Joanna Zylinska

Speaker Key:

MS: Max Saunders

JZ: Joanna Zylinska

F: Female

M: Female

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MS: Okay, good evening everyone, and a very warm welcome to tonight's event which is a lecture in the series, Life Online Today, Tomorrow, put on by the Ego Media project, funded by the European Research Council and based here at King's. My name is Max Saunders and I'm one of the academic staff on the project, but we've also got two postdocs and four PhD students.

It's a very great pleasure to welcome Joanna Zylinska to give tonight's talk. Joanna is Professor of New Media and Communications at Goldsmiths University London, the author of five books, including Minimal Ethics for the Anthropocene from the Open Humanities Press which means that you can read a free eVersion of it. Also Life after New Media, Mediation as a Vital Process with Sarah Kember and also Bioethics in the Age of New Media. She's also co-editor of a fantastic JISC funded project called Living Books about Life, which publishes online books at the crossroads of the humanities and the sciences. Her translation of Stanislav Lem's philosophical treatise, Summa Technologiae came out from the University of Minnesota's electronic mediation series in 2013. She's also co-editor of Culture Machine, an open access journal of culture and theory and a curator of its sister project, Photomediations Machine, and she combines, as you'll have gathered from all that, philosophical writings and curatorial work, also with photographic art practice. She's going to speak for about 45 minutes and then we can have questions and answers from the audience after that. And then there'll be a reception upstairs in the Somerset Café when we've finished, so you're all very welcome to come and join us there. Joanna's going to speaking on the title, The Liberation of the I/Eye, written in both ways as you can see, so please join me in welcoming Joanna Zylinska.

JZ: Thanks very much, Max for such a kind introduction and thank you for having me here. The term, there is a non-human vision hashtag, so in case anyone's tweeting, that's the hashtag. The term, non-human vision perhaps furnishes your imagination with images of CCTV cameras, Google Street View, satellites and drones, depicting processes of perception in which the act of seeing is performed by a non-human agent. The term may also bring up visual acts where a human is still part of the sighting process, endoscopy, microphotography or night photography, the way a technical apparatus is needed to access the realms that remain hidden from human sight. Yet it's not my aim in this talk to

celebrate uncritically any such technological enhancements to, or even, replacements for human vision. Because as Donna Haraway blankly highlight with reference to examples such as satellite surveillance systems and offers video display terminals. And I'm quoting, vision in this technological feast becomes unregulated gluttony. The eye fucks the world to make techno monsters. So technologically enhanced visions, therefore still human and most definitely humanist in that it only reinforces the visual mastery and dominance of the observer. It's like the eye of the general scanning the battlefield, only better.

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However, just as it's not my intention to gush over technological enhancements to human vision, neither is it to promote any kind of visual luddism as yet another instalment in man's or woman's struggle against technology. So, even though this talk starts from looking at the machinic aspects of vision that challenge the limitations of the human senses and that produce images which defy human perception, it proposes the concept of non-human vision as a politico-ethical response to what Haraway calls the god-trick of infinite perception, a masculinist gaze of domination and occupation that sees everything from nowhere. Importantly, non-human vision is not directly opposed to its human counterpart, rather the human will be seen throughout my talk as part of a complex assemblage of perception in which various organic and machinic agents come together, as well as apart, for functional, political or aesthetic reasons.

So, non-human vision isn't just about machinic vision, it's as much about human vision, although some examples come from what we conventionally understand as machinic. What I'm trying to do is expand the notion of the machinic to recognise our own human kinship, if you like, with technology, with machines of different kinds and sizes. As well as being about perception and vision my talk is also about viewpoints, that is about the actual points and positions from which what we humans refer to as the world or the environment is apprehended and from which knowledge is constructed. It's also therefore about scale, proclaiming, as it does, the need to reintroduce structure and framing to seemingly vast post humanist vistas, if we early 21st century human thinkers and human observers have to say anything meaningful about them. Now, there are good reasons why we may want to adopt non-human vision as a political ethical pointer. We can reference here the recent explicit recognition of human vision and human viewpoint as too narrow and too parochial that has occurred across different disciplines, countries, social groups and media in the light of the debate on climate change, extinction and the Anthropocene.

The embracing of non-human vision will allow the human to see beyond the humanist limitations of his current philosophies and world views to unsee himself, and it's usually a himself, in his god trick positioning of both everywhere and nowhere and to become re-anchored and reattached again. Non-human vision is therefore not just about reflexivity, it is rather about introducing care about our point of view and an account of it into other conceptual individual framework. When removing the privileging and stability of the humanist standpoint from it, it's about inviting the view of another to one's spectrum of visuality, to the point of radically disrupting that spectrum. By now you've probably

gathered that my images are not necessarily an illustration of what I'm saying, there is a separate thing going on there. So if you get bored with what I'm saying you might want to switch and just have a visual track. There are correspondences but they are not direct illustrations of what I'm talking about.

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This approach borrows from what Haraway has called a partial standpoint, one that allows for the production of situated knowledge and for giving an account of this knowledge. Lessons about such partial standpoints can be [0:07:31] from other beings and entities, dogs, insects, satellites and photographs. Haraway has learnt her lesson as she admits, in part, walking with her dogs and wondering how the world looks without the fovea and very few retinal cells for colour vision, but with a huge neuro processing and sensory area for smells. It's a lesson available for photographs of how the world looks to the compound eyes of an insect or even from the camera eye of a spy satellite with the digitally transmitted signals of space, [0:08:05] differences that have been transformed into coffee table colour photographs. Borrowing from the intimations of post-humanist and non-anthropocentric theory, my statement that all vision is to some extent non-human, should be understood as saying that even we humans see in ways that are more than just uniquely human. Devices such as non-manned aerial devices or, you know, on cameras, on devices, drones only foregrounds this inherent non-humanism of all vision.

Drawing on feminist intimations of Haraway and others, I want to position non-human vision as a better way of looking in every sense of the word. The aim of my presentation is therefore the challenge that traditional tenets of the liberals, self-focused, masculinist eye who is supposedly in control of his own vision and world view. I also want to pose two important questions. If a liberation of the eye, and this is this eye in these two senses, if the liberation of the eye is to occur, what forms of subjectivity and perception does it require? And to what extent can the post-humanist framework help us outline a better vision for the human, if this human is to unsee himself in his own narcissistic parochialism, and develop what we could call a truly ecological vision of selfhood?

Drawing on the work of Vilém Flusser, and James Gibson I'll move to outline an ecological model of perception as a more embodied, immersive, and entangled form of image and world formation. This model will open a passageway to being with, and thus offer a promise of a better ethics and a more responsible politics. It will do this by exploring the revolutionary potential of the photographic medium, at a time when photography seems to have become democratised beyond the point of banality, by looking at various image envisioners, artists as well as amateurs. Now, given that photography converts the dynamism of vision into two-dimensional flat impressions on the flow of time, its mode of working has often been treated as secondary, or even lifeless by those in visual and media studies. It's cinema that has been positioned instead as allowing special access to, or even modelling the experience of life. It is precisely in this moment of carving, and hence, abstracting time, that the potential of photography as a slowing down medium that

can teach us humans to look at ourselves and our environment differently can be identified.

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Retracing the experiments with photography that go back nearly two centuries, I want to take some steps towards narrating what could be described as a non-representational and non-human history of the medium, as a challenge to its more familiar and dominant humanist counterpart. Photography will thus function for me as an expanded case study through which I will try and envisage some better ways of seeing the world and thus also of living with it or within it. The humanist argument about photography and image making is reflected in the widely disseminated stories about the image deluge we humans are said to be producing today in the digital era. As a result of which there is supposed nothing indeed left to see or know. We can hear echoes of these stories in such headline grabbing statements as every two minutes we take more pictures than the whole of humanity in the 1800s. Or 350 million photos are uploaded to Facebook every day, there are over 20 billion photos on Instagram. So we're drawing on rhetorical strategies of the mathematical sublime, the authors of such statements want to create a shock effect, dazzling us with big numbers, whose role is to act as click bait or instigate the purchase of an app or a device.

But it's not only new media entrepreneurs and their salespeople who treat us to narratives about this visual excess. The production and consumption of images in the digital era has been interpreted by media and visual study scholars in terms of affective labour, a form of work that is seemingly limitless, yet that remains unaccounted for, and hence, ultimately unrewarded, even if it's temporarily satisfying on a personal level. Indeed, clicking and sharing are never ending tasks, we are all mobilised to perform if we are to keep up with the times, or at least with the timelines of our friends and families lives.

Marxist critic, Jonathan Beller writing about cinema but also extending his argument to social media argues that in the current culture of visual excess, in accord with the principles of late capitalism, to look is to labour. He goes on to suggest that with the rise of internet, perception is increasingly bound to production. Beller is rather pessimistic about the possibility of escaping from the factory of late modern visuality, set up as a narcissistic hall of mirrors. The fact that at the time of writing the most popular tags on Instagram include love, be cute, follow and selfie, seems to corroborate his thesis.

And yet – and yet it may be worth turning at this point to a different writer, photography critic, Lyle Rexer, who refuses to be swayed both by the excessively optimistic and excessively pessimistic stories about the supposed image deluge, and more importantly, by the humanist underpinnings. Instead, in the edge of vision, the rise of abstraction, photography, Rexer attempts to reconfigure photography as a medium of non-human vision. He encourages us to engage with various kinds of abstract images instead, that is with photographs without pictures or photographs that withhold. Because they invite us to practice a way of looking that doesn't privilege the subject of the photograph. With this,

Rexer aims to promote what he terms novel seeing, where photography is not a looking at or a looking through, but a looking with. Rexer's sentiment about the photograph comedium is akin to my own desire to position photography as a zoetic, which means like transforming, like giving medium, well making medium. All be it one that entails the enactment of, at times, violent actions of the cut that need to be performed in order to still time.

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The ethical dimension of photography can be confronted and engaged by its human subjects when they respond to those cuts by means of looking with or even becoming with an image, and more on this later is becoming with an image. As mentioned before, non-human vision in photography is therefore not opposed to the human mode of seeing, for me, but rather forms its constitutive even if at times, repressed aspect. It has been present in the history of photography from its beginning.

Nicéphore Niépce's view from the window at Le Gras from 1826, which is considered the first photographic image ever made took eight hours to expose, and this is the same image. You know, the first one is like what it really looks like, the plate, and the second one is what I think some North American scientist excavated from the image, they basically expose it to different processes and this is so … so this is what it really looks like and this is what it should look like, anyway. So this image is interesting for me and this encounters the first image in the history of photography. It's interesting for me because the way it was done is that Niépce had positioned the camera obscurer on the upper floor of his country house, within the camera he placed a polished pewter plate which we see here, coated with a type of asphalt called Bitumen of Judea. A material which was light sensitive in which hardened on having been exposed to daylight, they were early days where they were trying to figure out basically how to fix images. The plate was then washed in a mixture of lavender oil and petroleum revealing a faint, yet, clearly traceable image of the buildings and landscapes surrounding Niépce's estate, Le Gras.

As Bill Anthes explains, the required eight hour exposure produced a visual paradox, sunlight and shadow can be seen on two sides of structures as left and right, the pigeon house or upper loft of Niépce's home and the sloped roof of a barn with a bake house in the rear. As such, Niépce's landmark image [0:16:49] as something that will be true of all the photographs produced in the centuries following his invention. The camera has recorded a view that for all its apparent voracity, is a scene which the human eye could never see. The first image in the history of photography presents itself as a distinctly non-human image, it shows the non-human vision, while also enacting a non-human agency at the heart of its production. Such a non-human mode of seeing and doing will arguably shape the whole of the subsequent photographic factors as well as the early discourse about this practice.

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Developments in camera technology at the end of the 19th century allowed for a further exploration of photography as an explicitly non-human mode of seeing. For example, attempts to slow down time and break it into singular instances normally invisible to the human eye drove the work of motion photographers such as Etienne-Jules Marey and Eadweard Muybridge whose images of movement led to the overall sense that the universe itself was expanding, was a machine aided human vision as Rexer has it. The attempt to find new perspectives that would further challenge established ways of seeing was taken up by many European artists in the early 20th century. In the images of Russian photographer, Alexander Rodchenko, the insect and bird perspective was to allow for a displacement of the fixed relations and arrangements on the material and socio-political level. Bauhaus, Professor László Moholy-Nagy went so far as to label photography's ability to exceed human vision with radical points of view achieved by cameras, the new vision. The embracing of non-human perspectives in photography by Central and Eastern European Avant-Gardes carried an explicitly revolutionary agenda.

By breaking with representationalism and aiming to shock the viewers with radical new angles and vistas, photographers endowed the photographic medium with the power to transform reality. So the idea was if you really see differently, if you unsee what's commonsensical, you unsee the world around you, and eventually you'll be pushed, you'll be inclined to change this world, because you'll see that possibility in the images, the images will be kind of foregrounding that change. Obviously whether it was a misguided ambition or whether there is a direct translation from seeing the world kind of broken up in images and then enacting transformations in real life is a different matter. On the other hand, maybe it's possible to see a continuation between images and real life as kind of being one and the same thing. But that's probably topic for a different discussion. The brief sketch of the non-human side of the history of photography hopefully allows us to see that there is something rather conservative about the discourse of the photographic medium that has dominated the field of both professional practice in its artistic and journalistic guises, an amateur pastime in the 20th century.

When photography's transformative ambitions were overshadowed by the conviction that the medium was close to truth. So saying that something really radical happened around photography in its very early days with Niépce and Rodchenko and others and then it was kind of overtaken by the more prominent representational and humanistic narrative around the medium, so I'm trying to excavate that early possibility. Improvements in camera technology and colour printing also contributed to the strengthening of this link between photography and verisimilitude. And of the forgetting of the fact that photographs were translations, not transcriptions. Indeed, first photographic images were monochrome, was the image established through the play of shadow and light on a photosensitive surface. The popularisation of colour photography and its increased affordability have obfuscated the moment of visual translation by positing an equivalence between an image and its representation. And thus, as Alan [0:20:50] has pointed out, it's the most natural thing in the world for someone to open their wallet, or these days, to pull out their mobile phone and produce a photograph saying this is my dog. But this is obviously not your dog or Alan's dog, this is a picture, a photograph of a dog.

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So, this broadly documentary approach to photography finds a continuation in the amateur use of images on social media and just seeing or trying to think about how you, your friends, your family use their photographs, think about your use of Instagram. I could embarrass you and ask to look at your mobile phones, but I won't do that. But the thing is that the very structuring of the mechanism of Instagram, or Facebook, with the predesigned filters, with a certain arrangement of visuality in it already pushes us to, through a set of algorithms to have a very narrow set of visualities, so again, I'm arguing that something's become foreclosed in that. Formal experimentation with filters on Instagram only serves to highlight the relatively narrow scope of available subjects and viewpoints which have all been pre-programmed and pre-seen by the cameras and editing software's algorithms. The images on Flickr, a platform with arguably more creative ambitions for the medium as its audience, still tends to fall into one of several pre-established, and hence, visually legitimated representation of categories, it's not to say banal or such as portraiture, landscape or still life.

Now, it can perhaps be argued that the domination of the humanist tradition in photography in the recent decades springs from an attempt to offset the anxiety failed by some with regard to photography's mobilisation for all kinds of inhumane practices. Although I'm using this term, inhumane cautiously, as any theorist of post-humanism would, I'm seeing its value in being an indicator of the wider social concern about photography's role today. Inhumane practices are practices actually which are shaped by the cybernetic logic of performs and functionality, but from which care for and about the human as a living, breathing assemblage of culturally specific values, desires and passions, remains distinctly absent.

John Tagg's 2008 article, Mindless Photography, applies this problematic to the highly technologized western world of the early 21st century, focusing on the regulation of urban traffic by CCTV controlled systems and the surveillance of space by satellites equipped with cameras. Tagg claims that such practices, instantiate an inorganic machine regime, as a result of which photography loses its function as a representation of the ego and the eye. It also establishes a circuit of mindless assemblage whose primary role is to capture the viewer as a function of the state. Well, nearly two decades later this instrumental function of image capture is being executed, not just by the state, although thanks to, you know, Edward Snowden's revelations, various modern states we know have become extremely efficient in executing this function. But it has also been taken up by Silicon Valley based corporations such as Google, Facebook and Twitter. In the global networking setup, images arrive to us as data which is then assigned visual characteristics and converted into what we humans recognise as photographs.

Tagg, laments that the fact that the photograph doesn't touch the body the way it did in the old punctum model, when an individual image affected the viewer beyond the semiotic meaning it conveyed. Today even if it does travel through the body as electricity and

data, the image is empty of any content of palpable sensation. It would be easy to dismiss Tagg's concern as just a manifestation of his unreformed humanism. Yet, Tagg's anxieties also shared by many contemporary theorists of new media who post Assange and post Snowden have realised that the promises of the horizontal collaborative, and surely, sharing society made in the early days of the internet have now been overshadowed by a much darker ensemble of hierarchy and enclosure. And by the monetisation of subjectivity on both effective and cellular level.

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As Rob Coley puts it, we now know that the vast majority of data intercepted from fibre optic cables is unexamined by humans, it is software that saves metadata, that conducts complex pattern analysis that searches for triggers. Here as Deleuze warned us, the individual becomes the dividual, the network subject depersonalised as packets of potential. Now, this sentiment has been reflected in the emergence of what of noir theory, kind of dark theory, writing in the shadow of the double eco eco crisis. When the precariousness of the human has been exposed, not just on the economic but also on the existential species level. What Tagg, therefore identified in 2008 was a premonition of a new non-human visuality which has a definitive inhumane touch, one that reduces the human to a source of digital capital and social media, or treats him or her as a visual disturbance in Google's Street View imagery, or as an accident in drawn warfare.

As, Jon Rafman, a photographer who came to fame after finding surreal scenes in Google's Street View captures, as you can see here has commented, I saw Google Street View in some way as the ultimate conclusion of the medium of photography, the world being constantly photographed from every perspective all the time. So this change set up of visuality notwithstanding, it worries me that there is something disabling or even paranoid about these kinds of narratives told by the likes of Beller and Tagg. This mode of writing, drawing on familiar modernist strokes of decay and demise, be it of the human's connection to his authentic self, and his true desire. Or of the human species connection to the natural environment glosses over the theorist's own pleasure and wallowing in the crises and are drawing vital energy from his, unusually his critical activity. Similar arguments about alienation of the human eye by the media have been put forward before with connections being made between television watching and laziness or computer games and violence.

Can post-humanist and post-anthropocentric theory offer us tools to develop a more prudent response to this anxiety about the disembodied, yet, all-embracing condition of the networked media? One that doesn't involve reinvesting value in the ever so fragile, yet, also singular, and hence, individualistic modern subject, a subject who is said to have the right to freedom, happiness and [0:28:01]. Indeed, could we think of a standpoint that doesn't just see the critic's mind as a disembodied entity, capable of rising above the networks of data and images while assessing everyone else's entrapment in them? This god trick view from the top only ends up reconfirming the humanism of its subject, a

premise into powers, who can elevate himself above the general malaise, by the bootstraps of his critical faculties.

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Inspired by the work of Deleuze and Guattaril, many media theorists have developed responses to the encroaching visual and non-visual control by global communication networks and their owners that don't posit a disembodied critical eye, that can rise above its material arrangements to make pronouncements about it. Instead they have proposed the tactic of circuit breaking which is to arise from within the system itself in which involves creating noise or a glitch within that system. The question therefore is not whether to be inside or outside the network, whether to tweet or not to tweet, to post on Instagram or not, because such spatial differentiations don't apply in the interlinked era in which we are all becoming media or even social media. The question, rather, is how to envision a new mode of thinking and acting in the world in which we humans are increasing possession as function, of images and media, as the producers, consumers, distributors, clients, corporeal apparatuses, kinaesthetic machines, unreflected surfaces.

And this is precisely the problem posed by Vilém Flusser, in his book Into the Universe of Technical Images. A poignant analysis of how photographs, television and other mechanically produced images are contributing to a mutation of our being in the world. The basis of Flusser's argument is the opposition he proposes between traditional images, which are made up surfaces and technical images which are mosaics assembled from particles, produced by an apparatus and driven by computational logic, a technical image is a blindly realised possibility. Flusser harbours no illusions about human ability to manage the process of production, or even perception of such images long term, even if the apparatus, unlike the universe, as Flusser is keen to point out is subject to human control. But in the longer term, the autonomy of the apparatus must be liberated from human beings and behave the way all systems do, that is aim towards entropy or heat death. Yet, Flusser's philosophy is not deterministic, even if he rejects any straightforward notion of freewill and other similar humanist niceties. On acknowledging that information logic shapes the universe and its constituent powers of particles, he identifies the uniqueness of the human in the human's ability and willingness to actively oppose the implacable tendency of the universe towards disinformation.

He also sets out outline, and all be it, temporary role, for envisioners, that as people who try to turn an automatic apparatus against its own condition of being automatic. The automaticity of photography … and this is actually a film so we can … we really, really need to look at it carefully to see that it's a film. The automaticity of photography is executed, not only on the level of algorithm, with the majority of cameras manufactured today being able to choose correct exposure, light, temperature and focus. But also on the level of framing, indeed on picking up a camera and looking through a viewfinder or at an LCD screen we are entering the flat perspectival vision that only began to pass off as natural was renaissance painting. This point of view, the perspectival point of view is

determined by the lens which is positioned as an extension of the human eye. Although it could be more accurately be described as the eye's constriction or tunnelling.

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As Richard Whitlock, who is the author of this video here called A Street, a contemporary photo artist who has a tendency to challenge the visual domination of the perspectival vision argues, under perspective, the dominant visual mode today, we find ourselves distanced from the things around us and from each other. We become onlookers, outsiders to a world in which objects become things to be looked at and studied. We look at them and examine them with impunity since they belong in a different world. Under perspective, nothing returns our gaze; nothing looks us squarely in the face unless it be positioned at the vanishing point. Whitlock thus seems to have become a Flusserian envisioner, someone who has been freed by the apparatus he uses from the pressure for depth. And who is therefore capable of devoting his full attention to constructing images, working with the algorithm, while also being worked by it. Envisioners don't step outside the world which they describe, their creations are always born in medias res, in the midst of the technical setup. The liberatory role of the artist as creator is clearly acknowledged by Flusser, but its performance doesn't involve rage against the machine, only by becoming non-human, by letting himself be ruled by the system can the envisioner unleash a wholly unanticipated power of invention.

Envisioners inform the world or give it form, the conscious informing activities opposed by Flusser, to the sheer act of taking images, every image maker … not every image maker is an informer, not every photographer is an envisioner. Google's search by image function, and I search here for kitten, as you do, introduced in 2011, and thanks to its pattern recognition algorithm, allowing users to find images across the web that bare visual similarities to the one they input into the search box brings this fact home rather poignantly. As curator and writer as Katrina Sluis puts it, think your rather seriously cute Scottish Ford cat is unique? Think again, the grouping, aggregating and tracking online of images, visually made it possible to discover images that were just like yours, and that escaped the image language problem of previous archival taxonomies. So it's not that the photo of the envisioner's cat will necessarily stand out from the Google image grid or the Instagram great feed will be better curated. Rather, a true envisioner as envisioned by Flusser should be able to break the feedback loop between the image and the receiver that generates ever new versions of the system's unpredictable outputs while also making images themselves fatter and fatter as Flusser puts it.

So there's absolutely a need to involve interacting, the ceaseless flow of likes and retweets, of tags and mirror images. In other words of all those acts of digital creation which forfeit more insubordinate forms of creativity. And which, thus, end up colonising their users' attention, turning it into affective capital for the still insatiable giant tech monster, actively promoting dialogical rewired images. Envisioners have the potential to become new revolutionaries capable of producing new information improbable situations. Flusser was not being naïve in imagining what might sound like a revolution by a camera

phone albeit one used by a circuit bending artist. Writing in 1985, he's also already acutely aware that it may be possible to miss the deadline, hence the urgency of his vision to re-envision image making as a non-human practice of creation before it comes truly inhumane. Could an envisioner make the giant tech monster choke?

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And Bonamy Devas might just be the man for the job, working in the tradition of glitch artists who break the established circuits of communication by introducing a malfunction into the system, he has developed what he calls photographic tai chi. A project, whose aim is to fool the mobile phone camera's algorithm, Devas invites audiences to join him in his exercise in circuit bending. The process involves some actual exercise, participants are asked to move their bodies in a tai chi like manner and then photograph each other with the panorama function of their camera switched on. While also trying to do everything one is not supposed to do when shooting panoramas, shake the camera vigorously, move it up and down as well as back and forth, wiggle. The images produced take all sorts of shapes and sizes, depending on the individual phone's algorithm, they are visually reminiscent of cubist experiments with their broken lines of vision, multiple viewpoints and surreal connections between elements. Yet, they also differ from modernist masterpieces, precisely because of their networked character, the artist encourages the participants to enter what Flusser imagines as a dialogue and share the results of the experiments offline and online, he also participates in the game himself.

So it can probably be described as taking a step towards what Flusser called the society of artists, players who engage in moves and countermoves in order to re-programme the apparatus. So the project [0:37:52] seemed to open up a possibility not only for telling a different story of photography, one that goes beyond its most conservative representation on a naturalist goals, but also for rethinking perception as unfixed, nonlinear, embodied in mobile. Interestingly, scientists working on perception seem to be wary of dealing too much with the conceptual that's limiting the analysis to the mechanics of vision and its physiological aspects. For example, the key textbook on psychology, Sensation and Perception by Boris Goldstein pronounces in its opening pages, that we still don't understand perception. When it comes to making a leap from explaining the mechanics of perception to explaining how nerve impulses or sodium and potassium molecules flying across a membrane become transformed into actual perceptual experience. That is the perception of the person's face or the experience of colour red, Goldstein admits defeat.

It's therefore [0:38:52] to philosophers and cultural visual theorists that we should turn in an attempt to rethink perception, not only because such scholars are more willing to take on-board open-ended questions but also first of all, because they approach perception as a cultural and not just a physiological problem. As Jonathan Crary has poignantly argued, perception of vision have no autonomous history. And not historian by training, Crary does an excellent job in tracing the changing ideas of perception and vision across western history to demonstrate how the dominant model of vision as linear, based on a strayed ray of light emanating from God, has shaped our modern understanding of

perception. And he cites camera obscurer with its monocular aperture as becoming a more perfect terminus for a cone of vision and more perfect incarnation of a single point in the awkward binocular body of the human subject. The camera obscure, they've ended up stabilising perception for centuries to come, and giving us representationalism and perspectivism. But Crary also manages to trace an alternative, even if suppressed history or perception, which he terms the anti-optical notion of side.

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With thinkers as diverse as Berkeley, Goethe, and Schopenhauer pointing to more subjective and more sensuous aspects of vision. So it's important to highlight it's not photography as such, that led to this kind of withdrawal, reductionism, humanism, but rather its association with the linearity and fixity of vision. And the last part of my paper, I'm just trying to kind of disentangle this. And I've tried to do it throughout the paper by showing that from its beginning photography has developed a parallel trajectory of non-naturalistic visual experiment, working against the equipment's technological limitations, or even embracing them as modes of artistic expression. Even though the pure perception of modernism as Crary puts it was premised on the denial of the body, its pulsings and phantasms as the ground of vision. The story of non-human vision I have been telling here by casting light on non-human and non-representational photography has in fact been an attempt to reclaim vision's embeddedness and embodiment. And therefore, to reposition the human in the picture beyond the strict subject object dichotomy, grasping vision as distributed allows us to sever the ray of light link connecting the human observer with the divine on the one hand and the perceived object on the other.

Instead I'd like to argue together with Haraway for the embodied nature of all vision. And so we claim the sensory system that has been used to signify a leap out of the marked body and into a conquering gaze from nowhere. I am drawing here on the ecological theory of perception outlined by psychologist, James Gibson in the mid-50s, whose work has recently [0:41:50] renaissance, not just in psychology but in the other kind of more humanities disciplines. Premised on the assumption that the point of observation is mobile rather than fixed, it moves away from the model of perception as the transmission of an image from an object to the eye or the brain. Instead, a vision is understood as a panoramic perceptual system, with both the eye and the brain simply being part of that system. The model is the direct opposite of what Haraway described as a god trick of infinite vision from nowhere. In the ecological mode though of perception, to perceive the world is to co-perceive oneself, according to Gibson, vision is kinaesthetic, requiring a movement of the perceiving agent's body, and delivering simultaneous information about an awareness of the world and the self in the world.

There is an ethical dimension to Gibson's proposition, concern that we modern humans live boxed up lives. He is in tandem returning us to ways of seeing that are even, if not, non-human then at least premodern adult human, those of our ancestors, children and animals. Importantly, Gibson is keen to liberate us from the fixities of not just our

viewpoints, but also our standpoints, and to get us to look around literally. This involves challenging the camera shutter model of perception because then his understanding, supported with science research, our eyes are never fixed. The eye normally, you know, the eyes normally search, explore, scan, and there are seldom fewer than several saccadic jumps per second, the eyes look at but don't fixate. Being in constant movement our eyes are drawn to hard edges as points of stoppage on this inevitably blurry journey of perceptive movement. Even though nothing in the world is actually made up of lines and edges, the eye and brain have evolved a system that encode these differentiating signals and process the information in such a distinctly casual manner that we start to believe that edges and lines are visible components of the real world.

00:44:00

We could therefore go so far as to suggest that our visual apparatus introduces edges and cuts into the imagistic flow, it cuts the environment for us to see it, and then helps us stitch it back together again. With this we arrive at the concept of perception as active or even world making rather than just secondary and responsive. So in the light of this analysis I'd like to suggest, and the final words of my talk, the envision itself can be understood as photographic. And similar propositions have been made before but they were premised on a very different model of both vision and photography with the act of seeing considered as purely mechanical, the eye as a passive vehicle of image production, and photography, to cite Susan Sontag, as an act of non-intervention. The aim of my talk has been to challenge precisely such passive models and to position photography as a zoetic life giving force. It also has been to return life and movement to the very process of human perception, a process which needs to become other than human if it's to be truly liberated from its physical and conceptual constrains. So we enter in here the realm of photography not as a passive recording of the world but as an active process of shaping it through many cuts in the imagistic flow.

Photography can therefore play a key role in this liberation of vision from a conceptual and physical rigidity by allowing us to take stock of the imagistic flow and of the insertions made in it by our visual and cognitive apparatus. So rather than follow the flow of images equals the flow of lifeline of thinking, which has led some theorists, from Bergson and Deleuze through to Gibson to proclaim that moviemakers are closer to life than picture makers. I want to return to photography here as a quintessential practice of both life and cut, and cutting reality into small pieces with our eyes, bodily apparatus, our language, memory, technologies, we enact separation and relationality as the two dominant aspects of material locatedness in time. If vision is indeed non-human, and if its liberation can only be achieved through displacing it from its humanist anchorings and models we need a cut to be more than just a technique, one that we encounter, not only in photography but also in filmmaking, sculpture, writing or indeed, any other technical practice that involves transforming matter, but also as an ethical imperative.

If perception involves the introduction of edges and lines into the flow of vision, a process that is to a large extent non-conscious and not just human. We may need to introduce

reflection to this process and pose a question as to whether it's possible to recut a world differently to a different size and measure beyond the god trick of the straight line, and the visual gluttony of the insatiable eye fuck. And I'm just going to show you the last to second postscript, images from the series called Non-human Photography, images were taken with the camera I'm wearing at the moment, with which I've been photographing you and partly because you'll have been photographed probably here already a 100 times by the time you reached King's, whether you came in the morning or just now, because obviously there's cameras distributed everywhere. And I'm wearing this camera and I'm not going to do anything with these particular images, but just to show that to some extent it's become normalised, the presence of cameras, developed as certain forms of devices. This was developed, it's called The Autographer, some of you might know of it, it was developed as a device for Alzheimer patients and then it was rebranded as a gadget for [0:47:42] and to allow people…

00:47:45

But what I'm interested in, I'm interested in this camera [0:47:47], because it allows me to go and see things differently in a way I'm obviously not seeing the camera's algorithm and it takes pictures at certain intervals. And yet obviously the human is not free, you know, away, outside it because it's a human bodily movement, it still depends. The camera responds to my body, it shows in here I haven't been moving very much, but if I walk through spaces something happens. So that kind of … and I've been trying to … as part of the project I've been going places, and photographing things that … it's just some early cuts. But I've been going to see, you know, all the typical tourist places in London. I've been going to beaches and swimming pools where, you know, people take typical holiday shots, I've been going to birthday parties and trying to think what happens if we unsee things that we do. It's just a little experiment and it's also an experiment of what I described through the essay, as a kind of visual and bodily perception, thinking that perception is always already corporeal. Thank you [applause].

MS: Thank you very much, Joanna, for what was not just one wonderful talk, but really two, both incredibly provocative and stimulating. We have a roving mic for questions and I'm going to ask a volunteer in the audience to go around with it. So, yes, please do make sure you speak into the microphone because we do want all the questions recorded as well as the answers.

F: Thank you for a really fascinating talk. I'm going to be really cheeky and ask two questions if that's okay. One was I suppose sort of responding to that can you have a non-human opposite to the sort of visual inscription of a photograph? Is there a sort of non-human anti-vision. So like I don't know whether that would be forgetting or [0:50:14], or no trace was something I was sort of just thinking about while you were talking. And the second one was it's more a question of, I think you very much know this but I was just wondering if you could articulate more. Was what you see the difference being between the sort of response to realism in the 19th century of sort of this move towards a more embodied notion of perception and the 21st century version of that. And, you know, you

seem to be saying that there were sort of some interesting parallels but some quite significant differences. And I was just wondering if I could push you on that a little bit further because I thought it was fascinating?

00:50:56

JZ: Thank you. So about the first question, well, there could be a human … a non-human illusion of forgetting. And I think there probably could be but also that returns as a question of forgetting for whom or by whom. So in a way already through formulating it like this we are … and obviously inescapably we're already through a human frame of articulation, which is obviously part of the paradox and difficulty I'm dealing with in this project. And so in some sense, there could be also lots of acts and illusions that are kind of non-human and not for human. But I suppose my interest in particular is about these processes of impressioning. This talk is part of a book I'm currently completing called Non-Human Photography. What I'm trying to do with this is look at some of the things you discussed as in processes of leaving traces but they're also not necessarily either of the human or by the human or for the human. And the book starts from being kind of fairly conventional and looking at the images of not by the human or on images not of the human. So we can see either the image by drawings or images of landscapes, of vistas that look kind of uncanny.

You know, even like conventional landscape photographs which can be beautiful calendars, be things that are something about this nature framed into a rectangle and presented as pristine, that is quite haunting, and it also signals a certain art of the human. But the things that get really weird, I think, I hope in the project is when I'm starting to think about photography not for the human. And obviously on the surface it might sound like completely absurd. But part of the difficulty is that we as humans are unable to almost think about forms of cultural practice, which are not for us. And there is a lot of work happening at the moment around people thinking about, you know, partly in the framework of the Anthropocene or the extension of other species about what survives, what is left. And, you know, what it means, that things are kind of left behind and what kind of, you know, futures will art serve, does it even make sense to speak about the, you know, survival of photography, survival of art after the human. You see, the first [0:53:06] answer to it, of course it does because we humans have given meaning to all of that.

But there are interesting philosophers such as Claire Colebrook for example, who are pushing us toward these other forms of kind of sensation, pushing the art beyond just the kind of human apparatus. So it's a certain, this whole project is a certain thought experiment conducted in different media. And of the second question about how I bridge those kind of early experiments with the kind of recent ones which I'm trying to avoid an easy parallelism to say that, you know, what's happening now, it's already happened before. And [0:53:38], because that's not quite true, I mean things obviously do change and around the digital is a different intensity. There are different articulations of technology. So the reason I'm doing the kind of historical tracing is to show that it's more this kind of foundational gesture of photography which I think was quite exciting and that

kind of became obstructed. So in a way I'm almost showing, look, things went a certain way but they could have gone a different way, maybe it would have been a bit more interesting. But that's I suppose a minimal gesture in, you know, comparing all of this.

00:54:20

M: You talk about seeing a new, I suppose like a child it's new all the time, how do we lose that, is it we see it in an habitual way? We've become so fixed in our way of seeing, so how do you deconstruct that, how do you undo it?

JZ: Well, it's partly, for example, even this project might be just seen as a kind of a silly game, walking around with a camera on my chest. For me I was interested in what does my chest see or like [0:54:49], a Czech artist based in Canada, project, she puts cameras on her dogs, and seeing how does a dog see. And obviously it's not really how a dog sees, it's how the camera attached to the dog's back sees. But it's I suppose recognising the limitations of us humans both thinking about this as a problem, and in a way, once you formulate there's a problem, it's difficult to unthink ourselves and unsee ourselves. But it's having a stab, I think, at different ways of doing it. And that's why I'm revisiting these, by now, fairly known conventional modernist experiments. I think there was some potential in; the guys were really trying to do something with, including those forms of cut out vision, perception to shock. This is not shocking to us anymore because we've become so used to this kind of Avant-garde imagery, Avant-garde is not Avant-garde anymore. But the question would be, what would Avant-garde be like today? Can we adults return to how children see? Or is it just still about finding something else, a different way without necessarily renouncing our forms of perception and without some kind of naive postulations and think, well, let's forget everything we've seen and learned, because that in itself I think is a problematic turn. So I think it's just meandering and seeing what happens.

M: But what it seems to me is [0:56:08] particular by being surrounded with the universe, right. And then depending on the stage one's in who are maybe more or less caught by that. But, for example, we may not be listening to the sounds of the air, movement through, we may not be paying attention to that, but it's going on nonetheless. So there are lots of things going on that we're not aware of that are actually new to us if we were paying attention to it, that feeling of newness, [0:56:45] to realisation, shouldn't we see some of the new, that sort of childlike wonder if you like?

JZ: Well, absolutely and so as you say it's a retuning our perception. And sometimes for reasons of survival and common-sense we've had to train ourselves to tune out certain things, both visually and orally. But at the same time maybe … and some people are doing it now, retuning their perception, some are doing it through drugs, others are doing it through meditation, mindfulness, others are doing through other ways, there's reading, through art. So I think there are ways obviously doing it, but sometimes there are obviously pragmatic decisions we make as well that I'd want to decide actually that I want

to hear something and not hear something else. But as kind of experiments and seeing differently, I'm very interested in possibilities.

00:57:34

M: You know, but I'm somewhat concerned about the term…

MS: Sorry, we've got a question over here first, and we do need to use the microphones.

F: Thank you. Thanks, Joanna, inspiring as always, it was a brilliant talk, thank you. I understand the move to talk about the ethical and perhaps the anthological condition here and I like that a lot. But what I want to ask you about is politics, because I was thinking about this talk I went to and I can't remember the name of the company. But they have set up a satellite which takes images of the world in real time every 24 hours. And what determines the scale of the images that they're allowed to take is regulation, particularly in the US because that's where the company is based. And depending on the scale and the level of pixilation, I don't know how you say that, but it determines whether you can see faces or not. And so that might be a simplistic kind of example, but it determines whether you're seeing landscape, abstractions, people as abstractions, humans as abstract or whether you're seeing faces. And I don't know, that's just kind of one example of the ways in which regulation determines what kind of photography we're allowed to take even when it's not people taking it in a sense. And I didn't know how that fits into your project at all.

JZ: There is a bigger … I mean there is a politics with a smaller P, the whole kind of thread going around it which is an attempt to ask questions about this kind of individualist time, which is the subject of modernity and modern capital. And how it retains certain values and reinforces itself through these different forms of perception. So the project in itself is an attempt to open up that subjectivity and to think about other ways of doing that. But obviously, I mean I agree with you that all those issues, the bigger issues around non-human photography, I think we need to be wary in a sense. And I'm not trying to say with the project, it's amazing, you know, they're photographing us from everywhere. So I think, you know, if I'm photographing, you know, things everywhere, I mean it's kind of relatively benign, at the same time maybe it isn't benign. You get a lecturer turning up … I mean obviously I'm used to now, I give a lot of talks and I'm used to now being filmed and photographed wherever I go. You kind of partly turn the camera back, but obviously it's got to a stage when we are all in constant kind of feedback look of data and technology through which, you know, this has all been gathered.

It's also interesting around responses, you know, in Germany to Google Street View, when the Germans started blocking so much of, you know, private houses, businesses, faces and everything. Eventually Google abandoned Street View, you know, Google Street View in Germany, just decided no, we can't really do it because what's wrong with those Germans, why don't they want to be photographed? Everyone else wants to be

photographed, including people in Macchu Picchu, from every angle. So I think there is something very interesting happening, there are people perhaps realising the degree to which this kind of non-human photography can also be what John Tagg would probably describe as inhumane. So what I'm trying to do, and there's another chapter that I return to John Tagg, he's a well-known theorist of photography, people outside the photography, well, probably don't read it. And I've got a problem with it because some of its horror, it's like, this is all killing our humanity. And I think I'm less bothered about that because as you probably gather, the notion of the human, I've got some problems with.

01:01:03

But the political agenda behind some of … and the questions he raises, the bigger questions are obviously very valid around the kind of constant recording. The fact, well, this non-human eye does, so it's almost a certain attempt to reclaim the non-human eye within this kind of small human framework that we have. So it's like not ceding the non-human eye to Google, to Facebook, to other kind of forms of camera. But also it's an attempt to call for a second recognition and to bring, if you like, this non-human eye down to recognise that these processes are happening, but it's not to say that they're all equivalent. And obviously then policy but also protest, before you have policy you might have protest, you might have debate, regulation, becomes a way of dealing and intervening and showing precisely that they are not equivalent, some other we might be happier with, others we might be less happy with. And also, you know, and sometimes maybe the most benign ones like space photography in themselves are part of a certain reconfigured vision that we might want to ask questions about.

M: I suppose traditionally in history…

MS: [1:02:16].

M: Traditionally in history, a microscope or a telescope wouldn't be considered non-human. So I have certain concerns about the demarcation between human and non-human. And this also indicates that which is described as non-human between say technology has an ontological status from the human and therefore it comes as a matter of control. People may be subject to it, may be a victim of it, could you sort of clarify? As I see it, and also if that is the case, then this would lead to tradition, would be [1:02:50] animism, where things were considered to be inanimate, of the zest of intelligence, of awareness and as seen as however one may interpret that. And this is actually, I would say, quite [1:03:01], would be disturbing for humanity, that humanity or what's considered to be humanity or what it's projected to as humanity. People then will begin to feel powerless and this will, in a political aspect, this will lead to introductions [1:03:16] totalitarianism and the destruction of democracy.

01:03:20

JZ: Well, I think you're absolutely right, I don't think this is straightforward opposition between the human and the non-human. What I'm trying to do with the non-human is perform a set of rhetorical manoeuvre if you like. So, my non-human is not opposed to the human but it's opposed to humanism as a particular framework or mode of thinking about ourselves and the world and a certain hierarchy of beings or entity of beings. And the problem, my problem with humanism is not just my problem, because a lot has been written in it and it was in philosophy and, you know, humanities more broadly is that it excludes so many forms and entities and forms of being from it. So what I'm trying to do with the non-human as obviously humans are very much part of that spectrum, but it's giving it different rhetorical or strong, more strongly philosophical gloss to that relationship. And in that it's recognising the humans' kinship with technology. So as I said earlier, it's not the kind of man against a machine or the kind of rage against the machine narrative, but it's precisely very much seeing those forms of kind of entanglement between the inhuman as emerging in relation to technology.

And I think that calls for a different, the mode of understanding ourselves in the world and the relationships that we have with other beings. And I think animism is obviously … there's a lot of interesting work being done now around kind of Native American philosophies and through anthropologists such as Eduardo Viveiros de Castro who are going and looking at forms of animism and those kinds of human/non-human relations which are much more complicated than in traditional kind of rational western world. And they are doing it very convincingly, not in the sense of all these others, these strange cosmologies, isn't it exciting, they really think jaguars are like humans. But really what Viveiros de Castro and then others who have taken up his model are doing is like really trying to actually unsee ourselves and to show the weirdness of our world models through looking at other models. And to show them what we've got, what we understand ourselves in the world is just a model, it might be functioning for us, we might think it's kind of okay. And it's not even saying let's abandon it, from tomorrow on we all think we are jaguars. It's more about a certain loosening up of certain threads and the recognition. It's basically again a call for us to see ourselves and maybe for the first time see ourselves for what we are and are not and how we emerge with the discourse we're seeing.

M: I was very struck by your framing this in terms of kinship and I might be about to stray into animism here. But I was wondering given that what it might mean to be kind to a camera, thinking, I guess, of the fact that we all know that when we take an image with a camera phone, we're sort of teaching the algorithms about the sorts of images humans like to make. And then when you mentioned Haraway I was thinking of the thing Eve Sedgwick says about pedagogy and her cat, which bring you a mouse and we are prone to think of this as a tribute to us or a gift. But actually it's the cat trying to teach us how to hunt, so the direction of the kindness here isn't maybe the direction we initially think. And I was thinking, given that, how would you characterise these relationships between the photographer and the software in instances like these kind of glitched panoramas? Is this collaboration or is this parasitism or is it kindness or what sort of discourse would you use I guess is the question?

01:06:55

JZ: Yes, it's a good question. I suppose it also probably depends, I think I would be wary of just characterising it with one term because it enacts lots of different kind of functions, affordances. What I'm trying to do with the project as well is to show that even the most conventional photography is always already algorithmic, and including analogue photography. It's like why would most people's wedding photographs look similar, for example? So there is something kind of … it's almost a certain enactment of a cultural algorithm of what is meant or what you expect to happen, of how you expect people to dress, to be set up, to be positioned, lights to be cast over something. So there is that kind of … so we are teaching kind of algorithm … we're also teaching other humans, and the teaching situation, and even if you take a picture you say, you know, "Smile," and that kind of, you don't just teach the camera. So the apparatus itself has already expanded, you're doing a bodily instruction to other humans who have to fit into your frame, or huddle together and do something like that, and that in itself is kind of interesting. So suddenly this teaching situation and that entanglement … competing is a trendy term now that I'm sure other people might be annoyed with because it's being used a lot.

But it's showing that kind of expanded set of relations in which something happens. And then kind of [1:08:18], what happens there, is it a kind of kindness? Is it some form of imposition? And violence as well, for me is kind of an interesting concept, I've done a lot of work on ethics in my previous life, current life maybe. And working with, I suppose, through the kind of Derrida Levinas framework, and the idea of, I'm very intrigued by this notion of a good violence in Levinas which is he only mentions it once but I think it actually shapes the whole of his thought. And then I think it shaped the rest of kind of Derrida's thought. Which is precisely that moment that violence is always this act of [1:08:57], navigation with the other, with otherness, in which something emerges, something is set up. And violence is inevitable, but there are forms of what Levinas calls minimising violence. And obviously there is no code in advance telling us what counts as good violence but the task, the ethical task is in figuring things out. So, different things might happen in that relationship between humans, cameras and other objects, technologies, being, and maybe the minimal prescription would be to think, you know, about ways of enacting kind of good violence in those teaching regulatory situations.

MS: Okay, we've only got time for one more question here.

M: Yes, I was interested in your brief mention of Moholy-Nagy who wanted to distinguish between photographs which were of things that the human eye could perceive as things. And images that he called photograms which was he said liked making its own shapes, doing its own thing as it were irrespective of human intention. And it seems to me that's a very important moment, around about 1930. And at the same time it occurs to me, radioscopy and radiography were developing, the same sort of idea of putting a camera into the human body and letting it see not what the human wants to see. Because the human doesn't even know what it looks like, so these things are going together and it's that sort of occluded vision where in a sense as soon as you look at something, as soon

as you recognise it, you've destroyed the point of it. And it seems to be there's that protection of the non-human which almost to be sort of its own value now, so we could just say, "Alright, let's take these pictures and then let's not look at them at all." Because as soon as we look at them, we are bound to say, "Yes, here's something, here's something," whether it be, you know, an object or a tumour or whatever it is. But the real freedom of it and I think that's what Moholy-Nagy is going for and I think there are certain rather interesting reflections on radioscopy at the time.

01:11:26

JZ: No, absolutely, I think it's a very good point. And also you can trace the kind of parallel here between what Moholy-Nagy was doing then and also [1:11:36], the kind of slightly earlier experiments with photographs and thinking about whether, you know, it is really the pencil of nature doing it. And with Lacock Abbey, was the first house to photograph itself as he said, and that kind of dimension. But I think your distinction about that, you know, maybe what makes a photograph a photograph or even puts it in the realm of human objects is noticing what we want to see in it. Because there is a lot of photography these days which is like, for example, QR codes, there's algorithmic photography whose function is not really to do something for me but it's for, you know, you take an image so a code can speak to an image. And, you know, something happens there with the light, but the … I get then then the translation of the message, but the actual photograph is not for me, it's for something else.

So maybe it would be the same with a, you know, radiogram, you show it to a surgeon and they see a tumour, you show it to a patient, they don't know what to see because they don't know what a tumour looks like. If you show to an artist they think it looks beautiful and they frame it and put it in an art gallery. If you show it to a dog, it might chew on it or not and it's that kind of idea of the photograph as in for whom and what it does, and that is also very interesting. But I think that question also reveals that limitations of what we can consider, human perception because even shows that within different groups divided by profession and skill in analysing, understanding images, there is already different functionalities.

And again, the idea is to maybe kind of go to these earlier photographs and I think then connecting it with some of the experiments now on the level of code and algorithm and thinking about some of the images as not being just for the human, is doing something else, maybe we only see. And part of it is also an attempt and the more I think about it the more it's kind of driving me crazy because I can't unthank my own human way of thinking about it. I'm almost thinking about, well, I see something a certain way but maybe a mouse, or, I don't know, a cloud, doesn't see or some [1:13:31], don't see it as a photograph, they see the boundaries, the limits of something somewhere else. So even the idea of the object, what objects are, it's already determined by our own both perceptive apparatus and our conventions that we kind of learned what objects are. Maybe other beings, other entities, fungi see things very differently and the boundaries and the cuts between those kind of perceptive lines for elsewhere and that's also for me

very interesting. Obviously I can't see the way fungi see but I'm kind of intrigued by how they do it.

01:14:05

MS: Okay, two very quick remarks. One is that the reception will be upstairs in the King's building which is next to this one on level two, sort of follow some other members of the audience if you don't know the way. It's in the Somerset Café but please do come and join us if you can. And the second thing is that the next talk in this series will be on the 4th of April and Annette Markham will be speaking, okay, as you can see, curating future memories, so I hope everybody will come to that as well. And finally, please join me in thanking Joanna again for sharing this really exciting [1:14:46] [applause].