

Attempting interactivity and immersion through online musical performance

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ABSTRACT

This opinion piece reflects on the workshop “The Cromarty Firth - An Immersive Musical Journey” which was part of the University of the Highlands and Islands (UHI) “Festival of Creativity” (2024), open to UHI partnership staff and invited external partners and community groups. The workshop aimed to demonstrate methods that foster online engagement and creativity: a way of working together through interactivity at “singing a world into existence” (Bradley 2011, p.434). The workshop featured a variety of audience participation techniques which facilitated an online creative environment where active engagement was evident.

Creative models are explained which attempt to break-down the fourth wall of the screen and demonstrate an ethos focused on participation. The piece aims to highlight the potential of digital creative approaches to go beyond passive viewing of online activity to a place where remote experiences can feel inclusive and participatory. The piece focuses on the principles behind the interactions and reflects on their relative success and gives some examples of how they might be applied more widely. The methods explored were developed in online classroom settings although on this occasion the participants of the workshop were practitioners rather than students.

The short clips included to demonstrate the effects were specifically created for this paper and are completely anonymised (using pseudonyms) with all music/lyrical content being written and performed by the author.

Keywords: interactivity, online collaboration, co-creation, creativity

Online participation

Audience participation is difficult. Some people hear the term, shrink, and imagine being at a pantomime; dragged on stage to be humiliated or being pushed in some group training situation into doing something that feels uncomfortable: “the prospect of audience participation makes people fearful; the use of audience participation makes people embarrassed” (White 2013, p.1). It can be viewed by some, “as evidence of the childish crassness of popular performance” (2013); adding the complex layer of virtual communication to this situation amplifies these feelings. Post-lock down we are all much more comfortable with the environment of online meeting and learning, however, attempting active engagement and participation in a virtual world remains a significant challenge.

Within education I believe supporting active participation makes a difference to engagement. If we want to create communities of practice and environments where learning happens then participation is vital; this is even more important online, and to achieve this aim it should be acknowledged that “building participation is hard work and requires serious commitments of time and other resources” (McCarthy & Jinnett 2001, p.65). I am exploring creative conclusions reached through my experiences of developing online educational teaching and musical performance for over thirty years as a performer, and twelve years as part of the

Collaboration Award for Teaching Excellence (CATE) winning UHI Applied Music programme team. This has led to the development of active participation models that create a sense of connection where “people are at the centre of the process” (Baxter, 2018, p.16). I hope that the examples presented here offer the seeds of concepts that might be taken, developed, repurposed and used by others. The examples explained should chime with Stefani’s proposition that for effective active participation “it is time to explore, innovate and enable the co-creation of new knowledge” (Stefani, 2017, p.198).

The inspiration for the performance is the Aboriginal tradition of song lines (Wroth, 2015); a way of evoking a whole world through song. This performance aimed to create a similar atmosphere presenting a virtual way of sharing the environment of the Cromarty Firth through song. The ethos of the interactions relates to the principles of universal play and online educational pedagogy (Daniela, 2021;, Nayak & Appleford, 2023). Considered in the design of interactions were ways to create moments of engagement where the “experience is concurrently attainable by people with all abilities, to the greatest extent possible” (Palmquist et al., 2024, p.31). Immersive experiences which involve a “partial or complete suspension of disbelief” (Hui, 2021, p.71) from participants, to facilitate an opportunity to interact and engage with the imagined landscapes represented in the songs. Specifically, both tactile (Hui, 2021, p.71) and social immersion “effects brought about by the interaction with others” (2021, p.73) were present. These examples move away from shallow online interactions which produce “an environment that provides cursory reading, buried and distracted thinking and superficial learning” (Carr, 2010, p.48) to a rich creative place which “uses appropriate methodologies to engage students actively in learning” (Aluvalu, 2024, p.3). My aim was to demonstrate designed online engagement that acknowledged the fact that “interactivity is what differentiates an effective online course” (Plez, 2010, p.2), to demonstrate a creative conclusion where exploration and innovation emerge through co-creation with participants.

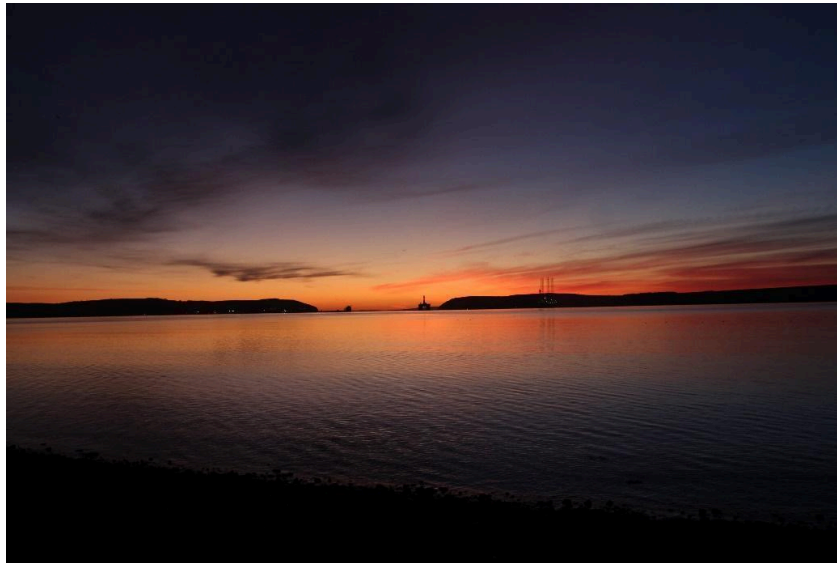
Song interaction examples

1 Sunrise

[Sunrise](#)

I walked away from the rising sun at low tide on the Cromarty Firth, recording my footsteps as the starting inspiration. I explained this context to the audience and then gave time for each participant to find a YouTube clip of a sunrise and then prepare to hold their phone up to their computer camera so that they could share the clip with everyone.

Sunrise



By the end of the song 90% of cameras were on and all featured a different sunrise. This concept emerged because of my experience of some frustrating video conferences with school students; I was not the normal tutor for the class, but I found it impossible to get the group to turn their cameras on and to engage in conversation and interaction with me in any other way but in online chat; many indeed claimed that both their mics and cameras were broken. Castelli and Sarvary (2021) describe a similar situation in their article on why students don't turn their cameras on. I tried all sorts of techniques to encourage interaction and discovered that when I asked pupils to find an online image and share it, most of them put their cameras on. This demonstrates a technique which uses the video conference camera to create a shared experience without the necessity of showing your face. This felt like a step forward in engagement with groups of nervous students. I see this as an example of "peripheral participation (i.e., a less active form of participation) in collaborative online learning activities" (Choi, 2023, p.3). The clip included demonstrates how I encouraged individuals to add their sunrise contribution progressively without showing their faces. This technique created gentle engagement and a unique moment was co-created within the performance. This application of peripheral participation to enhance online engagement has potential for a range of disciplines.

2 This Water and Me and From the Canopy

[This Water and Me](#)

[From the Canopy](#)

These designed interactions aimed to evoke specific locations, places where the light through tree leaves created shadows on the ground and in another location where the reflection of sunlight on water shimmered on the flat surface of the underside of a bridge. This was an attempt to represent these natural effects and to allow the audience to arrive, through imagination, at a particular location and to feel part of the performance.

This Water and Me



This activity harnessed the resources of the participant (mobile phone torch) to extend the performance through active learning; “learning that engages students with the world as an object of learning while interacting with others” (Matsushita, 2018, p.82). The examples shared within this piece demonstrate techniques that encouraged engagement with a performance in an easily understood way; by actively engaging in the lighting effect participants moved beyond passive viewing to gentle engagement.

From the Canopy



In setting up this interaction I supported individuals to angle their cameras so their faces could not be seen to increase the likelihood of individuals taking part because they could remain within the realm of peripheral participation. These techniques demonstrate a way of an audience engaging peripherally while still adding something to the individual’s experience and to the performance/interaction as a whole.

3 Can you hear me? and On the Edge of the Edge

[Can you hear me?](#)

[On the Edge of the Edge](#)

These song examples aim to demonstrate an acoustic interaction with a location. The original songs included the techniques of singing with a tree as it moves with the wind or into the mouth of a deep tunnel hollowed into a mountain. Explaining this to participants rooted the online engagement to a real time and place.

Encouraging participation using organised auditory interaction online is a significant challenge, there is a slight lag between when sound is created and then transferred across the internet called latency (Riley et al., 2016). To eliminate this latency, so that musical engagement can be accurately reproduced, requires an extremely fast and reliable internet connection and high-quality audio transfer equipment. This was not an option for this performance, so I had to think differently. After a significant amount of experimentation, I discovered that by creating sounds (like emulating the sound of leaves in the wind by rustling paper) that do not need to be locked to a tempo, these challenges could be overcome. The call and response of “Can you hear me?” (which includes a large reverb) blurs the need for the responses to be locked to a tempo. These examples demand the audience to pay attention, to listen and respond. This way of interacting “depends upon active listening in order for participants to succeed” (Jalongo, 1995, p.8). This approach offers another way of supporting connection and engagement through active participation. This demonstrated an interaction whereby “making music together successfully, the interactors succeed in creating a primarily acoustic shared reality” (Eisewicht et al., 2023, p.78). I acknowledge that the call and response is particularly exposing for an online audience and so I did not expect or ‘push’ participation in this example. These auditory interactions offered an opportunity for the group to benefit from a remote shared experience.

4 This Place Sings

[This Place Sings](#)

This song explores the concept that whole environments can have a unique soundscape and therefore a unique voice. For this interaction I shared a QR code with the audience and then asked them to play the linked clip along with the song as I sang it. You can try this now if you have access to two internet-enabled devices. The effect should feel like the performance is happening both online and, in your room, where you are.

QR Code



Informal feedback from participants after the event stated that this song felt most effective. The fact that the audience interaction involved completely “passive participation” (Choi, 2023, p.3) helped, the effect working for each individual where they were. The drone coming from the individual phones broke the fourth wall of the performance gently, involving no active steps from the participant to make an online interaction. The effect of this, I think, was to allow individuals to relax and enjoy the performance rather than have them focus on ‘doing’ some sort of interaction. As such I think it is the most accessible effect produced across the performance and offers an example of gentle, accessible participation.

5 Time Like a River

[Time Like a River](#)

This song was written about the flow of a small river into the Cromarty Firth and designed to be sung along with the actual sound of a river flowing.

Open Water



This example aimed to bring together a variety of the techniques and effects attempted across the presentation as a way of trying to create the illusion of a river. Each participant poured water between glasses with their computer cameras on and mics open, on screen the image of the water flowing from

glass to glass and the sound of the water then became part of the performance. This interaction attempted to involve visual, auditory and haptic immersion as a way of increasing the connection of the online audience to the performance. This demonstrates the understanding that “active participation reduces transactional distance” (Choi, 2023, p.3) and is a way of supporting the growth of community and engagement. This kind of active participation also “helps students co-construct knowledge and develop higher mental functioning while interacting with others” (Vygotsky, 1978, p.22). Hu and Kuh define student engagement as “the quality of effort students themselves devote to educationally purposeful activities that contribute directly to desired outcomes” (2002, p.555), these concepts of active participation and engagement align to my approach explored across these examples and suggest the benefits for individuals in enhancing learning.

Conclusion

My aim in preparing the workshop was to demonstrate a variety of ways to achieve creative interactions online. The examples included here demonstrate peripheral participation, active learning and listening, the development of shared realities, passive participation, tactile and social immersion and an overall focus on interactivity. Informal feedback included that one participant felt “transported”, this was exactly the aim of the experience and so was gratifying. Although I did not collect formal feedback on this occasion, in further iterations I will use an anonymous survey to gather feedback and learning. This workshop was performance based, however when designing online experiences and learning these considerations are even more important than when in a classroom setting, to counterbalance the deficit in engagement that can hinder remote learning. This underlying pedagogy can be repurposed for a wide range of educational applications: peripheral participation (students sharing the curation of researched images), active learning (small group tasks linked to a collective goal), shared realities (tasks that ‘force’ individuals to communicate and work collectively within a distributed group), passive participation (using emojis to illicit interactions to questions within video conferences) and tactile immersion (designing tasks that involve distributed physical participation). All these techniques create deeper engagement, and at their most ambitious generate genuine moments of connection and immersion across a distributed online experience.

Biography

Peter Noble is curriculum leader for creative arts for UHI NWH. He is a song writer and PhD creative practice student interested in creating connection and immersion through performance. Peter’s creative output has focused on Geo poetics and the Cromarty Firth specifically in recent years. <https://peter noble.bandcamp.com/>, @peterjnoble1

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