Playing Apart: Fostering Compassion and Kindness Between Strangers

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KEYWORDS
video games; kindness; compassionate design; charitable play; social interaction; toxicity; embodiment; prosocial; playful platforms

THE PROJECT

My project looks into how creating distance between players may foster different player dynamics — and perhaps even compassion. I conducted my work in two parts. The first of which being an annotated bibliography, looking at both games that create such distance and related works and studies. One of the culminating products of the first part is an interactive diagram identifying and linking the studied games by common themes. The second part of my work is a design exploration and paper — specifically trying to take those themes from the first part of my study and make infuse them into a game that could be playtested.

Both the annotated bibliography and final paper are attached here. Please excuse some repetition between and stylistic inconsistencies between the two.

PART I: ANNOTATED BIBLIOGRAPHY

The Research Subject.
This is the annotated bibliography for my work on *playing apart* – where players play at a distance from each other – such as by playing in different in-game spaces, at different times, and across in-game and out-of-game borders. I specifically want to focus on mechanics that are more one-directional, such as changing the game environment or space, and not chat, per-se.

Some mechanics include:

- Pings
- Sprays/signs/notes
- Items left behind

These systems exist in both multiplayer and single-player videogames (where single-player is you will never encounter another player embodied in-game).
Some games I want to look at include:

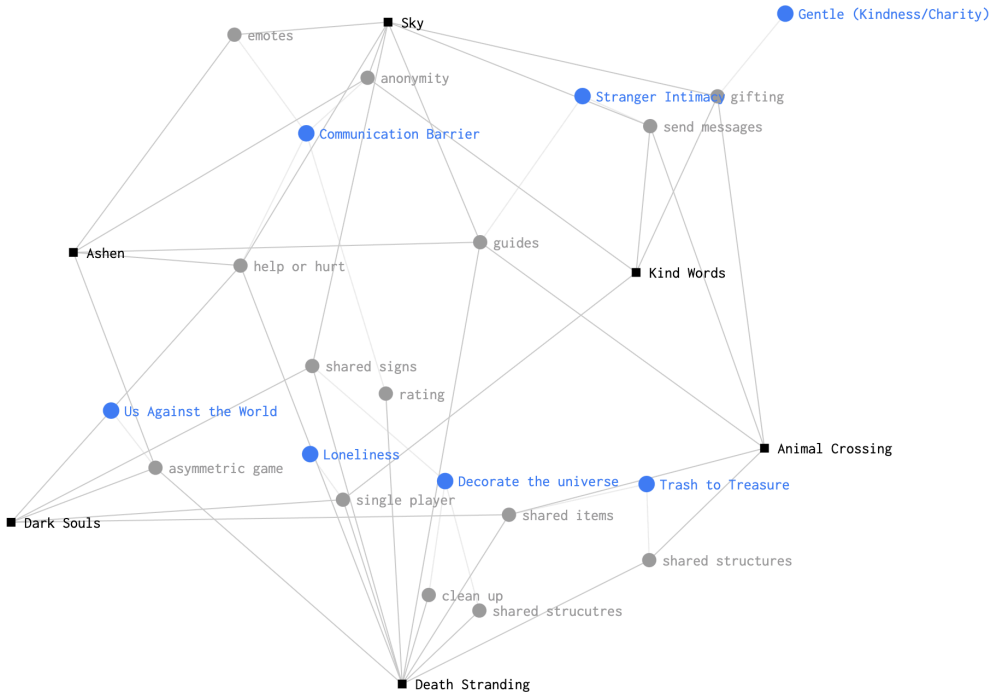
- *Kind Words* (Popcannibal)
- *Death Stranding* (Kojima Productions)
- *Dark Souls* (FromSoftware)
- *Sky* and *Journey* (thatgamecompany)
- *Animal Crossing Pocket Camp* and *New Leaf* (Nintendo)
- Dwarves vs. Zombies mod of *Minecraft* (Robert Moran)

Why Playing Apart.
Many problems of toxicity and unkind behavior occur in coordinated, synchronous, competitive games. So why am I looking at games that hold parties that communicate, apart? I believe studying these mechanics may bring interesting learnings and ideas for mechanics to synchronous, “together” games. I also find these interaction systems more personally interesting.

Many videogames that facilitate playing apart, link strangers you’ll never meet (in- or out-of-game) together. Some have handcrafted cohesive, moving experiences between strangers, like in *Kind Words* and *Journey*. Maybe people are more compassionate when held apart.

The Games.
To explore the games we identified, I linked different traits of games to themes. Below, I’ve compiled some screenshots, Figures 1 to 3, showing how the games relate to each other and those themes.

Figure 1: Spread of themes in relation to games



In playing apart, leaving traces of your play on the environment is a main mechanism to impact other player's games without leaving your world. *Sky*, *Dark Souls*, and *Death Stranding* all use this mechanism to allow players to leave each other messages and hints. However, these notes can be ambiguously useful. Maybe you leave a message that there's treasure at the bottom of a cliff, but a player would actually just die if they go down the cliff. *Death Stranding* does something interesting here where players can leave a thumbs up if the shared message/thing was useful.

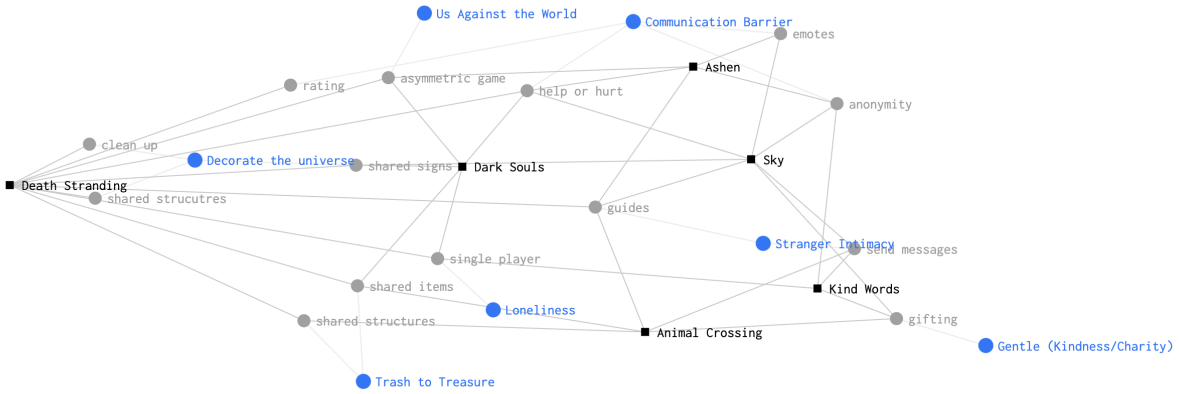


Figure 2: Comparing games and themes to Death Stranding

Death Stranding takes sharing for cooperation a step further by sharing structures and other useful things added to make traversing the harsh environment easier across games. This makes anything you build in service of making your play easier/better helps others too. It

makes it *easy* to help others. Players can also work together to building structures by contributing resources. And all these modifications to the environment can be rated.

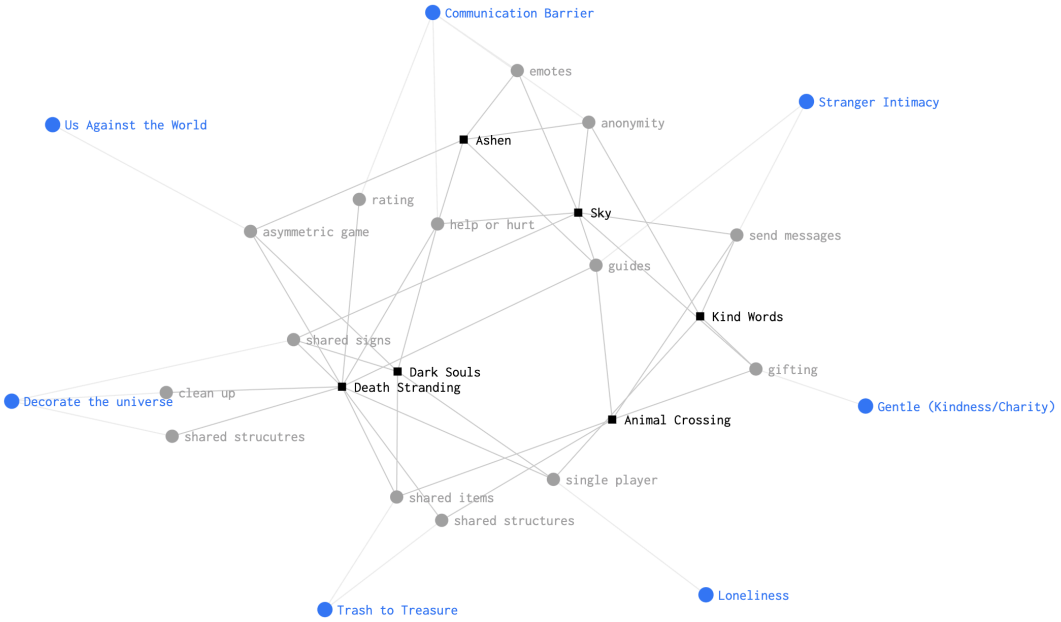


Figure 3: Spread of games in relation to themes

However, those games all face the problem of spam. Players can litter the environment with messages and items. Apparent in Figure 2, incidental cooperation in a shared world is not necessarily intentionally kind or charitable. *Death Stranding* soon will allow removing any item that another player leaves behind.

Naomi McArthur, Kenny Shores. *Impact of Social Systems and Game Design on Player Interactions*. 2019.
https://gdcvault.com/play/1026493/Impact-of-Social-Systems-and

Naomi and Kenny's talk does a great deal of work breaking down mechanisms in which League of Legend players can communicate and interact, as well as what sort of disruptions are afforded by each. They don't call for not building these interaction systems, but rather to be deliberate and design with intent. How do these mechanisms play with other game mechanics? For example, they note that text chat requires focus such that you can either play or chat. But the time when you're likely not to be playing the longest is when you've died -- thus biasing the time you're most likely to chat to be when you're dead and/or raging. Some key takeaways is their breakdown of how team dynamics are shaped, by: anti-co-op moments, when players are stuck in zero sum games between teammates; team contribution, perception of allies contribution; solo-team agency, when players feel a lack of agency and will shift from operating to win, to operating to feeling back in control; and finally game state divergence, do players have a cohesive understanding of how the greater game is going. Thinking about

player goals and how they align to interaction systems, I think will be crucial. For example, if in *Death Stranding*, you don't feel that other's shared things aren't useful or enjoyable (similar to team contribution understanding), you're less likely to use that interaction system to help others.

Kienna Shaw and Lauren Bryant-Monk. TTRPG Safety Toolkit. Accessed 11/14/2019.
https://drive.google.com/drive/folders/114jRmhzBpdqkAlhmveis0nmW73qkAZ Cj

The TTRPG Safety Toolkit is less along the lines of work I'm looking at here. But I do want to callout a couple of points I got when I spoke with them. These tools are meant to help make play more fun, comfortable, and safe for everyone -- but, there is not tool that is the right fit for every situation or person. In forming a community of trust and care, communities have to pick the right tool for the situation and them; and players need to buy into these mechanisms. If players regard these systems as "in between them and the fun" or "spoiling the fun", it feels bad. But, integrated systems can also feel good and be part of what makes things interesting. For example, one safety tool during a game is the rewind script change rule. Safety-wise, it is meant to be used when a player feels uncomfortable about a situation and wants to go back to before it happened. But it can also be a storytelling mechanism.

Kelli Dunlap. Beyond Empathy: Games to Foster Teen's Social and Emotional Skills
https://www.researchgate.net/publication/334307315_Beyond_Empathy_Games_to_Foster_Teen's_Social_and_Emotional_Skills

Beyond Empathy looks at what games and other environments should do in order to foster social and emotional growth. They draw on Social and Emotional Learning (SEL) theories and apply them to game design. What's particularly interesting about this work for my case is their discussion of safe, supportive spaces, necessary to SEL, and how they map to videogames. Safe, supportive spaces in effective SEL "provide opportunities for mentors and teens to develop positive relationships" (p. 138). While also places to fail, share thoughts and emotions, and experiment with identity; the critical piece is this mentor that guides and supports. Which begs the question -- who/what is the mentor in a videogame? Dunlap presents kill cams as effective feedback that a mentor might provide; but does that mean the mechanics of the game are the mentor? Dunlap says the space "helps teens gain experience in regulating strong emotions with support from a trusted adult" -- the mentor. How can videogames provide that support? In a toxic environment, could the game be the trusted and supportive party?

Vander Caballero. Rethinking How We Build Games and Why: The Papo & Yo Story
https://www.gdcvault.com/play/1017771/Rethinking-How-We-Build-Games

Vander coins the term "empathy games" in his talk: "it's a game in which conflict resolution is not achieved through power-up mechanics". Most of this talk discusses games where you

embody another experience and learn to empathize with situations and emotions you may not be familiar with, “to inhabit another person’s perspective”. It falls in a similar vein of building “compassion” ; but ultimately “empathy” perhaps asks of you to be very close to another experience, so much so that you are inside of it; while perhaps what I am looking at is fostering sympathy -- and the kind that holds you quite far apart. There’s perhaps something interesting in the debate about whether “games can imbue players with lasting, true understanding and compassion” (https://rhizome.org/editorial/2019/mar/27/empathy-is-not-enough-part-1/); but, longevity perhaps doesn’t even matter to this work.

Playing with Strangers: Understanding Temporary Teams in League of Legends
https://dl.acm.org/doi/abs/10.1145/2658537.2658538

Playing with Strangers looks at how temporary teams are facilitated and resulting player behaviors. This piece looks at how shared stakes in game can disrupt player attitudes and in turn affect player performance. While this true "team" relationship isn't exactly present in many games that play apart, this reading's illuminations on playing with strangers is extremely relevant -- if just by contrast.

A key finding is that success of temporary teams comes with "players' proactive endeavors to create a harmonious atmosphere for communication, to take the leadership, and to deal with deviant players" -- what they capture in "discipline" and "attitude" (p. 164). When players don't play the part of the cooperative teammate or perform their role as per a meta, do things start coming apart.

I think this actually points to the success of playing apart. Often you cannot unbecome your role. All interactions you have with another is curated such that they are within the realm of the aesthetic or role you play in another's game (i.e. Journey). Instead of the impetus being on the players to discipline themselves and others to play the part of a team, games can hold players apart such that players cannot disrupt the role they've been crafted. In addition, affordances are created so that it is as convenient as possible to be kind to another. This is perhaps a version of "rich context" that works (p. 167).

Leveraging Asymmetries in Multiplayer Games: Investigating Design Elements of Interdependent Play
https://dl.acm.org/doi/abs/10.1145/2967934.2968113

This work primarily focuses on the design of asymmetric games -- "games that are designed to embrace and leverage differences between players to improve multiplayer engagement" (p. 350). What I find useful from this work is some of the vocabulary utilized to discuss asymmetric games and mechanics.
Using Beznosyk et al.'s distinction, games that play apart are "loosely-coupled" in that they "do not require tight collaboration between players and allow more independent

performance" (pp. 243-255[1]). But additionally, the games I investigate highly facilitate collaboration on top of that. Using this work's vocabulary, interactions are "unidirectional" but not dependent. I think the discussion of how timing figures into cooperation here is interesting and lays out a design space of time in relation to playing apart.

Unfortunately, most of the findings from this piece address asymmetric games where there is a dependence between players, which is not strictly facilitated in games that play apart. As such, I find this piece an interesting discussion of designing asymmetric games, but less relevant in other aspects. Attitude can automatically be set by the game and facilitate social norms (p. 21).

[1] Beznosyk, A., Quax, P., Lamotte, W., & Coninx, K. (2012). The effect of closely- coupled interaction on player experience in casual games. In *Entertainment Computing-ICEC 2012* (pp. 243-255). Springer Berlin Heidelberg.

Coziness in Games: An Exploration of Safety, Softness, and Satisfied Needs
https://www.projecthorseshoe.com/reports/featured/ph17r3.htm?mc_cid=714eb05d44&mc_eid=7f644c9059

This reading was chosen as "gentle" and "cozy" games have a large overlap -- this vocabulary has not been clearly set yet. The two games examined in this piece of work, *Animal Crossing* and *Stardew Valley*, are also bases of study for my work.
The look into themes that produce coziness I find is valuable. Particularly, the focus on safety I find relevant to playing apart. They look at both how these games facilitate safety in game by removing impending loss or threat; but also investigate safety with others and the system by highlighting the importance of consent. Consent finds itself in many successfully cooperative mechanics to play apart. For example, it holds strangers apart in *Sky*. In contrast, we see that the ability to non-consensually invade another player's space in *Dark Souls* (deliberately) breaks cooperative playing apart. I find the argument that aesthetic and mechanics can value and signal coziness to "attract nice people" (p. 7) compelling.
In addition, the potential problems of creating coziness with strangers and with low bandwidth communication I think are useful as I move towards the design portion of my project. The crafting of social norms, as they highlight, I think will be a significant part of my design work. For example, the ideas of layered relationships with other players is a major part of the work in *Sky* that helps facilitate consensual relationships.
It's important to note that not all games that play apart are cozy or need to be in order to facilitate cooperation. In fact, *Death Stranding* thrives from the fact that players band together against a threatening, disconnected world.

PART II: THE DESIGN EXPLORATION & PAPER

INTRODUCTION

Interactions with other players can radically make or break your experience with a game. In many competitive games, teamwork and communication is crucial to succeeding in the game. However, these games often throw you in with strangers. With little personal connection and expectations set, tensions can run high amongst team members. And for many popular team-based games, toxic behavior is so prevalent that it has become imbued as part of the game's identity.

On the other hand, many single player games with "social aspects" have been able to raise compassionate and cooperative communities. In games like *Kind Words* and *Death Stranding*, players can't fully communicate and get to know one another — yet we see strangers aiding one another and express more kindness than teammates afford each other in games like *Overwatch* and *League of Legends*.

How can we design to encourage compassion and cooperation, and not toxicity on playful platforms? What learnings can we take from games where strangers "play apart" from one another that might help us foster cooperation and kindness in more scenarios?

COMPASSION AND THEORY

When we look at toxic interactions in team-based competitive games, we see that player relationships can be shaped by how communication/interaction mechanics play with game mechanics. Naomi McArthur and Kenny Shores [1] point out that communication systems often compete with game systems. When you're doing one, you're often not doing the other. For example, they bring up text chat in *League of Legends* requires such focus that you can either play or chat. The time in which you don't need to make a trade-off to chat is when you're dead — a time that often happens after some performance failure [1]. A failure that teammates are often quick to criticize. While the roles players fill — such as support, tank, and DPS - come with expectations about game performance, there is often no clear expectation or metric for communication. There is no explicit game reward for being a good teammate. But teamwork plays a large part in the success of a team. In *Playing with Strangers*, Yubo Kou and Xinning Gui look at how *discipline* in how players mediate both their own and their teammates' attitudes is a key component to building a "harmonious atmosphere for communication" [2].

Can the interaction systems be responsible for upholding player discipline? How do we ease communicating such that it does not require a tradeoff with performance? Many social games, especially those aimed at younger age groups, sport curated communication systems. Interactions are limited to specially crafted emotes or text chat is heavily moderated. *Journey* by thatgamecompany limits players to only being able to sing a note of varying length and volume depending on how long they press a button. Despite the communication limitation in *Journey*, many affective relationships were formed among strangers who would not know another's identity till the game was completed and over.

In Kelli Dunlap's examination of how video games can be an environment for emotional and social growth, she mentions the role of *mentors* in growth. In the context of her work, the mentor is a game-extrinsic party who can "provide nurturance and support" as well as buffer stress [3]. We do see this sort of relationship in coaches and sometimes among friends in video games. But not every player has a coach or a friend who can play that role. Can the game itself fill that role? Arguably, feedback systems, like highlights of good plays in *Overwatch*, provide some of this support. But they often fail to buffer player stress and support players during failure. But can this relationship be nurtured and encouraged between strangers by game interaction mechanics? How do we motivate "better" players to guide, not flame?

Often, strangers at different levels with different motivations, may play together; but without acknowledgement of those differences. For example, in Overwatch, silver ranked players might be in silver despite having played for a long time (maybe due to poor performance or poor teams or just luck). They may be grouped in a team with newer players with little to no experience. The newer player may be motivated to learn, but the more senior player might just want wins so as to "get out of silver". The newer player may feel rewarded from one good shot they make, but the senior player may only feel rewarded if they win. How do we reconcile play and communication here to be prosocial?

Harris et al. examine how asymmetric games, where players play against the game and not one another, can leverage differences in player levels to generate cooperation [4]. However they heavily lean on Beznosyk et al.'s structure of "loosely-coupled" games — games that "do not require tight collaboration between players and allow more independent performance" [5].

Finally, many games with compassionate communities, such as *Animal Crossing* and *Kind Words*, have been dubbed "cozy games" or "gentle games". The recent group report on cozy and gentle games [6] hits on themes of *safety* as a major contributor to the game's positivity. [3] also supports that safety is an important environmental feature for growth. However, [6] identifies that playing with strangers and "low bandwidth communication" as deterrents to safety coziness; but aesthetics and mechanics can value and signal coziness to "attract nice people" [6]. They call for games to "promote social norms that promise and encourage trust" [6], which can then build healthy communities that will value compassion and friendship. Harris et al.'s work similarly supports that "attitude can automatically be set by the game and facilitate social norms" [4]. However, does low-bandwidth communication necessarily deter positive relationships between strangers?

Low-bandwidth communication can often lead to misinterpretation and hostility. A misclick of an emote can brew tension (see Figure 1). Especially when strangers play from different experience levels and have different expectations or understandings of the meta.

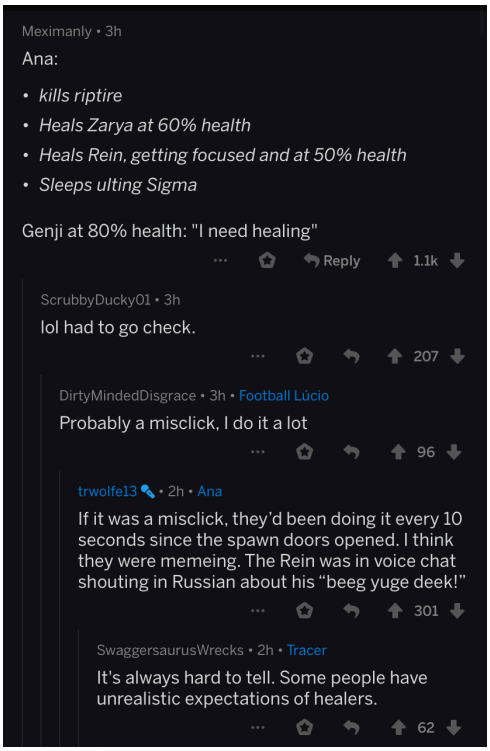


Figure 1: Reddit tries to figure out if a player was trying to be toxic.

DEFINING PLAYING APART

Many prosocial games — like *Ashen*, *Journey*, *Death Stranding*, and *Sky* – feature many communication constraints, yet still showcase collaborative, positive efforts between strangers. *Ashen* has, what it calls, a "passive co-op" system [7]. Strangers may be randomly encountered, but players may choose whether or not to cooperate or leave them. There's not much ability to communicate and overall the world feels lonely. It's similar to *Journey* in this aspect. *Death Stranding*, which calls itself a "strand game" [8] has players cooperate without ever meeting. Instead it opts for a *shared world* structure, like *Dark Souls*, where signs and structures built into the world are shared among players. Players can crowdsource efforts to build more difficult structures. One player's trash can become another's treasure. At the same time, it can also create litter and clutter in each other's worlds. And as with souls games with similar systems for shared signs, some players mislead others. In *Sky*, players not only share a world, but are embodied in each other's world. At first, they are shrouded in shadow, unidentifiable, unless both players offer the other a candle. Only then can players fully uncover one another's avatar and further interact via emotes, and with enough trust and consent, text. But most interactions are first facilitated by guiding, calling (similar to in *Journey*), and emoting. Players often work together to solve complex puzzles.

These systems facilitate what I'm calling "playing apart". Players play at a distance from each other — by playing in different in-game spaces, at different times, and/or across in-game and out-of-game borders. The game intercepts player's ability to fully communicate — enacting a kind of "discipline". Many of these games have cohesive, moving experiences between

strangers, like in *Kind Words* and *Journey*. Maybe people are more compassionate when held apart.

In these design experiments, I seek to try and use the created distance to mediate player's actions, so when another views their actions, their intentions appear benign or neutral (see Figure 2). Players can't act out of the role they've been fashioned by the game. The game acts as a translator as much as a curator. Their behavior should be perhaps indistinguishable from a good NPC.

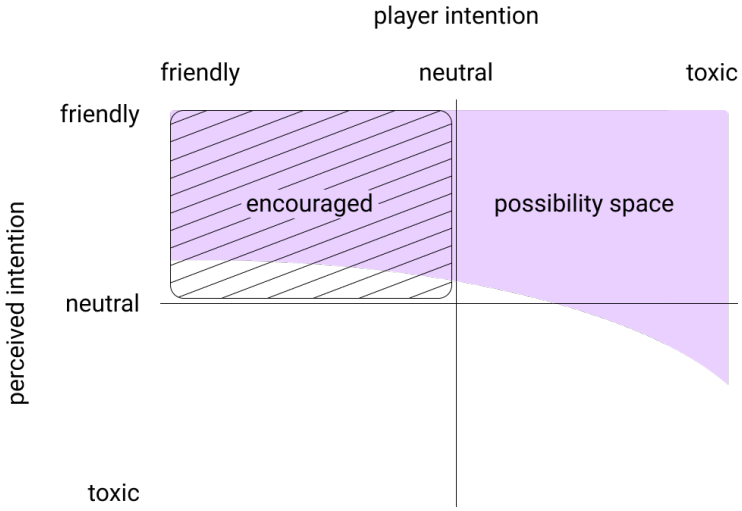


Figure 2: Chart displays the intended mediation of player intentions.

In addition, I want to afford and encourage players to have friendly and helpful intentions. For example, it should be as easy as possible to help others — including incidentally helping others.

THEMES AND MECHANICS

How do games create distance? I identified mechanics in games that I think play apart well and graphed them (see Figure 3) and organized them around five themes.

i. shared worlds

The plays of other players, from signs to abandoned items, are apparent in a shared world. Interactions are recorded like history into the environment itself.

- shared signs in *Death Stranding, Dark Souls,* and *Sky*
- pings in MOBA video games
- bullet screens in video streams, where watchers can add chat that shows up on screen at the video timestamp it was sent at (see Figure 4)

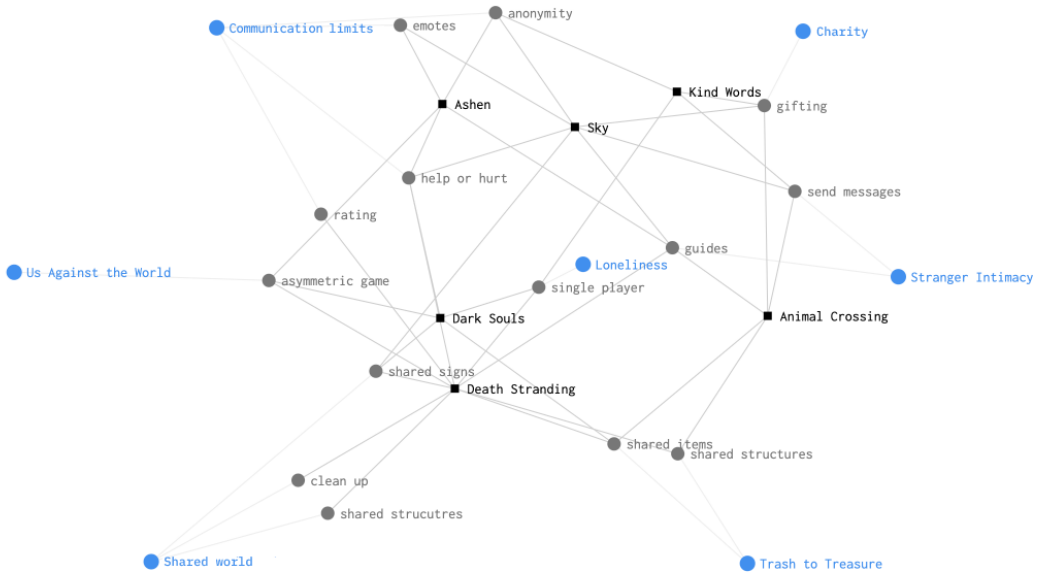


Figure 3: Charting the spread of games and mechanics in relation to themes.

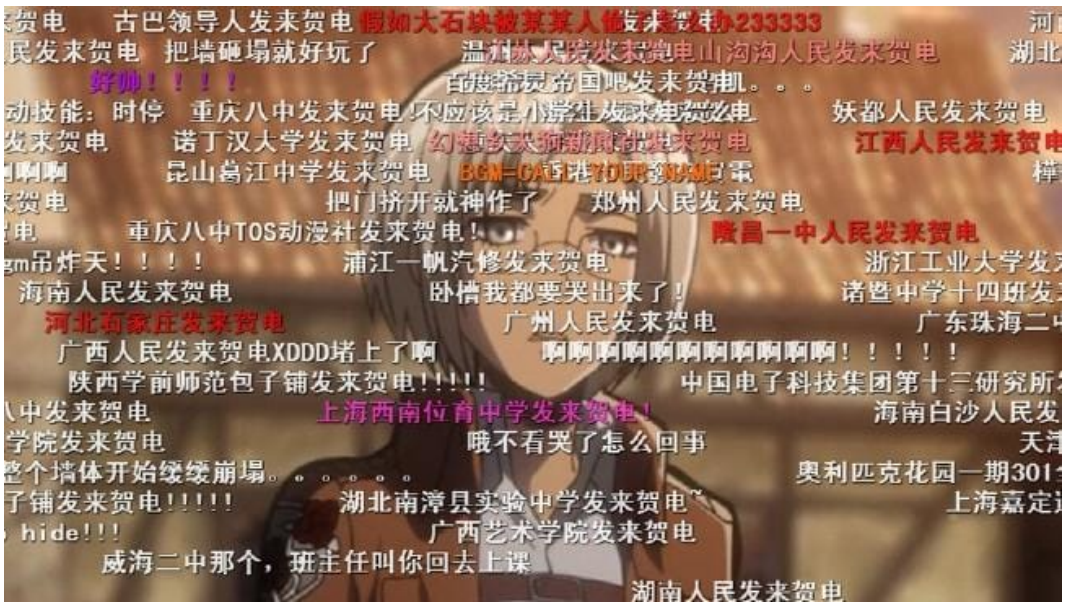


Figure 4: An example of a bullet screen.

ii. communication limits

The manner of communicating is greatly limited to curated actions. This often means no text or voice chat. Often these communications are ephemeral.

- emotes as in *Sky*, *Destiny 2,* and *Animal Crossing*
- singing or other forms of univariate communication such as in *Journey* or long-distance relationship bracelets (which let you send taps, touches, or your heartbeat to a partner)

iii. crowdsourced efforts

Individuals can contribute resources and/or play towards a greater cause that is shared amongst many players. Contributing benefits everyone, sometimes including those who did not contribute.

- crowdsourced efforts to build bridges and larger world structures, as in *Death Stranding* and *Animal Crossing New Horizons*
- cleaning up litter or clutter in the world in *Death Stranding*

iv. charity

Players can donate or gift resources, game items, or encouraging words to other players to aid them. This does not help the player donating/gifting.

- sacrificed save files in *Nier Automata* to defeat the game credits (see Figure 5)
- send or give gifts to other players, as in *Animal Crossing* and *Sky*
- send warming letters, as in *Kind Words*

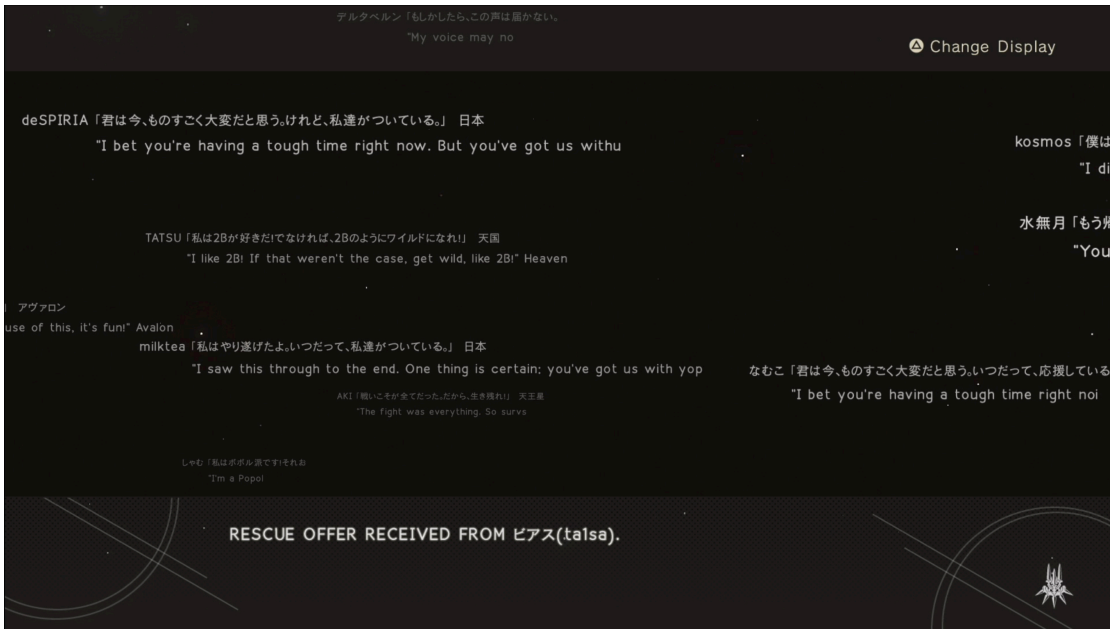


Figure 5: Offers of help and encouraging messages from other players in Nier Automata.

v. general anonymity

The way other players are embodied or represented often make it hard to identify them from another player. Sometimes players have control
over their embodiment but have limited options, or players have little to no agency over their appearance.

- limited options that look generally similar, as in *Sky*
- anonymous letters, as in *Kind Words*
- little control over embodiment and generally similar appearances, as in *Journey*

QUESTIONS AND GOALS

My main goal is to experiment with mechanics of playing apart to try and achieve cooperative, kind, and/or charitable behavior in a non-co-op game. I will build multiple prototypes, iterating based off feedback from playtests, to try and distill and play with “togetherness” while apart. Mainly, I will be looking into shared worlds, communication limits, and crowdsourced efforts.

A WORLD OF TRASH

The first prototype I built was an asymmetric game about cleaning up and raising plants in a harsh, trash-filled world. This version is henceforth referred to as Tiny Village. Players find themselves in a world covered by trash (see Figure 6) and have to clean up the littered world in order to begin growing their own plants. Players’ efforts to clean were shared across the world, but each player’s plants their own. Other players are not embodied.

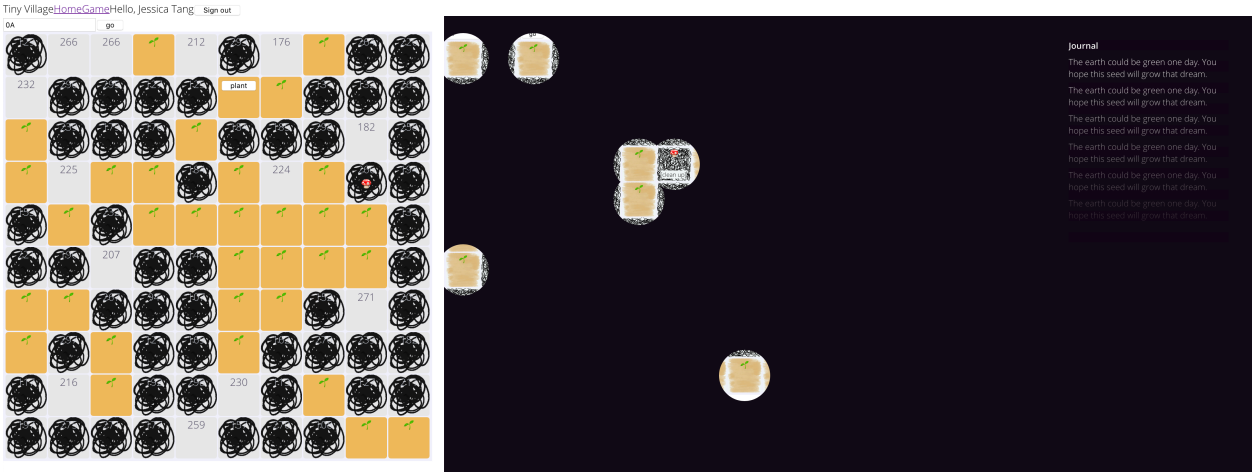


Figure 6: The first prototype pictured left, the second prototype pictured right.

The hope was players would band together as cleaning was a difficult task. They *could* do it on their own (thus stakes were not necessarily shared), but seeing tasks get done twice as fast would also be rewarding. However, few players realized, in both iterations, that they were in a shared world and could work together. One player surmised this, but instead of contributing, decided to wait for others to do the cleaning and only plant for themselves. In addition, many players did not feel invested in their efforts to clean or plant — as there was little reward or incentive to do so. In the second iteration, plants brought about light in a dim world, and all actions had journal entries with some flavor to them. This helped provide incentives and improved the overall feel of the game, but still suffered from the same issues of realizing others.

While I eventually abandoned the Tiny Village concept, I had some key learnings. 1) Players need to be invested in their own tasks and efforts, in order for there to be any possible motivation to help others. Before players will help others, they need to *want* to help themselves. Players reported little attachment or investment in Tiny Village, and thus easily stopped feeling motivated to play. They couldn’t achieve any “expertise” either, so there was no concept of “mentors” much less “better” players than others. 2) Players need to be able to recognize the existence of others with you. Compassion, kindness, and charity need someone to direct it at. Without recognition of other players, there is no togetherness in this “apart”.

I needed to build a simpler game with clear rewards, incentives, and progression — and then I could experiment with how far apart I could hold my players.

FLICKERING.
After reflecting on the shortcomings of tiny village, I redirected my efforts to experimenting with "togetherness" — how do others exist in your game. Inspired by how voice chats/calls can flicker and glitch over bad connections, a common communication limitation, I set my sights on ways to suggest other players existence, with a very tangible limits to communication. I identified three main experiments to flicker players. Flickering over:

1. **Time**. You may see ghosts of other people's actions from the past or present. Order of events could even be rearranged. History can be faked and changed.
2. **Space**. Your world/dimension may collide with others. Temporarily sharing space in certain locations. Overwriting each other, like rifts opening up, or glitching in *Into the Spider-Verse* (see Figure 7).
3. **Bodies**. You may inhabit other viewpoints. Maybe without control of that other body, or maybe swapping places, babysitting another's existence. Perhaps like kill replays in multiplayer team games or like Harry Potter's and Voldemort's connection.

Figure 7: Overlapping universes in *Into the Spider-Verse*.

The expectation of flickering gives the game more power over how others can be presented. Perhaps the lucky moments your experience intersects with someone else's will feel precious in your otherwise lonely corner of the world.

I want to acknowledge that removing player's control over their embodiment can be jarring, stressful, and not in service of a cozy, calming experience. This is not clearly an experiment that will lead to findings about "holding people apart to be kinder". However, I believe this

suggestion of presence, of companionship, is worth investigating as ways to break up more canonical conceptions of “togetherness” in games.

As this pivot coincided with the strike of COVID-19, I thought it was more relevant than ever to think about what togetherness can be when we are apart.

THE MAGPIE

The simpler game I built to overlay my flickering experiments over is the Magpie[1]. it’s best summed up by it’s pitch:

> You play a *space barista* running errands and maintaining the high-tech, disaster of a ship, the Magpie. There are also a lot of other space cadets, *in other dimensions, in other timelines*, all operating and running errands in the *maze*-like starcraft. How your captain, the lovely, charismatic Captain Morgana L. Hua, managed to connect all these realities and dimensions together is beyond you — and while the connection isn’t always perfect — it really helps keep this jig running.
>
> *This ship runs on dark-roasted black coffee as much as it runs on fuel-sion.*

Three major iterations were made on this game. The map of the game (see Figure 8) had only minor changes between iterations. There are eight numbered rooms on the Magpie that players had to deliver coffee to. Players had to first pick up coffee at a coffee spot before delivering it to a room. Players could see very limited portions of the map at a time and were given no guidance by the game where any room was (see Figure 9 for a player view).

Playtests were conducted with 4-6 players over Discord. Players were asked to play in silence for the first five minutes. After those minutes, I posed questions for players to discuss. During discussion, they were allowed to continue playing and speak to one another.

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[1] If you examine the builds referenced, you may notice the game and craft is referred to as “Starbound”. This was the original name of the game. However, after learning about the indie game of the same name (and similarly space-themed), I decided to rename it for this paper for disambiguation.

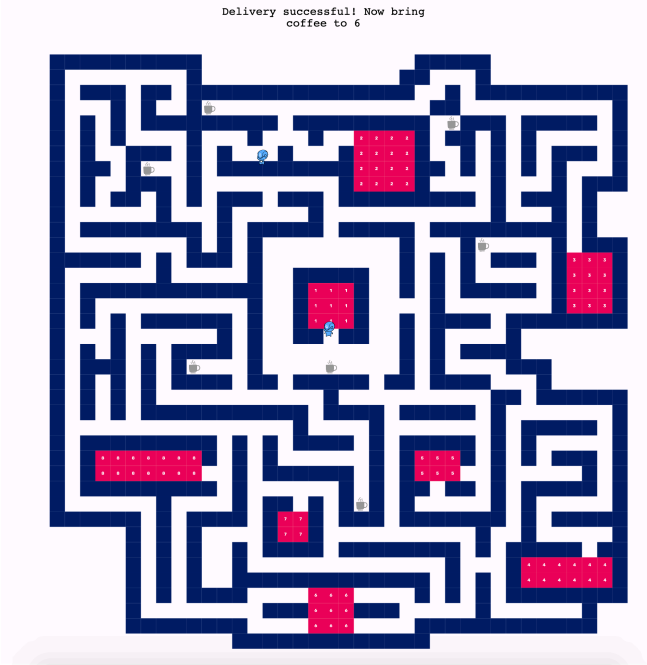

Figure 8: A map of the Magpie.

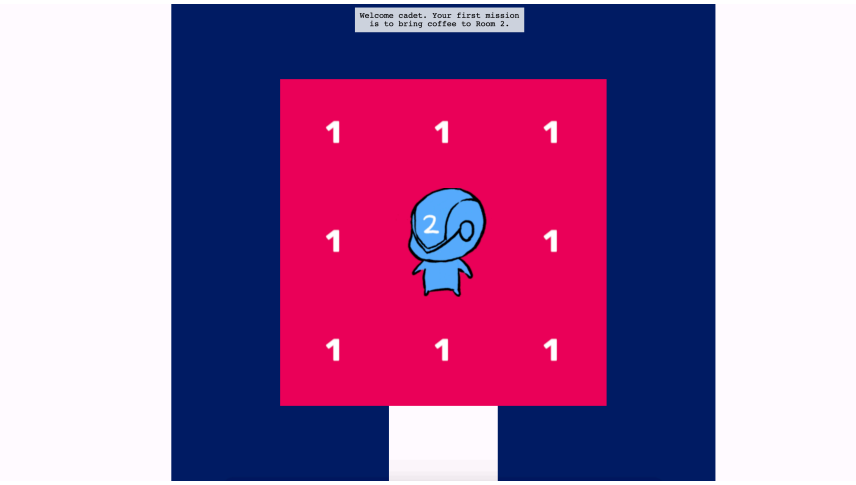

Figure 9: Player view of the Magpie (iteration ii).

These next sections are broken down by iterations and their corresponding findings.

i. pilot

In this first iteration (see Figure 10), players had very basic flickering. Players randomly flicker in and out of each other's worlds. If player A is currently flickering, every player can see them for about twenty frames. Aesthetically, the game had filler sprites taken from p5 play examples [9]. The major goal of the pilot was to make sure all the tech worked and to determine if players could determine the flickers they saw were indeed other players. Subsidiary goals included whether the game was engaging and whether players behaviors changed when they saw someone else.

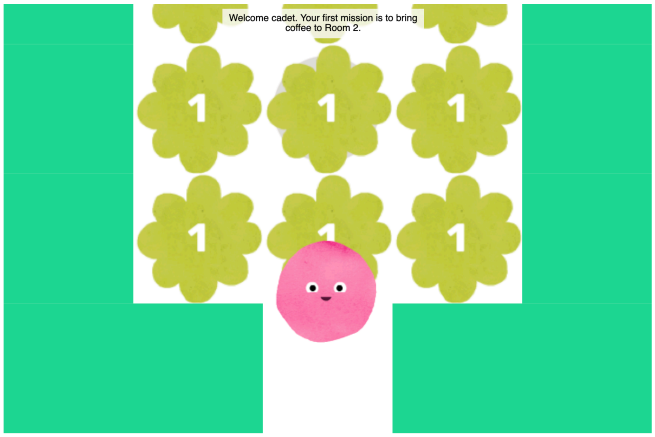

Figure 10: Player view in iteration i.

Overall, the pilot was successful. Players were able to easily identify they were playing with other folks. However, as these glimpses were so brief, players reported it wasn't very impactful and their strategy did not change when they saw someone else. There were some funny comments if the flickering was "a bug or a feature". One player reported they did try to follow someone else, but as they quickly disappeared, they gave up on trying so.

Players additionally appeared engaged and invested in learning the maze. About half of players felt somewhat confident in their grasp of the ship's layout by the end of the playtest, and the other half still felt consistently lost. I found this to be a rather good ratio. There is a nice separation of expertise that can later be leveraged.

ii. chasing

I wanted to afford this attempted interaction of following someone else's flicker in the second iteration. To facilitate this, I replaced all the filler sprites, and made player sprites also display a players current objective (see Figure 9). This way, players could identify whether another flicker was going to the same place they were. Additionally, I made it so flickers would not disappear until you got too far away from them. Player speed was also adjusted to better afford flicker chasing.

Despite these changes, players rarely followed one another or changed their strategies on an encounter. In fact, when asked if anyone had, one player responded "why would you follow them?" And only when others chimed in that they might know the way, did that strategy cross their mind. Only one player responded that their strategy changed when they saw someone. If someone with the same objective came from one path, the player assumed that meant it was in the wrong direction and would not pursue that path.

But when players were allowed to discuss and play at the same time, they easily offered each other advice and guidance when someone groaned in frustration. Players even gathered

together, doing their best to fight the flickering, just for fun (see Figure 11). How could I get these interactions in game?

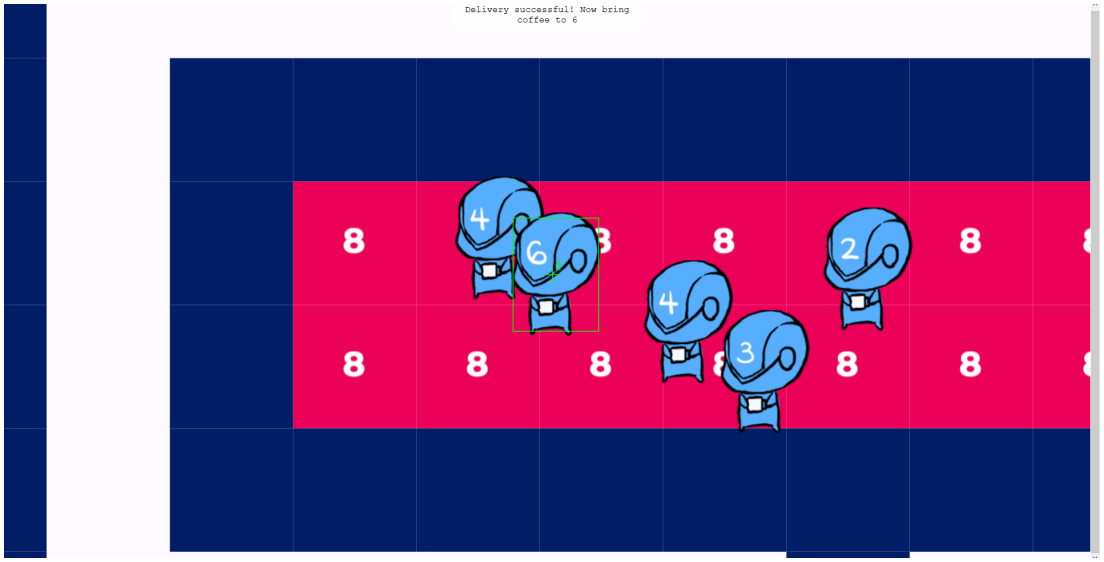

Figure 11: Players gather in Room 8 for fun.

iii. flashing

I decided to try giving players a way to actively signal to each other with a flash — a univariate communication tool like singing in *Journey*. I hoped that by adding an explicit communication mechanism, players might be more inclined to interact. By pressing space bar, players could now flash pink to other players (see Figure 12).

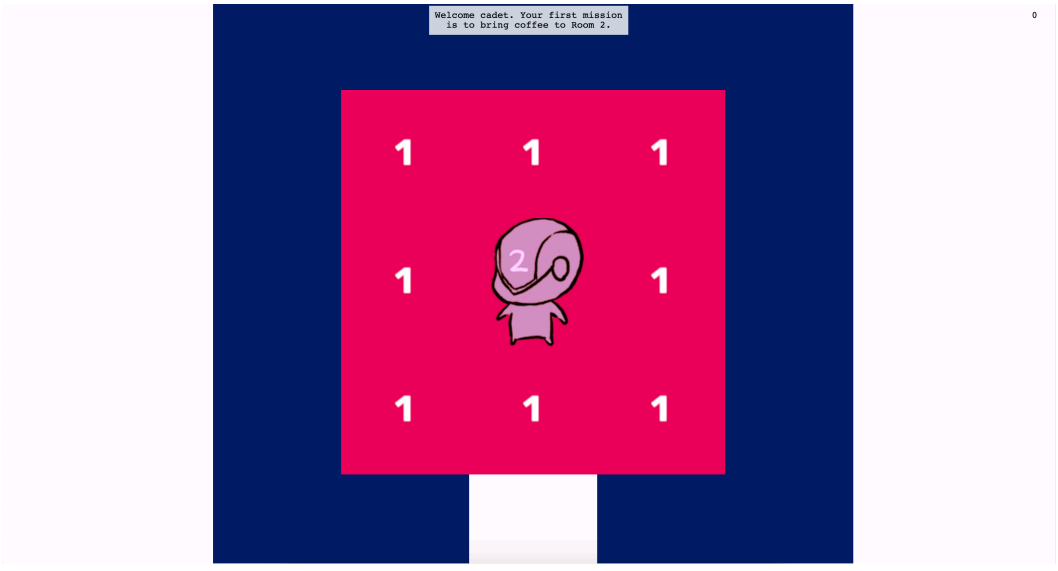

Figure 12: Players turn pink during a flash.

While we discovered an unfortunate "perk" of the engine I am using[2]; players tried following each other much more than in previous playtests. Players noted some changes to their strategy when encountering another, such as occasionally following other players for a bit. One player noted they noticed another player following them, and tried to rapidly flash to indicate they were lost. Another player tried following someone to a location, however, they unfortunately were trying to follow the player who was unreasonably fast, and thus lost them. Other players just continually flashed on and off to meme around. Still, the number of these interactions was very small.

However, paying more attention to the voice interactions during discussion while playing, made me realize their interactions over voice were exactly what I wanted players to have in game. Players helped each other, either by guiding or by going together, without any in-game compensation for it. Explaining directions to each other was almost a sufficient barrier. They tried using cardinal directions and relativity, but players still ended up getting lost. I have included a couple of vignettes of exchanges between players over voice.

> "It's this way" A called, circling B and flashing.
> "I can't fucking see you!" B answered back.
>
> "Who's three? Three is east" a player said trying to help another player they couldn't identify.
>
> "Five is close to one"
> "Start from the south east exit from one…"
>
> "Follow me" A says confidently.
> "Nice dead end" B says sarcastically, after they turn the corner.
> Both laugh.
>
> "Sixes, let's go together"

What I needed to build were features that better convey those discussions.

iv. reading the signs
To achieve those goals, I contemplated adding the following mechanics:

- **Emotes** that would allow players to communicate directions
- **Signs/sprays** that players could post towards a direction
- **Time trials** that allow players to see a past version of themselves going somewhere
- **Breadcrumbs** that players could place a limited number of in the world, that could help collaboratively form paths/share mental maps

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[2] The number of loops/frames run is higher in Chrome than Firefox, resulting in Chrome users being unreasonably fast.

I chose to implement emotes, but accidentally implemented signs as well — as I forgot to remove another players' emotes when their flicker ended (see Figure 13).

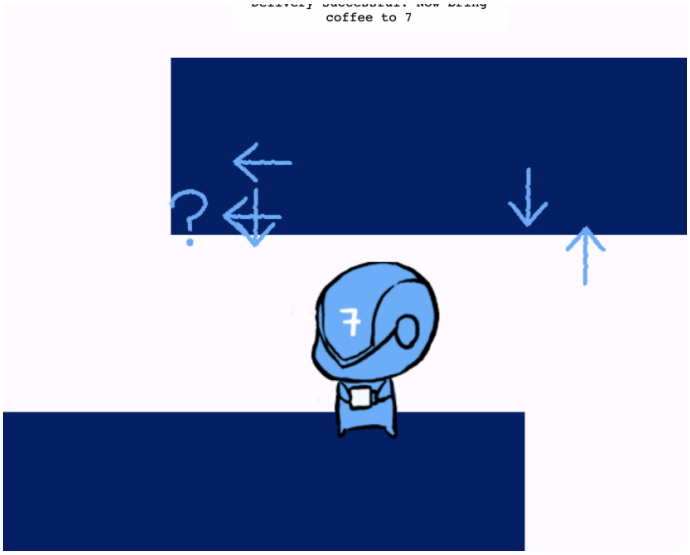

Figure 13: Leftover emotes act as signs in the environment.

More player behavior changed in the presence of other players than in past iterations. One player, who wasn't sure whether others they encountered were AI or players, tried to signal they were human with emotes. One used emotes to signal the direction they were going when they knew where they were going — thus also leaving signs in others worlds.

Others tried to communicate or ask others for help with emotes. But often ran into barriers. One player summed it up pretty well: "you can only ask someone if they know and you happen to run into them". Often times, players cited they didn't see someone else to help them. As much as I want to see lots of player interactions, this barrier is by design. The rarity of these moments can make help precious. And the purpose of these experiments is not to provide players aid when they need it — but rather to encourage players to be aids when the moment arises.

At one time, a player was at their destination, but they didn't have a coffee and hadn't pieced together they needed one. I, who was just running around quietly, used question marks and an arrow pointing towards the exit of the room, to indicate I'll lead them to coffee. They followed me to coffee, and I followed them back to the room. When I later asked about any notable interactions, they mentioned how nice this incident was.

Another player mentioned they thought they found a bug, someone was following them very adamantly for a long time. I asked if anyone could confess to having done so (as this had happened in a previous playtest), but no one was sure they have[3]. Regardless, the player

[3] Unfortunately, I was unable to diagnose whether or not it was a bug, but was also unable to reproduce the issue.

reported that when followed they changed their behavior. They tried to guide and signal to the other.

A couple players also tried to follow the “littered” emotes, but found that they were often futile. At the same time, players said it was fun to see “people freak out with emotes”.

Half of the players reported that they tried to follow or communicate with others.

WHAT IS THE POINT OF THE GAME

In the last iteration, one player said they didn’t communicate or follow anyone because “we are competing”. In discussion, this comment was immediately hit back with a “*is* it competitive” by another. Across many playtests of different iterations, though, players questioned whether they were competing with each other.

There’s no reward built in the game — for having more than someone else or any other kind of performance. Nor is it explicitly co-op, there’s no group goal to meet. But players often made their own judgements about the point of the game. Some players played competitively against the leaderboard in their head. During discussion, players would call to each other the number of coffees they’d successfully delivered. Some players set personal goals: “I finally hit 30. I’m quitting” and “I’m going to run around until I get a sense of the map in my head”. Some players mused that maybe the goal is the collective achievements of everyone aboard the Magpie. One player went on strike, with the reason being “the coffee is right outside the room, how lazy can they be?”

Interestingly, across all iterations and playtests, players would offer other interaction ideas that would always be competitive. One suggestion was to allow players to steal coffee from one another. “When do I get a laser to shoot [A]?”. The player who went on strike was the only one who suggested an interaction that wasn’t competitive — they wanted the game to respond to an organized strike.

WASN’T THAT JUST LAG

When asked how or when players saw each other in all iterations past the first (pilot), no one could put their finger on it.

One group dug down a rabbit hole, theorizing that maybe other players were warping around or had different maps. That maybe when someone went somewhere you couldn’t, you didn’t see them anymore. I let the group struggle in game to test their theories, till they realized none of those theories could be. Finally, when I explained, they were shocked. They could have sworn that when folks randomly popped in, it was just lag or bad internet connection. This was the theory many other groups came to as well.

Given that flickering was inspired by glitching from bad internet connection — it seems I simulated that pretty well. However, I would have preferred signaling it was intentional. If I continued this work, I would look into perhaps glitching effects or other animations that would more clearly denote the intentionality of flickering.

CONCLUSIONS

Communications systems don't have to be at odds with play. In fact they can be play. Playing alone together, players did help others without clear incentives or rewards. While flickering was confusing, chance encounters that became helpful, felt good — reminiscent of the relationships formed in *Journey*. Players cited they could easily be graceful about confessing their lack of knowledge or direction when someone else tried following them. Potential maliciousness was more easily attributed to lack of knowledge. And not performing well, did not and could not spawn inflammatory or toxic interactions. In fact, players cited they assumed others were not experts if they did not communicate. Thus players couldn't fail each other. Instead, players could rise to be experts. And it is possible to guide without even intending it, just by following your own objective.

There are clear tradeoffs to playing apart. Players asked for a higher fidelity method of communication. Directional emotes often couldn't accurately convey what they wanted to say. But I also think this difficulty and curation of communication is crucial. Adding text chat would not improve communication while continuing to keep players disciplined about toxicity.

In addition, the Magpie has no clear metric for performance. It's hard to say whether you are doing better than others or even doing well. As mentioned above, players had many different ideas of what the game was about and many different reasons to continue playing. Something future works and competitive games could consider is how player motivations shift as their time investment and expertise increases. Do game systems and structures continue to support players as these things change? Are more experienced players supported the same way new players are? How can systems encourage strangers of differing experience levels and/or motivations (like in our earlier example with Overwatch) form mentorship relationships? Thus allowing the newer player to learn from someone with more expertise, and perform better — such that the senior player also has a better shot at winning. Perhaps teaching can even be a pleasure for the senior player.

The Magpie affords these relationships by allowing players to quickly signal their current objective and their level of expertise. At a glance, a player can see another is headed for the same room. The player who needs help emotes a question mark. The player, if they know the way, answers with the direction. They go together to the room. Or when the other player didn't know the direction, they'd respond back with a question mark too. Instantly, players can recognize another's expertise and construct a mentor relationship. The low fidelity of emotes also makes this interaction. We limit this interaction from being toxic. For example, it'd be hard to flame the unexperienced player for signaling their lack of expertise. Something you could do in *Overwatch* if a player confessed in chat that they were new.

A bumper sticker for "noob player" or "student driver" is not the solution I am advocating for though. Empathy for another player's situation or motivation is not as simple as giving player's a way to "confess" — nor does it ensure the space confessed to is safe. Such an indicator would perhaps only more clearly mark targets for toxic players. Going back to ideas of discipline in attitude, how interaction systems translate intentions is important to consider.

What “endings” do they afford attempts of communicating failure or forming relationships? Do they form safety? How do they interact with incentive and game systems?

Can flickering and other mechanics of holding players apart afford players both discipline when things go poorly; and grace when making mistakes? With more time, I would love to pursue the other experimental directions outlined previously for flickering. In addition, flickering voice communication and perhaps changing the shape of voice communication (such as how and who hears whom) could also be interesting. Are there affective aesthetics that would pair well with flickering? My hope is my work can encourage more experiments with playing apart and togetherness in video games and playful platforms.

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[9] P. Pedricini, “p5.play Example.” http://molleindustria.github.io/p5.play/examples/index.html. [Accessed May 16, 2020]

PROTOTYPES OF THE MAGPIE.

Prototypes of the Magpie can be accessed at the following links:

i. https://starbound-alpha.herokuapp.com/
ii. https://starbound-beta.herokuapp.com/
iii. https://starbound-zeta.herokuapp.com/
iv. https://starbound-delta.herokuapp.com/