

State Change: Merging Adaptive Music Technology with Disability Aesthetics

1. PROGRAM NOTES

August 6, 1999 is the opening track from *State Change*, a forthcoming album that utilizes surgical records as musical lyrics, combined with aural material produced from various accelerometer and motion capture systems.

The album underscores the aural with the medical, ultimately seeking a musical manifestation of acquired disability. *State Change* showcases my experimentation with adaptive music technologies, such as the MUGIC (Music/User Gesture Interface Control) device. Developed by violinist and composer Mari Kimura, the MUGIC is a small, versatile, and affordable prototype motion sensor that uses movements to control software parameters.

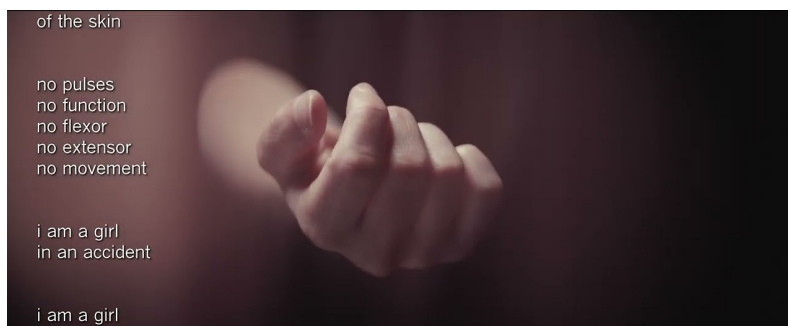


Fig. 1. Screenshot from video for “August 6, 1999.”

2. PROJECT DESCRIPTION

State Change is an album that utilizes surgical records as musical lyrics, combined with aural material produced with various accelerometer and motion capture systems. The album seeks to underscore the aural with the medical, ultimately seeking a musical manifestation of acquired disability.

My interest in disability stems from my personal experience acquiring a disability. At the age of seven, I was involved in a car accident that nearly amputated my left hand. Following the accident, I transitioned from various musical instruments to find one I could adapt to. More recently, this has led to engaging with various music technologies that fit my body, such as accelerometers and motion capture technology.

State Change showcases my experimentation with these technologies, with the surgical records as lyrical material and production and engineering support from Grammy-award-winning producer William Brittelle and engineer Michael Hammond at Figure 8 Studios in Brooklyn, NY. Guest appearances include by Fire-Toolz (Angel Marcloid).

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3. PERFORMANCE NOTES

This will be a video playback/remote performance.

August 6, 1999 utilizes the MUGIC (Music/User Gesture Interface Control) device, a small, versatile, and affordable prototype motion sensor that uses movements to control software parameters. Developed by violinist and composer Mari Kimura, it can connect via USB connection or Wi-Fi to a computer and translates accelerometer/movement data to the computer via software such as Ableton and Max.

For this song, I applied the MUGIC parameters of “rotation” (based on pronation and supination of the hand) to trigger high-frequency sine tones layered onto each other and “yaw” (rotation on a vertical axis) to trigger low-frequency sine tones. While this approach, explicitly having precise pitches triggered by the positional orientation of the MUGIC (almost like a keyboard), was challenging in that it is difficult to have the device in a consistent aerial position, it also freed me to do something I could never do on traditional keyboard instruments. If I wanted to have a cluster of nearby pitches played together, I would have to lay most of my forearm down on the keyboard to get that effect, and inadvertently, I usually get unwanted pitches in that cluster. While I have grown to welcome the “mistakes” in this, especially with disability artistry and aesthetics embracing imperfections, such as Tobin Siebers’ concept of “disability aesthetics” and prizing physical and mental difference as a significant value in itself (2010), it also resulted from my attempt to conform to instruments I would never conform to.

4. MEDIA LINK(S)

- Video: Uploaded as supplementary material and uploaded here: <https://drive.google.com/file/d/1g2UxAaPGDOjE5XwzYhaduVSmusdrZiHW/view?usp=sharing>

ETHICAL STANDARDS

This work makes use of medical records provided by the author/artist, with full informed consent for their use in this project. The author/artist affirms that they have the right to share and use these records for creative and academic purposes.

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