Co-authoring with the multitude: An iterative design framework for participatory art

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Global issues like climate change, public health and social justice require diverse, collective thought in order to materialise solutions, but the way to achieve this is less clear. Participatory art provides fertile ground for research into this topic, and can act as both laboratory and playground in the quest to harness collective methods.

This paper explores discourse on participation from the disciplines of Performance Studies and Game Studies in order to develop an experimental framework for participatory art design. The mechanisms and methods mentioned were tested through practice-led research, which culminated in an experimental performance at ArtEZ University in May 2021.

Defining participatory art as a form of simulation highlights the multiple roles played by artists of such works that differ from other artistic disciplines, such as designer, procedural author and facilitator. Key aspects of the design framework include ideating from core values, recognising multiple subjectivities within participants, and employing a collaborative approach to design through iterative feedback cycles. The framework can be used as a tool for both creation and critique, contributing to the dialogue about the politics embedded within participatory mechanisms.

Practice-Led Research. Participation. Social simulation. Multiplicity. Interdisciplinarity.

1. INTRODUCTION

The game of single authorship is a game without victory. A dubious wealth of advice about branding, personalisation, and self-promotion accompanies an ever-narrowing definition of personal success. People work a little harder, put in more hours, and travel a little farther to get to work, playing a game with unclear rules. Meanwhile, collective problems like social justice and climate change go unnoticed. Problems that cannot be solved alone are invisible in this game. So, I invite you to play a new one.

As an artist, I am motivated by the conviction that collective experiences act as catalysts for social change, changing social reality by changing the way we see ourselves and each other. My desire to facilitate this led me to participatory art, and set me on the path that many artists who desire to engage creatively with the public tread. Like those before me, I felt uncertain about where to begin; I did not know how collectivity could be achieved in a performance or what would happen aesthetically if this collective was freed to determine its own direction.

Bishop notes that most participatory art is motivated by:

(i) empowering an active subject,
(ii) ceding authorship in an egalitarian way, and
(iii) inspiring a collective sense of community (2006, p.12).

And while many performances espouse these values, I observed in my research that a participant's experience varied dramatically depending on the artist's structural design choices. The term 'participation' is ambiguous, and leaves artists guessing how to navigate between control so strict that only the illusion of agency remains and instructions so vague that only confusion, or even anarchy, results. A miscalculation in this area has the potential to render the artist's initial proposal irrelevant.

Incorporating discourse from Performance Studies and Game Studies, my practice-led research investigates the effect of participatory mechanisms on shared experience through the development of an experimental design framework. Game Studies holds a wealth of literature relevant to designing collective and individual experience, often accompanied by research into the psychology of participation, and I speculated that this could help

to fill a gap in the Performance Studies literature. I tested this framework through a participatory digital game, *We Called It Earth*, at ArtEZ University (Netherlands May 2021).

In approaching participatory art as a catalyst for social change, I do not claim that even well-designed performances could meaningfully address global problems. While the genre largely dedicates itself to the tenets of equality and fairness, it often touts its accessibility while ignoring the actual 'conditions of access' limiting who can participate (Shah, 2017). It is difficult, therefore, to extrapolate the impact of such brief performance experiments on society-at-large; however, I believe the art form's capacity for collective exploration is still largely untapped, and might prove an invaluable pedagogical tool and playground for interdisciplinary research.

2. ENTERING THE SIMULATION

Participatory art is a social exercise, differing from one-on-one and interactive works whose aesthetic goals rely on individual experience (Bishop, 2006). It relies on people as both medium and action (Bishop, 2012; White, 2013), and aims at sparking conversation within a community of participants beyond the bounds of the performance (Kester, 2004; Rancière, 2014). It also claims a double ontological status as 'both an event in the world, and at one remove from it.' (Bishop, 2012, p.284). Rancière articulates this as **apart-togetherness**, wherein participants exhibit multiple subjectivities through emancipated spectatorship (2014). While the **apart** subject remains independent, the **together** subject explores a shared identity, and reifies it through its participation.

Simulation is a structure shared by both participatory art and video games, and is here defined as an imitation of a situation or process. Frasca argues that games are a form of simulation that require participation, incorporate behavioural rules and differ with every iteration (2013). Aarseth describes simulations as bottom-up and emergent because they offer player agency, whereas narratives are top-down and predetermined (2004, p.5). Additionally, the rules of a simulation are both explicit and internal, separating it from real-world situations.

Simulations, however, go beyond modelling a system in which a participant can act; they create multiple subjectivities. Game philosopher Miguel Sicart describes playing a computer game as an act of subjectivisation because rules are a form of power that creates behaviour (2011, p.68). A player who consents to a game's rules diverges into three

distinct subjects: **player-subject**, **playing-subject** and **played-subject**. Like Rancière's emancipated spectator, the **player-subject** performs an interpretive role, and maintains critical distance during gameplay. De Wildt describes a further split into a **playing-subject**, a mediating subjectivity between the player and the game world who interacts with the code (2014, p.10). The **played-subject** is the avatar, and often represents a character with a separate cultural background, personality, and beliefs.

Participatory art evokes multiple subjectivities by simulating alternative social scenarios. Thus, I define participatory art in this framework as a **social simulation** that places **participant-subjects** into a **new context** in order to experience an **alternative way of being**.

3. DESIGNING ALTERNATIVE WAYS OF BEING

Much like the multiple subjectivities of a participant, the artist of a participatory work performs multiple roles. In this section, I explore the artist as designer, procedural author and facilitator, and touch on the importance of an integrated design approach to core values. I then suggest possible iterative methods for feedback during the creative process.

Salen and Zimmerman refer to design in games as the creation of rules and structures that result in an experience that offers meaningful choices to participants. The consequences of their actions should be both **discernible** and **integrated** into a larger context (2004, p.4). In other words, participants should perceive that their actions have an effect, and that this effect is relevant to the piece as a whole.

Choices made available to a participant inevitably reflect an artist's particular understanding of the world. Flanagan and Nissenbaum assert that this is why a conscientious and iterative approach to values is necessary. They acknowledge that these values will not be interpreted identically between participants, but assert that constraints on mechanics and narrative elements create a plausible range of interpretation (2014, p.16).

Values are culture-specific and generally fall into either 'ethical' or 'political' categories, depending on whether one refers to how people treat themselves and each other, or the arrangement of power in society (Flanagan and Nissenbaum, 2014, p.6) (figure 1). This vocabulary is often used by artists when describing the real-world urgency of their work.
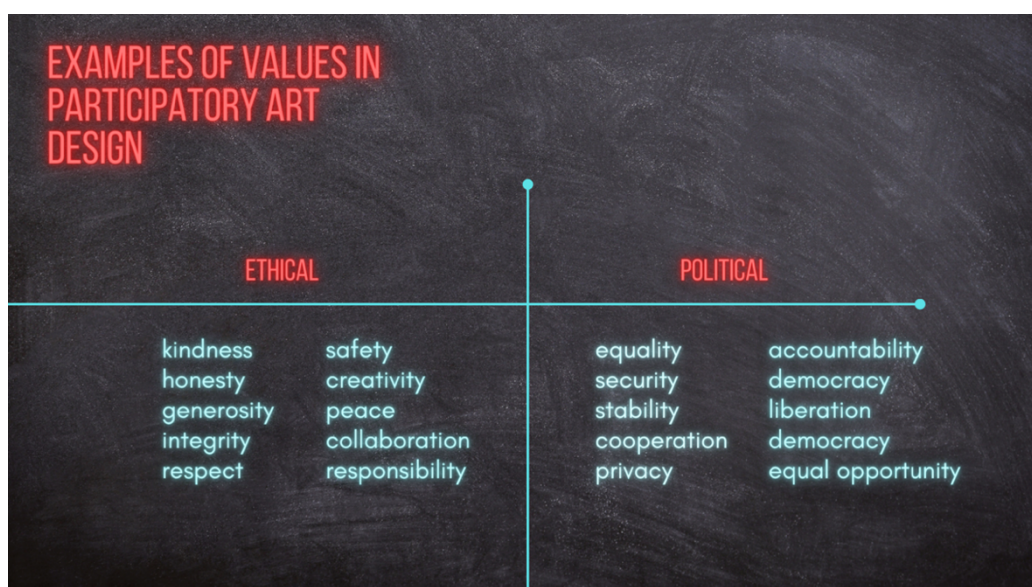
Figure 1*: Examples of values in participatory art design, selected from Values at play in digital games (Flanagan and Nissenbaum, 2014, p. 6)*
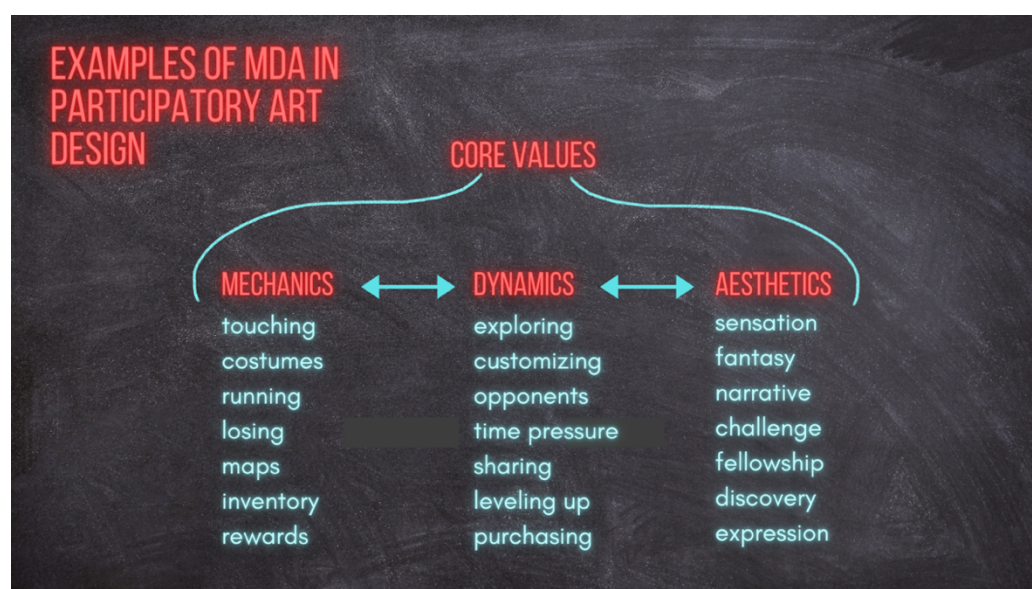
Figure 2*: Examples of MDA in participatory art. 'Aesthetics' excerpted from MDA: A formal approach to game design and game research (Hunicke, LeBlanc and Zubeck, 2004)*

Designing for core values in participatory work is challenging, because small cues like a sign at the door, seating arrangement, or a vague instruction can inadvertently cause participants to feel self-conscious, manipulated, or confused, and inhibit them from accessing the larger conversation. There are many iterative design processes that attempt to address this, including the **Mechanics/Dynamics/Aesthetics** model (MDA) used in game design.

MDA recognises that rule-based actions (mechanics) chain together to create indirect consequences (dynamics) for both the player and the system (Hunicke, LeBlanc and Zubeck, 2004). The dynamics that unfold for a player in turn provoke an emotional response (aesthetics). Designing from aesthetics first foregrounds the player's experience, but may fail to account for technical requirements and limitations, while designing from mechanics first may generate undesirable aesthetic experiences for the player (figure 2).

Using the previously mentioned taxonomy of **player-subject**, **playing-subject**, and **played-subject** (Sicart, 2011; de Wildt, 2014), I propose corresponding strata of participatory art: external, mediating, and internal environments. The external component is the societal context that drives the real-world urgency of the piece. Upon accepting an artist's invitation, participants enter a mediating

layer, wherein any objects or technologies necessary for participation are encountered. After consenting to the rules and receiving instructions, participants experience a third layer; the simulation. Here, agency and interaction are regulated by the artist, who creates a world that includes components like immersive and narrative elements, incentives, and risks. Participants make choices that shape their outcome and experience within this layer (figure 3).

Participant agency is designed not only by creating rules, but by introducing 'gaps' in the narrative presented. This is the role of a procedural author. Janet Murray writes, 'The procedural author creates not just a set of scenes but a world of narrative possibilities' (2016, p.143). Mukherjee asserts that procedural authorship is an 'ongoing process of interaction between the game and the player' (2015, p.150).
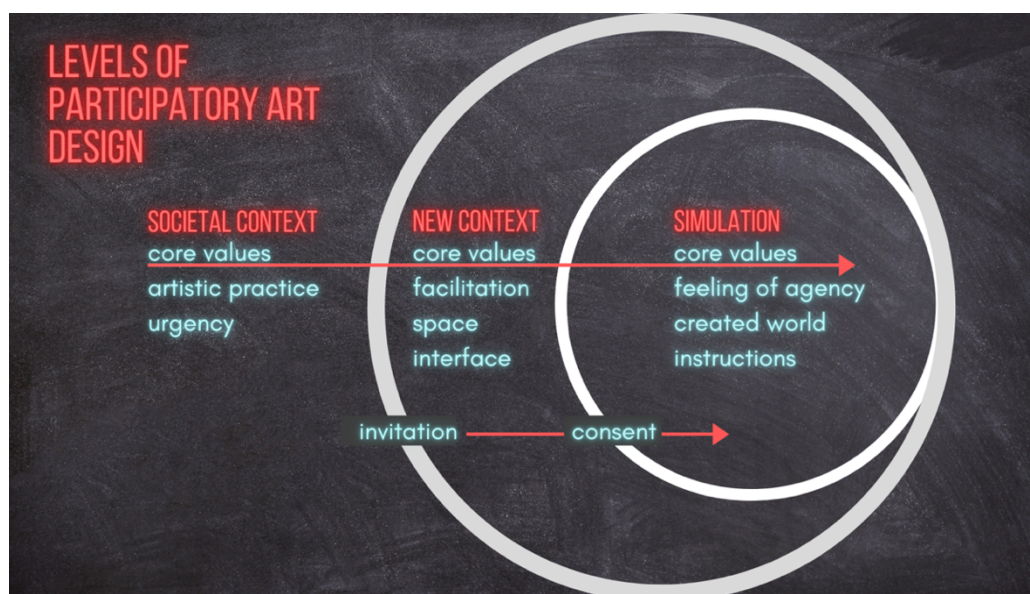
Figure 3: Layers of Participatory Art Design

Due to its social dimension, the interaction in participatory art includes intersubjective engagement, causing participants to not only co-author their own experience, but act as procedural authors for each other. White explains that these procedures 'give rise to actually occurring performances' (2013, p.195).

I assert that procedural authorship offers a large range of intersubjective experiences that can be designed by an artist, including prearranged narrative possibilities, as Murray suggests, or a collaboratively produced outcome, like an improvised performance might yield. A procedural author must also decide which technologies, algorithms, or objects to interpolate into the agential choices of participants in order to best express the core values and objectives of the piece.

An artist of participatory work may also play the role of facilitator, which might include extending hospitality, clarifying and enforcing rules, and managing social risk. Facilitation, like many aspects of participatory art, is difficult to design without the feedback of participants. For this

reason, it is vital to cyclically iterate. If meaningful choices are offered, only participation can expose unexpected dynamics or points of incoherence. This can be revealed through 'playtesting' (where the artist experiences the role of a participant) or prototyping for test audiences.

It is important during this process to repeatedly clarify core values with collaborators in order to prevent small differences in interpretation from snowballing into problematic inconsistencies. The VAP (Values at Play) model is an iterative process that recognises the 'need to unravel ambiguity and develop…a definition of relevant values that is sufficiently concrete to guide design' (Flanagan and Nissenbaum, 2014, p.80). This approach includes *discovery* of values, *implementation*, and *verification* of whether the desired quality of participation is being accomplished. Due to the importance of clear communication in my research, I have incorporated VAP into my experimental framework.

4. FRAMING THE WORK
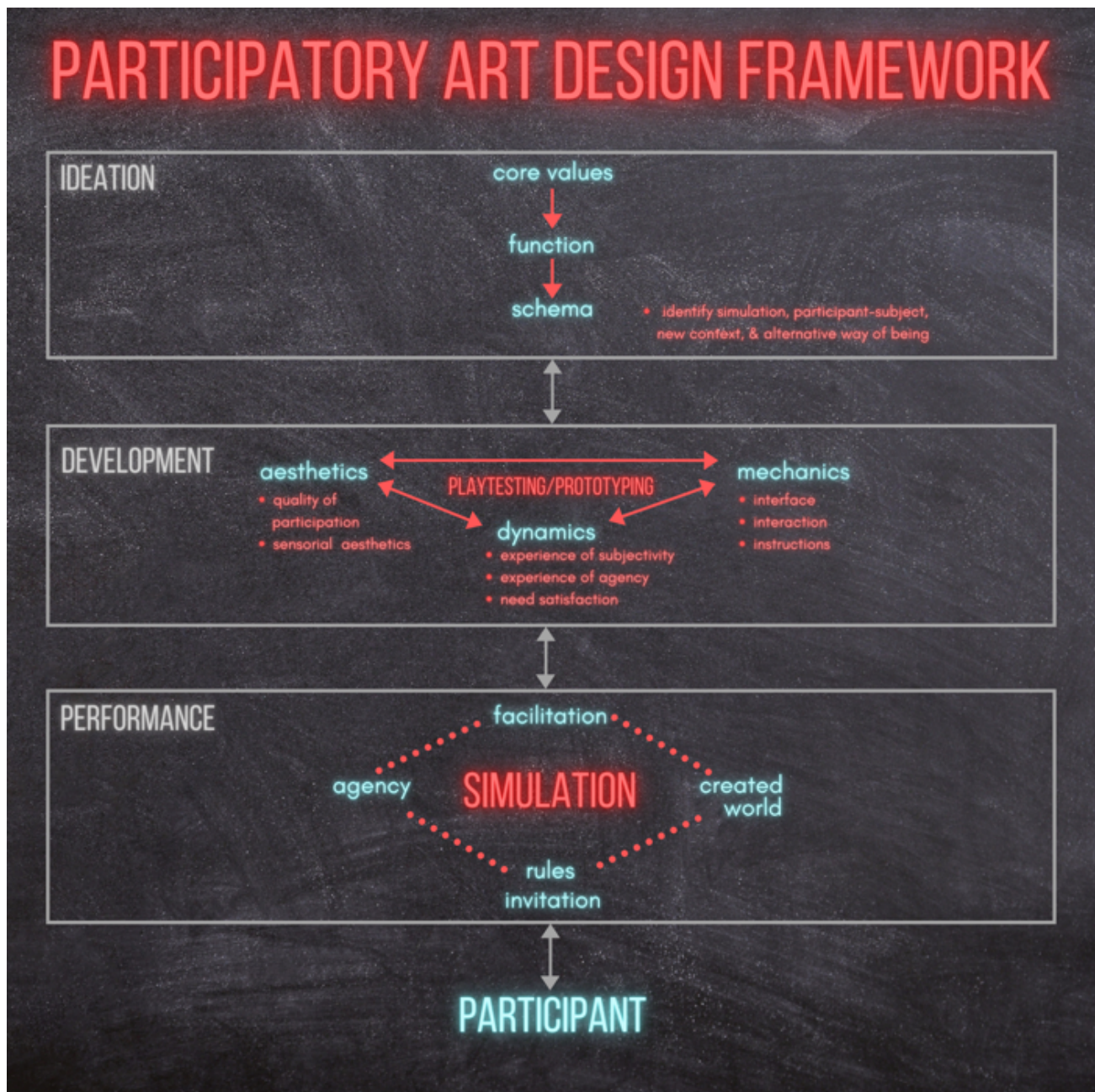
Figure 4: *Experimental Participatory Art Design Framework*

In this framework, the creative process is divided into three iterative sections (figure 4):

(i) **Ideation**, stemming from core values in relation to a societal context,
(ii) **Development**, wherein the mechanics, dynamics, and aesthetics are playtested and prototyped, and,
(iii) **Performance**, wherein participation is facilitated with participants.

Core values are key to the success of this framework. Once identified, it is important to decide how values should function within the piece and how that function can be realised artistically. I adopted a schema (based on my earlier definition) to clarify this: Participatory art is a **social simulation** that places **participant-subjects** into a **new context** in order to experience an **alternative way of being.**

The second section of the framework includes MDA, playtesting, and prototyping. These periodically revolve back to the first section of the framework, refining values based on experimentation and feedback.

In the third section, an invitation is extended. After consenting to the rules, participants interact within the simulation, whose structure determines their experience of agency and subjectivity.

5. WE CALLED IT _____

Figure 5*: Start screen of We Called It Earth*

In *We Called It Earth*, I chose to address **participant-subjects** as a collective subjectivity by placing them into the **new context** of an immersive, online game. I wanted to **simulate** what it would be like to collectively occupy the same body and mind in a world shattered by a force simply referred to as 'the Separation'. Learning to navigate this collective experience would constitute an **alternative way of being**. The core values of this piece were collectivity, access, and disidentification. Below, I explore how they integrated into the piece, and how through 1,711 playtests, two prototypes, and a performance, they evolved.

Collectivity. This was the primary value guiding *We Called It Earth*. I initially imagined a game mechanic wherein each player could choose and attach a limb to the avatar and control its movement. This, however, quickly became political. If every participant controlled one limb, what would determine the direction of the avatar's movement? Would majority rule, or would the decision need to be unanimous? Would there be a penalty for lack of consensus?

One of my original templates for collectivity, a social movement, had differentiated roles, a unified (if not uniform) goal, and agency that manifested in unpredictable bursts from various directions. To evoke these qualities, it was important that each participant experience both intermittent individual agency and collaborative effect. I introduced the idea of randomly rotating control to participants. My collaborator, software developer Hadi Asghari, and

I, also decided that while there would be no penalty for dissensus, disagreement about direction would cause the avatar stay still, and lack of participation would greatly slow progress.

Access. Because of this value, we wanted to make the game playable on a mobile phone browser, a ubiquitous device that required little technical knowledge. To implement this, however, would cause a lag on a browser-based system; so much so that participants might not experience the movement of the avatar as related to their choices.

Through the same value, we had chosen the game design platform Godot because it was open source and supported by a community. However, features that integrated HTML5 were not yet robustly developed. Consequently, the choice was made to have only four limbs, controlled via Playstation controllers in a live space, that would switch functions periodically. The mobile interface would be available to everyone else, and handle the task of writing a story in the virtual environment.

Disidentification. Having differentiated roles for participants, I needed to address a potential hierarchy driven by task-related identification. Participants operating game controllers would have more agency than mobile users, and those with game experience would have a sizeable advantage. I needed a way to mitigate social risk for beginners and encourage experienced gamers to prioritise the ethos of the collective over the traditional goal of victory.

We decided to enable participants to identify themselves only as an emoji. This offered equal footing on the projected screen, and some anonymity for those who might feel social embarrassment.

Differentiation. During the first prototype, participants experimented with entering text during gameplay. Those participating expressed the desire to spend more thoughtful time writing, and to have the opportunity to respond to each other.

Taking this into account, a scenario was proposed where the avatar would depend on text submissions to fill chasms that could not otherwise be traversed. Action would freeze during this mechanism, giving mobile participants time to write. I hoped that this temporal separation of activities would address any inequality between what I was now referring to as the avatar's 'body' (the limbs) and 'mind' (the story).

Revisiting collectivity. As the second prototype approached, I focused on how to deliver instructions, and how rules might be enforced if they were violated. It was a priority to avoid a top-

down approach because I wanted to leave space for the collective to affect its own form through the experience of gameplay. I revisited my definition of collectivity to better understand how I might achieve this.

A protocological network (Galloway and Thacker, 2013, p. 30) is a system of distributed, individual nodes inclusive of anyone agreeing to the terms and conditions. This network operates through relationships, and exerts control in a decentralised, radically horizontal and distributed way, thus allowing for robustness and flexibility when confronting unpredictable contingencies.

I implemented this by placing rules in written form outside the game space, making the door a threshold of consent to the terms and conditions. The rules communicated two important points:

(i)   This is not a theatre—this is a game. Speak up, walk around, have fun!
(ii) Be supportive. Rules can be hard to figure out, especially in the beginning. Offer help if you can and kindness if you can't.

Bringing it together. Due to pandemic restrictions, the second prototype was the first time multiplayer limb control was tested with participants. It was successful, characterised by cheers of encouragement, loud laughter and confirmation that participants felt like part of a community. Without prompting, participants took turns with the controllers during the game. What had taken me 2.5 minutes to navigate in playtesting, however, took 25 minutes for participants during the prototype, and this caused them to forget about their mobile phones, opting instead to focus on the action unfolding on the projected screen.

It was pointed out during feedback that the written instructions did not prepare participants for the energy of the game, and they would prefer having a host to direct the flow of events. Introducing this role would increase access because I could help people with their internet connections, devices, etc…, but had to be executed without asserting the host as an enforcer of the rules, relying instead on protocols.

The programmer and I decided it was necessary to increase interdependence between the 'body' and 'mind', and that an additional mechanic was required. An energy bar was added to the top of the main screen, decreasing as the avatar progressed. If the avatar 'died', 50 points were deducted, and if it fell to zero, the avatar was frozen until energy was replenished. On mobile phones, five icons were added, of which some added energy points and some drained them (figure 6, 7).
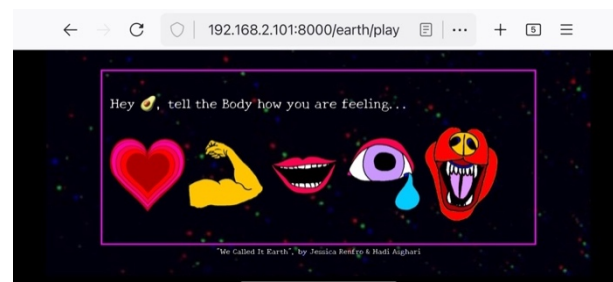
Figure 6: Participants could send energy from their mobile phones.
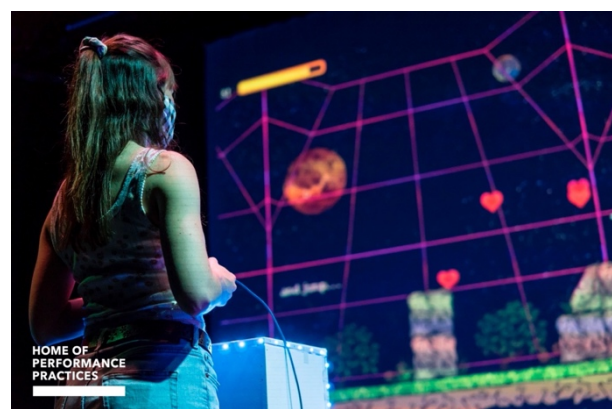
Figure 7: A participant maneuvers while energy appears on the screen. Photo: Fenia Kotsopoulou

5. GAME DAY

The performance did not proceed without interruption. Bugs appeared that had never occurred before, causing pauses during gameplay and a reduction in the number of mobile users. Interestingly, the protocols were enthusiastically embraced even during the unanticipated gaps. Individuals stepped into the role of cheerleader or joker. A group of participants began singing along dramatically to the game's theme song. Conversation was exuberant and playful, carrying over the energy of the game.

Some recorded comments that suggest new subjectivities included:

- 'I am the pink leg!'
- 'Oh! I can jump! That's me!'
- 'I found myself—okay!'
- 'I'm definitely walking, but I can't do more than that.'
- 'Give us some energy, guys!'
- 'Send us some love—it's free!'
- 'We can run now. We're experts.'

Participants holding game controllers referred to themselves frequently as players, the avatar, and

their individual body part, and kept their attention locked on the screen (figure 8).
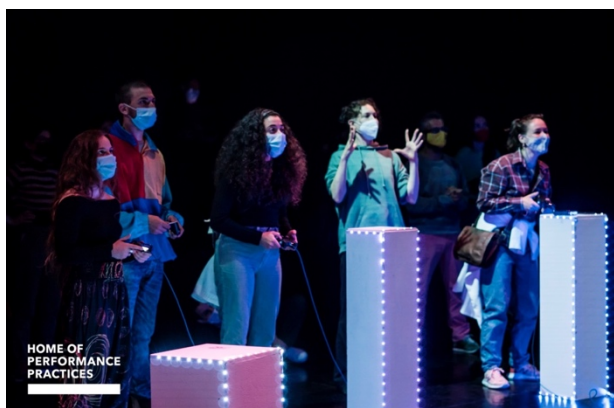
Figure 8: Participants reacting. Photo: Fenia Kotsopoulou

The new mechanic of sending energy from mobiles was astoundingly popular to the point that the energy level of the avatar dipped to a critical level only once after several consecutive 'deaths'. The text mechanic faced obstacles due to the forced reduction of users. Responses to the prompts were short, and participants expressed not knowing what else to write before the chasms had been filled. However, this made the activity more social, with those logged on to the server asking for submissions from others.

6. A LARGER CONTEXT

This preliminary research investigated how participatory mechanisms influence different qualities of participation. It can be a helpful resource for artists, and additionally enables a nuanced critique of the values driving participatory art pieces. The ability to critique gains urgency in light of the some governmental efforts to reframe 'participation' as 'participation in the task of being individually responsible for what, in the past, was the collective concern of the state' (Bishop, 2012, p.14). Identifying neoliberal values like self-determinism, solutionism, or libertarianism through their consistent presence in elements like mechanics, created world, and rules could forward the conversation about the ethics of certain participatory mechanisms and how they might run counter to their stated objectives. Finally, this might allow artists to harness these mechanisms as a way to return power to the collective, changing the focus from individual achievement to collective good by simulating a return to egalitarian values.

Transparency in participatory art creation might also draw back the curtain on the pervasive issue of access within the arts. Although many pieces, including my own, express a desire to invite diverse participation, Shah points out:

Emphasis is largely placed on the moment of access, the point of access, and the actions generated once access has been successfully achieved—on *access* as a verb, which finds its fruition in the bridging of the last mile, the connectivity to the underserved, and the production of the connected subject. The primacy of access as action makes the infrastructure, which is the condition of access, invisible (2017, p.117).

The 'participant' in participatory art is, to a degree, already selected by the condition necessary to engage with the piece. Therefore, it is crucial that artists recognise that all participatory pieces have exclusion built into them. As a social exercise, they are ephemeral experiences of embodied collectivity that cannot actualise the collectives they imagine in society-at-large.

Nevertheless, participatory art acts as a catalyst for social change by changing how participants see themselves and each other. *We Called It Earth*, for example, offers the collective experience of multiple subjects occupying and controlling a single body. This could easily feed into a larger conversation about conflict resolution, teamwork, or social movements. Pieces like this also teach how to use participation as a mode of public discourse. Participatory performance is usually too short-lived to observe the kind of collective emergence evidenced in multiplayer virtual worlds. Additionally, the subjectivity brought into focus by the artist is likely not based on the participant's customised choice as is common in video games. This makes it less likely that a participant would choose to re-inhabit this *played-subject* beyond the life of the performance. However, precisely because of its temporary nature, the subjective embodiment in participatory art is an invaluable pedagogical tool.

Through its focus on selective subjective experiences, it helps participants gain new insights about their social reality, and their shared experience can be a touchpoint in subsequent conversations. This kind of dialogue could potentially raise the visibility of the collective problems of our time by engaging individuals who, for a brief time, accept the invitation to step outside of their busy lives to co-author an alternative way of being.

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