

MICRO-MOCAP

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Motion capture performances used to be equipment heavy, fraught with calibration problems, and only for a privileged few. How have things changed? Developments in tracing, capturing, archiving, and sharing motion (including the Kinect) suggest mocap might play a different role in our daily lives. Further, there may be scope for synaesthetic translations or transmedia applications.

Micro-Mocap

Literature at the turn of the 19th century was described by Jacques Rancière as: “the new writing made up of sensory micro-events, that new privilege of the minute, of the instantaneous and the discontinuous.” [1] Developments in tracing, capturing, archiving, and sharing motion at the turn of the recent century suggest that tiny, motion captured gestures might be another way of writing the minute, the instantaneous, and the discontinuous. Further, there may be scope for synaesthetic translations or transmedia applications. This short paper briefly describes a journey through experiments with motion capture, ending with speculations regarding new developments and the role for captured motion in our mediated lives.

THEN (DISSOLVING INTO PARTICLES)

Looking back at much of the motion capture experimentation I have done since the 1990s I see fragments of bodies: points, lines, particle systems. Movement billowing outwards, then being condensed to a single point. Dancers walking through each other’s data points as though wandering through constellations, or using their feet to create strokes like calligraphy. Creating basic data bodies out of Bezier curves, that twitched, bent back on themselves, or lost their proprioceptive maps only to reform with a leap and a stretch. [2] Endless fun, if you ignored the nightmare of calibrating these heavy optical or magnetic systems. We left small dark studios at the end of the day, blinking in the light, feeling imaginary markers on our bodies.

Experimenting as a dancer for many years, using whatever system I could get my hands on, my philosophical and aesthetic questions returned repeatedly to the sense of the data as an “other.” Not a mirror of my and others’ movements, but the sense of dancing with an other that challenged my own corporeal and ethical boundaries. It is possible to say that these experiments always somehow dissolved the body without losing its materiality: true to Deleuze’s understanding of Spinoza, bodies were composed of speeds and slownesses, combined with the ability to affect other bodies and be affected by them. [3]

NOW (TURNING THE PRACTICE INSIDE OUT)

Now the mundane beckons: less spectacle, less calibration, less performing in theatre spaces or secluded labs, and more the idea of capturing affect and motion in daily life. A question arises: can mocap,

that digital system most able to capture external form and virtuosity, be used to capture liminal or ambiguous internal states? This is part of a larger project aiming to explore Immanent Aesthetics in order to understand how our new technological devices may be able to foster internality, quietude, intuition, and depth – and social choreographies. [4]

Micro-Mocap is an experiment in accumulating a personal vocabulary of nothing movements, or little kinaesthetic snippets. Perhaps it is like a DIY Motion Bank without performative aspirations. [5] But can motion, once it is captured, really be non-performative?

The micro-movements of performing life are those moments where dance intervenes, where gestures become slightly more than pragmatic but may express very little. Jean Luc Nancy's reflections on sleep as the "formation of an interiority" where we cannot distinguish ourselves from what is not ourselves are strangely relevant. [6] I am my tiny gesture. And I am my grand gestures. I reflect the gestures of those around me to the extent that capturing motion is not about my movement at all, but movement as patterns of circulation and exchange.

So when I play with the ubiquitous Xbox Kinect, improvising a daily narrative of nothing movements, or micro movements, am I closer or farther from understanding how I move or inhabit the world? For now the gestures are not recorded: and in itself this reminds me of the ephemeral quality of live performance, back before we had to become documentation obsessed and a dance took place and disappeared. If I decide to save these motions (to capture and preserve, rather than capture and release) giving these to others will be like the strange intimacy of sharing of a blank text message. Its blankness is often thought of as a stroke: so intimate that nothing needs to be said in it.

AND (VENTURING INTO THE DOMAINS OF SYNAESTHESIA AND TRANSMEDIA)

As the liminal states of corporeality are explored through motion capture with the Kinect it is clear that the question of what is sensed (the input) is relevant, but it is more necessary to question what form the output takes because the Kinect is not designed to hold on to data. We have to decide what becomes of our motions, what happens to them and who receives them, in what form.

Marcus Ghaly, animator and interaction designer based at Malmö University in Sweden, recently created a poetic transmediation of Kinect motion capture data into a tactile output. His intent was to explore devices to assist in the translation of visualised motion into haptics: pragmatically, this is a prototype of a device that might assist people with visual impairment; poetically, Ghaly enacted a synaesthetic transition from the kinaesthetic realm into visual data and then to tactility. According to an aesthetics of immanence it is possible to ask what disappears through this sliding across sensory registers, and what is gained when something of oneself is externalized, possibly shared, and then returned to oneself: like falling asleep and then waking up, the same but different.

There is, of course, a long tradition of dancers considering tiny, repetitive, or pedestrian motions, or recently of dancers simply refusing to dance. This has been done with a sense of defiance but for some reason I am reminded of Efva Lilja's choreographic experiments on arctic ice. She set up a video camera on a tripod near the Nordic research ice-breaker where she voyaged with other scientists and, in her bright red foul weather suit, she repeatedly stood and fell, with the wind and snow whirling around her. These simple acts of falling and getting back up revealed much about motion and corporeality, captured

and archived by digital video. 'Micro Mocap' intends to be spectacularly underwhelming, but revealing of the minutiae of dance in everyday life.

In a discussion with an interaction designer recently, he asked why he should consider performance and performativity in conjunction with his work. This sort of question, so basic but at the same time encompassing, stopped me in my tracks for a moment, making me question my own assumptions and put deeply held convictions into words. "Consider performance," I said making some disciplinary translations in my head as I spoke, "if you want to reflect upon your design work in terms of dynamic patterns of actions, and if by creating interventions you hope to disrupt social structures or codes, or hold a mirror up to yourself or your culture." In this sense, from the cosmological to the mundane, motion capture performance experiments can be used to reveal what we are as intercorporeal beings and how we dynamically inhabit in the world.

Or could they could become very personal movement vocabularies, immanent motion, a part of one's life to save as an archive or edit together into a choreography and send to someone. Like a gift.

References and Notes:

1. Jacques Rancière, *Aesthetics and its Discontents*, trans. S. Corcoran (Cambridge: Polity Press, 1988), 10.
2. Susan Kozel, "Motion Capture: Performing Alterity" in *Closer: Performance, Technologies, Phenomenology* (Cambridge, MA: The MIT Press, 2007), 213-267.
3. Gilles Deleuze, *Spinoza: Practical Philosophy* (San Francisco: City Lights, 1988), 123.
4. Susan Kozel, "Mobile Social Choreographies: Choreographic insight as a basis for research into mobile networked communications," *The International Journal of Performance and Digital Media* Vol 6, Issue 2 (October 2010): 137-150.
5. Motion Bank, <http://motionbank.org/en/> (accessed September 8, 2011).
6. Jean Luc Nancy, *The fall of sleep* (New York: Fordham University Press, 2009), 4 & 15.