This collection brings together academics, archivists, artists, and activists whose thought and practices make critical intervention into cultural phenomenon of open data. The sub-title of this publication – politics /practices / poetics – reveals a close entwinement between thought and practice, between thinking and making. The contributions offer critical perspectives combined with implications for practice, or they in themselves are practices (such as performances, discussions, acts of care, or visualisations). Each contribution is an open data project in action. Openness is part of the Living Archives research project.

http://livingarchives.mah.se/

https://medium.com/the-politics-practices-and-poetics-of-openness

( )PENNESS

POLITICS ⁄ PRACTICES ⁄ POETICS

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From Openness to Encryption

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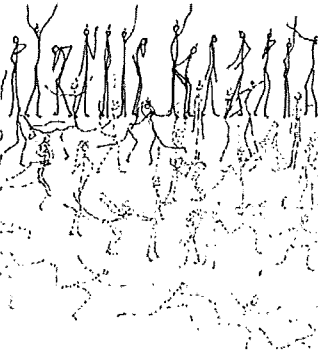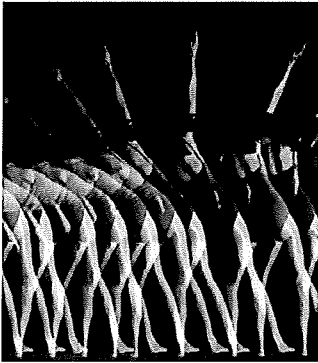
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Fig 1. Top: Flickr user wworks CC:BY.
Middle: Efva Lilja, used with permission.
Down: copyright the author

This contribution to the topic of openness is really about closure. Or if openness can be seen as clarity, then here I will explore ambiguity. Deliberate ambiguity, arising through bodily movement.

This is a story of a clash designed to explore a tension. The clash was an experiment called Performing Encryption where full body movement improvisation became the basis for generating a digital encryption key. Not just a clash between dance and technologies (we've seen this creative convergence for some time now), but rather one where improvised movement sequences were set into play with a particularly abstract mathematical dimension of computation—randomly generated encryption algorithms. The wider tension is between perceptibility and evasion; between physical, social and affective surveillance and possible corporealities of resistance.

The Key

Let's not begin at the beginning. Let's begin in the midst of things. This is an encryption key:

Version: GnuPG v2.0.17 (GNU/Linux)
1Q0+BFVwTEEBCADbWBLvG6CQJJgnsu3k1mXmrBzVYu/C6ZHkPXx/hk3lg0xgNpt7XmN3gVRRA+WUtjRSgNtaMqsPECBTxzuvIKw
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-----END PGP PRIVATE KEY BLOCK-----

It was generated by GPG software during a Performing Encryption workshop. This sort of data encryption is available to individual users of computers and devices and counters the sense of being vulnerable to surveillance by offering an affordance of unintelligibility, somewhat like "donning a pair of special personalized decoder glasses to be able to see an otherwise scrambled image." (Thanks to Nikita Mazurov for this effective turn of phrase.) The block of characters shown here is somewhat scrambled, so it cannot be used to unlock

files that I may have encrypted, but it has a poetics and a materiality that speaks of unintelligibility, or at least something that is differently intelligible.

There is movement in this key. To explain this, I will tell the story of a conversation.

The conversation

Jay David Bolter, known for his scholarly writing on remediation, described what it was like to have encryption software installed on his computer. Not the state of living with it once it is installed, but the act of software installation. A specialist from the IT department at the Georgia Institute of Technology (where Jay works) did the installation, and during the process she asked him to move his mouse. While talking to me some months later in the Medea Studio at Malmö University in Sweden, he moved his hand in the air as a gestural re-enactment of what he did at that time. The act of moving the mouse had an explicit function in the process of generating a private encryption key: The movement data helped to achieve a degree of randomness sufficient for generating a reasonably safe key. True randomness is much harder to achieve, but the quality of randomness required to generate a GPG key can be obtained by hand and arm movement sustained for an interval of time lasting between 30 seconds and 5 minutes. I was struck by both the poetic and the practical implications of physical gestures embedded in the process of generating an encryption key. Analogies and questions sprang to mind, motivating the design of the Performing Encryption workshop:

"What if the hand and arm gestures were replaced by full bodily improvisation?"

"Could this provide a performative dimension to creating a personal encryption key, producing a different relation to both the key and to the process of encryption?"

The desire to draw encryption processes closer to the body is not just based on one person's hand waving in the air during a conversation. Much as I like the idea of a gesture launching a research process, there is a more complex grounding to this artistic research process, and there is the story of a collapse.

The AffeXity project and a surveillance crisis

AffeXity has been written about from several perspectives and remains an active trajectory in the Living Archives research project (Kozel 2012, Kozel 2013, Kozel, Spikol and Smolicki 2014). Here is a brief account:

A collaboration initiated by screen dance artist Jeannette Ginslov and myself in 2010, it began with a convergence of three questions: one political, one technological and one from dance. The dance question we set for ourselves was whether it is possible to improvise (with bodies and cameras in urban locations) from affective sensibility rather than emotional or formal impulses. The technological question was whether Aug-

mented Reality (AR) browsers running on devices such as mobile phones and iPads could support the visual, affective, kinaesthetic and participatory qualities we desired. The political impulse was the warning that we ignore affective manipulations in our cities "at our peril" (Amin and Thrift 2002). A beta version of the performance/installation, AffeXity: Passages & Tunnels premiered in 2013 at the Re:New Festival in Copenhagen (Artists/designers: Jeannette Ginslov, Daniel Spikol, Jacek Smolicki, Camilla Ryd and Susan Kozel).

Juxtaposed with the unexpected success of AffeXity: Passages & Tunnels was the unease I felt with a programme of artistic research that used mobile media to access affective data. In this instance, data is very loosely construed as archived traces of emotional, kinaesthetic or somatic states of one or several bodies. A flow of information is generated by bodies in motion; this becomes data once it is recorded and stored, by ourselves or by others, either with or without our consent and awareness. No longer just channelling affect into artistic content for the project and opening access to archival material, I was forced to recognise the wider affective cloud permeating AffeXity. In short, mobile technologies felt like a beacon to inner states, making them vulnerable to detection, tracking, recording and analysis. By whom? I couldn't say with any specificity, but the power dynamics were impossible to ignore, and as a long-time feminist (concerned with agency) and phenomenologist (concerned with corporeal experience), I found myself unwilling to peel away the last layers of unintelligibility, of protection, existing between inner bodily states and total transparency in the face of the ever-expanding and complexifying network of connected devices and sensors.
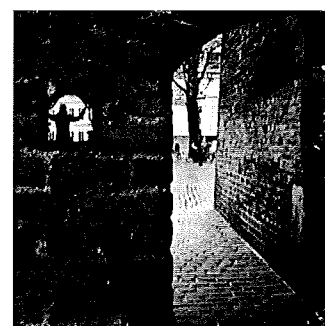
Fig 2. Photo credits:
Jacek Smolicki, 2013

The Cloud and the Internet of Things (IoT) in combination are potentially devastating from the perspective of embodied agency.

In terms of rearrangements of the ontological status of dance, I shifted squarely to the position where the political and ontological complicity of our artistic work had to be acknowledged. I realised on a somatic level that surveillance is the dark side of archiving. At the same time, the implications of Edward Snowden's revelations continued to reverberate though civic and personal realms.

Personal vulnerability loomed large.
The research was thrown into question.
So I stopped.
And the research process collapsed.
(At least for a while).

And quite soon I realised that the performativity of capture could be

mirrored by a performativity of encryption. This translates into a need to be present but absent, mobile but evasive, expressive but ambiguous. Fear, together with a desire for protection, make up the strongest affective forces in contemporary politics and point to a wider affective exploration of contemporary urban life that was at the basis of the AffeXity project from its inception. The collapse of the research was essential to the research process.

There remained simply the question of how to do this. How could we create performances of encryption? Was this not just paranoia in motion?

I began to research the history, theory and practices of encryption at the same time as trying to get a better understanding of ambiguity. There are ironies in wanting to understand more clearly processes devoted to a lack of clarity, but instead of thwarting me, this only fuelled a not-quite-yet-but-rapidly-developing obsession. Suspending the practical artistic research temporarily, I pursued a conceptual and cultural route. I learnt how early twentieth-century literary theory and poetry were used for training WWII and Cold War spies to enact subterfuge and to detect when it was being used on them; I researched cryptography (stopping once the mathematics became too complicated); I immersed myself in the political and cultural backlash caused by Snowden's revelations. Here, I found implications for practice and poetics, as well as politics.

Edward Snowden and Laura Poitras

"The Snowden leaks made people all over the world feel violated. We don't know who has read our most tender emails. It feels bad, and if we ever get used to that feeling, that would feel even worse."

(Jaron Lanier 2014)

In Edward Snowden's famous video statement from June of 2013, produced by filmmaker Laura Poitras, he revealed the extent of the data-snooping impacting every digitally networked being on the planet and invoked a physical metaphor for the US National Security Agency: "The NSA targets the communications of everyone, it ingests them by default, collects them in its system, filters them, analyses them, stores them."
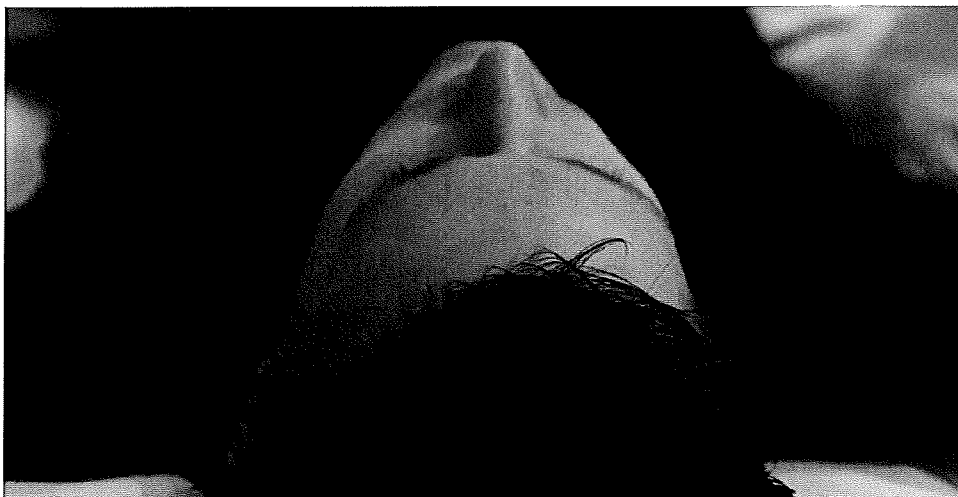
Fig 3. Snowden preparing to leave his Hong Kong hotel room. From Citizenfour by Laura Poitras (2014)

The NSA is described as a body: digesting, remembering, somatic. The metaphor for the system is bodily, the data captured is of actions and attitudes. Both system and data are bodily performances. Yet, it is no longer enough to state in a general way that performativity exists in many practical and metaphorical ways across bodies and systems. Speaking with greater precision and reiterating the aforementioned claim: the performativity of capture is mirrored by a performativity of encryption.

When Snowden addressed the SXSW conference in 2014, appearing by videoconference through seven proxies with heavily lagged visuals and audio, he urged everyone to use encryption software: "Our networks have been designed with surveillance in mind."

His many videoconferenced presentations have become his own telematic performances of From Russia with Love, calmly clarifying the extent of the mess we are in. In this one, he explains the threat of predetermination, reminding us that the NSA would "figure out uses for the data down the road." From a performance perspective, this is future performance, not performance as a repetition of the past or revelation of the present, but the performance of predetermination.

It is a sinister rehearsal of the future because we participate unknowingly with little choice of opting out.

Laura Poitras, in an interview with journalist Carole Cadwalladr, makes explicit the parallels with contemporary digital surveillance when each person's Google search terms are a psychogram of their thoughts. "I'm so careful about that," says Poitras, and she provides a small glimpse of her own practices: "I use different computers for different uses." And throughout Berlin, the city where Poitras now lives in order to obtain a modicum of personal privacy, "there are people working on ways to fight the technology with technology; who've devised the crypto equivalent of what, in the former German Democratic Republic, was done by turning on the radio or running the tap." What she describes are a range of digital and non-digital performances of encryption.

Performing Encryption

At the invitation of Miska Knapek of the Open Knowledge Foundation, we decided to launch our Performing Encryption workshop during Nordic Open Data week. Our celebration of openness, if you can call it that, was to promote and perform encryption. Clearly, the intent was to create a tension in the rhetoric on openness by staging an event in this digital cultural context which challenged some of the implicit political assumptions around open data. This is not to say that we are the only ones in the open knowledge community questioning and qualifying the practices and rhetoric of open data—far from it. The terrain has indeed shifted in recent years.

We released the call through the Living Archives website. The 'Way In', or tag line, to this area of performance research was:

"Sometimes the best way to tackle the big questions is obliquely, and in motion."

When we designed the Performing Encryption workshop, Nils Thalin and I examined the way GPG software functioned and tried to detect fissures in the black-box-ness of it. By this, we mean the way GPG captured movement and generated a key without revealing or opening up how movement was inserted, recorded and transposed. We asked where we could find "moments of movement" (a classic formulation from dance improvisers, Blom and Chaplin 1988), either performed live or captured as data at various stages of the encryption process. Identifying these moments was helped by viewing the whole process as a media performance. Once this shift was made we were able to distinguish various layers of performance: the live movement in physical space; the sequence recorded by Kinect; the sequence translated into binary data; the key itself; plus any external video recording of the performer's movement within the sensing system. There are surely other moments of movement as the data is transposed, shared and archived. Here are our notes:
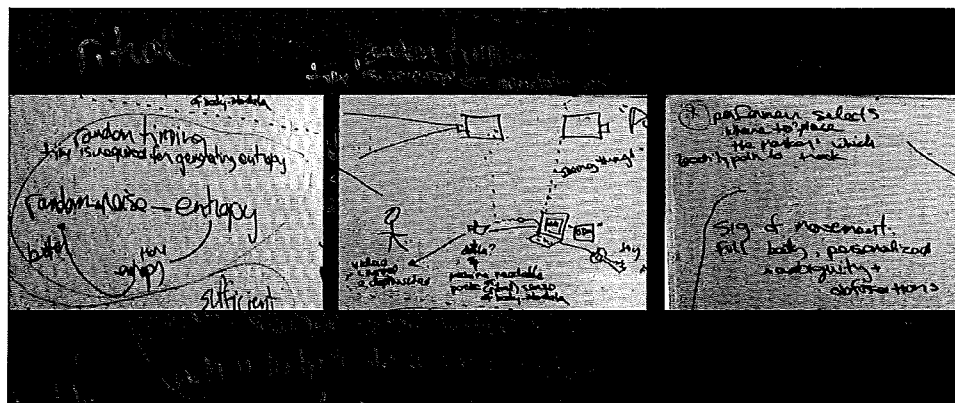
Some of these performative data sets were quite open, and some were abstracted or inaccessible to us by being embedded in the software. We were locked out of not only access to some performative representations of bodily movement, but also the full awareness that they had even existed and in what form. We had to do some performative forensics to find the physical movement in the digital processes. Once we found the bodily traces, we were in a position to decide what to do with them. Expose them? Archive them? Ambiguate them? Or ignore them and let them lie quietly in the system, but this time with our knowledge. This is another play of perceptibility and evasion beyond the generation of an encryption key: deciding when to break open hidden processes to reveal what is actually happening to our data, followed by the decision of what to do with this knowledge, with the result that we can perhaps exert a little more control over how we are measured, and how we 'matter' in the wider sense of the digital–non-digital materiality that shapes our lives. (Kozel 2015, on measurement and ambiguity)

Archiving (or not): How to leave traces of a process of encryption?

There was—and is—some hesitation over how to discuss, disseminate and document the activities of the workshop. The ethics of whether or not to archive processes that led to the generation of a digital cultural artefact to preserve privacy collided with the ethics of discussing and disseminating a mode of performance that might have the ripple effect of encouraging encryption.

Encryption may be de-mystified and re-embodied if these practices circulate, but an encryption key that has movement improvisation embedded within it, however obliquely, is a personal and somehow intimate digital 'thing'.

For some time following the workshop, documentation of the event consisted of the participants exchanging short video sequences of the movement improvisation we performed to generate the key. We encrypted

this video and sent it to each other using GPG, decrypting it with our keys. But there was wider interest in this performance process. The next stage of presenting and discussing the workshop occurred as a keynote for the Dance and Somatic Practices conference in Coventry in July 2015. I described our Performing Encryption improvisations verbally but did not show the video of anyone's movement. Instead, I showed my (scrambled) encryption key. I chose not to circulate a written transcript of my talk but consented to an audio recording (listen to it ion YouTube).

Visual representation and textual description of the workshop was first generated for this publication on openness. It seemed appropriate for Jeannette Ginslov be the one to edit the visual material, given her work with affect and visual media, and given her long association with the AffeXity research. Nonetheless, the video documentation continues to generate unease around the visual representation of the encryption pro- cesses. It was edited several times following discussions concerning degrees of visibility and ambiguity of the various participants. The usual norms and conventions around documenting performance events (according to which all publicity is usually considered good publicity) were quite thoroughly short-circuited.

Performing Encryption intends to open new patterns of actions, new performative responses to unprec- edented conditions of physical, affective and data monitoring. Not content to evade by ceasing action entirely—which clearly happened at the point during this process when the research ground to a halt and paranoia produced immobility—the aim is to provide scope for a new range of performances, each offering a different balance between clarity and ambiguity, openness and closure.

About the author

Susan Kozel is a professor and a dancer focussing on the convergence between between bodies and digital technologies.

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