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# Frustration!

# People 1st Virtual Civilization Initiative



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# **Open Collective Game Studio**

# *presents*:

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# Informed Design Document: Interaction Reviews

## Introduction

#### Objective

Initially, my goal was simply to look at some examples to aid my design of a new jelly interaction. I wanted to take the currently finalized interaction designs, find an unexplored direction, and create a novel interaction that would serve our vision for *SkyJellies*. While I did find some openings, and many great interaction ideas, I realized that the problems and questions that I had going into my jelly interaction design task were still left unanswered by these finalized designs. So, this document aims to highlight the problems that thread through the interactions, and propose solutions that push forward our design pillars of compassion, exploration, and creativity to the fullest.

The main positive is the ubiquity of our primary design pillar: compassion. While there could be some alterations made to take it to the next level, there are no interactions that do not have compassion as the driving principle behind interacting with the jelly. While they all feature compassion, there also is variety enough for a wide range of player personalities. Finally, the interactions feature both active minigames as well as idle game mechanics. Generally speaking, the activities could be divided across a few general categories which I have used to order the document:

* Acquisitional – [fishing](#_Fishing_by_Star_Yasﬄ_1), [mining](#_Mining_by_Rex_Travisﬄ_2)
* Bonding - [brush](#_Cleaning_Brush_by_1), [bath](#_Hot_Spring_by_1), [hug](#_Hug_by_Lawrence_1), [tickle](#_Tickling_Jelly_by_1), [toss](#_Jelly_Toss/Upsy_Daisy_1)
* Play - [ride](#_Ride_by_Jalen/Roscoeﬄ_1), [dance](#_Play_by_unknownﬄ), [songs](#_Play_by_unknownﬄ), [pet tricks](#_Hug_by_unknownﬄ), [tag](#_Hug_by_unknownﬄ), [play](#_Play_by_Guihao_1), [play ball](#_Play_Ball_by), [treasure hunt](#_Jelly_Toss/Upsy_Daisy)
* Creative - [dress-up](#_Jelly_Costume_by), [painting](#_Cleaning_Brush_by)

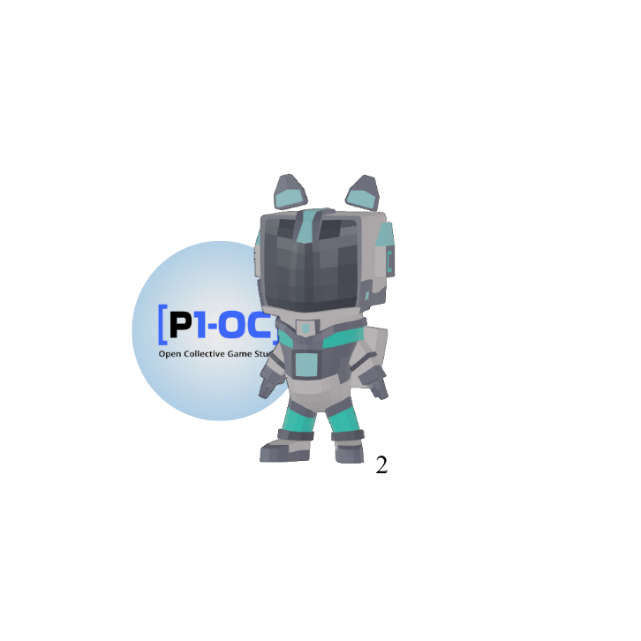
Perhaps this grouping can illustrate one of the natural problems that comes with the open collective game development format. We tend to individually come around to the same ideas! There are a few interactions that share a theme, but differ when it comes to how it plays out. At the same time, we also paradoxically end up at totally different conclusions after reading the same design documentation guidelines! But, when many people have the same problem, it is not the fault of the people but the system that they are acting in. This leads me to one of our leading problems: the incomplete vision of our design goals. I have identified a few main problems I came across with endnotes marked with nerd symbols:

* We are confused about the difference between a jelly ability and a jelly interaction, and which interactions should be activatable for which jelly types
  + The times when an interaction could be potentially varied across jelly types are marked with δ (little delta, a variation).
* We are undecided whether we are making a highly active game or an idle game.
  + I have identified active game models with Φ (phi, work)
  + Idle mechanics favoring passive gameplay marked φ (little phi, potential energy)
* We phased out the interaction item system with a hotbar system, in the cases where the design document mentioned interaction mode, I paraphrased with hotbar keywords (И).
* Finally, there are many interactions that are similar and it would be confusing for both players and for developers to categorize them (Я).

At the end of the document there is a discussion of each problem in detail. If you have no interest in jelly interactions, I highly recommend you go straight there as my writing there applies beyond *SkyJellies* towards a general game design theory. Individual designers of each interaction are credited and their work is linked in the footnote (ﬄ). The TL;DR provides a one line summary and a brief word on what needs to be done next. The mechanics section is summarized from the linked interaction Miro board made by the designer with as little alteration as possible. In the case of inaccuracies, grammatical issues, outdated information/systems, and incomplete submissions I have taken the liberty to insert my own solutions. The questions generally are the place to look for key issues that need further consideration, and the bulleted lists serve as a sort of summary of strengths and potentials. Any time an interaction is mentioned, it is underlined and linked for reading convenience. The thoughts section is entirely my own, but does contain paraphrased portions from the research articles referenced throughout.

#### Future

As a cognitive scientist, I believe game development would be served by consulting well the relevant research literature. You may notice I have included a fair bit of research with a peculiar documentation styling. Citations were kept to the footnotes instead of in a works cited because I felt it would be more useful if each review served as a discrete unit; this document contains many pages and the designers are seeking to efficiently incorporate ideas from only the relevant interaction reviews. The margins are wide and there are page breaks between each review for the same reason. I have only attempted this type of “research literature informed game design documentation” once before.[[1]](#footnote-1) I hope that readers find it useful and can ignore the confusing issues. I will continue to revise and refine my methods and look forward to feedback. Someday the game development industry may appreciate these research literature reviews for game design documentation. With the support of other likeminded people, we may compile research literature relevant to the virtual world and build a great library database.

Let’s work hard to transform games and their public image from a fun distraction to an activity for personal, social, and physical development. I hope that virtual reality systems can be designed with health in mind, and that the resulting virtual civilization can be happy and free.

Thanks for reading and for your interest in research-driven game design.

[[2]](#footnote-2)

Asa Valentine Schaeffer

[Introduction 2](#_Toc145420798)

[Objective 2](#_Toc145420799)

[Future 3](#_Toc145420800)

[Thanks 3](#_Toc145420801)

[Fishing by Star\_Yas 6](#_Toc145420802)

[Questions 6](#_Toc145420803)

[Jelly fishing 6](#_Toc145420804)

[Player fishing 7](#_Toc145420805)

[Shared qualities 7](#_Toc145420806)

[Who 7](#_Toc145420807)

[What 7](#_Toc145420808)

[Mining by Rex\_Travis 8](#_Toc145420809)

[Questions 8](#_Toc145420810)

[Teaching 8](#_Toc145420811)

[Jelly mining 9](#_Toc145420812)

[Cooperative Resource Gathering 9](#_Toc145420813)

[Teaching 9](#_Toc145420814)

[Student Becomes Master 10](#_Toc145420815)

[Cleaning Brush by Misha Bhardwaj 11](#_Toc145420816)

[Questions 11](#_Toc145420817)

[Notes 11](#_Toc145420818)

[Hot Spring by Tkmario 12](#_Toc145420819)

[Points of Interest and Concern 12](#_Toc145420820)

[Digital Caretaking 12](#_Toc145420821)

[Hug by Lawrence Edmondson 13](#_Toc145420822)

[Questions 13](#_Toc145420823)

[Gameplay 13](#_Toc145420824)

[Psychology 13](#_Toc145420825)

[Tickling Jelly by isagabr 14](#_Toc145420826)

[Questions 14](#_Toc145420827)

[Stop it! 14](#_Toc145420828)

[Jelly Toss/Upsy Daisy by ricardomachado2112 15](#_Toc145420829)

[Questions 15](#_Toc145420830)

[Notes 15](#_Toc145420831)

[Ride by Jalen/Roscoe 16](#_Toc145420832)

[Adding Fun 16](#_Toc145420833)

[Impact on Gameplay 16](#_Toc145420834)

[Dance by Jacob Cherek & Songs by Random7051l 17](#_Toc145420835)

[Music Player 17](#_Toc145420836)

[Music Rhythm Game 17](#_Toc145420837)

[Questions 17](#_Toc145420838)

[Pet Tricks by Star\_Yas 19](#_Toc145420839)

[Questions 19](#_Toc145420840)

[Roll Over 19](#_Toc145420841)

[Fetch 19](#_Toc145420842)

[Play Dead 19](#_Toc145420843)

[Shake 19](#_Toc145420844)

[More 20](#_Toc145420845)

[Play by Guihao hao 22](#_Toc145420846)

[Initiation 22](#_Toc145420847)

[Items 22](#_Toc145420848)

[Minigames 22](#_Toc145420849)

[Jelly Enhancement 22](#_Toc145420850)

[Play Ball by Doodledev 24](#_Toc145420851)

[Questions 24](#_Toc145420852)

[Loop 24](#_Toc145420853)

[Jelly Hunt by Char\_Sar 26](#_Toc145420854)

[Questions 26](#_Toc145420855)

[Expansion 26](#_Toc145420856)

[Jelly Costume by Char\_Sar 27](#_Toc145420857)

[Questions 27](#_Toc145420858)

[Physiographics 27](#_Toc145420859)

[Jelly Painting by samliv5853 28](#_Toc145420860)

[Questions 28](#_Toc145420861)

[Design Pillars 28](#_Toc145420862)

[Conclusion 30](#_Toc145420863)

[[3]](#footnote-3) 

## Fishing by Star\_Yas[[4]](#footnote-4)ﬄ

TL;DR: For fishing to work in *SkyJellies* some alterations and design decisions need to be made.

### Mechanics

“If the player brings out their fishing rodИ, maybe either the player and/or the jelly can fish. The player can fish for the jelly when it is hungry. When the jelly is fed, the jelly will be excited, happy, and full. The player can give the jelly a fishing rod and the jelly will fish for themself. The jelly would be excited, happy, and won’t be bored from the activity. If the jelly is at a higher level, the jelly could fish for the player and a rare chance for different fishes. Maybe the jelly can always fish for the player, maybe only the jelly can fish a few times; then the player has to wait a while before the jelly can fish again for higher rewards.”

#### Questions

* What part of this interaction requires the collaboration with the jelly?
  + When player uses the fishing rod on the water to cast?
  + When the fish is about to bite?
  + When the fish is to be reeled in?
* Is there a skill tree involved for the player or jelly?
* What system of fishing do we have here mechanically?
  + Fish is caught automatically after a variable time passes. [[5]](#footnote-5)
  + Fishing rod bobs and the player reacts in time. [[6]](#footnote-6)
  + Player moves the hook in the water to align it with position of fish[[7]](#footnote-7)
  + There is an involved reeling minigame.[[8]](#footnote-8)
* Variability of fishing holes
* Conservationism and safe fishing education?

#### Jelly fishing

* -jelly boredom, +jelly skill
* unique jelly-caught fish
  + Different jellies fish differently[[9]](#endnote-1)δ
* cute
* psychological bond
* idle game mechanicφ

#### Player fishing

* giving fish means + jelly bond
* unique human caught fish
* potentially interactive game mechanicΦ

#### Shared qualities

* opportunity for: skill tree mechanic
* resource generation
* jelly player bonding

### Thoughts

The big issues up for debate are: *who* should be doing the fishing, and *what* the fishing experience actually is. The game pillars dictate that we should promote jelly-player bonding, and compassion seems to me to learn towards the player actively providing for the jelly rather than the jellies fishing for the player’s resource gain.[[10]](#endnote-2)Φ However, the idle-game mechanic of setting jellies to work doing various activities would give the game greater endgame playability.[[11]](#endnote-3)φ

#### Who

I think the most heartwarming option would be fishing collaboratively with the jelly. Going on a fishing trip with one's friends is a classic pastime. Successful MMORPGshave implemented mechanics to incentivize group fishing, such as increased chance to find rare fish when multiple people access the same fishing hole. Fishing with the jelly can bait in more rare fish, special fish that like the jelly, raise jelly mood, and inspire other jellies to join in and watch/hang out/crack open a cold one.

Collaborative fishing could be set up as an acquisitional type interaction with a two stage “teacher and student” design. First the player teaches the jelly how to harvest a given resource, which is implemented as a minigame to really drive home the sense of actually teaching the jelly. Rather than completing checkboxes in a quest log, the player is actively clicking on different places, pressing keys in time, or otherwise actively putting inputs into their game controller. [Mining](#_Mining_by_Rex_Travisﬄ_2), [Teaching](#_Teaching) elaborates further.

#### What

For the gameplay experience of fishing in *SkyJellies*, according to the game pillars, it may be a problem if we are hooking fish and reeling them in while they struggle against the line. It might be suitable to have a more unrealistic yet more compassionate version of fishing, where the fisher uses creativity to entice a fish to give them something instead. For example, an octopus is enticed by the jiggling inky lure to follow it to the surface, where he squirts some blank ink into a flask and then descends back into the depths. Mutual agreement fishing fosters relationship growth and at the cost of realism. It is a favorable trade to develop IRL social skills and elevate the jelly and the fish from NPCs to beings with autonomy. Realism isn’t a priority in a floating island block world like *SkyJellies*.

## Mining by Rex\_Travis[[12]](#footnote-9)ﬄ

TL;DR: Turning a solo grind activity into a bonding minigame and creative idle mechanic.

### Mechanics

“After reaching a certain threshold of node harvesting level, a jelly will indicate curiosity about various mining nodes in the environment. A jelly in the curious state can be interacted with to teach.И In a minigame, the player races to point out weak points in the ore node so that the jelly can mine them in time.Φ If the player is fast enough and succeeds, the jelly gains progress toward learning a new ability.”

After learning to mine? “Player gives jelly pickaxe to begin harvesting command. If there is stone nearby within the experience threshold of the jelly, and if the pickaxe has durability remaining, the jelly will mine the node, bring the stone to the player, and gain experience. Different jelly types can be used strategically to harvest different nodes.δ”

#### Questions

* Is this a two-part interaction, with an active teaching minigame followed by an idle jelly mining interaction?
* Does the player teach each new node to the jelly?
  + Every individual node is explained to the jelly and thereby “unlocked” to be mined as it respawns
  + Every type of node within a level threshold is unlocked after the teaching minigame is played
* More Examples of different jellies interacting with the nodes?
  + Wolfram the tungsten jelly has an explosive ability
  + Petra the stone jelly is made of stone. She could be able to communicate with the ore
  + Flamephin the lava jelly could melt rocks or transform them

#### Teaching

* Curiosity and exploration game design pillar go hand in hand
* Compassion pillar
  + Loyalty & trust between student and teacher
  + Learning together fosters a bond
* Growing relationships
* Active style interactive minigame
  + Jelly follows player inputs
  + Creates sense of teaching
  + Impression of jelly making progress
  + Discussion of failure conditions needed

#### Jelly mining

* Creativity pillar focus
  + Jelly gathers materials for the player
  + Player needs to craft pickaxes for the jelly
  + Potential for other materials to be harvested as a biproduct
* Affection of watching one’s student exercise newfound skill
* Symbiotic relationship
* Pets produce resources
* Idle style gathering game mechanic

### Thoughts

#### Cooperative Resource Gathering

I’m assuming that this is a two-part interaction cycle where the jelly shows curiosity about nodes with its experience range, the player responds by playing the teaching minigame, then the jelly can mine that node when it encounters it in the environment to generate resources and level up mining skill. The jelly then gets new potential for higher level nodes to show curiosity in and bring about the process again, so on and so forth. I think this is a fun interaction idea. I also think it is somewhat limiting to keep it to only mining.

Let’s expand beyond just mining nodes to create a class of acquisitional interactions around gathering a variety of resources in the open world of *SkyJellies*.Я The jellies can idly collect resources that they have been instructed about, which hits all the game design pillars. The jellies can show curiosity about new nodes, and as they level up this will continue to take place. A jelly resource education interaction minigame would, I imagine, change based on the resource type. It could also change based on the jelly type.δ The player actively plays with each jelly through the specific resource gathering minigame, which again hits all the game design pillars. The essential game loop is the discovery of jellies and collection of resources. It is a natural next step to put those together, and if it is possible to implement that as an idle game mechanic as well as a minigame it is a bonus.

#### Teaching

Enjoying the benefits of teaching the jellies resource collection is not only satisfying but creates incentive to teach again as the jelly levels up. Teaching creates positive emotions such as satisfaction and joy, particularly so when students learn or have a breakthrough.[[13]](#footnote-10),[[14]](#footnote-11) It can also create negative emotions when students are challenging.[[15]](#footnote-12) For that reason it seems beneficial to entirely avoid negative jelly reactions to the teaching, even on the event of a critical failure to meet the minigame conditions. Instead, we can use the speed of the jelly correspondence, and the personality of the jelly as ways to express different levels of success with the minigame challenges. We should focus instead on communicating the idea of breakthroughs. Such a design decision already is squarely in line with our guiding principles of accessibility, casual gaming, and absence of stress, punishment, violence, and evil.

The minigame itself could use a variety of inputs, but essentially it needs to visually convey the jelly having a sense of mild/low success, then observing the player’s instructions and implementing them to see a boost in the success rate. For the most part minigames as a whole are underexplored in the design documentation, though most designers have expressed desire to include them in the game. I have operationalized breakthrough in this way for this minigame but definitely we can think of other means.

The player is pushed to explore and find more resources that their jelly has not been familiarized with, and by extension pushed to bring a jelly with them too. Compassion is taking a curious jelly along and engaging them to learn something new. Creativity might be best left to the idle portion.

#### Student Becomes Master

The most satisfying feeling is watching a student excel by using the techniques they just learned. Rather than the typical incremental numbers game where the player assembles an army of identical and anonymous collectors,[[16]](#footnote-13) we want to remind the player of the time they taught the jelly how to do any given activity. We can do this by maintaining the specifics of the techniques taught. For example, suppose the player draws an angle to hit the rock with the pickaxe during the teaching minigame. That specific angle is then encoded into the jelly idle mining animation. The player recognizes this jelly easily by the reminders that will mark that jelly as an individual with past experiences shared with the player.

An idle jelly resource collection and delivery interaction suggests a symbiotic relationship, where we can find loyalty, trust, and the jelly-player bond. The player can be creative in strategizing which jelly types they take on journeys to learn new resources, where to leave the jellies to idly gather certain resources, how much to level up different jelly types, what items to craft to facilitate jelly gathering. Exploring to find new resource nodes takes us back to compassion, because the player is in part acting on the desire to satisfy the jellies’ curiosity. This creates a repeated exploration incentive as the jelly levels up, which is exactly what *SkyJellies* needs to retain players after they experience progression plateaus. Strategically placing jellies, training them, and adapting as they unlock new skills and resource nodes could be a great way to peacefully introduce some challenges into *SkyJellies*.

## Cleaning Brush by Misha Bhardwaj[[17]](#footnote-14)ﬄ

TL;DR: Essential caretaking activity that can be added into a more broad interaction category.

### Mechanics

“After preconditions are met, equip the craftable brush and activate the jelly with it. Swirling and bubbling effects take place during the cleaning, followed by a gold twinkle when the interaction is complete. The intent of the design is to give the player a sense of responsibility for the jelly.”

#### Questions

* Overlap with other caretaking interactions?Я
* Can we consolidate this to a larger grooming interaction with variance for jelly types? δ
* Reward specifics?

#### Notes

* Compassion pillar focus and can incorporate creativity and exploration
* Research broadly supports a mutually beneficial relationship here

### Thoughts

Grooming the jellies is a great activity to develop the player-jelly bond as well as inspire jelly loyalty and happiness. This interaction has the potential to be part of the larger gameplay loop from early on until end game. It makes sense to broaden the idea away from specific brushing and expand it to a variety of crafted and found items to care for the different needs of the different jelly types.δ I also believe it makes sense for this interaction to be an active one, wherein a minigame is played to care for the jelly.Φ

It’s very likely people benefit from a sense of nurturing contact with either children or animals.[[18]](#footnote-15) Strengthening our relationship with nature, and animals in particular can teach love, attachment, comfort, sensorimotor and nonverbal learning, and responsibility.[[19]](#footnote-16) At the frontier of cognitive neuroscience, results are hinting that e default role for the social brain is to give support to others.[[20]](#footnote-17) Expressed in regular terms: we humans are hardwired for and benefit from behaving altruistically.[[21]](#footnote-18)

## Hot Spring by Tkmario[[22]](#footnote-19)ﬄ

TL;DR: Getting closer to the finalized “custom grooming per jelly type” interaction proposal.

### Mechanics

“Jellies will sometimes have icons above their heads that indicate that they can be placed in a hot spring. Players can pick up jellies and place them in the hot spring or crafted bathtub. Jellies that are in the hot spring will express their current feelings, and if they express dirtiness, they can be cleaned via minigame. When the jelly is content it will leave the hot spring, and will gain trust and experience, based on the bathing minigame performance.”

#### Points of Interest and Concern

* Caretaking and compassion pillar focus
  + Symbiotic relationships
  + + Happiness, + Trust, + loyalty
* Creates incentive to craft new items, explore new places, and level up jellies

### Thoughts

Various jellies have unique grooming-type abilities, δ so I propose expanding that idea and creating a section for each jelly describing their unique grooming situation.Я Actively cleaning each jelly type in a distinct manner cultivates the gameplay experience of diverse jelly personalities, leading to more meaningful connections between players and jellies.

#### Digital Caretaking

Positive social relationships, including social integration, perceived support-availability, and positive relations were associated with lower systemic inflammation.[[23]](#footnote-20) This case study talks about the environment of caretaking breaking the RPG genre.[[24]](#footnote-21) This chapter concludes that games can effectively model the experience and difficulties of caretaking and parenting.[[25]](#footnote-22) A virtual pet was successful in gaining the attention of children for educative content.[[26]](#footnote-23) It is worth noting that while digital caretaking does give companionship, it is significantly less than a real dog or cat.[[27]](#footnote-24)

## Hug by Lawrence Edmondson[[28]](#footnote-25)ﬄ

TL;DR: Simple and useful interaction to create player-jelly bond. Needs update for hotbar.

### Mechanics

“Player outstretches arms, jelly responds based on relationship with player and personality. If the hug is accepted, the maximum is 20 seconds, ended by the release action.”

#### Questions

* How to activate the outstretched arm state or the release function?
* Potential for jelly to initiate?

#### Gameplay

* Player initiates, Jelly responds based on trust, mood, hunger, sleepiness, personality
* Hug increases trust and mood for jelly
* Hug creates blocks

#### Psychology

* Clear player-jelly bond and strong compassion pillar
* Teaches consent and autonomy
* Cute animations and effects can release stress and please target audience
* Teaches IRL social skills

### Thoughts

This is a great interaction for passive gameplay that does not require mental focus, physical dexterity, timing, or knowledge.φ Hugs longer than 6 seconds tend to have a stronger effect in terms of neurotransmitter release in the brain,[[29]](#footnote-26) so it might be worth considering a minimum hug time. While the idea that the online hug can trigger the release of norepinephrine and oxytocin [[30]](#footnote-27) to the degree that a skin-to-skin contact would might be unrealistic, I would also be surprised if it didn’t trigger any release whatsoever. [[31]](#footnote-28) Social behaviors in VR and online is a budding research field [[32]](#footnote-29) and I personally believe there is potential for positive effects of acting out typical IRL social behaviors in the online space.

## Tickling Jelly by isagabr[[33]](#footnote-30)ﬄ

TL;DR: An easy method for developing jelly player bond. Needs further design specifications.

### Mechanics

“After learning how to pet the jelly, the player is shown they can interact with the jelly in another way. Clicking repeatedly continues the tickling, prompting jelly laugh sounds, a facial expression, and a chance for the jelly to fall on its side. Ceasing the clicking ends the tickling after a few seconds.”

#### Questions

* How can we implement this within the hotbar system?И
* What are examples of different jelly types being tickled?
* Initiation conditions?
* Rewards?
* Cooldown?
* Consent?
* Creativity and Exploration?

### Thoughts

Another intuitive behavior towards a friend, lover, child, or pet. This interaction design is needing some updating and missing some finishing touches, but overall, we have here a good idea that fits well within the *SkyJellies* design vision.

We can start off by thinking more out of the box about tickling. We are dealing with jellies, not people, and so there are exciting opportunities using them to operationalize and implement a teasing behavior. There can be items or techniques used creatively to express the interesting nature of the physical makeup of the jelly, and we can promote play and tickling between different jellies. We don’t have to stick to typical human responses to tickling for animations of the jellies’ body, and it feels like overstating the obvious, but all of this could be mapped via a measurement of personality/jelly type.δ

It doesn’t seem absolutely necessary for this interaction to reward items or experience, because it is simple, quick, and low effort to perform on the jelly. We can aim to have a good mix of interactions that take short, medium, and long amounts of time commitment.

#### Stop it!

It would be good to include the option for a jelly to reject the tickling, but that would sort of defeat the purpose. It is a tricky thing given the first objective in tickling is essentially to torture. In the end, *SkyJellies*’ target audience is in part impressionable children, and we do not want to teach them to run around tickling people they shouldn’t.

## Jelly Toss/Upsy Daisy by ricardomachado2112[[34]](#footnote-31)ﬄ

TL;DR: Fun minigame close to the line for the no violence rule. Needs updating and details.

### Mechanics

“Player needs to know that they can hold and toss stuff. If it is in alpha or beta stage, while being held, the jelly shows a facial expression of surprised awe, looking upwards to hint to the player to toss them. The action button is pressed while looking into the air and the jelly is tossed, showing a facial expression for positive feedback and giggling wholesomely. The player stays right below or uses the action button to catch the jelly. On failure, the jelly makes a squishy noise on the ground and comically rights itself and returns to idle animation.”

#### Questions

* What happens on success?
* What is the action button and how can we adjust for the hotbar system?И
* What are examples of different jelly personalities reacting differently?
* If the jelly isn’t tossed up does that just trigger the failure case?
* How can we satisfy the condition of player needs to know that they can toss and hold stuff while maintaining the rule of no textual instructions?
* How can we create a combo system to gamify the Jelly Toss/Upsy Daisy?

#### Notes

* Caters to the people-oriented people, the caregivers. Child friendly
* + jelly trust, whether there is a combo system or not, sequential tosses+++
* Compassion pillar focus
  + + Loyalty
  + + Happiness
  + +Trust
* Potential for creatively using items, locations, abilities

### Thoughts

Very intuitive to have a classic childcare action implemented in a caregiving and pet simulation game like *SkyJellies*. People love to play with little infant creatures; it would be great to have an interaction like Jelly Toss/Upsy Daisy which isn’t compromising the no stress and violence rule. To succeed at that it needs to be crystal clear that the jelly is not upset that the player didn’t catch it, tempting as it may be to design a grumpy and spiteful jelly. The different jelly types’ reactions to being dropped will need to be a collaborative discussion.δ We also need to continue addressing the issues and strategies that surround the “no text instructions” rule. In this case it seems intuitive and less of a problem than in other cases but it is a problem nonetheless. I don’t imagine everybody is going to think tossing the jelly is the action to take!

## Ride by Jalen/Roscoe[[35]](#footnote-32)ﬄ

TL;DR: Very useful interaction. Overlap with jelly abilities is a question we should discuss.

### Mechanics

Player approaches the Jelly that has the preconditions met for riding. Riding the Jelly increases movement speed, while increasing Jelly hunger and tiredness.

#### Adding Fun

* bouncy animation, SFX
* +bond with Jelly improved

#### Impact on Gameplay

* +increased mobility
* +exploration game pillar
* +value on feeding mechanic
* +value on rest mechanic

### Thoughts

In my opinion, this is the fundamental game mechanic for pet sims. People like to ride animals in games and we have a lot of potential here with the different Jelly varieties to make something really integral to the basic *SkyJellies* gameplay loop.[[36]](#footnote-33) Jelly personalities can be incorporated to provide different riding experiences, such as speed, duration, controls, SFX, etc.δ Adding ways to increase bonding between the Jelly and the player are always good, and continue to build on the compassion game pillar. Additionally, this interaction builds on the exploration game pillar as well. If building is supported while riding, it would hit all three pillars.

#### Mobility ability

The largest overlap between jelly interactions, jelly abilities, and items are mobility functions.Я Freeze water, ride, portals, warp, vine ladder, fast swimmer, sand pile, hot feet, phantom float, flight, surf, ice shoes, and bubble buddy gives us just about 50% of the jelly abilities being related to mobility. It designed carefully, we can create a progression system of mobility abilities to get players creatively and compassionately exploring, choosing which jellies to bring along for and finding value in each jelly. If not, we will have the unique and personal mobility skills that create real bonding moments made obsolete and which will definitely cause jelly abandonment. In a game about exploration and creativity, it is very important to consider the value of limited mobility and the joy of jumping from block to block.

## Dance by Jacob Cherek[[37]](#footnote-34)ﬄ & Songs by Random7051[[38]](#footnote-35)ﬄl

TL;DR: High value interaction. Meeting needed to consolidate implementation strategies.

### Mechanics

“Music player item is in use, jelly in vicinity gains icon for dance interaction. The player can choose to activate or ignore. If ignored, there is no positive or negative effect. If interacted, a music rhythm game[[39]](#footnote-36) begins. The jelly reacts to the players’ gameplay and improves stats if the rhythm game was performed well.”

“Player goes to a jelly with an instrument, playing it within a certain radius of the jelly. Jellies that like the instrument being played will sing along and increase mood.”

#### Music Player

* Item based: +crafting pillar and +exploration pillar
* Jelly initiated: +jelly autonomy
* Player approved: +player autonomy

#### Music Rhythm Game

* WASD controls
* Health benefits
* Perhaps not technically dance

#### Questions

* What does it mean to “play the instrument”
  + Is this passively happening while the player puts their feet up on their desk and folds their arms behind their head?
  + Is this an active minigame with the player clicking on an instrument?
* Are instruments crafted or discovered or both?
* Details regarding the balancing of the cooldown mechanic?
* Exploration of potential for creatively using items, locations, abilities?

### Thoughts

In this situation we have the interactive rhythm game: jelly danceΦ,and the idle interaction: jelly sing.φ Consider one solution to this conceptual overlap: merge these two into one song and dance interaction with a passive and active portion.Я It is absolutely worth thinking about which types of interactions fall into the same categories and for what reasons we are introducing more complexity into the game. Players and developers can be confused by having to choose between similar activities.

It seems prudent to me that one jelly interaction should be a gameplay like a rhythm game, because it is a proven medium with a fanbase as well as the biological, psychological, and social benefits of the genre. The other should be an idle game. Whether these interactions are merged into one to reduce complexity, structured similarly to the two-part [acquisitional](#_Teaching_1) student-teacher interactions, or designed clearly separate is something we will have to discuss further.

Music rhythm games are a popular genre, and one of the best in terms of health benefits and mainstream social acceptance. There are benefits on rhythmic skills for children[[40]](#footnote-37), motor cortex activation[[41]](#footnote-38),[[42]](#footnote-39), movement disorder rehabilitation[[43]](#footnote-40), speech rehabilitation[[44]](#footnote-41), ADHD & Dyslexia therapy[[45]](#footnote-42),[[46]](#footnote-43),[[47]](#footnote-44),[[48]](#footnote-45), and rhythm games specifically have been used in classrooms for perception and cognition development[[49]](#footnote-46).Φ Many of the most successful rhythm games are thanks to Japanese companies Konami and Nintendo. Perhaps due to the success of physically interactive rhythm games, Nintendo noticed the market gap for a console based around movement and activity. The fact that Nintendo Wii was able to pressure Microsoft into developing Xbox Kinect late into a game environment dominated by the same controllers still to this day is something more game developers should be thinking about.

Furthermore, it is not in our best interest to pursue a UI that is similar to Guitar Hero or a game that is likely more refined than our minigame. We want players to enjoy our rhythm minigame without being drawn to quit the game for a more high-fidelity alternative made by a AAA company for massive profits. Let’s put a spin on the typical rhythm game by using the jelly to change the user experience enough to trigger novelty joy, differentiating us and keeping the player within the *SkyJellies* ecosystem.

## Pet Tricks by Star\_Yas[[50]](#footnote-47)ﬄ

TL;DR: The individual interaction designs need to be fleshed out. Overlap with [Play](#_Play_by_Guihao_1).

### Mechanics

Via radial menu, a variety of tricks like roll over, fetch, play dead, shake) can activated.

#### Questions

* Do jellies learn new tricks?
* Do different jellies have different tricks?
* What are the effects of doing tricks with the jelly?
* What are the conditions that must be met in order to do a trick?
* How will the Pet Tricks interaction interact with the Play interaction?

#### Roll Over

* Dog trick
* Can be expanded upon considering the jelly personality and jelly composition
  + Loggy the wood jelly rolling along his round side
  + Wolfram the tungsten jelly doing an explosive spin
  + Bo the bouncy jelly using his sac to go into the air
  + Soporfina the sleepy jelly half-baked attempt to move around

#### Fetch

* Dog Trick
* Potential support for the exploration pillar by incentivizing the player to search for specific items that the jelly enjoys playing fetch with
* Potential support for the crafting pillar by incentivizing the player to craft items that the jelly enjoys playing fetch with
* Fosters bond between player and jelly which supports the compassion pillar

#### Play Dead

* Dog Trick
* Like Roll Over it can be expanded upon considering the jelly personality and jelly composition. Could have comical effects such as the Pyre the fire jelly or Flamephin the lava jelly becoming frozen, or the Glacia the ice jelly melting or even becoming frozen solid. Layden the beach jelly suffers a sunburn.

#### Shake

* Dog Trick
* Could be a behavior between jellies as well
* Jellies don’t really have hands; Opportunity for creativity I suppose

#### More

* Backflip
* Balance beach ball
* Juggle
* Sit

### Thoughts

First off, this interaction has a lot of potential to support all three main game design pillars for *SkyJellies*. Jellies doing tricks is cute and naturally, humans feel compassion for cuteness.[[51]](#footnote-48) The loving relationship between dog and owner is definitely something that we can strive to approach with our more obedient jellies. As for the wilder ones in the jelly roster, we can alter the tricks within their arsenal to reflect their personalities.δ Creating unique animations for each jelly type and even for different jelly mood states can foster jelly-player bonding and develop the relationship further. This can help differentiate the jelly from just an NPC to a unique and autonomous being. Additionally, altering tricks can support the exploration and crafting pillars by incentivizing players to use new items and jellies to see new tricks or change old ones.

I think it would be very beneficial if jellies could learn new tricks, and additionally, to have secret tricks that they perform for the player without prompting. In fact, I think the whole prompting the jelly to do a trick with the radial menu could be rethought. I propose a prompt that corresponds well with the hotbar system,И where a treat is offered, and the jelly performs one of the various tricks in the arsenal in an attempt to receive the treat.

Passively watching a jelly do a cute activity creates a sense of service and entertainment.φ Playing a minigame with the jellies’ involvement fosters compassion.Φ Both service and compassion are design pillars, but this interaction is best as a low to medium effort commitment in my opinion.

Finally, a note must be made on the overlap between other interactions and game functions. Many behaviors could be folded into one *type* of interaction where the jelly does something entertaining. Alternatively, many interactions categorized as tricks could be considered as whole other interactions. For example,combining[Play Dead](#_Play_Dead), [Roll Over](#_Roll_Over), [Backflip](#_More), Twirl, [Dance](#_Play_by_unknownﬄ), [Juggle](#_More), [Sit](#_More), Roll Eyes could be folded into just [Play Trick](#_Hug_by_unknownﬄ), and offering the treat could activate any of these at random. More involved interactions that technically could be categorized as “jelly entertainment services” like Skateboarding, [Hug](#_Hug_by_Lawrence_1), [Jelly Riding](#_Ride_by_Jalen/Roscoeﬄ_1), [Play Ball](#_Play_Ball_by), and [Jelly Painting](#_Cleaning_Brush_by) might need their own interactions. So, we have a tricky problem of choosing interaction categories.Я Especially when it comes to [Play](#_Play_by_unknownﬄ), [Pet Tricks](#_Pet_Tricks_by), & [Fetch by Toluwa](https://miro.com/app/board/uXjVMT36_V4=/?moveToWidget=3458764551490883591&cot=14)[[52]](#footnote-49)ﬄ (which I have already taken the initiative to combine with this larger pet tricks interaction).

## Play by Guihao hao[[53]](#footnote-50)ﬄ

TL;DR – Broad jelly interaction mentioning potential minigames yet to be designed.

### Mechanics

“Jelly approaches the player with the play symbol displayed. Player can approach the jelly, to press the prompt button and initiate play. Using items from the tools and toys section of the inventory (ex. ball, feather, building blocks). Potentially implement minigames lasting less than 5 seconds to increase gameplay fidelity.[[54]](#footnote-51) Unique visual and sound effects indicate increase in jelly trust and happiness levels. After the satisfaction threshold is reached there are additional effects, and based on the item used the jelly gains experience points for various attributes”

#### Initiation

* Jelly first: teaches consent & autonomy.
* Player responds: +social,+bonding,+compassion
* Mutual agreement fosters relationship growth and realism, IRL social skills, and elevates the jelly beyond an NPC into a being that seems to make its own choices.

#### Item-based

* Promotes exploration pillar to find new toys
* Promotes creativity pillar to craft new toys
* Caters to “the collector” gamer personality
* Vanity items design pillar

#### Minigames

* Increases player retention and widens appeal
* “Enhances fun of interaction”
* Increases player-jelly bond
* Validates the effort taken to craft/find new toys by introducing novel experience

#### Jelly Enhancement

* Increases player retention and endgame
* Promotes the compassion pillar by caring for the jelly and growing them stronger, more skilled, more intelligent, etc.
* Promotes exploration pillar by searching for different jellies with new skills, and different items to develop them.
* Promotes creativity by employing different strategies to level up jellies based on their future attributes and jelly paradise construction goals.

### Thoughts

Teaching the player social skills through the video game is a fantastic benefit of this interaction and should be developed as much as possible throughout the interaction system as a whole and into the wider game. The game design pillar of compassion is something that can be cultivated practically in the real world, and designing a game that serves this purpose might be our highest priority at [P1] Open Collective Game Studio, and probably should be the priority of game developers across the world.

The use of items to interact with the jelly creates incentives to explore, interact, and come back to the game when new items are released. How these items are going to be activated with the phasing out of the interaction system we have planned can be solved using the hotbar method,[[55]](#endnote-4)И wherein the player holds an item in their hand and uses it to interact with the game entity.[[56]](#footnote-52) We need to be careful to not overlap the items that are developed for the play interaction with other jelly interactions,[[57]](#endnote-5)Я such as the stone polisher used to polish jellies with horns, spikes, and claws. Play could be combined with all the various items used to interact with the jelly in various ways, such that the item itself dictates the type of minigame, whether it is play, grooming, crafting, exploring, etc.

The way these minigames are to be implemented and their gameplay experiences needs to be explored. At the moment it seems the design team is undecided about the use of minigames within *SkyJellies*, and if we could come to a consensus on the topic it would be useful. I personally am in favor, because without them the gameplay loop might be on the simple side. Additionally, minigames that require jellies’ interaction can create the experience of playing games with friends, or playing a game with a friend watching. Minigames develop finger, hand, and arm dexterity, as well as mental acuity and memory.Φ

Using the interaction system to develop jelly skills is another interesting idea. On the one hand it creates more gameplay depth, incentivizing players to spend time finding items and activities to strategically apply to jellies as if they were IV’s.[[58]](#footnote-53) On the other, creating a competitive and strategic aspect may conflict with the design pillars of compassion and the target audience of hyper-casual players. Additionally, it may conflict with the evolution and leveling system that is already in place. I personally am in favor of a system where jellies can be developed and leveled up outside of their evolution path, but it needs to be casual and cosmetic rather than a core aspect of gameplay.

## Play Ball by Doodledev[[59]](#footnote-54)ﬄ

### Mechanics

After jelly hunger, sleepiness, and mood conditions are met, along with the right biome, the player may approach the jelly with a ball in hand.И The player tosses the ball and the jelly will chase after the ball. Then the jelly throws the ball back to the player. After the loop iterates enough times, the jelly feels satisfied and will hand the ball back to the player.

#### Questions

* How do we know if the jelly wants to play ball?
* How does a jelly throw a ball like.. practically?
* How do we differentiate this from the Fetch interaction?
* What is the result of throwing the ball in different directions?
  + Jelly upset if the throw is far away?
  + Jelly more tired if the throw is far away?
* General throw distance
* Can we incorporate multiple jellies?
* Can we incorporate jelly type differences?
* Can we create a jelly throw ball skill improvement?
* Can we involve resources, crafting? Vanity items? Toys?
* Can we explore?

#### Loop

* Player activates the ball from the hotbar
* Jelly goes and gets it, and throws it back
* Player catches it and can choose to throw it back or not I suppose
* Ends when jelly reaches satisfaction threshold

### Thoughts

I think Play Ball is a natural fit for *SkyJellies*. It has a lot of potential to aid in our pursuit of compassion, creativity and exploration. Playing catch is the ultimate symbiotic relationship. You give something to somebody and they give it back. That is trust and loyalty, growing a relationship, even technically ticks the no abandoning pets box. We can increase the compassion by introducing consent of the interaction initiation, which would teach social skills and also give an opportunity to showcase different jelly personalities, moods, and types.

Creatively speaking, tools, vanity items, pet toys, and blocks could all be used as balls for different jelly types.δ Along the same line of thinking, different jellies could have different levels of patience for bad throws. Imagine a jelly that responds to a bad throw with an even worse throw, leading the player to go to a new place to look for the ball.[[60]](#footnote-55) Maybe we can find the most amazing things when we can let go of the thing we were originally searching for.[[61]](#footnote-56) It seems like a complicated thing to implement, but could it be possible to lead the player to new content if they are looking for a lost ball?

Like I mentioned before, my only concern is that the interactions [Play](#_Play_by_unknownﬄ), [Pet Tricks](#_Pet_Tricks_by), and now [Play Ball](#_Play_Ball_by) have similar means of activation in game, and could easily be mixed up in the mind of the player or even the developer. Я These 3 interactions, and we could add in [Fetch](#_Fetch_by_Toluwaﬄ), [Dance](#_Dance_by_unknownﬄ), [Hug](#_Hug_by_unknownﬄ), and maybe even [Ride](#_Ride_by_Jalenﬄ), need to be clearly differentiated or need to be folded into one interaction under the heading of trick or play.

Overall, this is a fun interaction that can nicely bridge the gap between minigames and hyper casual idle game players. [Play Ball](#_Play_Ball_by) gameplay can be implemented such that anybody can pick it up, and thereby gain confidence to try other more complicated minigames such as [Dance](#_Dance_by_unknownﬄ) or [Mining](#_Mining_by_unknownﬄ). It promotes the design pillars, and can be an enjoyable activity in and of itself. Players can explore to find new places to play catch, be inspired to craft baseball fields and new balls, or want to catch new jellies to see how they throw the ball.

## Jelly Hunt by Char\_Sar[[62]](#footnote-57)ﬄ

### Mechanics

After preconditions are met (properly fed and good rapport, Ruin jelly only), the player picks up the jelly. The jelly starts looking for treasure, indicating via a glow the distance to the treasure. After playing hot/cold with the jelly intensity, the player succeeds by finding a treasure chest, which contains notes from a past explorer, jelly information, concept art, and easter eggs

#### Questions

* Can this be expanded in a wider from to include other jellies?
  + Overlap with Dune, the desert jelly
  + Overlap with Breezy, the beach jelly
* How can we improve the feeling of interactivity and compassion?
* Are treasure chests spawned by the initiation of this interaction or are they constant game objects that could potentially be found without the interaction?
* What other things could the player find inside the treasure chest?
  + Exclusive items?
  + Or is it purposely items that are story related
* What kind of reaction does the jelly give?
* Does the the jelly get experience or mood boost on successful treasure hunt?

#### Expansion

* Does serve the caretakers but the support of this pillar could be expanded
  + How does the jelly indicate interest in the activity
  + Need details on the jelly SFX, visual effects, mood, personality as the hunt is happening
* Exploration pillar++
* Boost Creativity by adding vanity items, abilities, toys

### Thoughts

An interaction focused on exploration is a rare and welcome addition. Players might explore new islands, find new animals, find new resources, and get new ideas as a side effect of this interaction. In the real world, a lot of the learning about Earth’s past is done through archaeology and exploration, and it is a great way to mirror the process of discovery in game by following a trail of information and piecing together the puzzle of information to discover the past. Perhaps a great way to supplement this with some creativity would be to leave scattered information in different chests and get the player thinking about how the story could have come together. A treasure hunt game developed for child therapy purposes showed promise, so the potential is there for this minigame to follow their example. [[63]](#footnote-58)

## Jelly Costume by Char\_Sar[[64]](#footnote-59)ﬄ

### Mechanics

Player crafts items and puts them on jelly

#### Questions

* How to refactor into hotbar system
* Incorporate exploration as well as crafting
* Rewards and effects for wearing clothes
  + Can we incorporate “Pets produce resources”?
  + Skill tree? Fashion minigame?

#### Physiographics

* Caters to the people-oriented people, young ladies, caregivers. Child friendly.
* Caters to the builder, crafter, creative person, expressing oneself
* Caters to the explorer, the achievement hunter, changing perspectives

### Thoughts

A great idea for *SkyJellies* that could really be a whole game by itself. Dressing and styling the jellies has the potential for endless endgame content, and keep players exploring and crafting to update the style of their jelly paradise. Some work needs to be done to flesh out the idea, such as identifying the scope of the interaction and prototyping an interface. This could be as simple as [Jelly Painting](#_Jelly_Painting_by), or a completely involved fashion design and dress up simulator.[[65]](#footnote-60) Dress up games can appeal to the audience we are intending to target, while the jelly format with crafting and exploration features can help widen the appeal. Lots of hardcore gamers take great pride in the look of their character, and even spend money on cosmetics.[[66]](#footnote-61) There are also many games that just by having a side feature of character fashion customization attract a much wider range of players.[[67]](#footnote-62) The distinction between fashion game and game played because of good character customization is really only for genre categorization purposes and generally speaking, players will choose to spend time in game doing the activities they enjoy. Often this is reflected by locking certain fashion pieces or dyes behind difficult content, or paywalls. It seems okay with the design goals of *SkyJellies* for some cosmetics locked behind exploration or crafting objectives.

## Jelly Painting by samliv5853[[68]](#footnote-63)ﬄ

### Mechanics

Hold the paint palette tool and activate the jelly with it.И The camera goes first person, a UI on the right shows various design choices like shapes, patterns, and tattoos there. The cursor changes to a paintbrush and is no longer tied to center. When in pattern select mode, the jelly’s head follows your cursor movements. After selecting a paint design, the jelly may give a little reaction. You then get to paint them. Select color, the paint goes on where you click. The jelly may shake, causing a paint splashing on the screen effect, but fear not the progress is unaffected. When the paint is done it gives a buff.

#### Questions

* Are we selecting outlines or free painting?
* Is this feasible on the programming side?
* What kind of buffs and how will they be decided?
* How will paint react on various jelly types?
* Are paints craftable?
* Are we censoring if it is free paint?
* Mechanics for painting the side of the jelly facing away from the player?
* Other rewards like honey dew or experience?
* Consent?

#### Design Pillars

* Childlike activity
* Compassion
  + + Loyalty
  + + Happiness
  + + Trust
* Creativity

### Thoughts

A great idea that fits nicely into the *SkyJellies* design vision. Art is definitely a positive behavior that can help develop empathy, compassion, and creativity. It was shown to a more effective strategy for distraction from trauma when compared to writing.[[69]](#footnote-64) Joint art therapy in one case study enabled a “young person with learning disabilities to develop more confidence and form a stronger sense of self.”[[70]](#footnote-65) Finding a way to activate these creative activities within *SkyJellies* minigames is a fabulous opportunity to support the game design pillars and the player directly.

My only concern for this minigame is the vaguery between selecting “stickers” and attaching them to the jelly versus selecting “stencils” and tracing them onto the jelly. Furthermore, we would have to talk to the programming team about implementation for something that changes the game textures.

Finally, it would have been nice to see some detail about the system of paint items, how it can be related to crafting/exploring, and how the system can be expanded to serve the ultimate goal of building a great village/paradise for yourself and your jellies.

## Conclusion

### Positive

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54. *Warioware* by Intelligent Systems, Nintendo [↑](#footnote-ref-51)
55. И Hotbar system [↑](#endnote-ref-4)
56. *Minecraft, Roblox, Ark: Survival Evolved*  [↑](#footnote-ref-52)
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58. *Pokémon* system wherein different opponents improve different stats after battling them successfully. [↑](#footnote-ref-53)
59. ﬄ <https://miro.com/app/board/uXjVMM-ULT0=/?moveToWidget=3458764553405518971&cot=14> [↑](#footnote-ref-54)
60. In *The Sandlot,* directed by David M. Evans, a group of kids hit a home run over the fence with a cherished Babe Ruth Signature ball, and end up on an adventure that comprises the plot of the movie to retrieve it. The *The Hobbit* by J.R.R. Tolkien has Bilbo discover the One Ring only because he lost his button in the tunnels of the Misty Mountains. *Alice’s Adventures in Wonderland* by Lewis Carroll starts by following the rabbit down the rabbit hole to uncover a whole world of imagination. [↑](#footnote-ref-55)
61. “Serendipity. Look for something, find something else, and realize that what you've found is more suited to your needs than what you thought you were looking for.”

    ― Lawrence Block [↑](#footnote-ref-56)
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65. *The Sims* series by Electronic Arts, *Style Savvy* by Syn Sophia, *Second Life* by Linden Lab, *Nikki* series by SuZhou Nikki Co./Paper CO. China [↑](#footnote-ref-60)
66. *League of Legends* by Riot Games, *Call of Duty: Warzone* by Activision/Blizzard, *Fortnite* by People Can Fy, *Overwatch* by Blizzard, *Team Fortress 2* by Valve, *Counter-Strike: Gobal Offensive* by Valve/Hidden Path Entertainment*, World of Warplanes* by Wargaming, Lesta Studio, & Persha Studia [↑](#footnote-ref-61)
67. *Skyrim* by Bethesda, *Destiny 2* by Bungie, *Guild Wars 2* by ArenaNet, *Final Fantasy* series by Square Enix, *Phantasy Star Online 2* by Sega, *Witcher 3* by CD Projekt Red, *Resonance of Fate* by tri-Ace [↑](#footnote-ref-62)
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