Digital Relationality: Relational aesthetics in contemporary interactive art

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In 1998, Bourriaud proposed relational aesthetics as an art form that took interhuman relations as its content to confront the progressive commoditization of those relations and propose alternative ways of living. Twenty years later, relational aesthetics has become even more relevant as a tool to reveal the relationality between technology and each other, as our everyday social relations have been commoditized in ways previously unimaginable. Given the enormous shifts that have occurred since its inception, relational aesthetics needs revitalization. In this paper, we aim to renew relational aesthetics as 'digital relationality,' recognizing important critiques about a lack of antagonism from Claire Bishop and identifying ways in which incorporating relational aesthetics with interactive art may resolve many of these criticisms. We analyse four of our own artworks as examples of how merging relational aesthetics with interactive digital art can benefit both realms. We propose that applying relational aesthetics to digital media reveals the antagonism within the structures imposed by technology ordinarily taken for granted. Drawing attention to these structures, and subverting the typical uses of these platforms, allows for reflection and discourse. This can lead both artist and viewer to imagine alternative ways of living beyond the constraints we ordinarily operate within, becoming active participants in constructing a digitally relational future.

Relational Aesthetics. Antagonism. Interactive Installation. Virtual and Augmented Reality. Social Media.

1. INTRODUCTION

Social structures shape our lives, and our actions in turn shape those structures. This fact is at the heart of curator and art critic Nicolas Bourriaud's *Relational Aesthetics*. He proposed that relational art takes human relations as its subject and forms what he calls a "social interstice"—a space that proposes alternate ways of living outside of the heavily commoditized everyday "communication zones" that we ordinarily socialise within (2002). These encounters fill the space that a commodified everyday existence could not, exploiting our social interactions to bring awareness to them.

Originally published in 1998, *Relational Aesthetics* came at a time of anxiety and excitement when digital media was on the rise, yet not integrated into our daily communication and creation practises to the extent it is today. Relational aesthetics has become even more relevant now, as our social relations have been commoditized in ways previously unimaginable. With digital technology now a practical fact of everyday life, relational aesthetics needs revitalization. By considering how contemporary digital art takes relationality as its subject matter, we build upon relational aesthetics while incorporating digital technology into the fold. Bourriaud himself identifies how technology can be utilised in creating relational art:

> By putting technology in its productive context, by analysing its relations with the superstructure and the layer of obligatory behaviour underpinning its use, it becomes conversely possible to produce models of relations with the world… (2002, 78)

Relational aesthetics was a response to the disembodying, anti-socializing, and commodifying effects of technology and globalisation. This article serves to provide a new perspective on what relational art might look like twenty years later, where technology is routinely used to bring attention to our social relations and how that technology mediates it, aiming to embrace it as a tool for critical self-reflection. Art historian and critic Claire Bishop similarly recognized the potential of digital technology (2012) and offers many critiques that inform a renewed relational aesthetics (2004). In today's digitally mediated world where interactivity has become the norm, Bourriaud's tech-averse relational aesthetics have become

outdated. In response, we propose an updated understanding of relational artwork that recognizes digital technology's inevitability in contemporary society—reimagining it as '*digital relationality*'.

Digital relationality intersects the many contemporary artforms that question and lay bare how technology mediates our social relations. Digital relationality embraces art that inverts or 'makes strange' our typical use of contemporary technology to reveal how it shapes our lives and our role in shaping it. Galle and De Preester similarly suggest that internet art is a form of relational art that critiques the very technology it uses (2009). However, with the ongoing proliferation of multimodal technology and its integration into our daily lives, internet art is but one example of a plethora of forms of digital relationality that spans every technology imaginable.

We take the first step towards digital relationality by acknowledging Bishop's criticisms of relational aesthetics while recognizing how interactive artworks are often able to reconcile these criticisms. We then analyse a series of four of our own artworks to demonstrate how digital relationality can be expressed. We then conclude with how users can be inspired by digital relationality to become more conscious of how technology affects their social relations.

1.1 Renewing Relational Aesthetics

Digital relationality aims to reveal underlying social and technical structures through a direct engagement with those structures. The New Aesthetic offers a similar example in its uncanny images which implicitly reveal details about the inner workings and values embedded within the technology which created them (Cloninger 2012). Similarly, relational art offers the contemporary digital space a way to use technology to reveal its underlying structure and social effects.

Relational aesthetics provides a vehicle for questioning the systems which we often take for granted. There have been many critiques of relational aesthetics, most notably by Claire Bishop. She criticises the open-endedness of many relational artworks, their disconnect from real-world contexts and publics, and a lack of antagonism present in their sometimes 'feel-good' and 'self-congratulatory' micro-utopic nature (Bishop 2004).

We claim that these criticisms can be answered by 'digital relationality' while also fitting Bourriaud's vision of creating art that proposes "ways of living and models of action…" (2002, 13) The examples presented in this paper demonstrate how 'digital relationality' responds to these criticisms. These examples emphasise social outcomes and blend context and content rather than viewing them as distinct. This mixture of context and content is critical to how digital media can promote relationality. When context and content blur together, it directs the viewer to consider how the context, typically some technology, shapes them, their actions, their thoughts. And conversely, it reveals their role in shaping technology and society through their actions. Further, the viewer directly influences the outcome of the work, projecting their own significance and meaning within it. With this pluralistic way of thinking, we begin to envisage what 'digital relationality' might look like.

2. BEWARE UTOPIA, EMBRACE ANTAGONISM

Relational artwork is intricately tethered to its environment and audience, and as Bishop remarks, "rather than a one-to-one relationship between work of art and viewer… [viewers] are actually given the wherewithal to create a community." (2004, 54) However, as Bishop argues,

> Unhinged both from artistic intentionality and consideration of the broader context in which they operate, relational art works become…"a constantly changing portrait of the heterogeneity of everyday life," and do not examine their relationship to it. In other words, although the works claim to defer to their context, they do not question their imbrication within it…We need to ask, "Who is the public? How is a culture made, and who is it for? (2004, 64)

We must ask *what* communities are being implicated, *how* viewers will engage with it, and *who* their participation benefits. However, structure and subject matter need not be detached to accomplish this. Indeed, we argue that blending context and content is beneficial in bringing awareness to how participants utilise the works themselves and the relations that can result. In fact, many works discussed in this paper benefit from being analysed in terms of their actual social effects, distinct from the artist's intention. For relational work to be effective, it must ask for both interaction and contemplation, framing how and why this interaction exists for the participant to interpret.

Bourriaud's relational aesthetics is concerned with the quality of relationships produced; however, by not answering questions of context and situatedness in his analysis, he fails to properly examine the relationships in the artworks he promotes. As Bishop claims, his examples reinforce how relational artwork can end up simply reinforcing existing communities who have a common interest in art rather than engaging a

broader public in political questions that affect their social lives. (2004)

Such utopian gallery spaces for like-minded participants to harmonise in the absence of conflict, free of antagonism, is the very antithesis of democracy. As Bishop claims: "A democratic society is one in which relations of conflict are sustained, not erased. Without antagonism there is only the imposed consensus of authoritarian order." (2004, 66) She argues that antagonism is a critical component seldom seen in Bourriaud's examples, remarking that "the relations set up by relational aesthetics are not intrinsically democratic, as Bourriaud suggests, since they rest too comfortably within an ideal of subjectivity as whole and of community as immanent togetherness." (2004, 67)

Relying on Liam Gillick and Rirkrit Tiravanija's micro-topias within gallery settings, Bourriaud's examples involve a group of gallery-goers who identify with each other and relate because they already have something in common. According to Bishop, such a harmonious utopia can no longer meet its aim of transforming public culture and social spheres as it draws no attention to the real-world tensions faced beyond the gallery walls. (2004) Galle and De Preester proposed that internet art countered this issue by being widely accessible online (2009).

However, there is merit to presenting relational artworks in spaces that bring awareness to their form, such as a gallery, rather than collapsing the work into everyday life or entertainment. As Bourriaud states, the contemporary art exhibition "creates free areas, and time spans whose rhythm contrasts with those structuring everyday life, encouraging an inter-human commerce that differs from the 'communication zones' imposed on us." (2002, 16) Thus, the gallery or festival nonetheless provides an important context open to contemplation, but it can only fully realise its purpose if the relational artworks therein retain or respond in some way to the uncomfortable antagonism that lay beyond its white walls. Moreover, its power to impact society is directly related to the public it invites to participate.

3. DIGITAL RELATIONALITY IN INTERACTIVE AND IMMERSIVE ART

Immersive installation art can resolve this lack of structure while confronting the scepticism Bourriaud raises with technology by integrating context as content. This integration transforms the technology used in the installation from an unobtrusive mediator to an instrument for reflection. As Bolter and Gromala claim, "an interface can be not only a window but also a mirror, reflecting its user." (2003, 56) Using technology as a mirror provides a frame for more embodied relations through the incorporation of the body itself and its interaction with technology as both content and context of the artwork. Like standing between two parallel mirrors, the technology frames the body, the body frames the technology, reflecting endlessly, bringing both body and technology from the periphery into the centre and drawing attention to their relationality.

The work of Rafael Lozano-Hemmer provides a plethora of examples of how digital relationality reframes the body and technology. As art historian Kathryn Brown claims, "his installations… reshape individuals' encounters with the familiar spaces they inhabit, and alter the ways in which computer technologies are used within those spaces." (2014, 38) Lozano-Hemmer's work fits digital relationality by drawing attention to social relations and how they are shaped by technology. His artwork reimagines ways in which familiar, typically intrusive, technology, through its deliberate misuse, can be repurposed to facilitate relationality, revealing new possibilities for social connection while attuning participants to the lack thereof in their everyday use of the technology.

Brown points to *Amodal Suspension*, which reimagines text message communication using beams of searchlights to establish communication links. "The work takes up a technology that is potentially private and isolating and transforms it into a medium that is both public and communal." (Brown 2014, 52) Text messaging is transformed from a transparent communication medium to a tool for reflection. It invites reflection on how our technological habits shape us and our social relations.

By situating his relational architecture installations in public spaces Lozano-Hemmer also overcomes Bishop's criticisms of the lack of antagonism in gallery spaces. For example, *Border Tuner* connects people across the US/Mexico border through an interaction similar to *Amodal Suspension*. Not only does this affect those directly participating, but it produces a light sculpture visible to everyone in the surrounding community who may have diverse opinions on its significance and meaning. As stated on the project website, ""Border Tuner" is not only designed to create new connections between the communities on both sides of the border, but to make visible the relationships that are already in place." (Lozano-Hemmer 2019)

According to installation artist Nathaniel Stern, interactive artwork reframes the body's movement, thoughts, and sensations. Interactive art can form

the necessary structure needed for relational aesthetics. As Stern suggests:

> Interaction is a limitation—but it is also an amplification. At its limits, interactive art disrupts our relational embodiment, and thus attunes us to its potentials. Embodiment is per-formed in relation, and interactive art stages us, and our surroundings, so as to suspend, amplify and intervene that very performance. (2013, 13)

Stern frames new media technology as a cross-modal and embodied form that amplifies relations, rather than Bourriaud's assertion that it can compound discrete separateness. In this way, giving individuals an opportunity to observe the relationships produced and mediated by the artwork provides it with the substance that Bishop found lacking in Bourriaud's examples. Immersive installations can comment on the technology they are created from and propose ways to promote relationality. Here we present two examples of interactive artworks that explicitly invite embodiment, discourse, and intersubjectivity.

3.1. Gestures

Gestures is an interactive installation created by Lark Spartin that uses a Kinect to visualise human movement, resulting in a computational drawing machine. Human body movement is an art form in itself, acting here as an expressive digital brush to create an interactive painting projected in physical space.

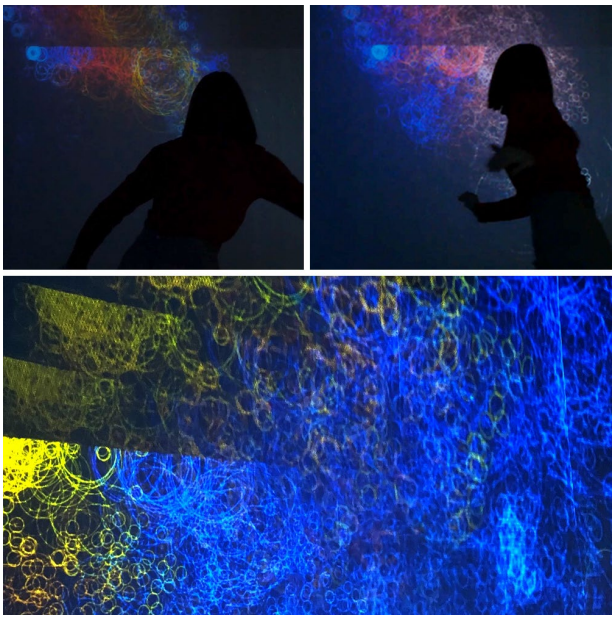

Figure 1: *Gestures. Top: participants observe changes in the colours and shapes corresponding to their movement. Bottom: projection onto multiple layers of tulle. Photos Lark Spartin 2021 CC BY-SA.*

During the exhibition, participants were encouraged through the intentionally open-ended interface to explore movement alone and with others, using their bodies as the context of the work as they actively created the content. The colours and shapes appearing on screen depended on participants' physical position in the installation space. By seeing how the content of artwork can change based on their proximity and speed of movement in real space, individuals could discover the relationality between one another, the technology, and the physical space between them. *Gestures* provided an opportunity for participants to move their bodies in ways that are seldom seen in everyday life. Without a barrier to shield these interactions from other spectators, some social discomfort was observed. This highlights the lack of privacy we ordinarily operate with as we curate our social expressions in our use of social media technology. Many participants were hyper-focused on how their bodies interacted with the technology at first but became more comfortable with moving within the constraints of the system as they became familiar with it, allowing them to collaborate with others.

Aligning with Stern's observations, *Gestures* can attune users to their bodies, while also embracing an underlying notion of performativity and limitation that is folded into the technology, as underscored in Bishop's call for antagonism. *Gestures* provided a form of utopic, embodied interaction that references Bourriaud's aims, while simultaneously embracing the inevitable antagonism that lies between the participants performing publicly. This artwork showed participants that the body can be reframed in relation to others by using technology to encourage expression and movement. *Gestures* dualistically furthers self-expression and relationality while making users aware of how technology mediates those social relationships by provoking discomfort to deconstruct the commodified social relations that are presently observed in our daily lives. It recognizes spectators as active performers while reframing how we relate to our surroundings and how they relate back to us.

3.2. Body RemiXer

Body RemiXer, by John Desnoyers-Stewart et al. (2020) is a mixed reality immersive installation that can be used both with and without a VR headset, creating a space that encourages interaction across the virtual/actual divide. Participants' bodies are tracked by a Kinect (V2) and projected onto two perpendicular projections and within the VR headset. These projections act like mirrors that provide a link to the virtual space. One person wears the VR headset while up to 5 other participants around them are transformed into ethereal auras.

Body RemiXer hides individual identities and obscures others' gaze, encouraging expressiveness and interaction between both friends and strangers. By high-fiving, participants can connect their aura bodies through an exchange of particles, or swap their virtual bodies, drawing their attention to the connection or similarity between them. A soundtrack plays with each ambient track representing a participant, and each drumbeat responding to the synchronisation between connected participants.

Like in *Gestures*, *Body RemiXer* draws immersants' attention to their relationality by transforming movement into expressive visuals and sound. Both materialise the digital—*Gestures* through projecting the digital onto analogue materials, *Body RemiXer* by incorporating tactility into the ordinarily ethereal space of virtual reality (VR). *Body RemiXer* responds to assumptions about VR as an ethereal, remote, and solitary space by bringing real physical bodies into the virtual experience. Subsequently, the social effects of the virtualized body are seen through strangers interacting with, performing for, and touching each other. The hybrid space invites creativity and reflection on what our virtual reality *could* be.

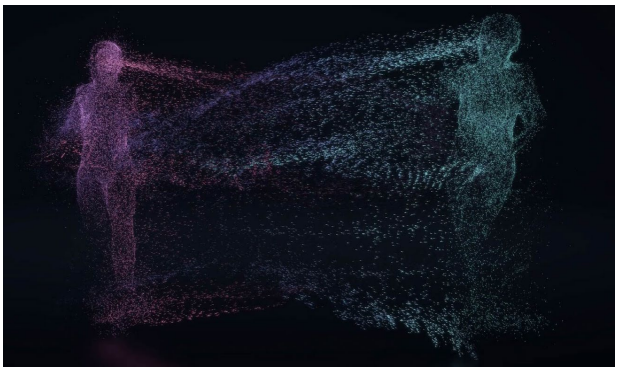

Figure 2: *Screen capture from Body RemiXer showing aura bodies being connected. Photo CC BY-SA.*

While it does propose a kind of "micro-utopia", Body RemiXer nonetheless embraces antagonism. In particular, touch between strangers presents an opportunity for sometimes abrasive experiences that draws attention to the strangeness of VR as well as everyday social norms surrounding touch. The creators of Body RemiXer observed that participants seemed to want to reach out and touch those around them in such an abstract and anonymous space (Desnoyers-Stewart et al, 2020). This antagonism was amplified by the fact that those in VR seemed to follow different social norms than those around them. Moreover, the uncanny sensation of touching a real, sometimes unknown person in VR invites participants to reflect on why VR ordinarily lacks this important sense while blurring the digital and physical. Such effects upon social norms draw attention to how technology shapes our bodies and our relationality with one another. Moments of discomfort are essential as they point to the tensions that exist within the technology and social structures, allowing participants to reflect, discuss, and hopefully transform them.

3.3. Moving, Thinking, Feeling through the Body as Framer

Interactive artworks such as Gestures and Body RemiXer give us insight into how our body can be formed (and reformed) within contemporary media, and provide the structure that Bishop found lacking in relational aesthetics. This structuring around body and technology helps individuals to contextualise the artwork for themselves, practising 'conceptual-material relationships'. By encouraging participants' shared meaning-making through interaction with the installation we can encourage relationships that are both individually and collectively significant. Through digitization, the image has become more closely tied to the body. As Hansen says,

> When the body acts to enframe digital information, what it frames is in effect itself: its own affectively experienced sensation of coming into contact with the digital. In this way, the act of enframing information can be said to "give body" to digital data—to transform something that is unframed, disembodied, and formless into concrete embodied information intrinsically imbued with (human) meaning. (2005, 12)

Viewing the 'body as framer' as Hansen suggests can provide a path to evaluating the quality of relationships produced within the work. Interactive installations call our attention to our "varied relationships with and as both structure and matter… framing the moving-thinking-feeling of how relations matter, as matter." (2013, 15) As Stern proposes here, in such interactive relational artworks, the viewers' bodies intersect with the artwork, providing both the framing structure, as well as the subject matter for the work. This respects Bourriaud's initial assertion of 'structure as subject matter' while resolving Bishop's criticisms by providing clearer parameters with which to define it.

4. DIGITAL RELATIONALITY IN SOCIAL MEDIA AND AUGMENTED REALITY ART

Parallels can be seen between these interactive installations and the way social media can be exploited to create relational art, as both of these realms can be used to bring awareness to how our seemingly mundane use of technology significantly shapes us. We can upend this by understanding through our use that subjectivity is no longer based on fictitious social 'harmonious community-as-

togetherness' as Bourriaud might like, but instead acknowledges the 'divided and incomplete subject of today.' (Bishop 2004, 79)

For example, Cindy Sherman posts uncanny digitally manipulated portraits on Instagram (2021) to point to the constructedness of the platform and Jenny Holzer delivers words and ideas in public spaces through her projection work, providing a call to question mediums themselves and a foundation for discourse in globalised, digital space (2019). By voicing that which is ordinarily repressed in social media, we become aware of the constructedness of the platforms and the performative identities individuals present. We make way for more conscious and affective social exchange by producing and critiquing culture in this new context. In this way, digital relationality can promote democracy, antagonism, and structure through art made within the platforms it critiques.

4.1. Amplifying Relationality through Augmented Reality

Many social media platforms including Facebook, Snapchat, and TikTok have integrated Augmented Reality (AR) through various filters that can be applied in real-time. While some are clearly visible as they radically transform the user's image, others such as Facetune are meant to be transparent, invisibly perfecting one's image. Regardless of their transparency, they quite literally filter how we relate to ourselves and one another and as such are an ideal topic for digital relationality.

In response to this, Lark Spartin created a digital portrait series named *In Flux.* The purpose of this project was to bring awareness to the constructedness of digital identity in contemporary culture. *In Flux* explores the evolution of self as mediated by technology, and calls attention to how individuals use digital technology to disperse the fractured roles they play in their lives and online. By exploiting the selfie, *In Flux* brings awareness to how different personas are performed on social media platforms. Lark Spartin uses her own image as the foundation of this project, manipulating her own selfies and found footage to create a collection of distorted self-portraits presented through an Instagram-like interface. Alongside the portraits, AR filters can be accessed through a QR code and interacted with anywhere, leaving the utopic constraints of the gallery behind. Users can upload their own images from their camera roll to the face filter or interact with an array of filters that purposely distort the user's face to bring awareness to the contrived, superficial nature of the selfie. Facial and gestural movements commonly seen in selfies, such as a smile, trigger animations within the selfie filter, bringing awareness to how we perform these interactions out of context in our perfunctory everyday use of AR. These design decisions give recognition to how the medium affects our perception of ourselves and others and allow individuals to infuse their own significance within the composition. To experience augmented relational work in this way is the epitome of experiencing a relationship "with and as both structure and matter", as Stern remarked (2013, 4).

Lark Spartin has also created a triptych of marker-based AR posters and video projection works: titled *Distant Distraction*, *Foul Breach*, and *Separate Sensation*. Each piece represents a body part (eyes, mouth, ears), referring to a perceived disembodiment that occurs in our digital interactions. In the AR layer, viewers can witness animated hands reaching out towards them as if reaching out for connection. Through presenting the AR filters within popular social media platforms, this artwork invites the viewer to reflect upon the problematic values that have arisen out of the use of social media and helps them consciously recognize what it means to "reach out" for authentic connection.

Figure 3: *Separate Sensation, Foul Breach, and Distant Distraction, by Lark Spartin. Photos CC BY-SA.*

These interactive AR images provide a similar structure that interactive installations afford through framing interactions while inspiring a level of collective antagonism by directly remarking on the social media platform used to view them. This project was meant to bring awareness to how our world is severely and socially separated by pervasive fear and the collective norms of social media, bringing in a collective form of antagonism to reflect on embodiment and relationality. When individuals flip to the front camera, a textured mask filter covers their face, promoting ideas of being a lonely, disembodied spectator. Superimposing a digital image into real space gives the digital image physicality and reminds the viewer of the real impacts such technologies have upon their lives. In the second iteration of this project, posters were switched out with scannable video projections that revealed the filters onto moving images.

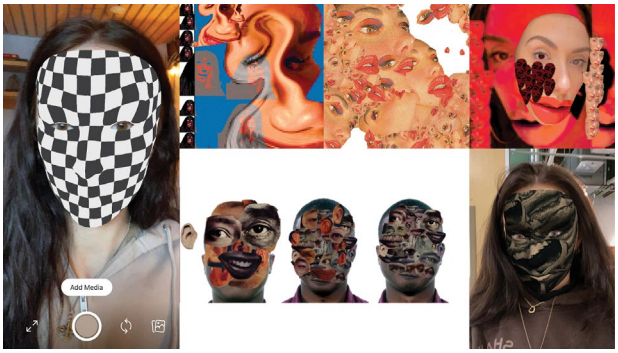

Figure 4: *Prototypes of digital self-portraits and AR face filters from In Flux by Lark Spartin. Photos CC BY-SA.*

These augmented relational artworks incorporate a participant/technology antagonism by encouraging individuals to interact with AR in a unique way, using it as a tool to promote creative expression or bring awareness to how they thoroughly impact how we envision our digital identity, promoting superficial connection and commodification. This is similar to Hook et al's idea of 'making strange', where we "shift from habitual movements so deeply ingrained in our habits that we cannot 'see' them anymore, into non-habitual, strange movements." (2019, 2) The AR filters are sharable through Instagram Stories and can be collected and archived via a hashtag. This creates a collective, evolving art piece that uses the social media platform as its exhibition space. By capitalising on AR's ability to visualise the intersections of physical and digital space, while still bringing awareness to its constructedness, we recognize these digital relations instead of allowing them to be transparently assimilated into everyday life.

5. DISCUSSION

As exemplified by these artworks, digital relationality inherits the aesthetic priorities of relational aesthetics transformed by the technical revelations offered by New Aesthetic images. Digital relationality takes social relations and their technological mediation as its subject matter. Digital relational artworks mediate human forms, behaviour, and interactions to reveal the effects of the mediating technology and related social structures to the viewer/participant.

We are often far too immersed within the platforms we use every day to recognize how they can bend our relationships out of shape. The examples discussed here make it clear how interactive art can exploit various media to acknowledge their powerful relational potentiality. Digital media has shaped the way that we collectively relate to ourselves, to others and our world. In our use of popular social media channels, the users are the product, and these platforms exploit our use daily. Such commodification of social relations has grown to levels unimaginable when Bourriaud first conceived of relational aesthetics. The business models of Facebook, TikTok, Google, etc. rely on directly commodifying our interpersonal relations. Through subverting these platforms, relational artworks can bring antagonism to a digital space that is in dire need of more critical understanding among its users. At the same time, social media platforms provide the antagonism needed in relational art. Bishop cites two artists, Santiago Sierra and Thomas Hirschorn, as emblematic of relational antagonism. Bishop states that their performances and installations are:

> marked by sensations of unease and discomfort rather than belonging, because the work acknowledges the impossibility of a "microtopia" and instead sustains a tension among viewers, participants, and context… (2004, 70)

Social media platforms, for many, are the opposite of a 'microtopia', as these platforms promote a certain level of social exclusion, and tension is surely heightened by the diverse users that interact with them. However, these tensions are often avoided through filter bubbles that safely segregate us by our interests and political views. Digital relationality offers an opportunity to return the antagonism and tensions critical to so-called democratic platforms for self-expression.

The way AR is used currently, mostly as filters integrated into social media to morph users' faces and beyond, amplifies these platforms' inherent superficiality and has significant effects on individuals' perceptions of themselves and others. Digital relational work aims to confront these entrenched problematic norms. This can take form through encouraging users to experience existing digital relational work or creating their own.

Through the deliberate and purposeful use of the platforms discussed and by resisting and deconstructing the rituals that contribute to conformity, we can move away from external social validation towards embodiment and authentic creation. Relational aesthetics was built on ideas that art should be integrated into everyday life. How digital relationality serves to benefit us is through using these platforms differently than how we do in everyday life. In this way, we can encourage individuals to evolve from individualistic consumers to relational co-creators. Users can begin to contest commodification, and question ownership and appropriation by using these platforms for their creative potential, by embracing forms of remixing, sharing and collaborative and individual artistic expression.

Extending beyond the origins of relational aesthetics, our participation in this global collective means we can also use these exchanges to create personal significance and shape our identity. The examples covered here give viewers a more active role in the production and interpretation of relational artwork. Users can reflect on the relationships they foster and make their own meaning through activated spectatorship and direct interaction, building upon the work while transposing these platforms. By finding these relational intersections, we can create a culture of use and contemplation that concurrently reflects upon and produces contemporary culture.

6. CONCLUSION

Embracing digital relationality can free individuals from viewing technology through a utilitarian, user-experience lens where comfort and transparency is prioritised over antagonism and relational reflexivity. Digitally relational artworks encourage discourse, discomfort and intersubjectivity, and it is up to users and creators to envisage them as such, outside of a strictly productive context, as the examples provided here distinctly demonstrate. Benford et al. argue for deliberate design and creation of uncomfortable interactions as part of cultural experience, to "underpin positive design values related to entertainment, enlightenment and sociality." (2012, 9) Realising that meaningful experiences, discourse, and personal growth do not occur in the absence of discomfort, or what Bishop refers to as antagonism, is essential to digital relationality.

The examples in this article directly question the technology and platforms being used in the artwork and *how* they are being used. If we can resist viewing interactions as commodity and art from a commercialist lens, we can deconstruct the disembodying effects our technology has and focus on the social structures it can promote. When we infuse relationality into technology by inverting its typical use, we encourage those who participate to become creators and performers. Through digital relationality, we can bring awareness to the role we all have in reshaping the technology we use and reflect on the technology that shapes us. By exploiting media in ways similar to the examples outlined, we become active participants in intentionally constructing a digitally relational future.

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