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The paper narrates #OCTV – an art installation, performance and hacktivist project – the authors presented at the International Visual Sociology Association annual conference (Goldsmiths 2013). The installation used networked CCTV cameras and affordance of digital media to make surveillance space visible, beyond its representational value. It played with the co-constitution of the surveillance images through technologies, cultural practices, and ethics. The paper suggests the visual work of CCTV cameras is contextual to the specific configuration surveillance ecology takes. It proposes art projects as critical methodology for unpacking the social construction of the digital image. As a consequence, it recognises the challenges of using once-upon-a-time ethics forms with regards to ecologies of the visual. Instead, it suggests an ethical and political tension which should follow research 'data' during the lifetime of the project, and possibly in the ecologies yet to come.

SETTING THE FIELD

The paper presents and analyses #OCTV – an art installation, performance and hacktivist project – that the authors realised at Goldsmiths, University of London, for the International Visual Sociology Association annual conference.[1] Inspiringly, this was called 'The Public Image', wanted 'to bring a sociological understanding of social life to a vibrant, active, and diverse public'. #OCTV consisted of six surveillance cameras streaming live from selected conference rooms to video displays positioned in each room. Over 300 conference delegates had a chance to decided which of the 6 camera streams appeared on the conference displays by simply scanning a QR-code, that is, a composition of black and white pixels in the characteristic square shape (see Figure 1). Any smart phone enabled the holder to enter #OCTV 'control room', and then switch to the desired camera.

In the first part of the paper, we look at the making of #OCTV as a surveillance ecology. This is co-constituted by the affordance of the available technologies, ethics, and institutional arrangements, and the cultural practices of the subjects of surveillance. Our project is in dialogue with 'ecology of seeing and being seen', concerned with material and social construction of the visual (Rose and Tolia-Kelly 2012). Ecology is a dense concept to work with, since it emphasises multiplicity and emergence, while situating social production and circulation within a historical-materialist perspective (Swyngedouw 2006). Thus, ecology is incredibly complex, 'a massive and dynamic interrelation of processes and objects, beings and things, patterns and matter' (Fuller 2005). An ecology of seeing and being seen, in particular, addresses the materiality of the visual in relation to the socio-technological system that creates it (see Rose and Tolia-Kelly 2012). Here, this is meant as an approximation to 'surveillance ecology' since our emphasis is around the social construction of the visual in the context of surveillance. Further, using ecology of seeing as a working concept allows to concentrate on practices of co-producing visualities, rather than on the representational value of CCTV output.

Thus, in the second part of the paper, we focus on cultural and visual practices as they started appearing in the forceful encounter with #OCTV. Drawing on work that understands space as entanglement of actions and practices (Thrift and Dewsbury 2000; McGrath 2004; Thrift 2008), we discuss participants' experience of surveillance in relation to #OCTV. For Delueze and Guattari, the arts have the ability to 'rupture' representation of spaces. Whereas representation confirms our existing belief systems, the encounter the arts create can generate disruption and confusion to everyday life (see O'Sullivan 2006). As a rupture, although temporary, an encounter can force us to reconfigure our way of interacting with the world. Therefore, art as research methodology allows to unfold the live performance of the social world, rather than just investigating it (see Back 2012).

In the third and final part of the paper, we address an urgent problem around the ethics of producing digital images in the context of surveillance. The installation appeared inevitably controversial from the point of view

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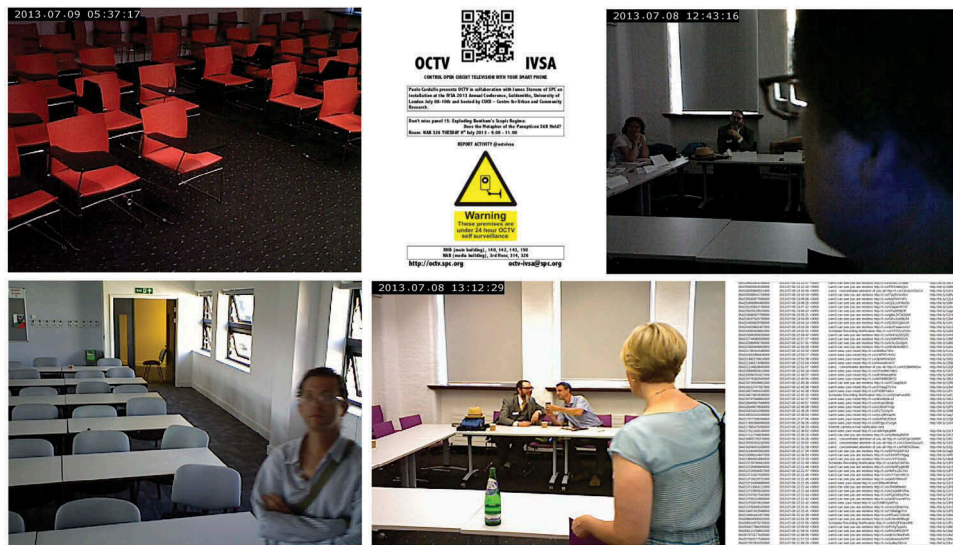
FIGURE 1. #OCTV at IVSA 2013; Scan me and will take you down the control room; #OCTV at IVSA 2013; Selfie with #OCTV at IVSA 2013; Playing with OCTV at IVSA 2013; Log file from our Twitter feed @octvivsa.

FIGURE 2. IVSA conference early start, #OCTV 2013; Night-time shift at IVSA, #OCTV 2013; Early morning shift at IVSA, #OCTV 2013; #OCTV at IVSA 2013.

of its ethics, but thoroughly engaging from an aesthetics of seeing and being seen. This generated confusion to the extent the artwork changed the conventions through which we accept, or experience in distraction, video surveillance. By opening a traditional surveillance system to scrutiny, the installation constructed an ambiguous space where the surveillance gaze shifts through the different determinants of its unstable ecology. In this space the control gaze appears bundled in a mix of sur-, sous-, video-, and dataveillance. In #OCTV in fact, boundaries between watchers and the watched, as well as between different sets of technologies, become blurred. Ecology of seeing is thus an unpredictable research subject – especially when dealing with the networked digital image. Traditional ethics forms, valid once and for all, might become problematic, 'an empty exercise' (Kitchin 2016, 9). As it has been suggested (see Wiles et al. 2010; Perry 2014), internal review for visual research is an inadequate response to the volume, velocity, and complexity of digital images. Rather, academic auditing process appears tailored towards an ideal of image uniqueness (Perry 2014). In our opinion this is coherent with the idea that visual research material ought to be copyrighted (*researcher X took photograph Y at the moment Z*). Therefore, we would suggest a discussion

on ethics that follows 'data' through the lifetime of the project and even beyond it, if possible. This discussion becomes political to the extent that involves digital rights claims of opening and closing, privacy and access, creativity and accountability (see Isin and Ruppert 2015), and as many elements that compose these ecologies as possible, whether humans or not.

The three themes elicited by #OCTV – video surveillance as generative ecology; art projects as research methodology; and ethics tension along, and possibly beyond, the lifespan of art projects – work together in co-producing an ecology of seeing and being seen. Thus, discussing the visual through the lens of ecology allows to reject technological determinism – a specific technology generates certain representations and social effects. Further, it allows to re-address the visual from the political and ethical perspectives of critical scholarship. This means to overcome the shortfalls of assemblage thinking (Amin and Thrift 2002; McFarlane 2011a, 2011b). This scholarship pays a very useful attention to details, especially in relation to socio-technological processes. Further, it has showed the importance of following actants and traces through their multiple networks. However, assemblage thinking falls short of recognising that social actors always carry power with them (Swyngedouw and Heynen 2003; Swyngedouw 2006; Madden 2010; Brenner, Madden, and Wachsmuth 2011; Toscano 2012). Instead, the politico-ecological approach works within a historical-materialist framework, asking where 'things' come from (materialism and critical geography), who benefits from whom (social justice), and who is allowed or not to follow traces in the field (situated ethics). While a focus on assemblage points towards socio-technological complexities, an ecology of seeing and of being seen takes into account also institutional constraints and regulations, ethics bindings, and materialities of production and circulation of visual output – that is, the habitat on which technological assemblages nest. This habitat is never already formed or immutable. While assemblage might start from 'elements that have been selected from a milieu, organised, and stratified' (Anderson and McFarlane 2011), an ecology incorporates the socio-environmental milieu on which each assemblage seems to hold. This milieu is made of 'the intermingling of things material, social, and symbolic' (Swyngedouw and Heynen 2003). It is a dense space made of virtualities (O'Sullivan 2006), of trajectories dictated by 'stupid' computers (Fuller 2008), and of lines of flights inspired by creativity and openings (Isin and Ruppert 2015). An ecology of seeing and of being seen would focus on practices of visuality (what people do), on performativity (what people might

do), and finally on the effects of 'being watched' for those caught up in the research – that is, an 'ethics of practice' (Rose and Tolia-Kelly 2012).

In the next sections, we offer examples from our installation, and then we discuss ethics in relation to the digital image output of #OCTV. The paper wants to be an account of an ecology of seeing and being seen. An important disclaimer is therefore due: our intervention can only be partially translated here. The liveliness of the project is also the materialist energy which characterises it. In other words, readers should be mindful that the art is *in the* installation, rather than *through the* pages of this paper. The intervention is the 'data', so to speak. The best we can offer here is a detailed description, many images, and links to web pages (a comprehensive set of these images is available on Open Science Framework repository: http://tiny.cc/octv). The rest has to be imagined by an active reader, who will always be in a space other than the participatory space of the artwork participants.

#OCTV: PLAYING WITH VIDEO SURVEILLANCE

In conversation with media artist James Steven from the collective SPC,[2] we installed open networked CCTV cameras at Goldsmiths, University of London. This experiment complemented a panel discussion on surveillance we organised at the International Visual Sociology Association annual conference (IVSA, July 2013). The aim was to raise awareness of the complexities of surveillance beyond the discourse of control, which CCTV is usually associated with. In order to start unpacking an ecology of seeing and being seen, we wanted to create a sort of playful and democratic control room. We eventually had six of our own CCTV cameras positioned in six different conference rooms over two buildings on Campus. These used the college server and were linked to a set of large screens positioned in the same rooms where the cameras were. Conference delegates saw posters and leaflets about the installation featuring a QR-code (see Figure 1). This would link their mobile phone to a 'control room' page which offered camera switch options. One of the civic hackers who worked on the project explains with a large smile: 'Whoever pushes the button first, wins'. Further, civic hackers from the SPC collective exploited an under-the-hood feature on our 'smart' CCTV cameras: a sensor would trigger a snapshot whenever a movement in the room is detected, even at night-time. A script 'landed' this snapshot to our Twitter feed, @octvivsa, for archiving purposes with an automated comment such as: 'cam4 sees your mood'. The snapshots appeared as a link in

the microblogging feed, which later we collected and analysed.[3] The algorithm-led exchange used the cameras 'smart' feature, and this tweaked another working of surveillance: from 'seeing and being seen' to algorithmic processing. Algorithms are, of course, an increasingly important element in ecologies of surveillance (see Kitchin and Dodge 2011; Kitchin 2013). In other words, #OCTV created an open circuit which gave viewers control over its control room, via a system of digital switches and participating mobile phones. At the same time, it produced random snapshots of the conference as one type of 'public image', the conference theme. The distinction between video- and dataveillance becomes here very difficult to maintain (see Figure 1).

We want to highlight three sets of initial findings deriving from our experimental methodology. First, the ludic element of engagement and surprise: people started returning the gaze to the cameras. Second, we reflexively look at the process which made the installation possible, our 'curatorial hack'. Finally, and third, we reflect on the unexpected findings from #OCTV: experimental visual methods might generate controversies and be ethically troubling.

PLAYING

The installation entailed a performative element; it had to be played live during the conference. The camera feeds were intrusive: once escaping the banality of being in people's everyday life, especially if you live in London, surveillance becomes visible and disturbing. Seeing themselves while watching someone speaking can be annoying. It distracts from the talks. Sometimes monitors were switched off. #OCTV generated a lot of positive interest and participation too: delegates and members of staff started asking questions, appearing closer to the cameras, selecting options, broadcasting their own appearance, even asking for stills. Some expressed their disappointment for not being able to broadcast themselves over the Internet to their loved ones and colleagues in other parts of the world. #OCTV produced a live space for re-enacting surveillance, including the possibility of shooting a 'selfie' via CCTV. The installation started producing its own debate, becoming 'a mode of research' in itself (see Puwar and Sharma 2012).

CURATING

#OCTV went through many adjustments, meetings were arranged and cancelled, and numerous requests to college staff were initiated and fell through, while ethics and bureaucratic entanglements were tweaked, rightly or

wrongly. This intense process of negotiation is important because it shows how many people, protocols, and competences went into the remaking of this technology. Our aim to experiment with digital technology, codes, and images was already producing contention. Or rather, it was reproducing the habitat on which video surveillance would eventually sit. We would argue that two distinct 'hacks' were eventually put in place. These are a transdisciplinary outcome, in the sense that neither author wrote one line, whether line of text or line of code, for the other.[4] The 'proper' hack implied writing a script which linked cameras to screens, to a web page, and eventually to Twitter via the college's server. The second hack involved writing requests, acquiring permissions, and presenting the project to various bystanders and stakeholders in acceptable terms (see Wiles et al. 2010): it is a curatorial hack.

While 'curating sociology' is about moving research questions into different fields of creative practices in which the researcher–curator has an active role as producer (Back and Puwar 2012), our 'curatorial hack' was about moving into different areas of competence, knowing who to speak to, and conquering the hearts and minds of few people whose everyday job is to make things happen: IT staff, second and third grade decision makers, porters, security, and technicians. Without a precise plan of action – which would have implied, for instance, a precise inventory of the technology available at college, clearly defined terms of access to its network, and advanced knowledge of the installation's outcomes: we were actually asked these – everyone had to add some degree of improvisation and risk. Latour suggests that scholars are limited by 'the modes of cultural critiques they are schooled in' (cited in Back and Puwar 2012, 10). Scientists collect proper data with a proper ethical protocol. Scientists design their protocols. They stick to it, or so it seems. This is imperative in order to maintain the status of Science. Thus, our 'curatorial hack' implies framing the installation as *just another* art project in an art-based college. Wearing the artist's apron rather than the scientist's hat might allow researchers to survive traditional sociological conventions – such as data collection, operationalisation, consent forms, ethical approval, solid evidence, statistical relevance, and wordy publications. To what extent is #OCTV a sociological project or rather an art installation? Are the two things interchangeable? As Les Back writes in his 'Live Sociology' manifesto: 'We need to move from the arrogant convention in sociology to assimilate other practices on its own terms and within its own image (i.e. a "sociology *of* art" or a "sociology *of* computing") to a more collaborative practice that is mutually transformative (i.e. sociology *with* art or sociology *with* computing)' (2012, 33 emphasis in the original).

ANALYSING

We present a very few instances of #OCTV visual output. This is not a return to the representational value of surveillance images. It is rather an urgent opening to an ethics of seeing and being seen. Sorting #OCTV stills by day and night (already an algorithmic form of surveillance), we see two distinct sets of people: academics and manual workers that make the college function everyday. This is probably obvious, but unnoticed daily. Drawing on rhythm-analysis, that is, by attuning our senses to the different noises, smells, and visions of the city at night, we become aware of the ebbs and flows of the city, its economic and social dimensions. These layers, Lefebvre suggests (1996), are subsided during everyday routines. By hacking into video surveillance, we can force a new procedure of observation which makes visible the night shift of maintenance, room cleaning, and safeguard of equipment – that includes our hard-working CCTV cameras too.[5]

Unfortunately, college night-shift workers remained unaware of the recording cameras and therefore were excluded from the playful performance. At night, in fact, the same security staff we involuntarily filmed while patrolling college facilities had to switch computer screens off. They were not able to watch themselves. They were accidentally excluded from the 'right to look' (Mirzoeff 2011). This is a big flaw of our installation: workers' autonomy from a remote surveillance gaze became compromised. This unexpected 'glitch' can be framed as a resurfacing drive-to-power of the recording machine. Cameras are devices that, after all, maintain a will to record, they are persistent in the function they were made for in the first place (Flusser, cited in Fuller 2005). Scholars discussing the installation[6] made a series of critical observations on this important point, in terms of ethics of seeing and being seen, technological control, and social class. The last point is particularly dear to us. A sociological problem is invented beyond the original scope of #OCTV: artists and academics can play with surveillance while more 'traditional' subjects of surveillance, people without such cultural and social capital, were excluded. This seems to be a recurrent, although often undeclared, pitfall of experimenting with smart technologies in Living Labs settings (see Cardullo and Kitchin 2017).

Thinking surveillance as an ecology of seeing and being seen presents opportunities as well as risks. This is because ecology expresses a generative process, rather than a static form of representation. This process can question power geometries and disturb ethics accountabilities within that space, at least temporarily. Differently put, 'the co-constitution of visuality and materiality is in constant dynamic process and situated within networks, hierarchies, and discourses of power' (Rose and Tolia-Kelly 2012, 4). We explore this process with regards to the visual, in the next and final section, through technologies, cultural practices, and ethics. Each component, we suggest, cannot be fully discussed without the other two. For instance, a focus on the aesthetics of surveillance images speaks of the technologies used in co-producing visualities and, consequently, of their users' cultural practices of production and circulation of surveillance images.[7]

TOWARDS AN ECOLOGY OF SEEING AND BEING SEEN

With #OCTV we invited participants to reflect on the possibilities offered by the open network and the surveillance space the installation created: *To what extent are bystanders involved in a performance, returning the gaze to the cameras?*, our leaflet suggested (Figure 1). The installation worked with the concept of 'mutual gaze', which Koskela summarises in an early article: 'A camera represents total one-way-ness of the gaze by making it impossible to look back. One may see the cameras but an eye contact with it is impossible. There is no "mutual" gaze. It would feel ridiculous to try to flirt with a surveillance camera' (2003, 298). This view reflects the traditional idea of surveillance – one-way, top-down gaze from all-seeing watchers: the so-called Panopticon society. The Panopticon, designed by Jeremy Bentham at the end of the eighteenth century, is a model of prison featuring a central tower overseeing inmates in bright prison cells. Watchers are imagined (also physically) at the centre of this structure, but never seen. As a consequence, the surveillant gaze is eventually interiorised 'to the point that each individual exercises this surveillance over and against himself [*sic*]' (Foucault 2002). Bentham's project was later adopted by Michel Foucault as an embodiment of how modern power works in 'disciplinary society': a moral and philosophical programme which changes people's bodies and souls from within.

Foucault's work was concerned with textual material, and the language of his imagined surveillance machine was the analogical (see Fuller 2005). His idea of surveillance leaves unquestioned 'the various forms of control [that] are the inseparable variations, forming a system of various geometries whose language is digital' (Deleuze 2002). The digital, and the algorithmic

machinery which sustains it, breaks the linear equation gaze = control into myriads of decision makers, pressure points, and technical glitches. In this novel configuration, 'life becomes a flowing force that is gated, transduced, filtered, recombined, rendered positive as if it were a stream of data' (Fuller 2005, 145, see Kitchin 2013). Thus, contemporary surveillance applies very little to the act of seeing, the event here and now. It is rather a 'socio-algorithmic process', a dynamic composition occurring not so much at the time of the observation, but backwards: first, through a process of re-ordering, associating, and re-constructing the life of an 'event' and, second, through an investigation on how this connects to 'flecks of identity' from a database: a number plate or an ID, a postcode or a social security number (Fuller 2005, 146). While the disciplinary model of surveillance maintains the one-way-ness of the gaze, in control societies surveillance gaze is a complex fabrication in a shifting socio-technological relationship – an ecology of seeing and being seen, via a variety of technological means and cultural practices. In this framework force of stability, for instance the drive to power of recording machines, go alongside resistance to such a system, for instance digital acts and digital rights claims (see Isin and Ruppert 2015).

The surveillance space that emerges is not a smooth one, but rather a dense and constructed space, where surveillance is experienced with submissive or subversive force (McGrath 2004). A focus on surveillance space in the digital age makes manifest how this is the outcome of the pull and push of three forces, which we can map using Lefebvre (1996), but also Isin and Ruppert (2015, 30): legality (conceived space), imaginary (perceived space), and performativity (lived space). Surveillance space is crossed by power relationships as well as by various forms of agency (human and non-human), co-produced by technological assemblages, ethics frameworks, and practices of its occupants. There is now a tradition of arts engagement with the surveillance gaze and the space it creates, its transmission through technological devices, and its reception from an increasingly participant audience (see McGrath 2012). 'Art-veillance' has produced numerous models of interpretation, dissection, and reassemblage of video surveillance (see Brighenti 2009; McGrath 2012; for an overview). Recent experimentation in art and surveillance has taken into account the theoretical and epistemological shift in thinking surveillance, from representation (what is seen) to performativity (what is doable) (see Levin, Frohne, and Weibel 2002). We want to position #OCTV within this tradition of critical thinking and art

practice, at the crossroads of arts, politics, sociology, and visual studies.

Given the complexity and normality through which surveillance gaze operates in space, we would maintain that surveillance images are insistently dystopian and, at the same time, stubbornly vernacular: they enter our visual imaginary at the border of our sense of risk, safety, and even creativity (depending, of course, on who is looking at whom and why). It has been argued that surveillance images are 'authentic' when they reflect our perceptual repertoire, a distinct aesthetics of CCTV films and stills: Lo-Fi and low resolution flickering images and silent stillness with time code bars (Brighenti 2009; Leblanc 2009). These images are 'poor images', compressed for space and velocity of circulation (see Steyerl 2009). Once removed from their context of security – the suspicious gaze and the representation of the 'event' – CCTV aesthetics can reveal places, people, and practices that often remain unnoticed, or re-contexualise them in different discourses (e.g. the one of arts or digital communications). #OCTV images maintain the materialist energy of their making: numerous, compressed, and fast-extensible snapshots. This is because the technologies we used for #OCTV are part of most people's daily practices of communication: cheap recording devices, smart phones, QR-codes, wireless connections, and Twitter.

#OCTV started as disruption of video surveillance conventions (see Cardullo 2014), but soon it moved on to another complementary space, that of interconnecting social media, with sharing of digital images and tweeting of links. In this space, a cyberspace in fact, subjects of surveillance – who had the privilege to access its 'control room' and could afford enough time and social and cultural capitals to participate – position themselves in relation to digital acts and digital rights claims, such as access and closure, opening and witnessing, sharing and hacking (Isin and Ruppert 2015).[8] #OCTV participants' (re)actions are variegate and can be split in: concerned, playful, and – probably to a lesser extent – self-surveillant.[9] Each of these categories blends ethics involvement and visual imagination. Each category also expresses a different mode of engagement with digital technologies. Rose and Tolia-Kelly suggest that 'what people do with the affordances of particular objects is, in part, to co-produce visualities' (2012, 4–5). Each (re)action from people positioned at different entry points in our installation contributed in producing #OCTV images – for instance by censoring or sharing, by deferring or playing along. A focus on cultural practices should then

include technologies and ethics of seeing and being seen. McGrath (2012, 83) suggests that 'the story of surveillance has turned out to be less one of technology, government, law or rights, than one of cultural practice', and that the experience of surveillance is currently determined by the production and circulation of surveillance of ourselves. This suggestion puts the subjects of surveillance at the centre of surveillance space. However, it sounds ingenuous when set against the enormous, fast, and extensive circulation of digital images through the cyberspace (see Steyerl 2009). The suggestion implies, in fact, that subjects maintain control over the circulation of their networked image.[10]

Using ecologies as operational concept gives the advantage of recognising that *multiple* and *situated* agencies are distributed along a chain of elements that co-produce surveillance images. Ethics Forms and academic review committees might be unable to contemplate this diffuse set of agents, which includes non-humans (e.g. our beloved cameras).[11] What kind of ethics can thus be designed in order to capture this dynamic exchange? Anthropologist Sarah Perry argues (2014) that 'visual ethics seems to be premised on a series of claims about the uniqueness of the image'.[12] In our view, this suggestion also recalls the regime of copyright laws that protects the sole 'author' of the image: conveniently, the photographer becomes, *ipso facto*, the accountable subject of ethics. In the age of networked lives and 'smart' technologies, however, the production and circulation of digital images might be difficult to control – unless the amount of closing, filtering, and blocking makes experimental research practically impossible (see Wiles et al. 2010).

This is not a call to ethics relativism. This is rather to say that ethics, in research with digital and networked images, is a contested territory. It is also a political territory to the extent that involves digital rights claims (see Isin and Ruppert 2015). The ethics of practice is then a shared responsibility between the loose elements that compose a socio-technological network. But how can we make this idea operational in practice? From our part, we reflexively acknowledge the disparities in the mechanisms of production and circulation of #OCTV images. Leaflets were provided with the conference pack and appeared next to each camera or display, and we intended this as an implicit form of consent at participating to #OCTV while working at the conference. This *was not* the case for night college workers who *were not always* able to look back at the camera feeds – although leaflets were in place, monitors had to be switched off. We were, therefore, very cautious at selecting photographs for this publication.

We thought these images ought to be, at the same time, aesthetically powerful and relatively safe in terms of privacy: for instance, no face is clearly shown in the workers' photographs (see Figure 2).[13]

Paraphrasing Swyngedouw and Heynen (2003, 911), we acknowledge that ecologies of seeing and being seen produce 'a series of both enabling (for powerful individuals and groups) and disabling (for marginalised individuals and groups) social and environmental conditions'. However, we want to interpret these images with a practical sense of ethics.[14] The content of the images is hardly sensitive and the potential risk to workers, if ever, appears absolutely limited – although this possibility can never be excluded and does not hold in principle. #OCTV portrays workers while doing their job, sometimes at 'unsociable' hours. We juxtaposed these images to those of conference delegates and we framed the discrepancy in terms of social class. Here, the suspicious 'event' of surveillance, the skeleton in the closet, rather appears to be manual labour. A political ecological approach to the social construction of the visual asks: 'who gains from and who pays for, who benefits from and who suffers from particular processes'? (see Swyngedouw and Heynen 2003; Rose and Tolia-Kelly 2012) In other words, here the risk is to hide again – in the backstage of an international conference, first, and behind a discourse on ethics, later – night-shift work and the social identities, classed and racialised, that characterise those practices. The absence of workers' images from this publication would mean intellectual labour as the only form of labour in town. Rose and Tolia-Kelly suggest that 'looking is a responsibility; a visceral, ethical, and historically conscious practice' (2012). The serendipity of #OCTV 'findings' can rather contribute to a sociology of work,[15] which has carried the burden of representation for some time,[16] as well as to a rhythm analysis of the everyday.

Articulate and changing ecologies of seeing and being seen invite us to reimagine a contemporary ethics that includes co-production of the visual through technologies and cultural practices. With #OCTV and the present paper, we contribute to opening surveillance ecology to scrutiny. We show how contingent video surveillance can be. Consequently, we also attempt to reclaim the non-linearity of visuality in relation to surveillance. The methodology we adopt is obviously experimental and, in-between 'glitches', we believe it exposes contradictions in conventions of surveillance while generating reflexivity about the contemporary social construction of the visual.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

NOTES

[1] It was the beginning of July and Edward Snowden had just started leaking details of the most comprehensive wholesale blanket surveillance in history. This made the concept of 'CCTV archaeology' and the ethics around it more poignant than ever.

[2] http://wrd.spc.org/subscribed/solo/james-stevens/

[3] This feed was remote and not advertised outside the conference. Its main scope was to have a 'landing point' for participants' interactions, both for data collection and organisational purpose. We never thought of it as a means to stimulate social media discussions, shares, likes, etc. To date, the feed has had very little action, mainly from few conference delegates at the time of the conference. Big Data and social media analyses are not part of our assessment.

[4] The two writing practices involve, in fact, different sets of skills difficult to transfer in the short term.

[5] Coincidentally, Lefebvre's view from his window uses an angle similar to CCTV cameras overlooking the street below.

[6] For instance, at the series of workshops at the Centre for Advanced Security Technologies (CAST, University of Copenhagen 2011–2013), and at the Centre for the Study of Law and Governance (CSLG at Jawaharlal Nehru University, Delhi 2016). We take a chance here to thank the two anonymous reviewers who made sharp and compelling comments on this point.

[7] Surprisingly, aesthetics aspects are not central in Brighenti's review of contemporary 'art-veillance' (2009, 147).

[8] The approach we suggest is other than technological determinism. This repeats a linear equation: production of images, transmission, and their reception as meaningful event. The 'event' is what the apparatus of surveillance eventually sees, the final stage of a wholesale process (see Fuller 2005).

[9] These points loosely follow McGrath's review (2012).

[10] A discussion on closed-source social media – and the control they exert on users' digital labour via secret algorithms – is beyond the scopes of this paper. With #OCTV we achieve this control to a certain extent, yet dramatically failing to include night college workers.

[11] Of course, there is a compelling argument to be made here, but not enough room in the paper, about privacy-by-design.

[12] http://savageminds.org/2014/12/04/ethics-visual-media-and-the-digital/

[13] A great art-veillance project that explores this point is Faceless (2006), by Manu Luksch https://vimeo.com/307940

[14] Perry argues that 'ethics tend to be necessarily situated, depending upon recursive reflection and constant questioning of one's processes, objectives, and modes of engagement' (2014).

[15] Readers might want to compare these Lo-Fi images with the series of fine-art black and white photographs by Magnum photographer Sebastiao Salgado in his 'Workers: An Archaeology of the Industrial Age' (1993). For a discussion on visual representation of manual work, see Cardullo (2014).

[16] This discussion is beyond the scope of this paper – a starting point can be Julian Stallabrass' article for *New Left Review* (1997): http://newleftreview.org/A1909, and Carol Quirke's excellent book: 'Eyes on Labor' (2012): http://tiny.cc/5lhbfy

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REFERENCES

Amin, A., and N. J. Thrift. 2002. *Cities: Reimagining the Urban*. Cambridge: Polity.

Anderson, B., and C. McFarlane. 2011. "Assemblage and Geography." *Area* 43 (2): 124–127. doi:10.1111/area.2011.43.issue-2.

Back, L. 2012. "Live Sociology: Social Research and Its Futures." *The Sociological Review* 60: 18–39. doi:10.1111/j.1467-954X.2012.02115.x.

Back, L., and N. Puwar. 2012. *Live Methods*. Oxford: Wiley-Blackwell.

Brenner, N., D. J. Madden, and D. Wachsmuth. 2011. "Assemblage Urbanism and the Challenges of Critical Urban Theory." *City* 15 (2): 225–241. doi:10.1080/13604813.2011.568717.

Brighenti, A. M. 2009. "Artveillance: At the Crossroads of Art and Surveillance." *Surveillance & Society* 7 (2): 175–186.

Cardullo, P. 2014. "Sniffing the City: Issues of Sousveillance in Inner City London." *Visual Studies* 29 (3): 285–293. doi:10.1080/1472586X.2014.941550.

Cardullo, P., and R. Kitchin. 2017. "Living Labs, Vacancy, and Gentrification." Presented at the 'The New Urban Ruins: Vacancy and the Post-Crisis City' workshop, Trinity College Dublin, March 1-3: socarxiv.

Deleuze, G. 2002. "Postscript to Control Society." In *Ctrl [Space]: Rhetorics of Surveillance from Bentham to Big Brother*, edited by T. Y. Levin and U. Frohne. Karlsruhe, Germany: ZKM Center for Art and Media.

Foucault, M. 2002. "The Eye of Power." In *Ctrl [Space]: Rhetorics of Surveillance from Bentham to Big Brother*, edited by T. Y. Levin, U. Frohne, and P. Weibel. Karlsruhe, Germany: ZKM Center for Art and Media.

Fuller, M. 2005. *Media Ecologies: Materialist Energies in Art and Technoculture*. Cambridge, MA: MIT Press.

Fuller, M., ed. 2008. *Software Studies: A Lexicon*. Cambridge, MA: MIT Press.

Isin, E. F., and E. Ruppert. 2015. *Being Digital Citizens*. London: Rowman & Littlefield.

Kitchin, R. 2013. "The Real-Time City? Big Data and Smart Urbanism." SSRN Scholarly Paper No. ID 2289141. Rochester, NY: Social Science Research Network.

Kitchin, R. 2016. "The Ethics of Smart Cities and Urban Science." *Philosophical Transactions of the Royal Society A* 374 (2083): 20160115. doi:10.1098/rsta.2016.0115.

Kitchin, R., and M. Dodge. 2011. *Code/Space: Software and Everyday Life*. Cambridge, MA: MIT Press.

Koskela, H. 2003. "'Cam Era'—The Contemporary Urban Panopticon." *Surveillance & Society* 1 (3): 292–313.

Leblanc, P. B. 2009. "From Closed-Circuit Television to the Open Network of Live Cinema." *Surveillance & Society* 7 (2): 102–114.

Lefebvre, H. 1996. *Writings on Cities*. Cambridge, MA: Blackwell.

Levin, T. Y., U. Frohne, and P. Weibel, eds. 2002. *Ctrl [Space]: Rhetorics of Surveillance from Bentham to Big Brother*. Karlsruhe, Germany: ZKM Center for Art and Media.

Madden, D. J. 2010. "Urban ANTs: A Review Essay." *Qualitative Sociology* 33 (4): 583–589. doi:10.1007/s11133-010-9167-8.

McFarlane, C. 2011a. "Assemblage and Critical Urbanism." *City* 15 (2): 204–224. doi:10.1080/13604813.2011.568715.

McFarlane, C. 2011b. "On Context." *City* 15 (3–4): 375–388. doi:10.1080/13604813.2011.595111.

McGrath, J. 2004. *Loving Big Brother: Performance, Privacy and Surveillance Space*. London: Routledge.

McGrath, J. 2012. "Performing Surveillance." In *Routledge Handbook of Surveillance Studies*, edited by D. Lyon, K. D. Haggerty, and K. Ball. Abingdon, Oxon: Routledge.

Mirzoeff, B. N. 2011. "The Right to Look." *Critical Inquiry* 37 (3): 473–496. doi:10.1086/659354.

O'Sullivan, S. 2006. *Art Encounters Deleuze and Guattari: Thought beyond Representation*. Basingstoke, England: Palgrave Macmillan.

Perry, S. 2014. "Ethics, Visual Media and the Digital [Online]." *Savage Minds*. Accessed 13 September 2016. http://savageminds.org/2014/12/04/ethics-visual-media-and-the-digital/

Puwar, N., and S. Sharma. 2012. "Curating Sociology." *The Sociological Review* 60: 40–63. doi:10.1111/j.1467-954X.2012.02116.x.

Rose, G., and D. P. Tolia-Kelly, eds. 2012. *Visuality/Materiality: Images, Objects and Practices*. Farnham, England: Ashgate.

Steyerl, H. 2009. "In Defense of the Poor Image." *E-Flux* 10. http://www.ocopy.net/wp-content/uploads/2016/04/steyerl-hito_in-defense-of-the-poor-image.pdf

Swyngedouw, E. 2006. "Circulations and Metabolisms: (Hybrid) Natures and (Cyborg) Cities." *Science as Culture* 15(2): 105–121. doi:10.1080/09505430600707970

Swyngedouw, E., and N. Heynen. 2003. "Urban Political Ecology, Justice and the Politics of Scale." *Antipode* 35: 898–918. doi:10.1111/anti.2003.35.issue-5.

Thrift, N. 2008. *Non-Representational Theory: Space, Politics, Affect*. New York: Routledge.

Thrift, N., and J.-D. Dewsbury. 2000. "Dead Geographies—And How to Make Them Live." *Environment and Planning D: Society and Space* 18 (4): 411–432. doi:10.1068/d1804ed.

Toscano, A. 2012. "Seeing It Whole: Staging Totality in Social Theory and Art." *The Sociological Review* 60: 64–84. doi:10.1111/j.1467-954X.2012.02117.x.

Wiles, R., A. Coffey, J. Robison, and J. Prosser. 2010. "Ethical Regulation and Visual Methods." *Sociological Research Online* 17 (1): 8.