Interactive Playfulness in 'Customs and Borders': A Performance Study

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ABSTRACT

This paper presents "Customs and Borders," a transducer-based interactive live performance that uses playful engagement to challenge audience perceptions of social identities, emphasizing interactive participation to reflect on power dynamics within border-crossing contexts. By utilizing symbolic objects associated with immigration, such as passports, stamps, and single-hole punches, the performance underscores the tangible artifacts linked to border crossing. As the performer enacts the role of a customs and borders officer, they blur the lines between authority and absurdity, prompting reflection on power structures. Through audience participation, the performer integrates the roles of performer and participant, fostering a collaborative exploration of social identities. The paper describes the performance's concept and objectives, the symbolism of the objects involved, and the impact of performer-audience interactions. It also details the technical implementation, including the interactive performance system and sound manipulation techniques. The discussion that follows focuses on the social commentary and dynamic power structures presented in the performance. The paper concludes by reflecting on the outcomes of audience engagement, highlighting the effectiveness of using playfulness to prompt reflection and dialogue about immigration and identity. Future directions for enhancing the exploration of social identities through interactive playfulness are also considered.

1. INTRODUCTION

Playfulness has long been a powerful tool in the performing arts, engaging audiences in unique and thought-provoking ways [1, 2]. Performers have utilized playful interactions to break down barriers and encourage participation, creating a dynamic exchange between themselves and the audience [3, 4]. The concept of playfulness in performance art can be traced back to various experimental art movements and technological innovations that sought to challenge traditional notions of audience engagement [5, 6]. These projects have expanded the boundaries of performance by incorporating elements such as improvisation, chance, and audience interaction [7, 8].

1.1 The Role of Playfulness in the Performance

This paper explores how playfulness, along with interactive performance and arts technologies, can effectively examine complex social issues like immigration and identity. Building on the arguments of Patrick Bateson and Paul Martin in "Play, Playfulness, Creativity and Innovation," this performance study demonstrates that playful dynamics are crucial not only for artistic endeavors but also for broader innovative processes. By drawing on rich traditions of playfulness, the performance stimulates reflection and challenges perceptions, reinforcing the connection between play and creativity across diverse fields [9]. By leveraging playfulness, the performer can create a safe yet provocative environment where audiences can question and reflect on critical issues.

Lucille Clifton's poem "won't you celebrate with me" explores profound themes of identity and resilience in the face of adversity [10]. Clifton's line "I made it up" powerfully encapsulates the act of self-invention in challenging circumstances, reflecting the capacity for creativity in shaping one's own identity. This notion resonates deeply with the performance "Customs and Borders." While Clifton navigates the complexities of being a nonwhite woman in society, the performance similarly tackles intricate subjects such as immigration and authority through playful engagement. The absurdity inherent in the performance - enacted through specific performative choices described later in Section 4 - serves as a catalyst for reflection, allowing the audience to confront heavy themes with a fresh perspective.

In the following sections, this paper will discuss related work, detail the concept and objectives of "Customs and Borders," and outline the technical implementation and compositional techniques used. The interplay between playfulness and critical reflection in the performance will be analyzed, emphasizing how these elements challenge traditional perceptions and create a space for social commentary.

2. RELATED WORK

Artists and performers have used their mediums to address complex themes surrounding immigration, borders, and identity. The intersection of art and social issues provides a powerful platform for dialogue and critique, challenging audiences to reconsider preconceived notions about belonging and exclusion. Ai Weiwei's installation, *Sunflower Seeds* [1], addresses themes of displacement and refugees, using monumental scales to provoke discussions on human

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[1] https://www.tate.org.uk/art/artworks/ai-sunflower-seeds-t13408

rights and global migration crises. This art visualizes the vastness and urgency of these issues, inviting audiences to engage with the personal stories behind the headlines [11]. Performance artist Guillermo Gómez-Peña's piece *Border Brujo*, uses theatrical and spoken word elements to critique cultural and political discourses surrounding immigration and borders [12]. By using satire and multilingualism, Gómez-Peña navigates the complex identities that exist along the U.S.-Mexico border, inviting audiences to question societal frameworks of identity. Reflecting the shifting dynamics of identity and migration, interactive installations like Rafael Lozano-Hemmer's *Border Tuner* use technology to connect communities on different sides of the Mexico-U.S. border. This work employs interactive light and sound bridges, enabling participants to engage directly with those across the divide. Such installations highlight technology's potential to support understanding and connection [13].

3. CUSTOMS AND BORDERS

This performance study examines how playfulness can be leveraged in performing arts technologies as an accessible gateway to exploring social identities [14]. This work immerses participants in the experience, encouraging them to reflect on their encounters with race and ethnicity at border crossings. The project aims to spark conversations about the implicit judgments we form about ourselves and others, prompting the audience to become active participants rather than passive observers. Here, customs and borders are conceptualized not just as physical spaces to navigate but as checkpoints for introspection through the lens of playfulness and creativity. Using an autoethnographic methodology, I reflect on my identity and experiences while constructing and implementing the interactive elements of the performance [15]. By drawing on personal insights and narrative styles, I explore themes of social identity, balancing authority with playfulness to engage the audience in a collaborative exploration. This approach acknowledges the fluid interplay between self and culture, allowing for an examination of how these dynamics influence creative decision-making [16].

3.1 Technical Description

The interactive performance system is designed using Max [2]. As demonstrated in Figure 1, the performer uses a webcam to capture participants' facial expressions with the *MediaPipe FaceLandmarker* [3].
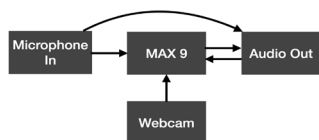

Figure 1. Signal and data flow.

The participants' facial movements are mapped to modify effect parameters within the performance's sound engine.

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[2] https://cycling74.com/products/max
[3] https://github.com/lysdexic-audio/jweb-face-landmarker/tree/main

Currently, the audience are not aware that their expressions are being used in this way. A large-diaphragm condenser microphone placed close to the table captures audio input. This audio is analyzed using a suite of live trackers, including amplitude envelope followers, pitch trackers, peak amplitude trackers, and beat-time trackers. These trackers monitor the performer's interactions with objects on the table, extracting key features from both the raw input and the processed audio output. The performance also incorporates visual elements. Depending on the venue, a projector or floor light is used to cast shadows behind the performer, creating a dynamic and interactive visual component that complements the auditory experience. This multi-sensory data and signal stream enriches the performance's soundscape, creating a dynamic and layered auditory experience.

3.2 Sound Engine

The sound engine for "Customs and Borders" is designed to create a dynamic and responsive sonic environment. It uses a combination of participant input, real-time audio analysis, and live recorded material, all processed through a series of effects and manipulations as shown in Figure 2. The system begins by capturing data from participants' mouth openings and eyebrow movements. Eyebrow movements are mapped to randomize delay parameters, while mouth opening controls the filter's resonance. These mappings were chosen to create a direct, intuitive connection between the participant's expressions and the sonic texture. The randomization of delay via eyebrow movement adds an element of unpredictability, while the mouth's control over resonance creates a sense of dynamic filtering in response to vocalizations.
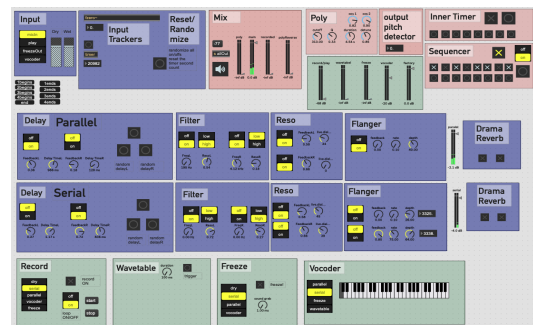

Figure 2. Max 9 presentation mode of the sound engine.

The system analyzes audio input using signals from live trackers. This is achieved by modulating spectrum, dynamics, and time-based processors configured in both parallel and serial signal chains. Furthermore, the performance incorporates a phase vocoder, which allows for granular manipulation of the sound's spectral content, enabling effects like time-stretching and pitch shifting while preserving timbral characteristics. The performer actively tweaks these elements live, using an array of controllers and interfaces that respond to real-time sound inputs and audience interaction. The performance also incorporates a live recording module that captures audio snippets. These snippets can be manipulated later with a freeze function or sampled and reused within a variable-length wavetable. These frozen snippets can then

be further processed through the effects chain, creating layered textures and evolving soundscapes.

While technology plays a crucial role in "Customs and Borders," it is deliberately designed to remain discreet during the performance. The sound engine operates independently, making decisions based on the input signal. This allows both the performer and the audience to remain immersed in the theatrical experience. By prioritizing improvisation, I aim to keep the audience's focus on the narrative and emotional encounters being presented, rather than on the underlying technology. This lack of visible interaction with the technological components helps to make them 'disappear' and creates an atmosphere where the audience is drawn into the immediacy and intimacy of the performance.

3.3 Layering and Compositional Structure

The performance is structured around the layering of four scenes, each building upon the previous one. The introduction of each scene is triggered by the performance duration provided by the host. Depending on the available time, I adjust the system's internal clock to divide it equally into four sections, marking the start of each scene. A brief airplane sound is introduced at the beginning of each scene. This serves as both a personal cue and a compositional marker for the audience, evoking the soundscape of an airport and providing a sense of structure.

The sound manipulation evolves throughout the performance. The initial scene focuses on live input, using scaled mappings to maintain the microphone input as raw as possible. This allows the natural sounds of the environment and the performer's interactions to be the primary focus. As the performance progresses into subsequent scenes, heavier mapping and more complex processing are gradually introduced. This deliberate shift allows me to increasingly manipulate the sound, moving further away from the original sound source and creating more abstract and textured layers. For example, the live recording element, which captures and manipulates audio snippets, is not introduced until the third scene, adding another layer of complexity to the sound. This gradual layering of sonic elements and processing techniques allows the performance to build in intensity and complexity, creating a dynamic and engaging experience for the audience. The system automatically shuts itself down when the designated performance duration is complete.

4. DISSEMINATION

During the performance, the performer assumes the role of a customs and borders officer, interacting with the audience to mimic the authentic experience of passing through customs. This includes improvisational elements that adapt based on real-time audience engagement and location of the performance, highlighting the playful yet arbitrary nature of such encounters. These actions often deliberately incorporate elements of playfulness and absurdity to highlight the power dynamics and arbitrary nature of the encounter. I vary my eye contact with participants. Sometimes avoiding it altogether and other times maintaining prolonged, close contact, to create a sense of power imbalance. I might meticulously examine almost every page of the passport, unnecessarily extending the wait time. This exaggerated bureaucracy introduces an element of absurdity, mimicking and critiquing inefficient or deliberately intimidating procedures. I may leave the stage briefly, remaining partially visible, and deliberately extend this absence further emphasizing the arbitrary nature of the process and the participant's lack of control, pushing the situation towards the absurd. At times, I might casually chew gum, apply lipstick an action whose nonchalance contrasts sharply with the formal authority of the role and the potential anxiety of the participant, serving as a playful yet pointed signifier of indifference. I may idly stamp my hand or play with the paper remnants from the hole punches. These moments of feigned boredom or distraction aims to inject a sense of detachment and indifference that underscores the dehumanizing potential of the officer's power. These actions illustrate the power that officers have and how they can influence the border-crossing experience through both overt control and subtle, unsettlingly playful behaviors. The performance concludes with participants walking away with a tangible artifact: an empty notebook passport, which may or may not bear the mark of acceptance. The empty notebook passport becomes a tangible reminder of the uncertain and often arbitrary nature of border crossings, highlighting the personal impact of these experiences.
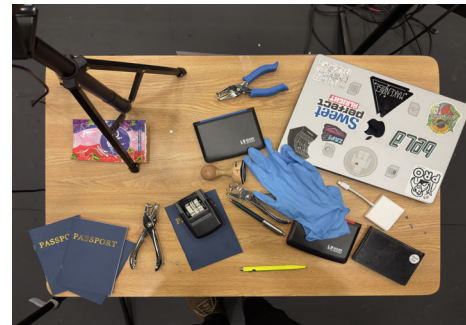

Figure 3. An example of referencing the table during the performance.

5. AUDIENCE RESPONSES AND INTERPRETATIONS

To gather audience feedback, a qualitative methodology was used, employing post-performance surveys. The methodology focused on capturing and interpreting subjective experiences to evaluate the performance's thematic delivery and impact. This report also includes one-on-one feedback received after the performance. Survey responses from the audience on my previous performances [4] revealed diverse perceptions regarding the interactive exploration of immigration themes. Attendees reported heightened awareness of issues such as microaggressions, bureaucracy, and the arbitrariness often associated with border control processes. Several participants identified with the emotional weight of the experience, expressing feelings of anxiety, uncertainty, and past traumas related

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[4] SPAM New Media Festival 2024 at Seattle, WA; SPLICE VI Festival at Kalamazoo, MI; Performing Media Festival (PMF) 2025 at South Bend, IN; Sonified III 2025 at İstanbul, Turkey.

to border crossings. A participant commented on how the performance mirrored real-world discrimination, observing how "border workers will generalize people they're presented with," thus illuminating the everyday challenges faced by individuals under immigration scrutiny. Another attendee observed the difficulty of proving identity-based discrimination, an aspect that the performance brought to light. Many appreciated the performance's ability to convey serious themes through a mix of authority and absurdity. The participatory elements enhanced engagement, creating both communal involvement and personal reflection for all respondents. As one participant observed, it created a "much more immersive and personally impactful" experience.

The performance evoked a spectrum of emotional responses, from anxiety to increased curiosity about immigration topics. Though some participants reported reinforcement of their pre-existing views, others found the portrayal of "security theater" enlightening and impactful, prompting reflection on their own privileges and the systemic issues at play. The mixed reactions to the playfulness offered valuable insights. While many found it provided a necessary juxtaposition to harsh realities, others felt it occasionally detracted from the seriousness of the themes. Some participants felt the previously mentioned bubble gum chewing trivialized the experience, while others saw it as a clever way to highlight the absurdity of certain bureaucratic procedures and the officer's detachment. Nonetheless, a substantial portion of the audience found the interplay between play and serious subject matter both thought-provoking and well-executed. The differing views on the playfulness highlight the complexity of addressing such serious topics through performance, demonstrating the potential for both engagement and misinterpretation when employing absurdity.

6. CONCLUSION AND FUTURE WORK

"Customs and Borders" leverages the interplay between playful elements and serious themes to provoke reflections on immigration and social identity. Through its interactive nature, the performance challenges audiences to reconsider the power dynamics inherent in border control processes. Feedback from diverse audience groups has affirmed the performance's effectiveness in conveying complex themes through a mix of authority and absurdity, engaging participants in both personal and communal explorations of identity and belonging. The inclusion of immediate and post-performance feedback has provided valuable insights into the work, emphasizing the importance of participatory components in enhancing engagement and understanding.

Looking forward, "Customs and Borders" will continue to evolve as a traveling performance. Future developments aim to deepen the interaction between technology and theatrical elements, focusing on enhancing immersion and audience agency. Plans include programming lights to dynamically respond to the performer's actions and the audience's interactions, further enhancing the shadow play and creating a more responsive environment. Mapping facial expression data to lighting effects will add another layer of non-verbal communication, potentially allowing the audience to influence the lighting through their own expressions. In future iterations, the potential for collecting biometric data from the audience during their wait time will also be explored. Ultimately, the goal is to create a powerful and thought-provoking experience that creates dialogue and encourages critical reflection on the complex realities of immigration and social identities.

7. REFERENCES

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