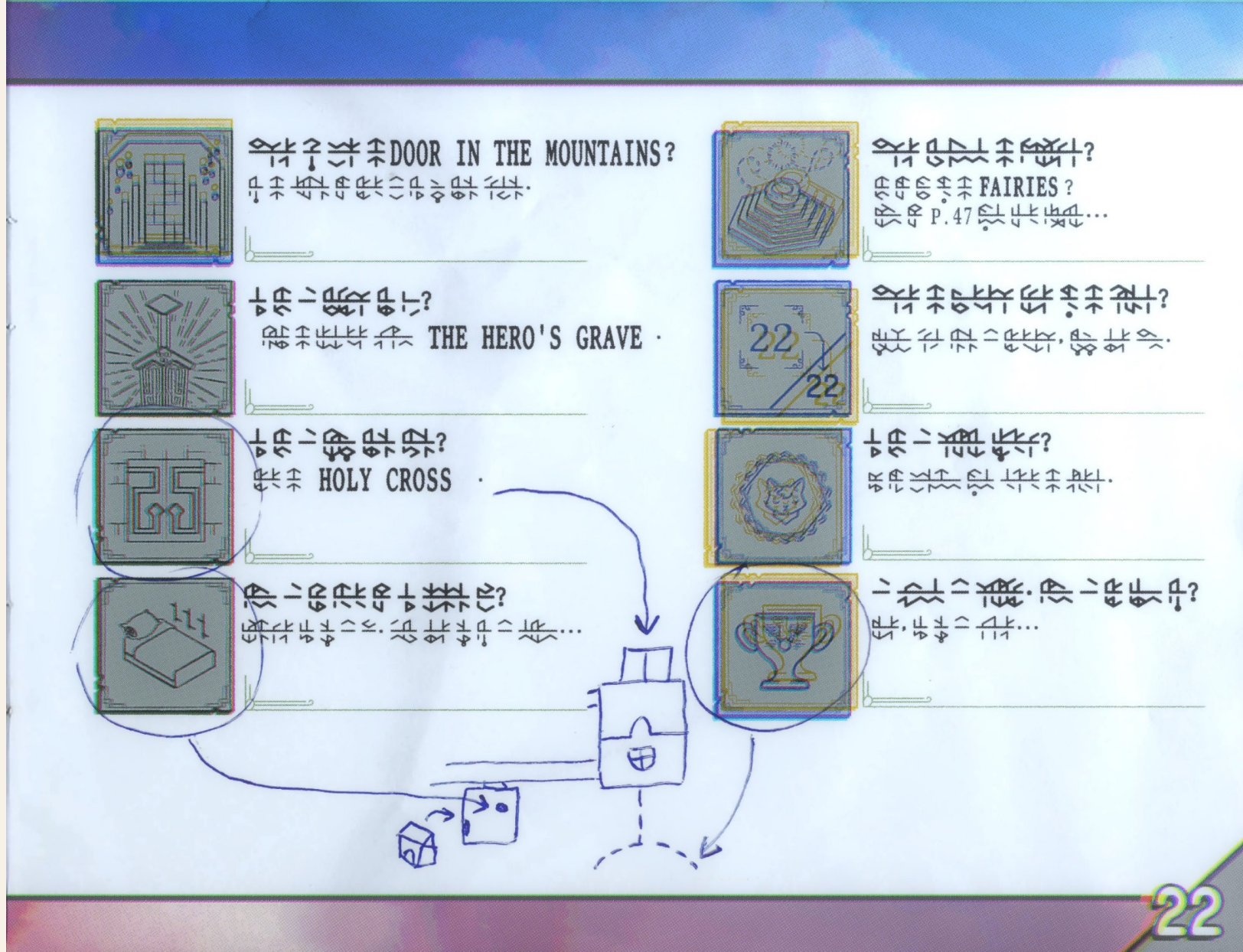
...  
 ...



...  
 ...







A game can be **more difficult** because it's **approachable**!

# Thanks!

**John Austin**

*Game Director, Pontoco*

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@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](#)

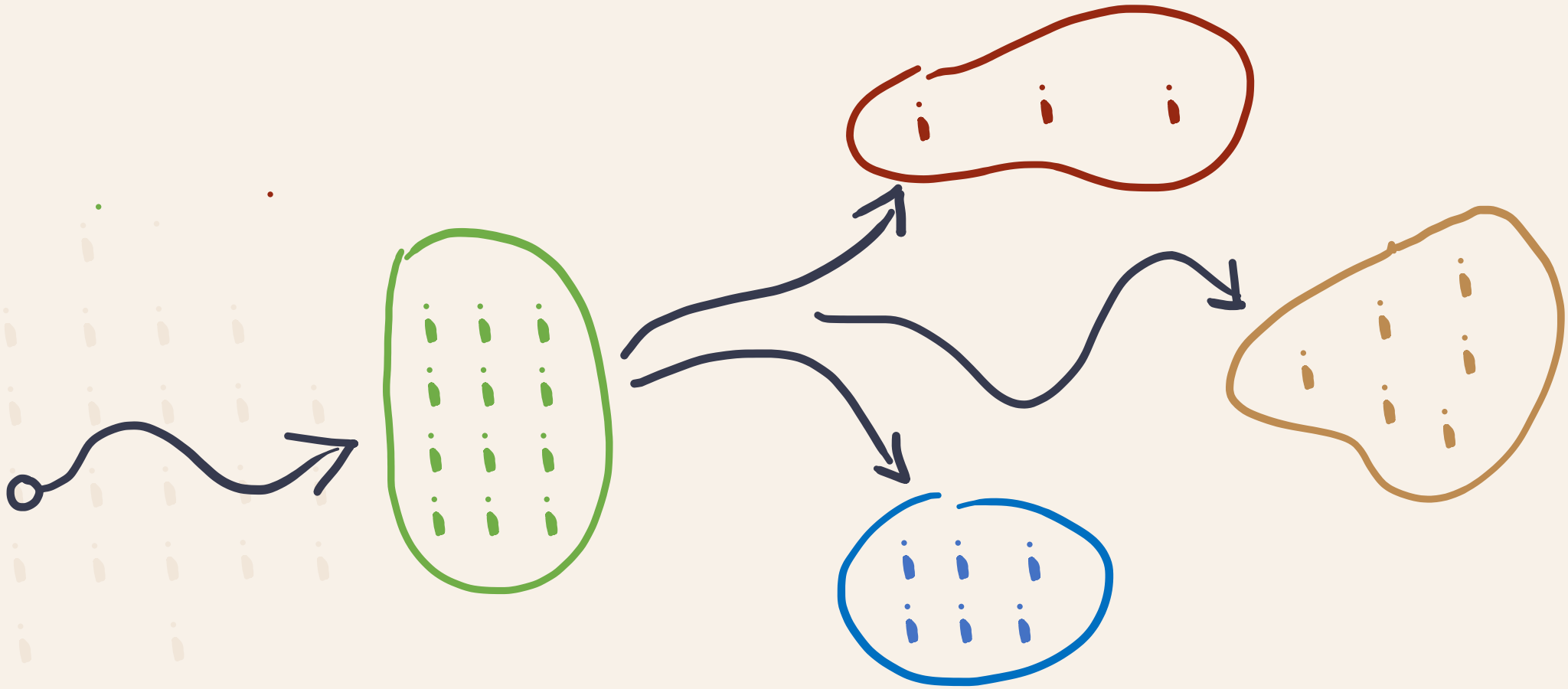
All Stages101%Any%No Major GlitchesOld SummonNo Major Skips

RBO

All BossesWarpless101% No Major GlitchesBlindfolded All StagesAll Winkys

All Stages - 2 players 1 controllerAll Stages - 2-Player Team101% - 2-Player-Team

Legacy All StagesLegacy 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



30

*Handwritten signature*

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

*White and the team were  
captured by corrupt cops  
the demonic "mess" on of heaven  
sin: IDENTITY  
sin: MEMORY*



# Inscrutability (un-tutorials)



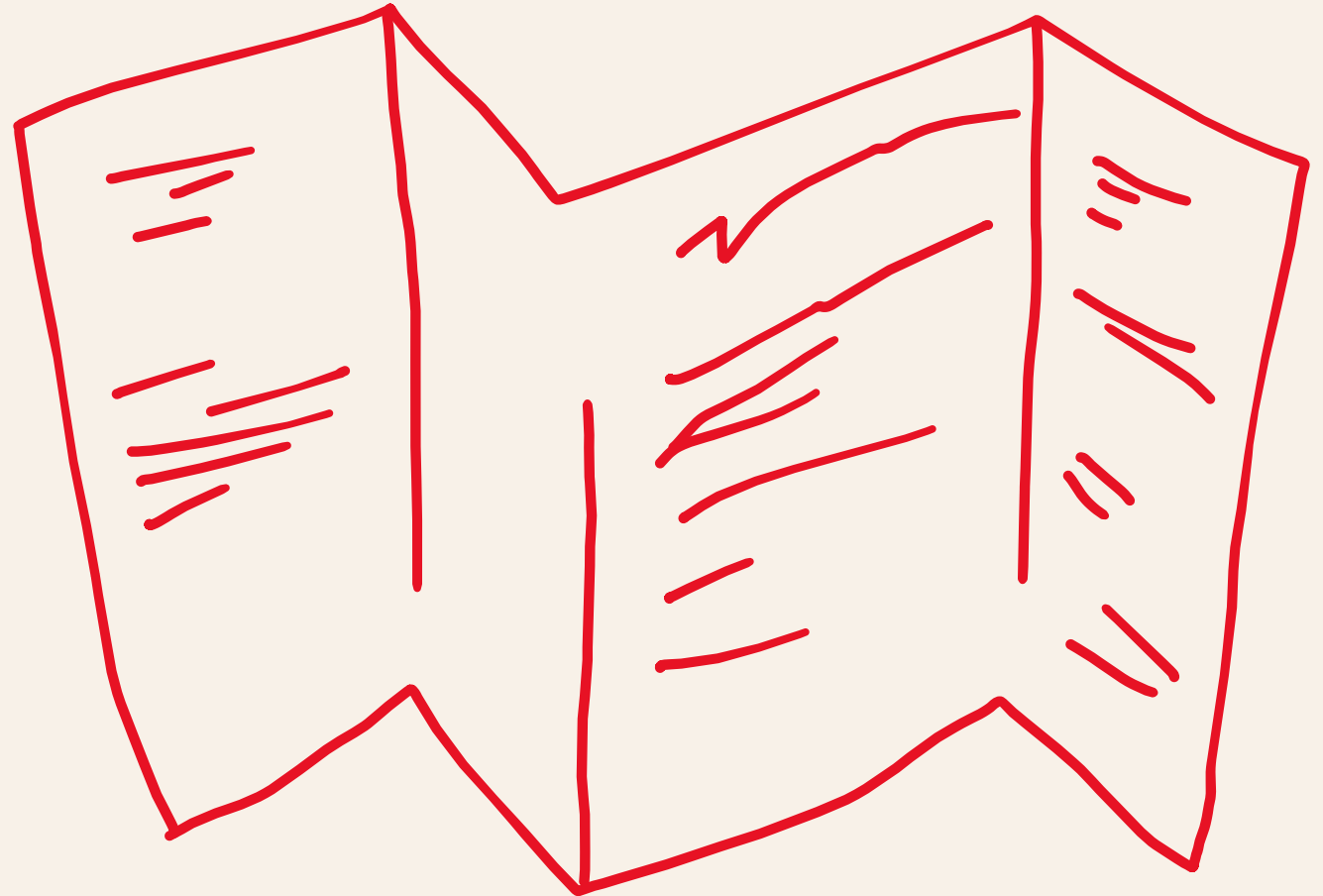


(consider this type of difficulty)

# Inscrutability

Confusing  
Foreign

(sub-type of difficulty)



# Inscrutability

Shirdrake		Base power		Defense / Absorption	
Covenant	-	HP	765 / 765	Physical	81 / 17.270
Level	11	FP	98 / 98	VS strike	81 / 15.724
Souls	536	Stamina	94	VS slash	81 / 17.270
Required souls	847	Equip Load	19.6 / 49.0	VS thrust	81 / 16.707
		Poise	11.87	Magic	81 / 13.222
		Item Discovery	114	Fire	81 / 14.322
				Lightning	81 / 12.376
				Dark	80 / 18.505
Attributes		Attack power		Resistances / Armor	
Vigor	15	R Weapon 1	83	Bleed	203 / 94
Attunement	14	R Weapon 2	48	Poison	202 / 93
Endurance	10	R Weapon 3	48	Frost	194 / 85
Vitality	9	L Weapon 1	72	Curse	173 / 64
Strength	10	L Weapon 2	115		
Dexterity	13	L Weapon 3	48	Attunement Slots	1
Intelligence	10				
Faith	8				
Luck	14				

Check character overview  
 : Back : Switch : Simple : Help

## TREASURES & TOOLS

### SWORD

4444 4444 4444  
4444 4444

### STICK

4444 4444

### SHIELD

4444 4444 RUDELING  
4444 4444 4444

### BOMB

4444 4444 4444  
4444 4444 4444

### BOMB

4444 4444 4444  
4444 4444 4444

### BOMB

4444 4444 4444  
4444 4444

### KEYS

4444 4444 4444 4444  
4444 4444 4444 4444...

### FRUITS

4444 4444 4444 HP 4444 MP 4444  
4444 4444 4444 4444

### HOT PEPPER/IVY

4444 4444 4444 4444  
4444 4444 4444 ATT 4444 SP 4444

### EFFIGY

4444 4444 4444 4444 4444  
4444 4444 4444

### LURE

4444 4444 4444 4444  
4444 4444 4444

### GOLDEN COIN

4444 4444 4444 4444  
4444 4444 4444 4444

## MAGIC ITEMS

4444 4444 4444 4444 4444 4444  
MAGIC-POINTS 4444 4444 4444 4444  
4444 4444 4444 4444 4444 4444

4444 4444 4444 4444  
4444 4444 4444 4444

NOTE: HOLY CROSS 4444 4444 4444 4444

## MAGIC POTION

4444 4444 4444 4444 4444 4444  
4444 4444 4444 4444 4444 4444  
4444 4444 4444 4444 4444 4444  
CHECK-POINT

4444 4444 4444 4444 4444 4444

4444 4444 4444 4444 4444 4444  
4444 4444 4444 4444 4444 4444  
4444 4444 4444 4444 4444 4444

4444 4444 4444 4444 4444 4444  
4444 4444 4444 4444

20

17

They say that if you throw enough BOMBS you'll get a prize, so don't be afraid to use them!





## Equipment

Select item to equip

LB < > RB



### 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

	C		C		-		-
--	---	--	---	--	---	--	---

#### ReqParam

	12		10		0		0
--	----	--	----	--	---	--	---

#### Aux Effects

	0		0		-		-
--	---	--	---	--	---	--	---

Durability 400/400

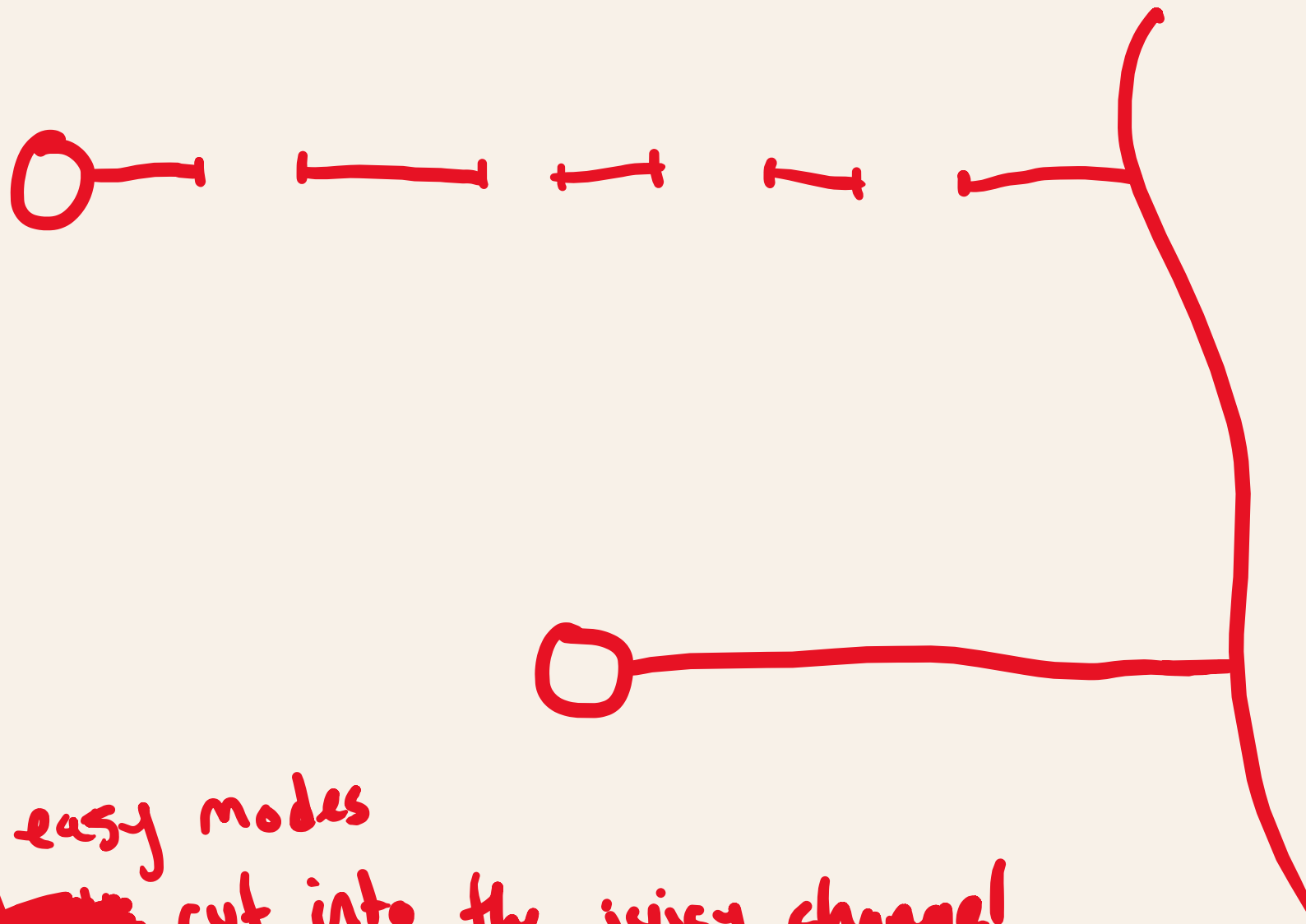
Weight 4.0

#### 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

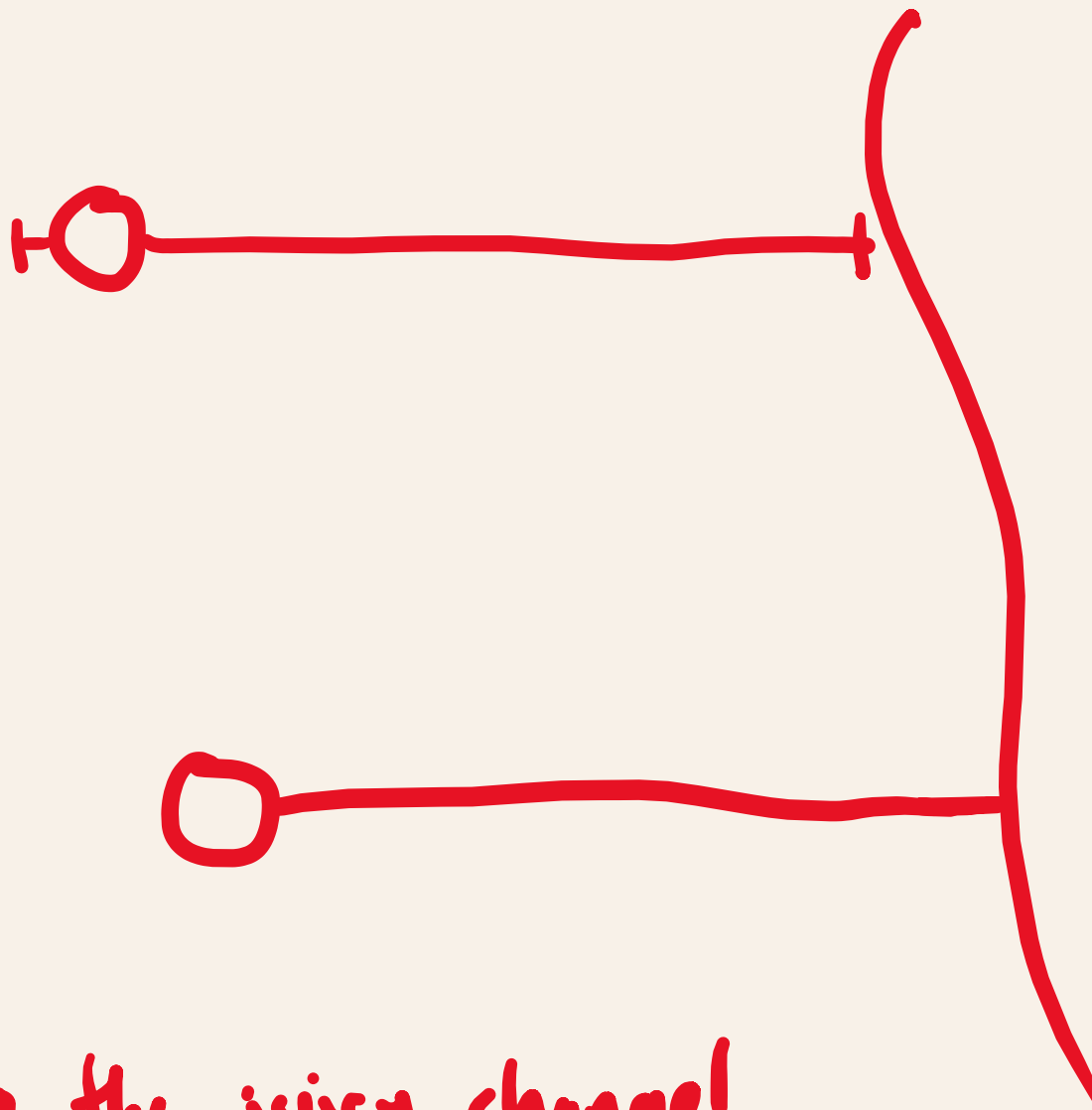
⏏:Select    A:Equip    B:Back    X:Toggle Display    Y:Toggle Status





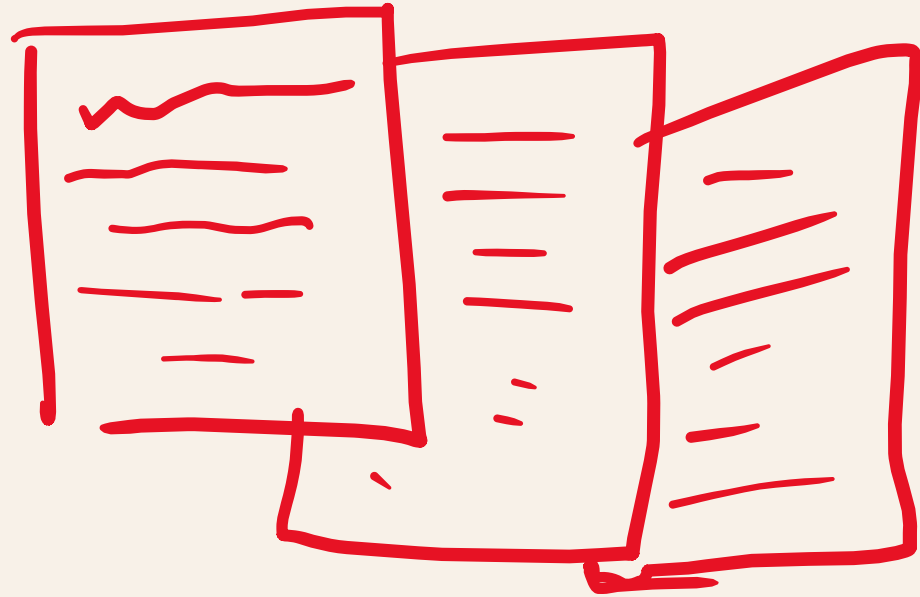
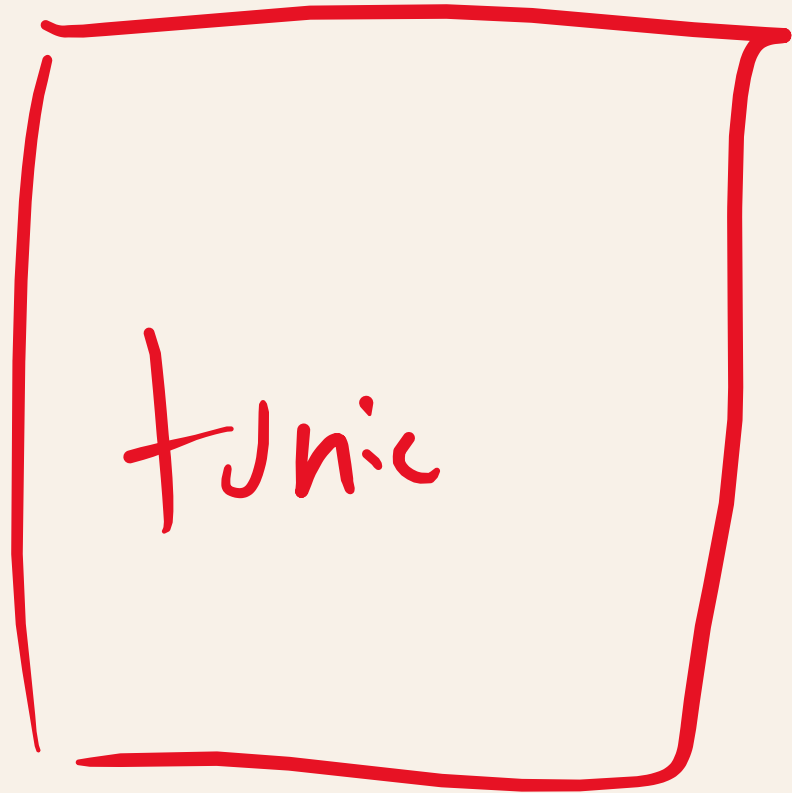
easy modes  
~~but~~ cut into the juicy change!

O<sub>H</sub>



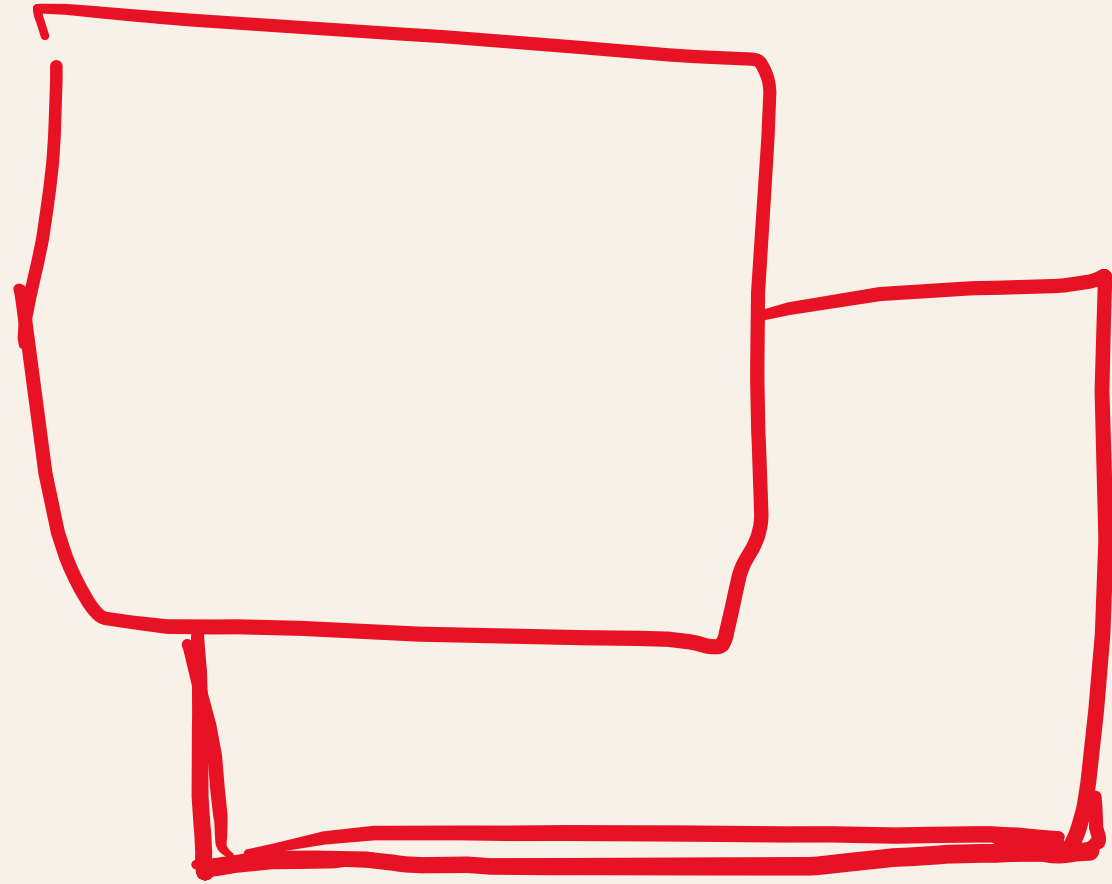
easy modes  
~~but~~ cut into the juicy change!





tutorials scattered  
treated as secrets

Cannot proceed until success

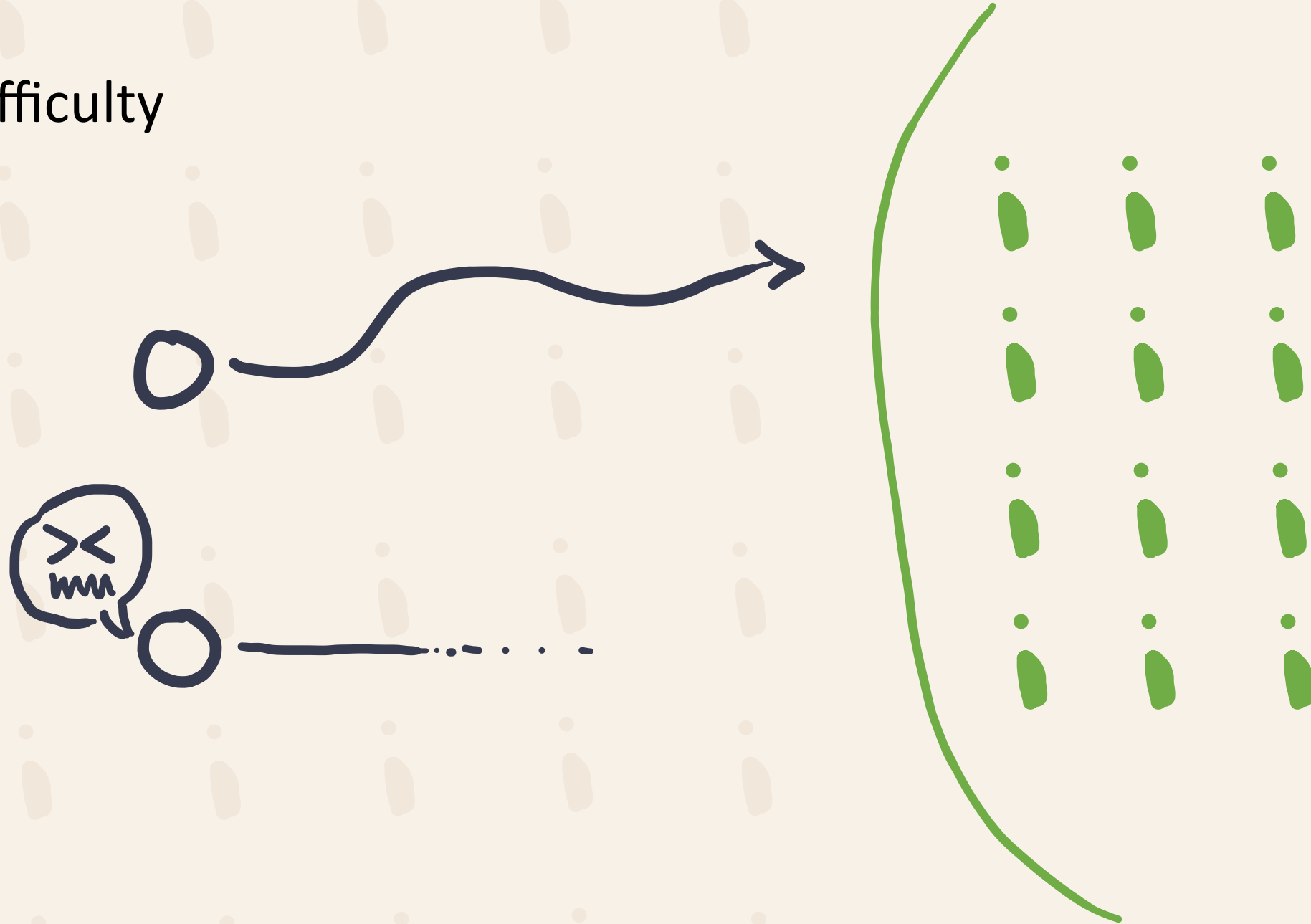


Some of the sexiest tutorials I've  
ever seen

delivered at midpoint.



# Perception of Difficulty



Obscure it!

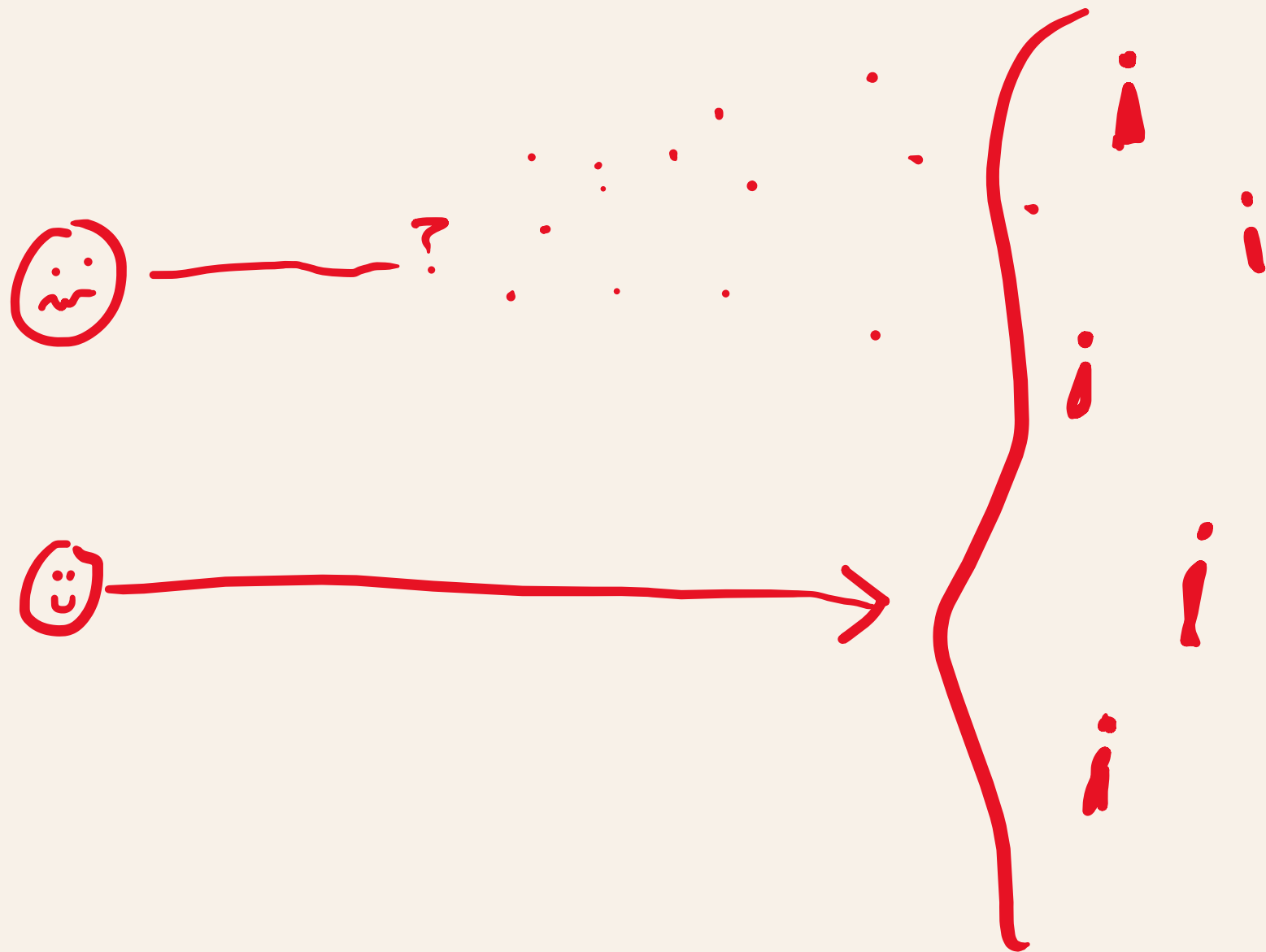






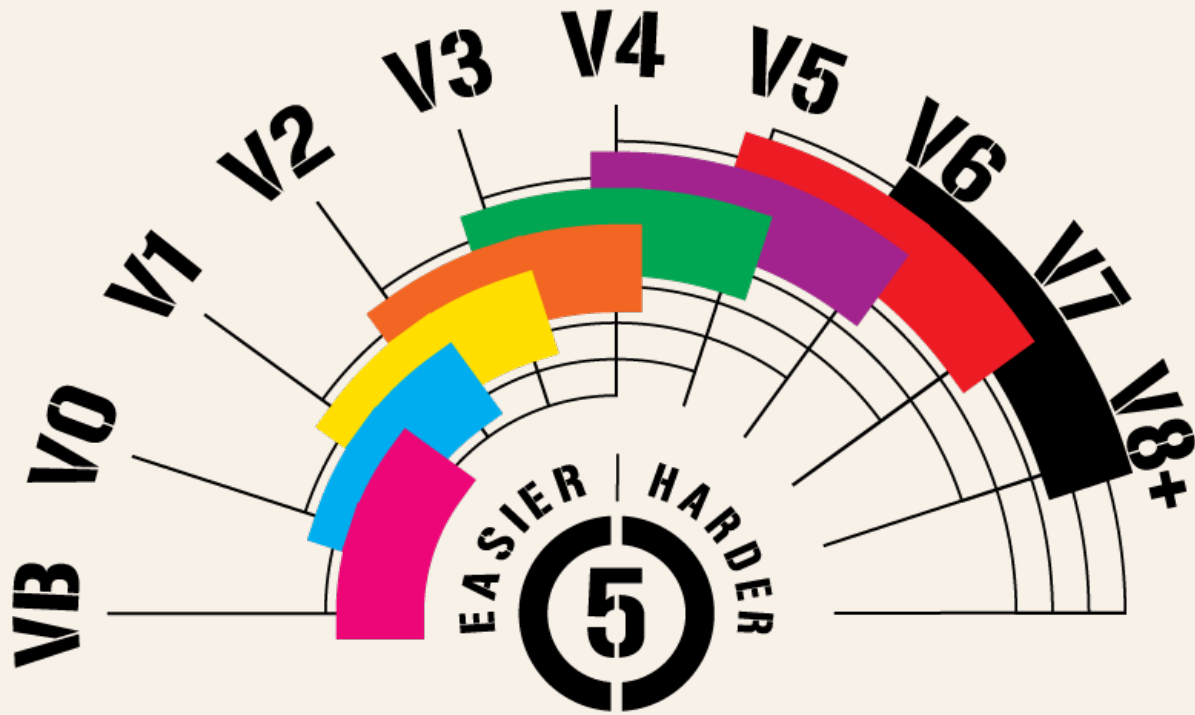








# Strategy: Obscuring Difficulty



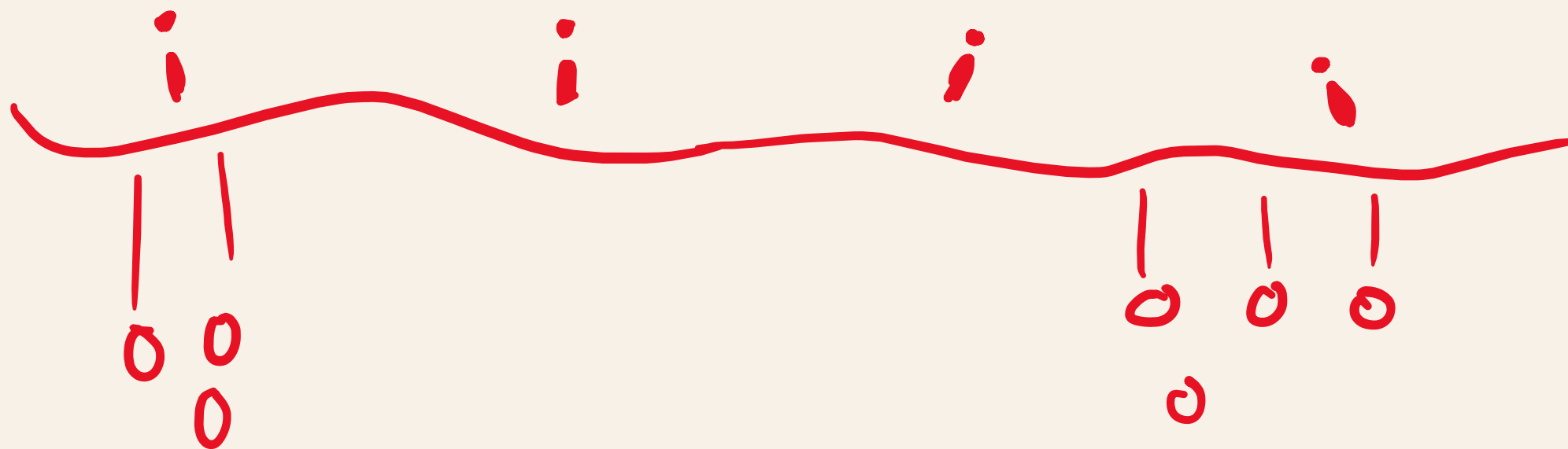




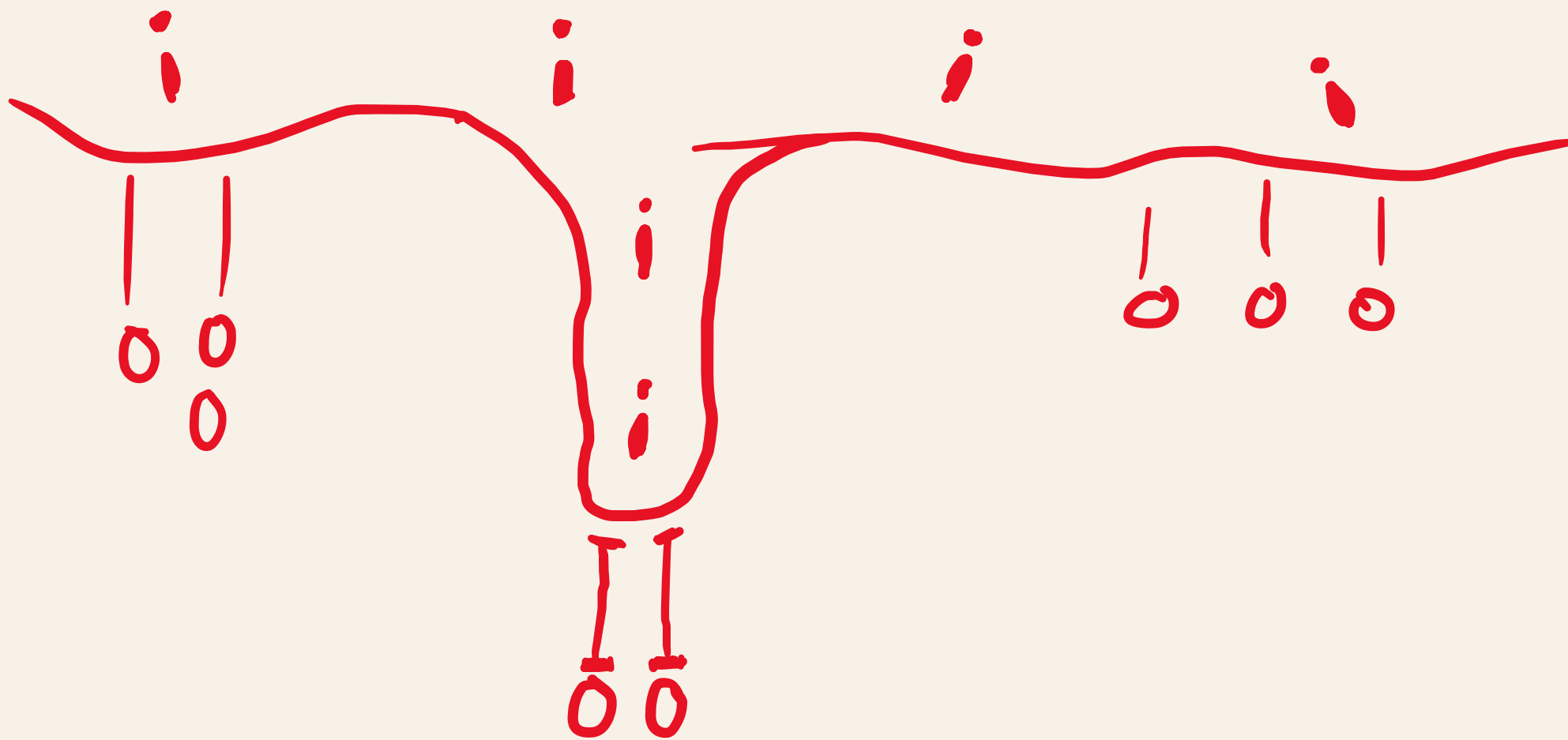
# Gacha Game Difficulty



Roguelikes  
(Hades, etc)



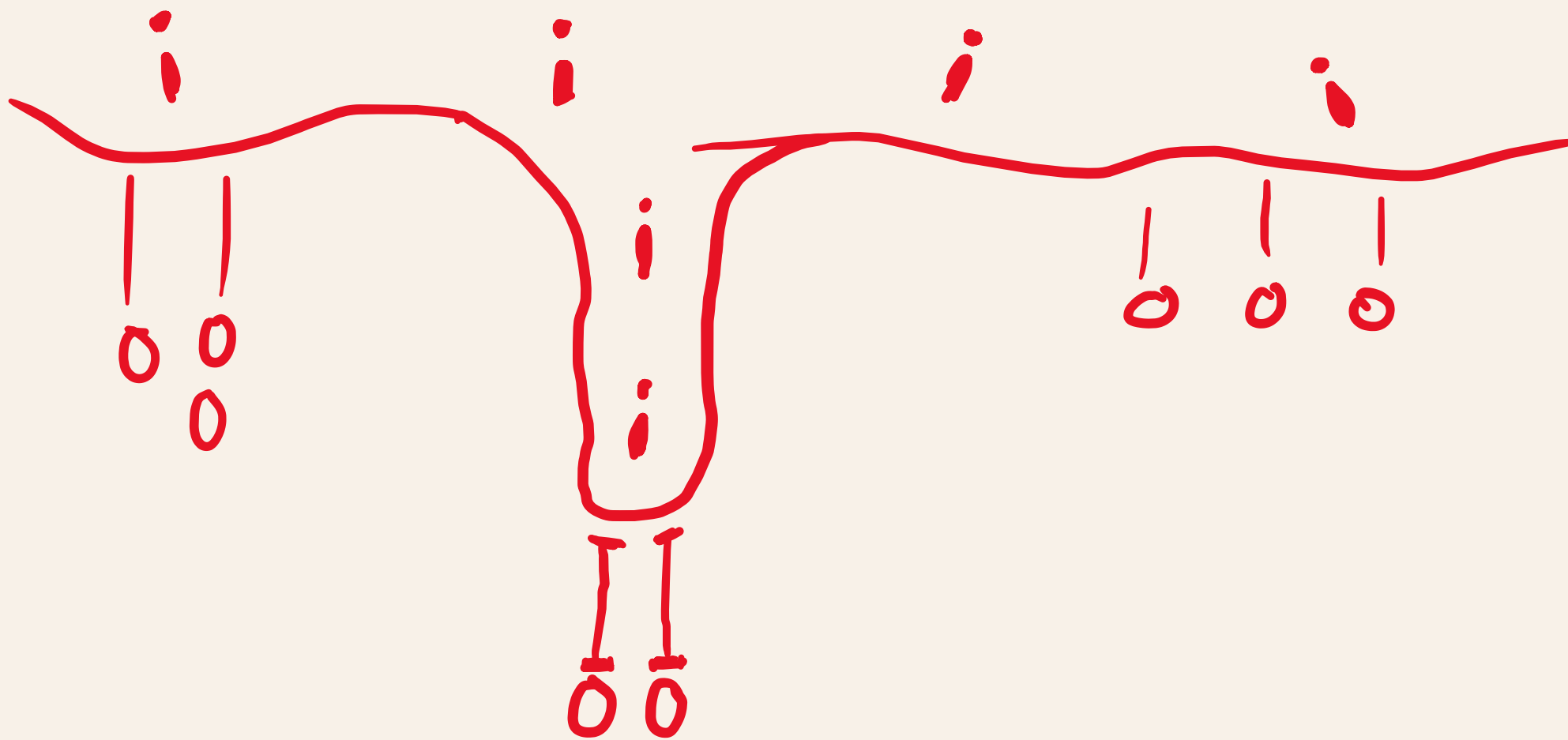
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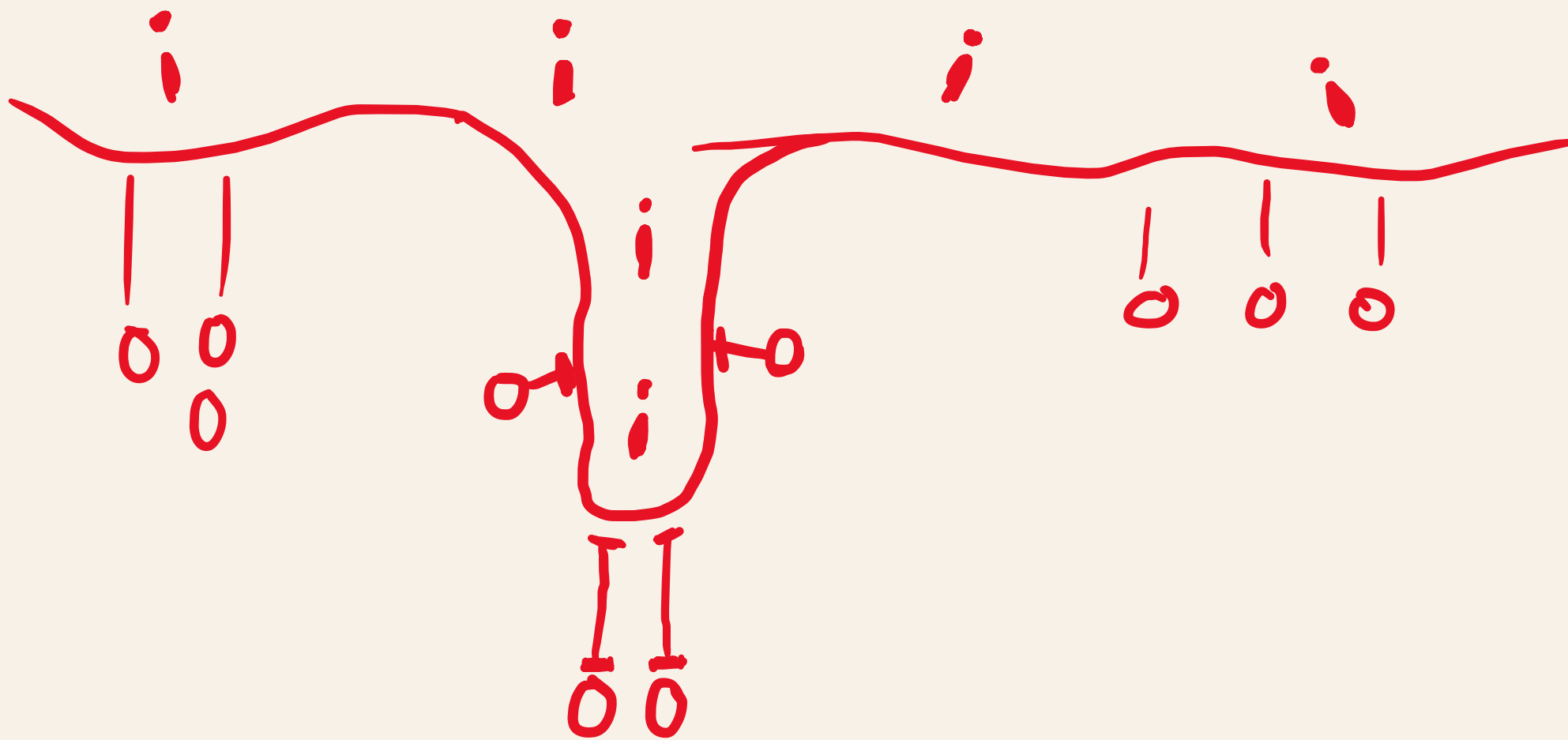






Specifically targets strategy, low-twitch skill players.

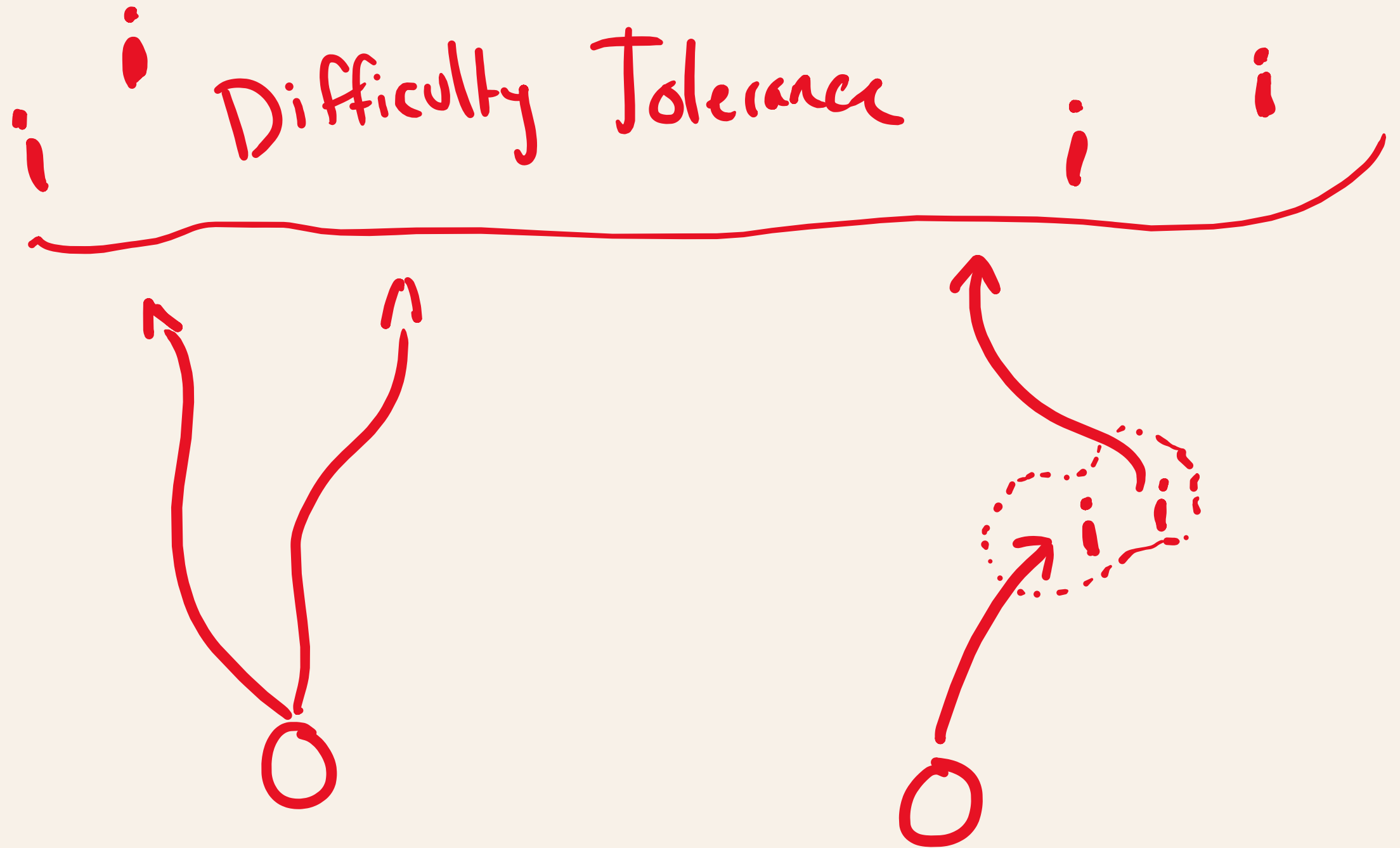




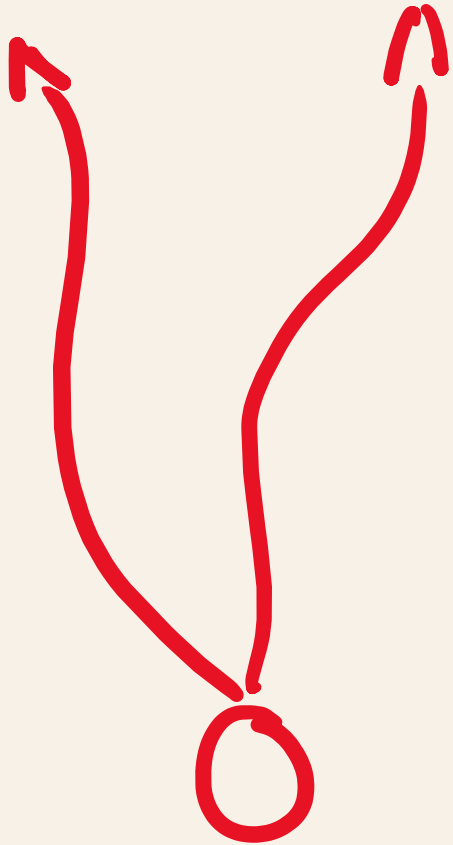


Have to be very careful about employing, because can accidentally grab the wrong people.





i i i i i i  
Personal Islands

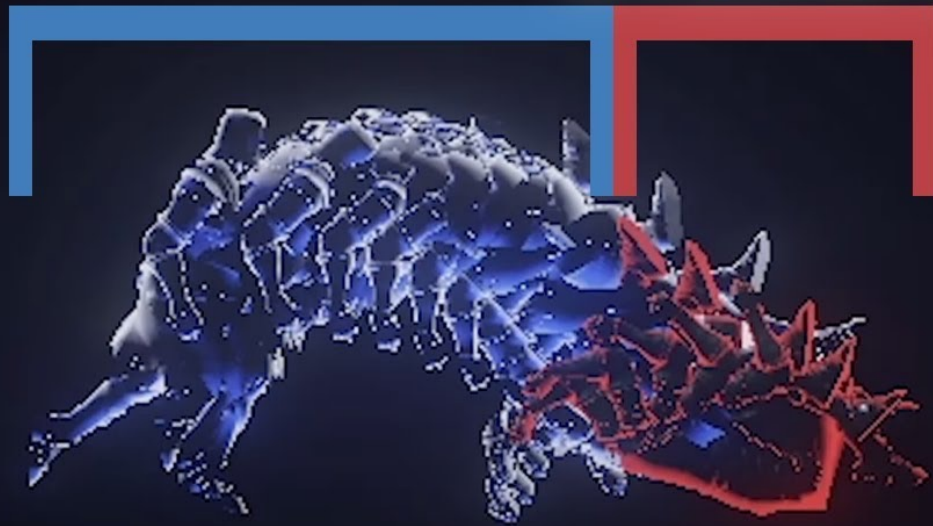


TUNIC



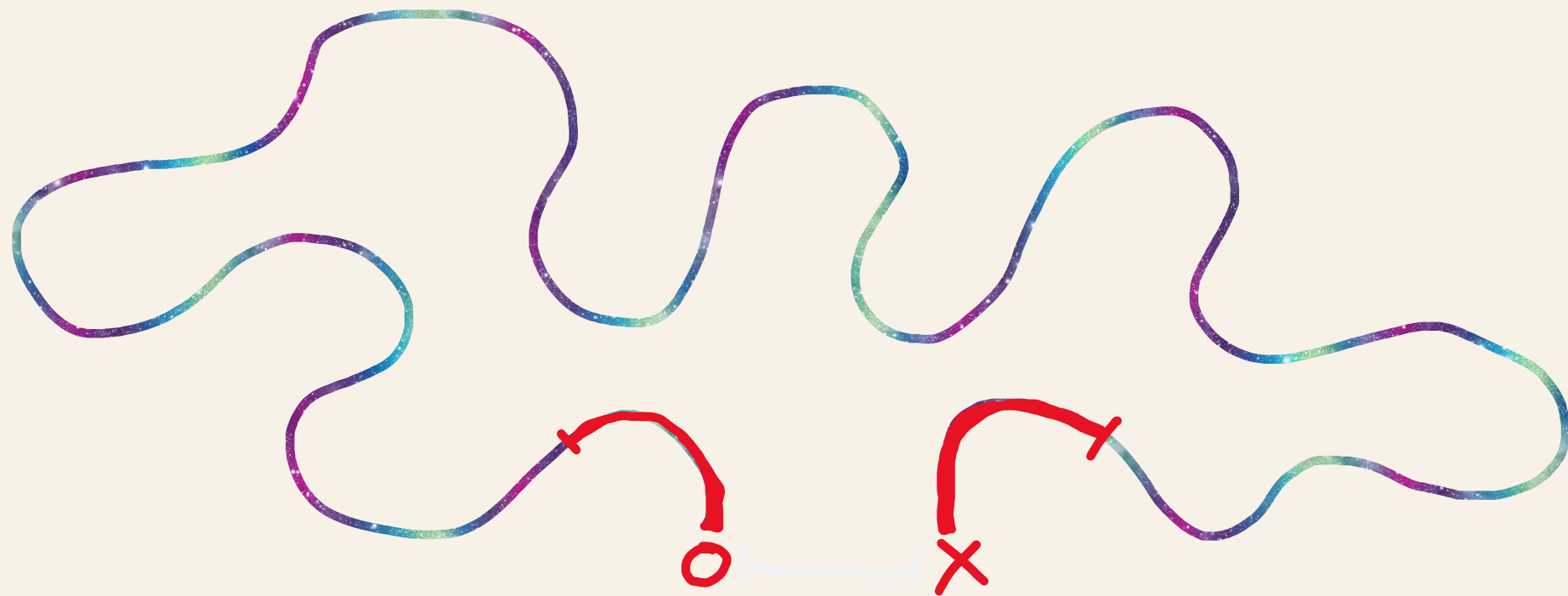
iFrames ✓

NO  
iFrames ✗





O — X



(Leaves game.)

An aerial photograph of a city, likely New York City, viewed from a high altitude. A large, perfectly circular black void is superimposed over the city's grid. The void is surrounded by a thin, dark, irregular border. The text "Call of the void" is centered within the black void in a white, sans-serif font. The city below is a dense network of streets and buildings, with some green spaces visible. The image is framed by a thick black border.

Call of the void

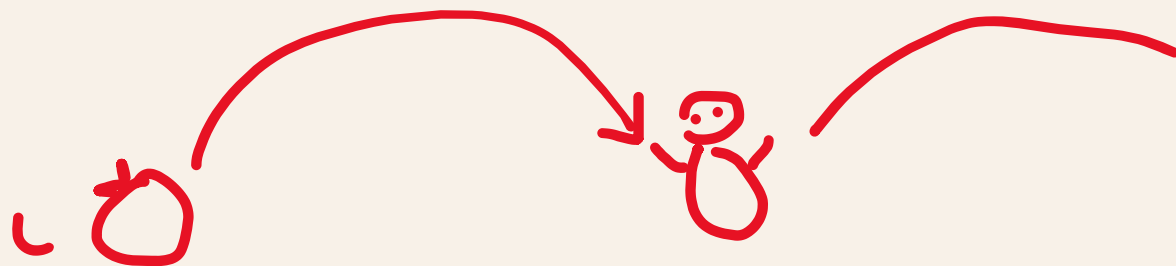
“on ramps”





The illustration depicts a cluttered workshop floor. In the top left, there's a large grey gear with a gold inner ring. Next to it is a green cylindrical object, possibly a motor or a container. A purple sphere on a gold stem and a green sphere on a gold stem are scattered nearby. A red, bulbous object with a green stem lies in the top right. A blueprint with various sketches, including a figure with a circular head, is spread across the floor. In the bottom left, there are several grey nuts and bolts, a blue connector with three gold pins, and a green cable. A large blue mechanical component is in the bottom right. Green vines and leaves are growing from the bottom corners, suggesting an overgrown or abandoned space. The title 'THE LAST CLOCKWINDER' is written in a stylized, ornate font. 'THE LAST' is in a smaller, green, serif font, while 'CLOCKWINDER' is in a larger, blue, serif font with decorative flourishes. The text is centered and overlaid on the blueprint.

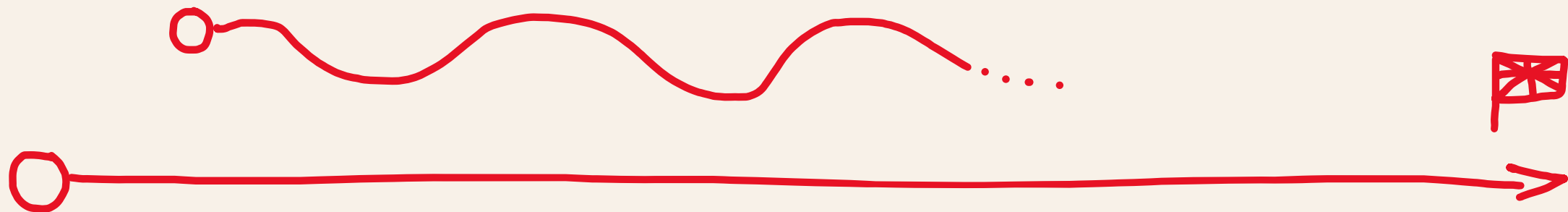
# THE LAST CLOCKWINDER



People wouldn't throw!  
Fundamental skill missing.

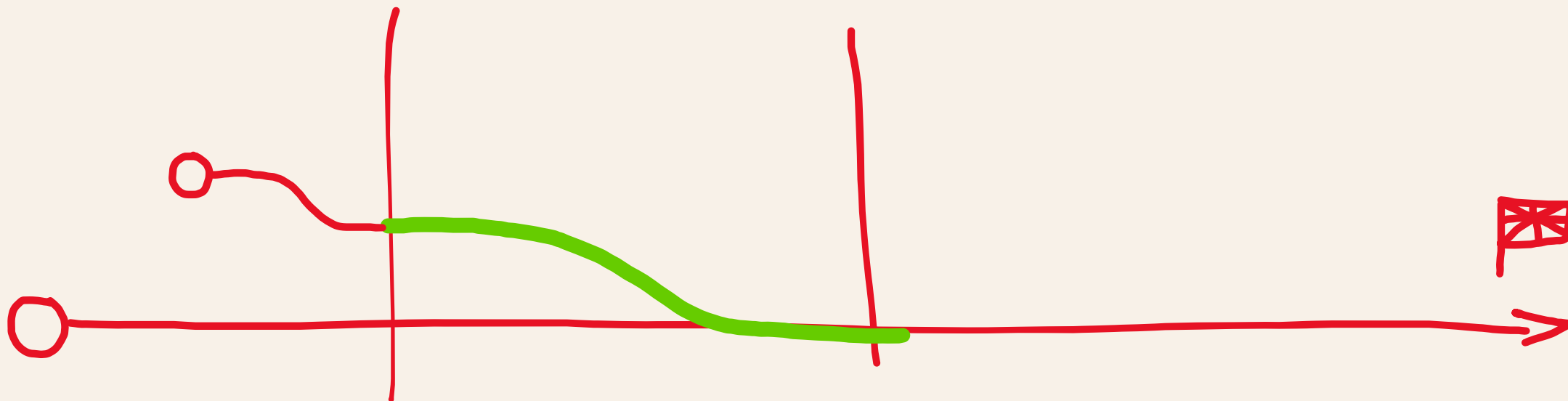


“on ramps” / “detours”



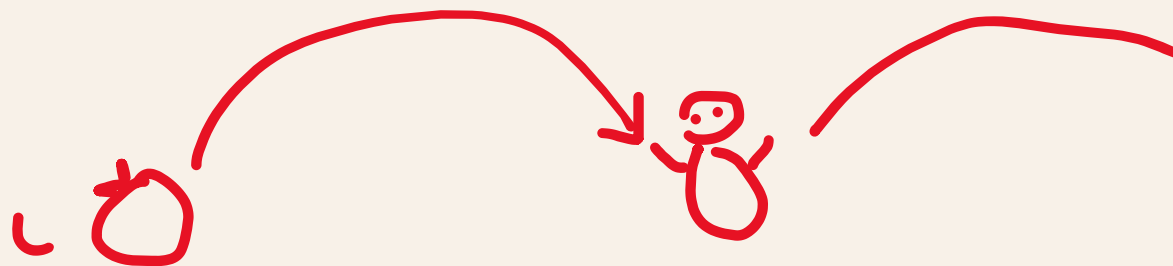
“on ramps”/“detours”





“on ramps”

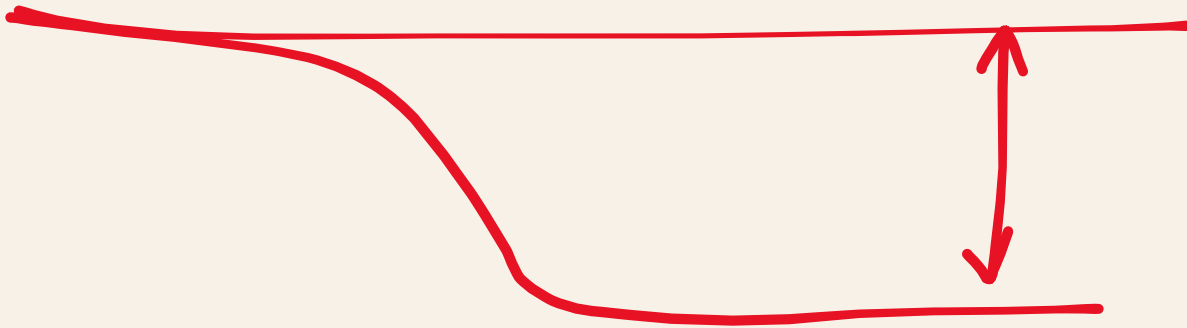




Hot potato mechanic.

# On Ramps

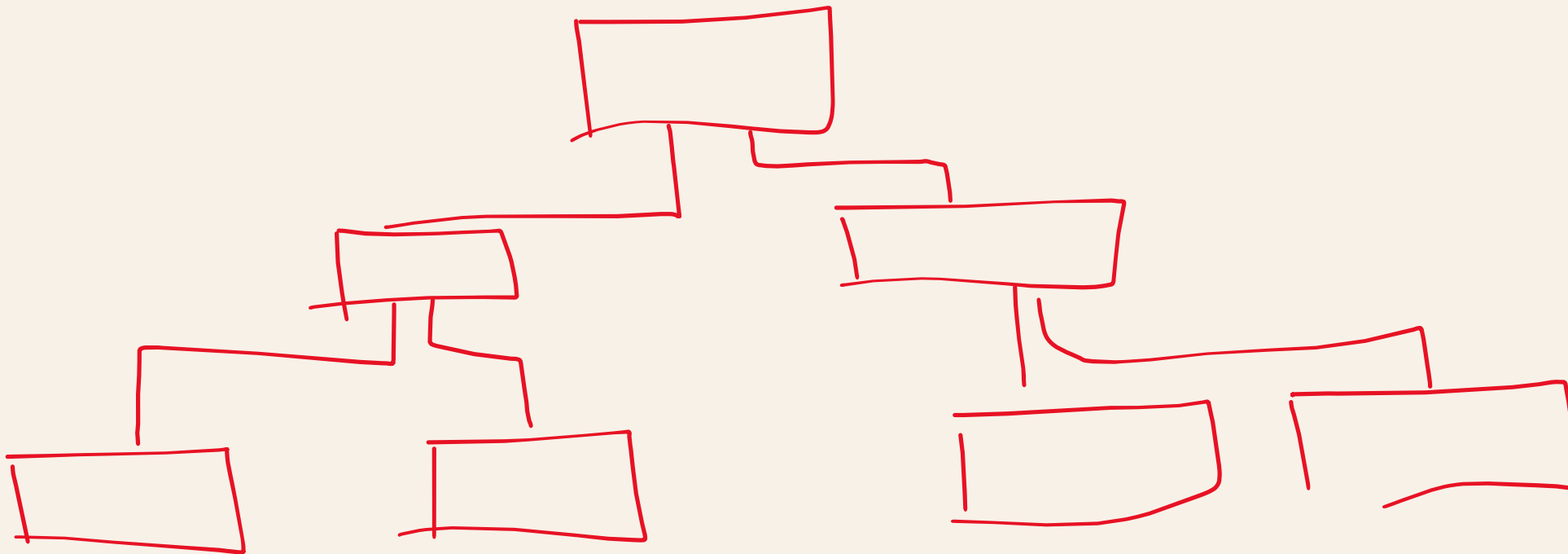
- A good on-ramp is double-duty. It isn't a content branch, it's a design branch. People play the same level, but get different value out of it.





## Puzzle Game Design: Skill Trees

Sounds a lot like puzzle game design.

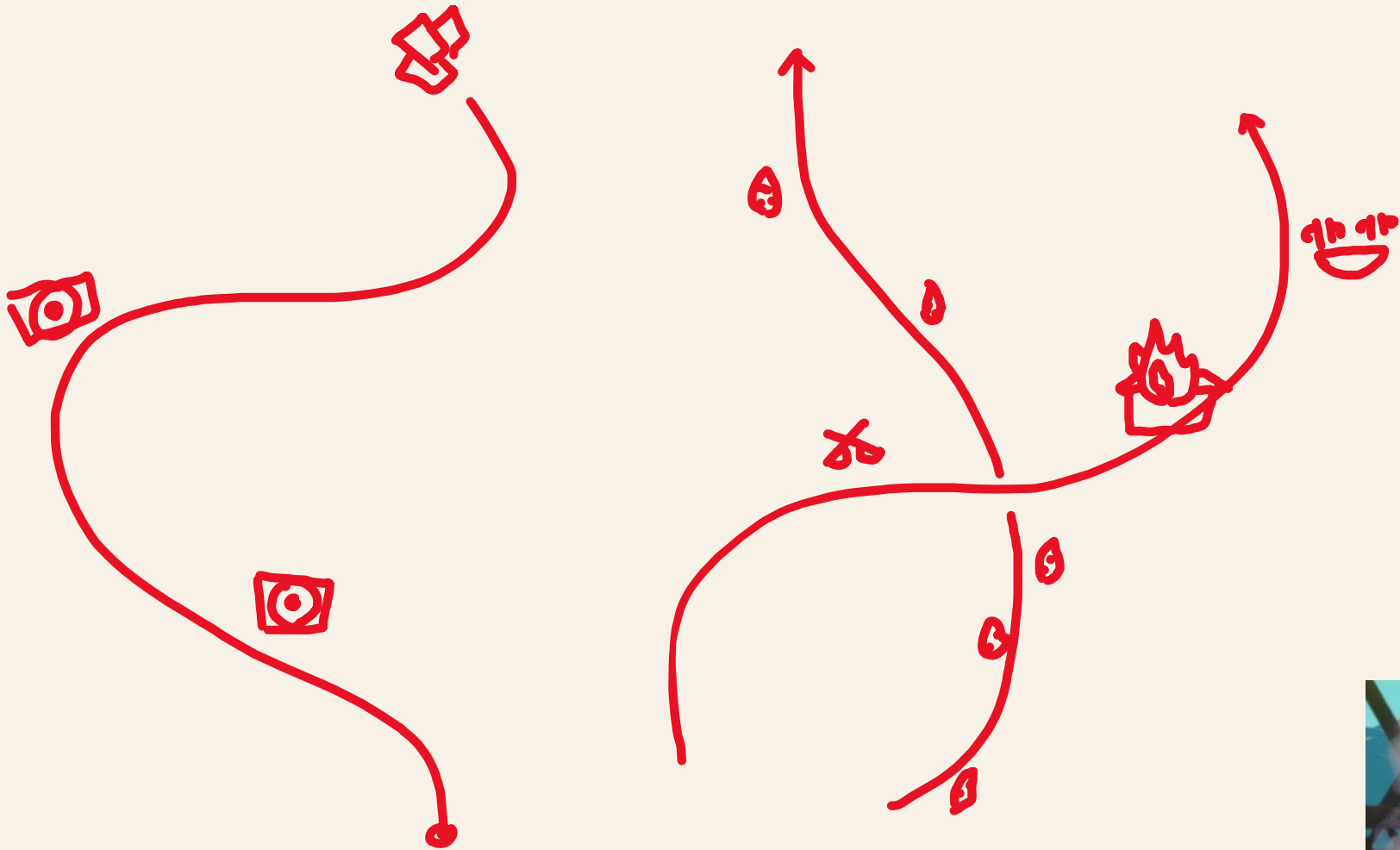


## Puzzle Game Design: Skill Trees

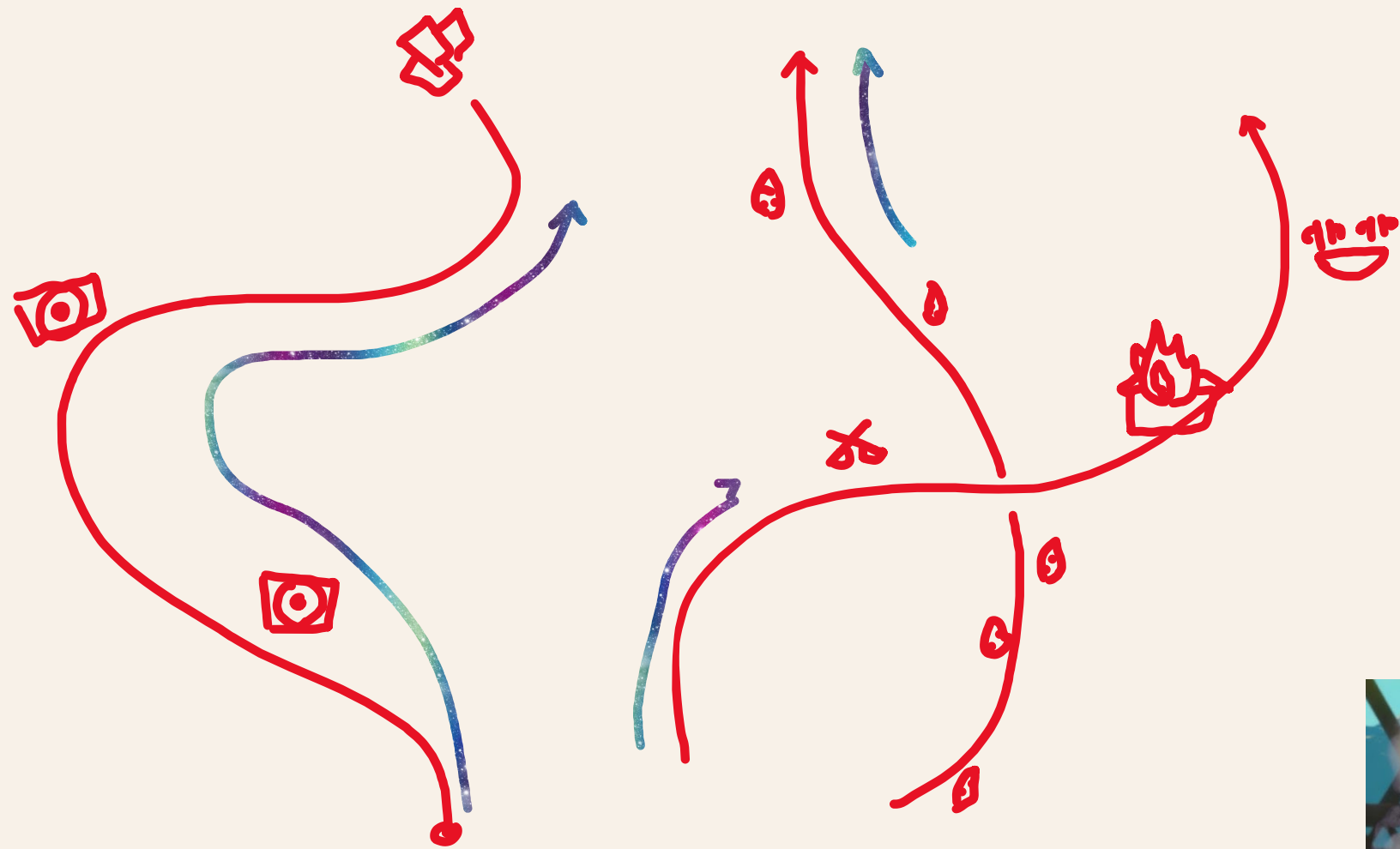
All about learning!!! Give players multiple things to chew on and bounce between.



Strategy: Soup Pot Design



Kitchen Sink Game Design

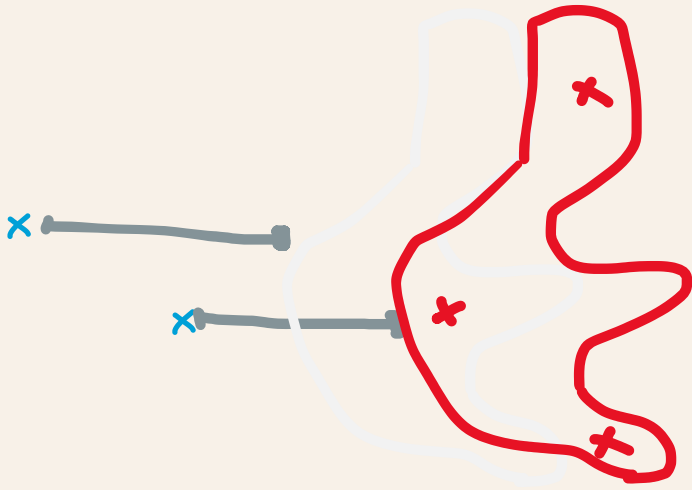


(Change on several paths.. Or largely.. Lack thereof.)

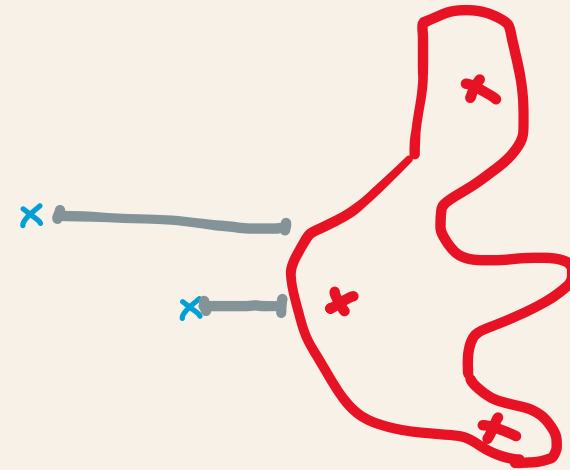




What do you mean you want your game to be 'difficult'?

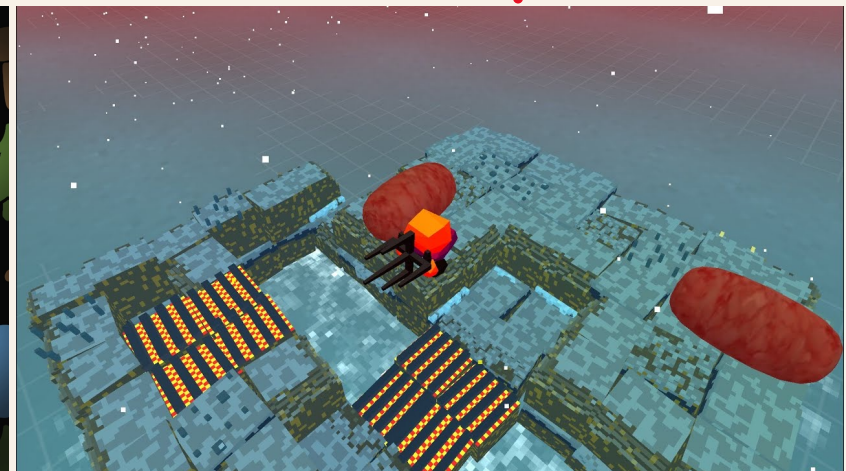
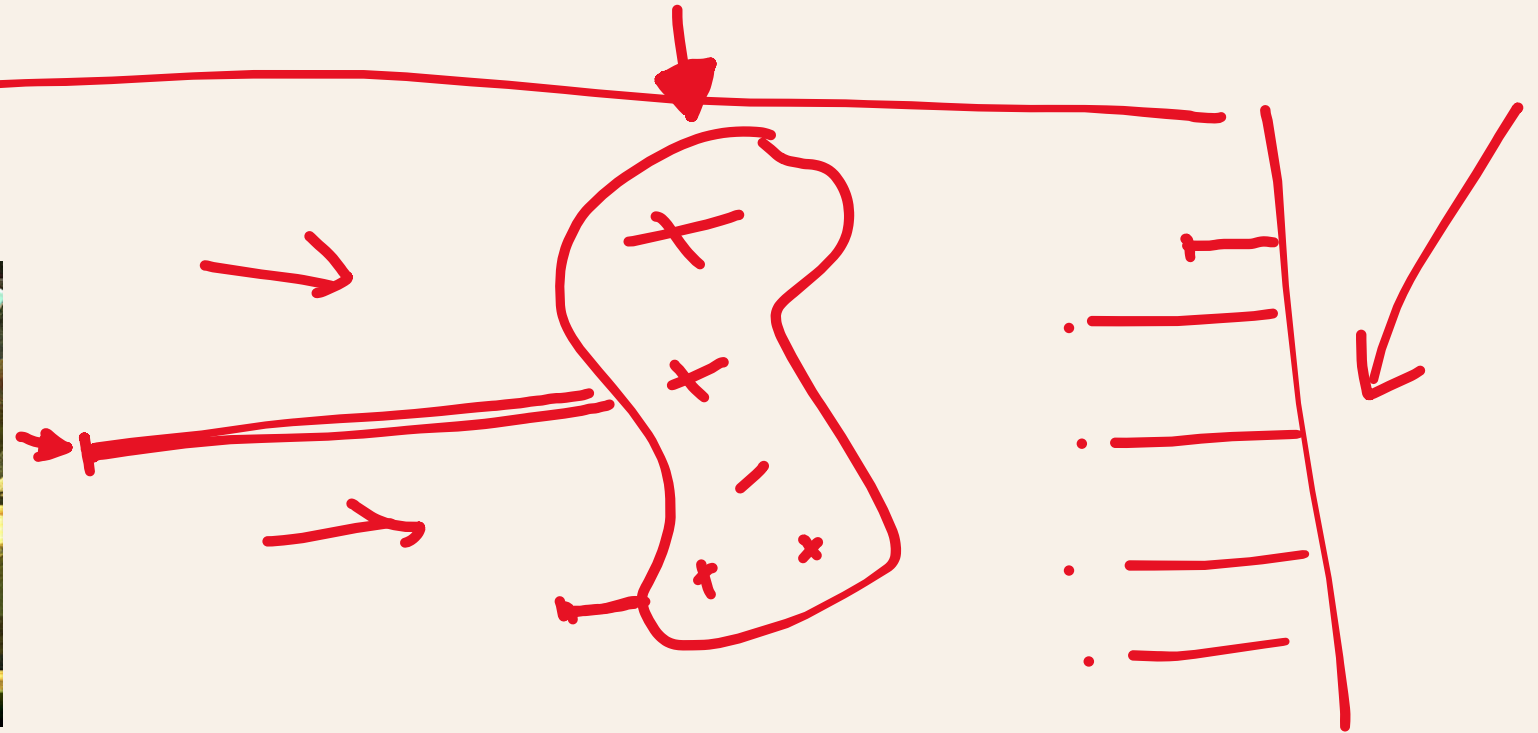


Relative Difficulty



Absolute Difficulty

Absolute Difficulty



# Relative Difficulty

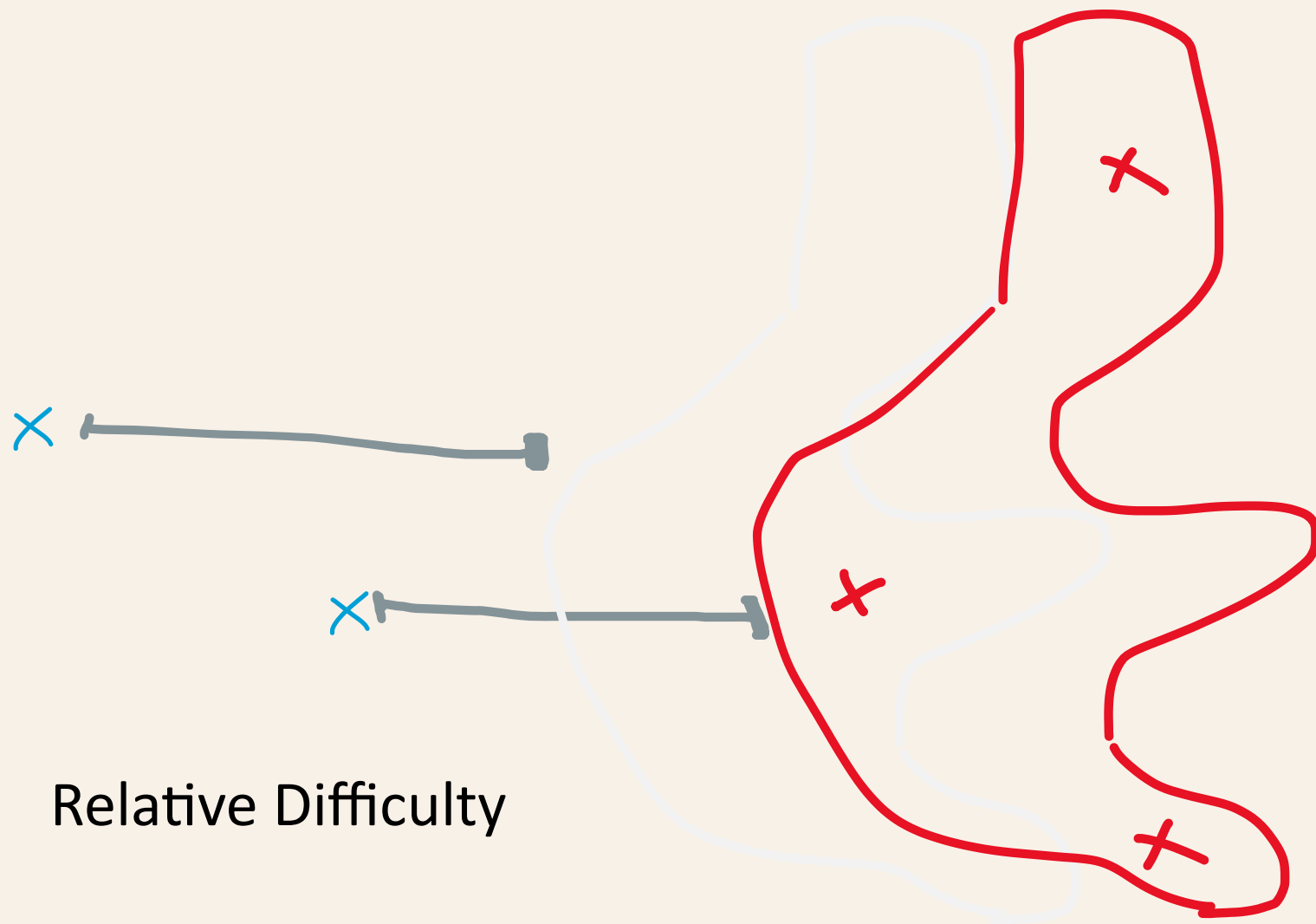
Hades

Rogue-Lites

Elden Ring

Inscryption

Pretty Much Most Modern  
Games,  
lol

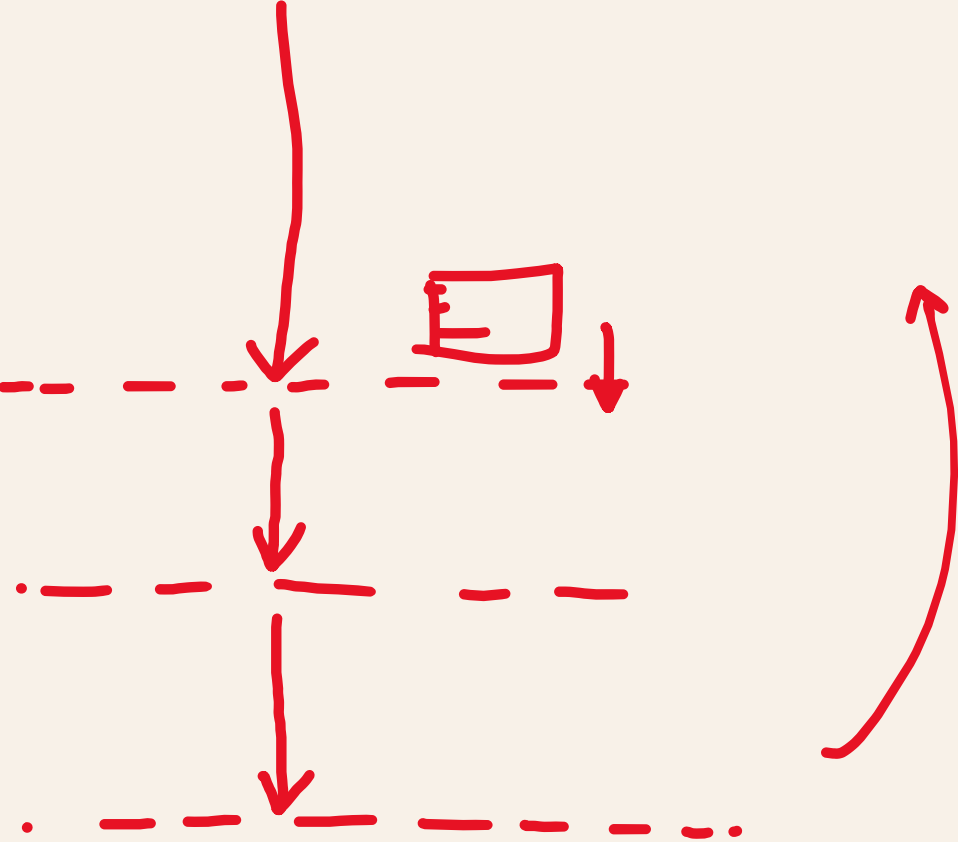




# DOME KEEPER



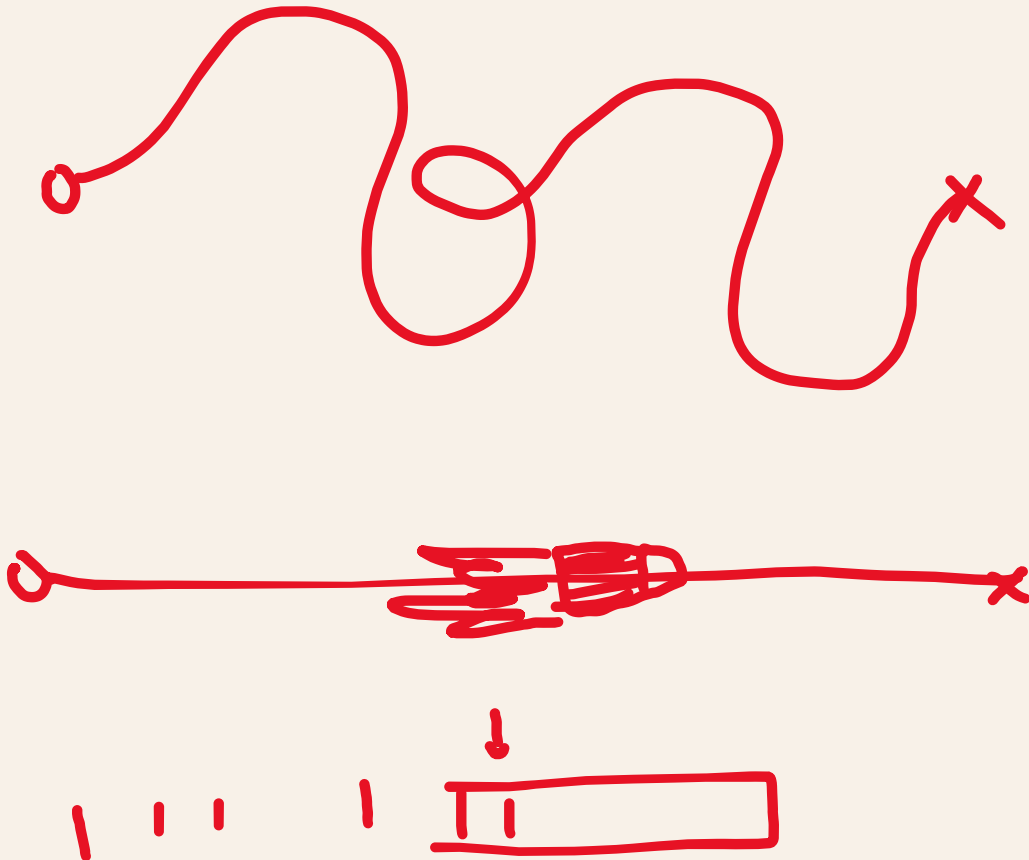
Loot Gambling – Double or Nothing



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

Not necessarily!

# Strategy: Gacha Difficulty

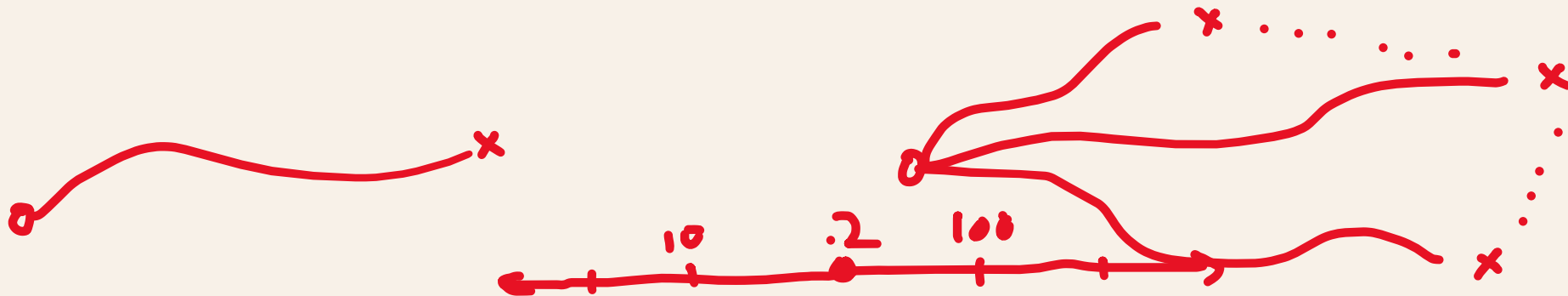


Nearly *\*all\** games do this to some degree. Roguelikes especially.

Aka (trick people into learning)



# Measurements – Zachtronics, The Last Clockwinder, Bridge Builder



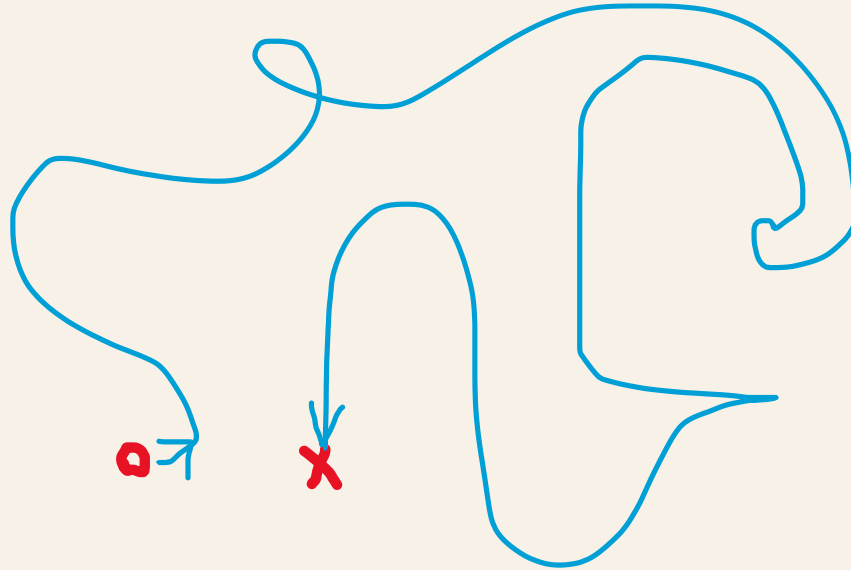
# INSCRIPTION

⇒ 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 Talent~~

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?' -

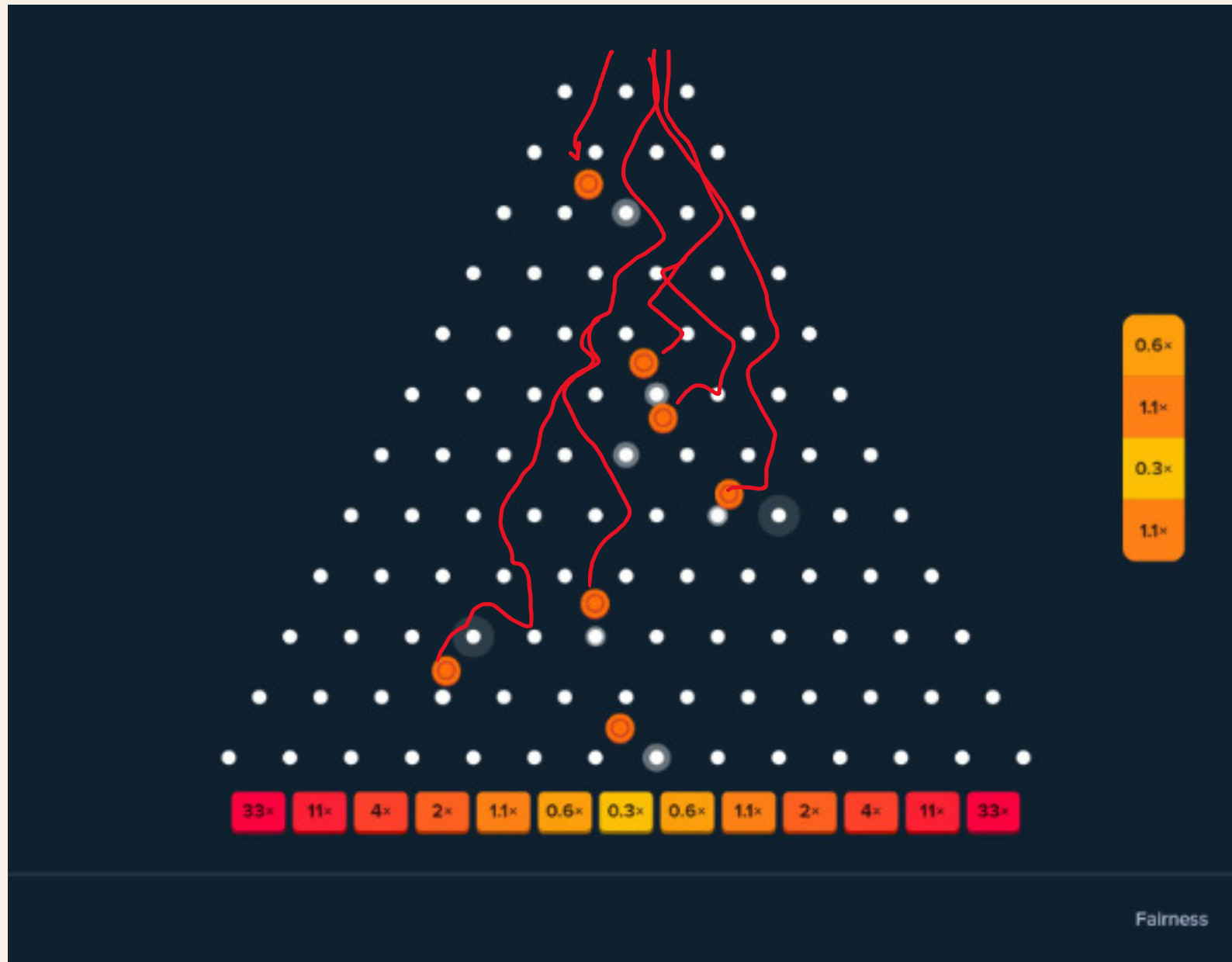
[https://pure.uva.nl/ws/files/1748752/148182\\_410329.pdf](https://pure.uva.nl/ws/files/1748752/148182_410329.pdf)

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

[https://en.wikipedia.org/wiki/Sociology\\_of\\_valuation](https://en.wikipedia.org/wiki/Sociology_of_valuation)

[https://en.wikipedia.org/wiki/Art\\_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

