LUCY ASHTON

Rogue Pixels:
The Tactics of Invisibility in Hito Steyerl's *How Not to Be Seen*

On June 9, 2019, an estimated one million protesters took to the streets of Hong Kong, marching to the Legislative Council in Admiralty to oppose and delay the passing of the Extradition Law.[1] If passed, this bill would limit the civil liberties of Hong Kong citizens and put dissidents and activists in precarious legal situations. It would allow suspects to be extradited to mainland China and prosecuted under Chinese governmental laws. Civil disobedience and anti-governmental actions have become more controlled and punished due to the rise of sophisticated surveillance technologies. The protesters, banding together in decentralized and leaderless actions, responded to the reality of a changing surveillance state. These protests were successful in getting Carrie Lam, the Chief Executive of Hong Kong, to suspend the bill in September 2019. The success of this movement was due to the tactics deployed by protesters and has become a very successful example of how collective invisibility towards political change could look.

In *How Not to Be Seen: A Fucking Didactic Educational. MOV File* (2013), German filmmaker, theorist, and visual artist, Hito Steyerl offers five lessons on becoming invisible in the parodic fashion of educational or instructional films.[2] Steyerl's video proposes invisibility as a political and social method to escape how visible individuals have become due to surveillance technologies. While her video is not specifically about Hong Kong, their protest strategies reflect the concerns and aims of her video, which include the dangers of advanced and sophisticated electronic surveillance. While scholars of Steyerl's work have focused on the risks of surveillance and invisibility, in this essay, I focus on invisibility as a strategy against the surveillance state. Here I focus on

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1   The Extradition Law is the shortened name for the Fugitive Offenders and Mutual Legal Assistance in Criminal Matters Legislation (Amendment) Bill 2019.

2   The title of Steyerl's video is taken from the 1970s *Monty Python's Flying Circus* skit, also titled "How Not to Be Seen," which is presented as a parody on public informational films made by the British government. In this short, the narrator, voiced by John Cleese, demonstrates the power of not being seen, where hidden individuals get blown up once the disembodied narrator locates them in the landscape. Steyerl's video plays with this same sort of didacticism and moves Monty Python's demonstrations on camouflage into the digital age. Monty Python, "How Not to be Seen," *Monty Python's Flying Circus*, 1970, YouTube video, accessed March 11, 2020, https://www.youtube.com/watch?v=C-M2hs3sXGo.

the concepts of resolution and pixelation as tactics in which to achieve invisibility. Steyerl's video proposes invisibility as a political strategy. These lessons in invisibility constitute a new form of infiltration and intervention within the systems of electronic surveillance. They become a model of political action that is necessary to combat the ever-changing conditions of surveillance.

One of the most significant disadvantages individuals have against governmental power structures is the increasingly unequal use of image collection practices. Invisibility can work against the power asymmetries present in digital surveillance technologies. These asym-metries target precarious lives, more specifically racialized, immigrant, refugee, queer, trans, houseless, and dissident bodies, and leads to the disproportionate consequence of control and policing. Adopting meth-ods of invisibility as a political tactic against the constant morphing of surveillance technology can be a means in which to gain back political power, as enacted in Hong Kong. Learning tactics of invisibility can benefit global anti-government protests and equip any individual with the means to combat the control of surveillance technologies.

The opening scene of Steyerl's *How Not to Be Seen* begins with a 1951 United States Air Force (USAF) resolution test chart propped up on a camera tripod, foregrounded by a green screen *(fig. 1)*. These resolution targets were created by the USAF to calibrate the resolution of aerial photography for surveillance aircraft and satellites. Stey-erl's decision to open the video with this resolution target signals the relationship between surveillance, technology, and war. The resolution target takes on a figurative presence as it looks back at the viewer as if in a moment of pause. Its flat black surface resembles a head balanced upon a thin neck, with many unblinking white eyes staring out. The video's narration is dictated by interchanging male-and female-voiced, text-to-speech avatars. The narrator explains that there are four ways to make something invisible for a camera: "to hide, to remove, to go off-screen, to disappear."[3] Steyerl's own body joins the resolution target on the screen. She covers the target with her hand, picks it up, removes it, leaves it off-screen, and walks towards the camera with the target

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3   Hito Steyerl, *How Not to be Seen: A Fucking Didactic Educational. MOV File*, 2013, single-screen video, 0:19, https://www.artforum.com/video/hito-steyerl-how-not-to-be-seen-a-fucking-didactic-educational-mov-file-2013-51651.

until the screen goes black and out of focus. The narrator states, "This is a resolution target. It measures the visibility of a picture. It measures the visibility of the world as a picture. Resolution determines visibility. Whatever is not captured by resolution is invisible."[4] Steyerl's interaction with the resolution target performs the different ways to make something invisible, demonstrating how by altering resolution, invisibility can be achieved.

Steyerl proposes a specific kind of invisibility, in which becoming invisible to the camera and image-capture technologies emerges through the potentialities of low-resolution. Surveillance apparatuses track individuals through image-capture technologies and their digital data, and rely on resolution to make potential threats visible. Today, it is almost impossible to escape a camera's lens, whether it be a smartphone, computer, or surveillance camera. Steyerl offers the concept of resolution as a way to think about becoming undetectable to image-capture technologies. Steyerl has theorized on the capabilities of low-resolution images, which she calls poor images. She articulates that the hierarchy existing in the contemporary image economy relies on resolution, and images which are of poorer quality lose their value as an image. Low-resolution images are defined by their dematerialization and ability to be spread at fast speeds through the internet. Steyerl asserts that:

> by losing its visual substance it recovers some of its political punch and creates a new aura around it...it is no longer anchored within a classical public sphere mediated and supported by the frame of the nation-state or corporation, but floats on the surface of temporary and dubious data pools.[5]

Through low resolution, one can remain undetectable to cameras and can use that towards a political power that refuses the control of digital technology.

Resolution targets are a recurring motif throughout the video. The use of the word *target* to describe the resolution chart, such as the one in figure 1, connotes the threat of visibility. The body and image, as read

4   Ibid., 0:54-1:54.
5   Hito Steyerl, "In Defense of the Poor Image," in *The Wretched of the Screen*, (Berlin: Sternberg Press, 2012), 33.
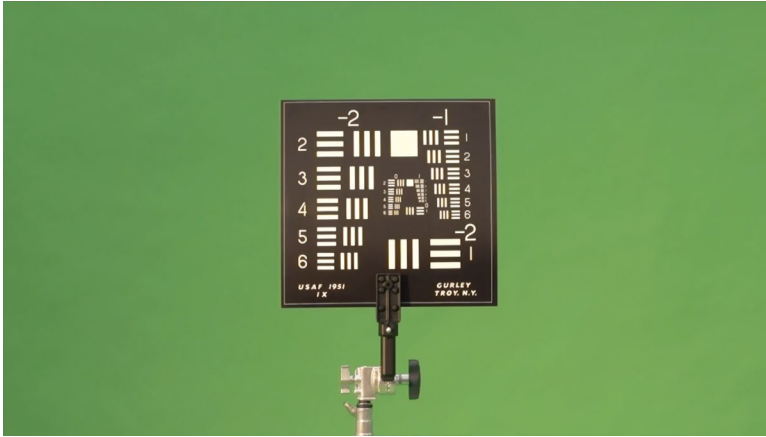
by the resolution target, become the focus of the aim of the attack of visibility. Bodies become the target of the mechanisms that attempt to render them visible through resolution. Similarly, writer and scholar Irving Goh states that "the figure of the citizen today, less than being a figure of the future or of future freedom of the human, is more a figure of citizen-as-target."[6] By *target*, Goh refers to how governments surveil the actions of their citizens to watch for behavior that could pose a threat to the security of the state in the twenty-first century—rendering all individuals as potential targets. Whether the image is of low or high resolution determines the extent of their invisibility. If that image is of you, you too become invisible to the camera and are able to evade becoming a target of surveillance.

Steyerl herself converts into image material in Lesson III, "How to Become Invisible by Becoming a Picture." The lesson begins with Steyerl standing with her eyes closed in front of a green screen that is depicting the resolution target. She humorously smears paint on her cheeks as the narrator says "to camouflage" *(fig. 2)*.[7] In this instance, pieces of Steyerl's body quite literally become the image that is projected behind her, successfully camouflaging herself by becoming the image. She highlights that through making the body into a medium of

6   Irving Goh, "Prolegomenon to a Right to Disappear," *Cultural Politics* 2, no. 1 (2006), 98.

7   Steyerl, *How Not to Be Seen*, 4:46.

transmission (i.e., a part of a screen or digital image), one can disappear by becoming a picture. Steyerl becomes a medium of transmission by camouflaging her identity. The camera cannot register her body as a body; instead, Steyerl becomes a part of the screen's materiality, and the camera records the screen that she has become enmeshed in. Surveillance technologies turn humans into transmitted content when their facial features are detected and transformed into data. But, becoming a medium of transmission activates the body and repositions the individual to function effectively against systems of surveillance.

Media theorist Toni Pape focuses on Steyerl's *How Not to Be Seen* as one of his examples of stealth aesthetics. Pape rearticulates the artist's explanation, stating that "a skillful activation of this lived relation with media can allow the body to become itself a medium of transmission, rather than a transmitted content."[8] As Steyerl smears paint on her face to become the image behind her, she becomes both the medium of transmission and transmitted content. Pieces of her face become the green screen projecting colorful images; she sinks into the image, becoming a part of its materiality. Her face and body become part of the picture the viewer is watching. Camouflaging, in this way, throws off any form of representational identity, which media theorists Eugene

8   Toni Pape, "Aesthetics of Stealth: Towards an Activist Philosophy of Becoming-Imperceptible in Contemporary Media," *Feminist Media Studies* 17, no. 4 (2017), 632. Pape takes Steyerl's notion of participating with an image from: Hito Steyerl, "A Thing Like You and Me," *The Wretched of the Screen*, (Berlin: Sternberg Press), 2012, 51.

Thacker and Alexander R. Galloway argue, is a "tactic of nonexistence."[9] They define nonexistence as a strategy to avoid control, specifically within systems of data and technology. Thacker and Galloway suggest that in becoming a medium of transmission, an individual is given temporary autonomy from the structures that control. They state that "with this type of cloaking, one is not hiding, simply nonexistent to that node. The subject has full presence but is simply not there on the screen."[10] With that in mind, Steyerl remains physically present while standing in her studio to record this scene. But, she becomes partially and momentarily invisible to the viewer as she becomes a part of the screen itself.

Further, when individuals use techniques of camouflage as a tactic of low-resolution invisibility, they disable recognition by surveillance technologies. For example, making a face undetectable to facial recognition cameras affects how a machine reads a face. If this software is unable to read the face as a face, it does not exist as a face to that software. Thus, the individual's identity remains invisible. Researchers at Carnegie Mellon University have shown in their study that using anti-recognition techniques, such as covering the face, either with an object or paint, can stymie current facial recognition software used by many surveillance technologies.[11] Computer systems currently do not understand faces the way that humans do. These systems, trained to identify a subject through assigned values based on proportions of the subject's face, perceive faces through pixels and patterns. The number of pixels present in an image determines its resolution: the fewer the pixels, the lower the resolution. Protesters use tactics of anti-facial recognition to combat facial recognition software and evade identification by police and military. These tactics take on many forms, from very sophisticated methods to everyday practices of concealment, but all with the focus of covering the face. Thus, figures in a low-resolution image can obtain invisibility because if the machine cannot determine a face within the image, the subject remains unidentifiable.

9   Eugene Thacker and Alexander R. Galloway, "Edges: Tactics of Nonexistence," in *The Exploit: A Theory of Networks* (Minneapolis: University of Minnesota Press, 2007), 136.

10   Ibid., 135.

11   Mahmood Sharif, Sruti Bhagavatula, Lujo Bauer, and Michael K. Reiter, "Accessorize to a Crime: Real and Stealthy Attacks on State-of-the-Art Face Recognition," *Proceedings of the 2016 ACM SIGSAC Conference on Computer and Communications Security* (New York: Association for Computing Machinery, 2016), 3.
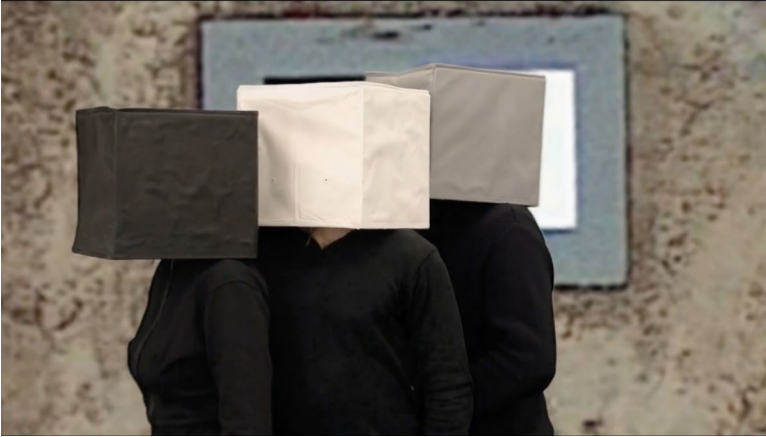
Figure 3. Still from Hito Steyerl, *How Not to Be Seen: A Fucking Didactic Educational. MOV File,* 2013. Single-screen video. These figures perform how being a pixel can be visualized. The cubes they wear on their head mask their face, allowing them to become unidentifiable, and therefore invisible, to surveillance cameras and facial recognition software.

Steyerl uses humor as a device to expose the political urgency at play within the development of surveillance technologies. In Lesson III of *How Not to Be Seen*, Steyerl introduces the pixel-based resolution chart, which consists of three black and white squares that form a 90-degree angle.[12] The new design is an example of increasingly sophisticated capture technologies that can detect smaller and smaller details. The narrator continues: "To become invisible, one has to become smaller or equal to one pixel."[13] The image of the pixel-based resolution chart fades to the background, as three figures dressed in black, and wearing gray, white, and black cubes on their heads, emerge *(fig. 3)*. These figures personify the pixel-based resolution chart; they dance around the screen as electronic-beeping music chaotically plays. These cube-headed figures visually demonstrate what it could look like if one were to become "smaller or equal to one pixel." They playfully spin, hop, bump into each other, and walk across the screen, interacting with one another to form shapes. To become a pixel, in a way, also means to become an image because pixels compose digital images.

Performance meets representation through Steyerl's tactic of becoming a pixel. Surveillance scholars Chris Ingraham and Allison

12   This new standard of resolution was introduced around the year 2000. The narrator of Steyerl's video states: "In 1996, photographic resolution in the area is about twelve meters per pixel. Today it is one foot. To become invisible, one has to become smaller or equal to one pixel." (Steyerl, *How Not to Be Seen*, 5:36-:6:10)

13   Ibid.

Rowland coin the term "performing imperceptibility" to define the notion of making oneself "seen, but to be seen going unseen, that is, to resist being perceived as a fixed and discrete subject."[14] I use this understanding of performing imperceptibility to contextualize how becoming a pixel could operate in society. Pixelation signals towards a political strategy that shakes off the constraints of representation that society uses to confine and categorize individuals. In a tongue-in-cheek manner, we could practice becoming a pixel and wear cubes on our heads in public to mask our faces as the figures do in Steyerl's video. It would probably attract unwanted attention, but would ultimately be successful in evading identification by image-capture technologies—individuals would be seen going unseen. In this sense, individuals could perform on the streets as cube-headed pixels to avoid and protest the image collection of surveillance technologies. By becoming pixels or unidentifiable beings, one can use invisibility towards becoming acutely political to the issues that surround surveillance in society. Individuals, in some sense, already exist as pixels when they interact and become embedded in digital technologies. Pixelation, as a form of invisibility, can constitute a different form of agency within the new conditions of electronic surveillance. Becoming pixelated as an act of disappearance can begin to work against the political asymmetries present in digital technology and surveillance.

All of Steyerl's lessons collapse onto each other in the final lesson, "How to Be Invisible by Merging into a World Made of Images," and unfold outwards into the video's final proposition on disappearance. In figure 4, the camera roves over the resolution target paved on the desert floor. The desert, while ecologically abundant, now also houses a graveyard of resolution. This graveyard, with its cracked and broken pavement, resembles a body as it decays from disuse. The narrator states: "Rogue pixels hide in the cracks of old standards of resolution. They throw off the cloak of representation."[15] Dead pixels live here, as Steyerl states, no longer perceived and captured by the new standards

14   Chris Ingraham and Allison Rowland, "Performing Imperceptibility: Google Street View and the Tableau Vivant," *Surveillance & Society* 14, no. 2 (2016), 212.

15   Steyerl, *How Not to Be Seen*, 12:02-12:15.

of resolution.[16] Thus, the graveyard of resolution allows for new visibilities to emerge. These are invisible visibilities that will enable one to go undetected, remerging ghostly from the cracks. Dead or rogue pixels embody invisibility and camouflage, preventing capture by new standards of resolution. Steyerl does not suggest invisibility as a tactic to blend in, but rather to infiltrate and intervene within the systems of image-capture technologies.

Hiding within the cracks, one can not only evade detection but also make those cracks bigger. The hidden can emerge as a collective group of "invisible" subjects joined together under a common political goal. In this instance, those that have "disappeared" and become

16   A dead pixel is a defective pixel that omits no light and appears as a black spot on a digital screen. A stuck pixel, or a rogue pixel, on the other hand, are not permanently defective, and appear as colored squares on a digital screen.

"rogue pixels" can gain political efficacy. During street demonstrations, protesters in Hong Kong adopted the black bloc method. Defined by the collective use of wearing black, face-concealing, and protective gear, black bloc can protect identities from and resist police surveillance and brutality *(fig. 5)*. Protesters disabled surveillance cameras by pointing lasers at them and spray painted the camera lens to prevent facial recognition and photos to be captured. In large groups, protesters used open umbrellas to act as a shield from police teargas canisters and to protect their identity further. The collective invisibility deployed by the protesters in Hong Kong demonstrates the power of invisibility as a political strategy. Their protest tactics and identity protection methods mark them as "rogue pixels." The government of Hong Kong placed a ban on mask-wearing and other forms of identity concealment because it was interfering with police activity and arrests.

The ban highlights how the state uses faces and facial recognition as a weapon to track and control individuals who have been identified by the state as a threat. Surveillance cameras cannot identify a masked face, rendering it invisible. The Hong Kong protesters become unidentifiable along these lines. Thus, becoming unidentifiable through acts of invisibility creates a new menace to the state because if you cannot be identified, you cannot be controlled and punished as quickly.

Invisibility provides new opportunities in political protests that have successful outcomes, such as what took place in Hong Kong. Scholars Gloria González Fuster, Rocco Bellanova, and Raphaël Gellert argue that invisible subjects can remain politically productive through disappearances.[17] Invisibility can be a political tactic that allows one to disentangle themselves from the power asymmetries of a surveillance society. Through becoming invisible, one regains subjective agency

17   Gloria González Fuster, Rocco Bellanova, and Raphaël Gellert, "Nurturing Ob-Scene Politics: Surveillance Between In/Visibilities and Dis-Appearance," *Surveillance & Society* 13, no. 3 and 4 (2015), 515–517.

that is otherwise taken away when one becomes interpolated into the grasping hands of surveillance technologies. Invisibility allows one to evade and deflect how image-capture technologies read one's identity, allowing for new opportunities to emerge that are stripped of the threat of visibility.

The threat of visibility resides in resolution and pixelation. Steyerl makes this clear through the video's finale, which ends with two figures in green morphsuits fighting a propped-up resolution target in the desert emerge *(fig. 6)*. This target-cum-body becomes the victim to these green figures' punches and karate kicks, revealing that like the camera, resolution is also the enemy of invisibility. One must render resolution low and fight its image-reading and image-capture abilities to step into the realm of the invisible. Rather than leaving the viewer with a clear resolution of the issues of visibility and invisibility, Steyerl uses the fighting figures to demonstrate that these struggles are ongoing and continuous. Electronic surveillance technologies will continue to develop and become more deeply integrated into daily life. The tactics of invisibility become a model of political action that is necessary to stay with the struggle.

Hito Steyerl's *How Not to Be Seen: A Fucking Didactic Educational MOV. File* demonstrates in humorous, yet serious fashion tactics on disappearing in the age of powerful digital technologies of surveillance. Through disappearing and subverting one's image, potentialities emerge that allow individuals to use invisibility as a political act against capture technologies. In recognizing that one's image and virtual identity are continuously tracked and surveilled, Steyerl provides material for one to consider the importance of disappearance. As the conditions of electronic surveillance continue to metamorphize into more elusive and harder to distinguish forms, invisibility becomes a political strategy in which to respond and protect oneself. Becoming invisible means manipulating visibility through strategies of resolution, pixelation, camouflage, and disguise, altering how image-capture technologies read an image. This form of invisibility allows for infiltrating and subverting

the systems of surveillance and is a model of political action that is necessary to combat the ever-changing conditions of digital surveillance. Through learning acts of invisibility, an individual can become accustomed to a new form of power that allows one to adapt and persist in the face of the threat of visibility.

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