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Found Footage and the Speculative Economy of Attention

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Found footage as a recent film genre reflects the irony of human attention; the more augmented it is by the technologies such as portable video cameras and other sensor devices, the more edges its restricted focus rediscovers. Monetizing the paranoiac affects aroused by something felt at these edges, but not identifiable by the camera operator's limited resources to intervene, this new horror genre exemplifies a recent tendency in attention economy, which this article terms "the speculative economy of attention." The attention we pay to our surroundings through many self-tracking technologies is capitalized not only as the attention per se for advertising revenues, but also as what overvalues the horror of hidden problems in its peripheries.

Keywords: found footage, attention economy, affect, postcinema, sensor network, surveillance

Paranormal Activity (Peli, 2007) and *The Blair Witch Project* (Myrick & Sanchez, 1999) are often considered the two most essential contributions to found footage's establishment as a film genre in the early 21st century. Alongside their unexpected box office success, both films' employment of portable video technologies as a means of extracting something photogenic from every quarter of reality has been cited as foundational of the genre's cinematic form (Heller-Nicholas, 2014; Och, 2015; Sayad, 2016). Something that has not been discussed, however, is how their conversion of material realities, now embedded with numerous video cameras, into ever-expandable filmic spaces suggests a cognitive condition for the genre's typical supernatural contents to be witnessed everywhere: from a domestic setting in San Diego recorded by a immobile camcorder to a desolate forest near Burkittsville, Maryland, recorded by student filmmakers on a shaky handheld camera. *Paranormal Activity*'s iconic long take surveillance footage is noteworthy for the way it locates audiences in front of a monitor, making them hypersensitive to any minute anomalies occurring at the edges of the frame without letting them take proper action—panning, zooming in, or moving to a better angle—to further identify what they perceive (Figure 1).

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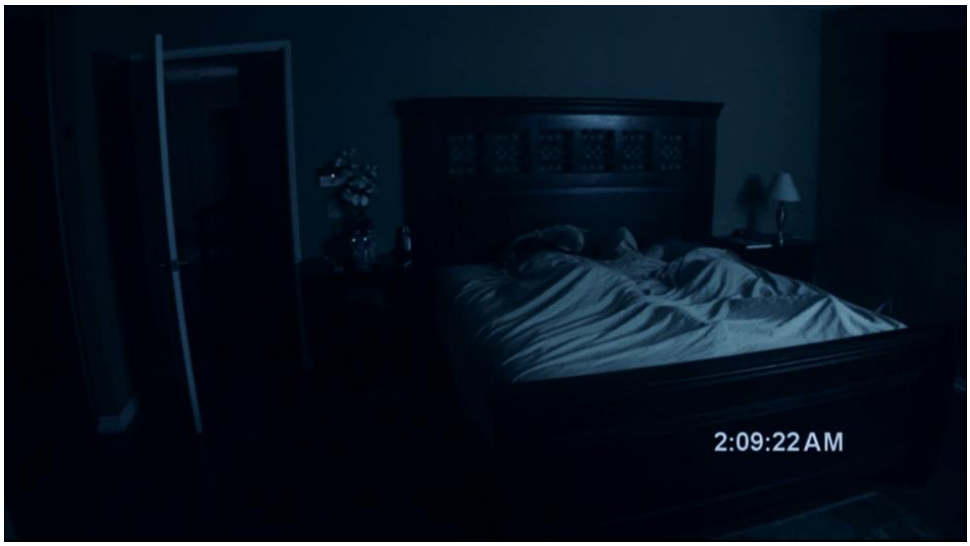

Figure 1. An inactive shot in* Paranormal Activity*.

On the other hand, *The Blair Witch Project*'s handheld movement results from the filmmakers' panicky motor reflexes to the things they see but that are obscured for the audience, leaving too many vectors to reconnect its abrupt cuts into the intended narrative for a documentary (Figure 2). As the two aesthetic signatures of camera operations available in found footage, these moments of demonic emergence expose the genre's self-reflexiveness. Contrary to other classical genres, found footage has established its generic dimension not by sharing a thematic prototype, but by its conscious deployment of a camera's sensorimotor relations to a space according to its redefinition of reality-effect, no longer based on the seamless interconnection of the actions the camera(s) take(s) in different angles. It is the alternative rule for reality-effect; all cameras need to be set up, operated, and moved by a person, not an author or invisible narrator, but standing on the same material footing with cameras and other objects. A shot can, therefore, be closed only by the actions contained in itself, such as a person pushing the record button or an assault on the camera by unknown entities. As the result of this rule's consistent application, a segment of footage displays a tension between the things gradually foregrounded as responding orderly to the actions taken by the cameraperson and the things remaining embedded without eliciting any distinguishable response.

***Figure 2. A disordered-reactive shot in* The Blair Witch Project.**

Even in a shot closed by a camera operator's intentional action, this tension persists as an ambiguous quality sensible, but not identifiable; we can think of this unresolvable tension as now emerging everywhere in our life-world that the ubiquitous surveillance cameras reframe with each narrow focus. As the owners of their own points of view rather than constructed as textual subjects in the continuous editing, the characters in these films ironically discover the uncontrollable always embedded in the periphery of their POV. As a self-reference to the genre's lack of proper means to exorcise the peripheral, the haunting of the spaces conversely reminds us of other genres' institutional means to represent something paranormal through the choreography of multiple cameras and their seamless combination. To reframe what the endings of both films leave unsolved, their sequels, *Paranormal Activity 4* (Joost & Schulman, 2012) and *Book of Shadows: Blair Witch 2* (Berlinger, 2000), indeed reemployed this institutional technique, respectively, through the seamless interoperations of various self-tracking technologies such as video cameras, MacBook webcams, iPhone cameras, and Xbox Kinect, and by simply restoring the institutional solution of continuous editing.

In short, these found footages extract new horror values from the peripheries of a camera operator's restricted attention, and their timely appearance in the early 21st century and coincidence with the wide distribution of portable camera technologies reflect the media system's recent interest in capitalizing on something hidden in these peripheries. The demonic is supposedly lurking at each edge of ubiquitous sensors but is fully identifiable only through the institutional control of the sensors' sophisticated interoperation. From found footage not only as a film genre, but also as the raw output of democratized sensor technologies, represented by lots of "smart" spaces today such as smart body, home, office, and smart city, this article infers a new mode of attention economy that I term speculative economy of attention and argues how it transforms something paranormal, or elusive of our efforts to pay attention, into a novel form of commodity in the new media industry.

Postcinematic Affect In-Between Sensors and Actuators

In the frame of narrative cinema, or its Deleuzian definition as movement-image, we can describe the cinematic form through which the poltergeists possessing the spaces in both films reappear as such: something perceived at the edges of the sensor, but never relocatable to the center by a proper action, thus dischargeable only through the disordered motor responses. Deleuze categorizes cinematic images according to their states in circulation in a nervous system, or a machinic assemblage that consists of mechanical sensors, motors, and human brains. For him, the classical narrative cinema is, most of all, a technological restoration of a brain's sensorimotor representation, in which something perceived acquires subjective meanings as it changes in response to the actions taken by an actor (a camera or character). On the other hand, what he terms affection-image is an intermediary form of delay between perception and action, or that which "surges in the centre of indetermination, that is to say in the subject, between a perception which is troubling in certain respects and a hesitant action" (Deleuze, 1986, p. 65). As a quality remaining unresolved because of the absence of any following actions, the demonic in *Paranormal Activity* in this sense provides an example of affection-image recently emergent from between the machine's fatigueless perception and the human's delayed or "failed" actions to follow it (Hart, 2019). In *Blair Witch*, the demonic, on the other hand, appears to be more active in arousing numerous unorganized actions from the camera operator; in this respect, the affective is also agential in the Spinozian sense as the quality of a shot in a "critical point" at which it "embodies multiple and normally mutually exclusive potentials, only one of which is 'selected'" by an abrupt cut (Massumi, 2002, pp. 32–33). Brian Massumi characterizes "our information-and image-based late capitalistic culture, in which so-called master narratives are perceived to have foundered" (p. 27) as the "surfeit" of affect. According to him, affect is distinguished from emotion as "a subjective content" because it is preindividual and presignification, emergent from the suspension of the sensemaking of images at "the semantic or semiotic level" defined "linguistically, logically, narratologically, ideologically, or all of these in combination, as a Symbolic" (pp. 26–27). The wane of "symbolic efficiency" of the narrative structure in fictional and nonfictional forms of media has revealed the "post-referentiality" of our material reality, which rarely turns clear responses back to the actions for its technical and discursive measurements (Andrejevic, 2013, p. 85). As a result, affect has been generalized as our common responsive state. The timeliness of found footage as a new film genre of the early 21st century can be, in this sense, examined from its redeployment of the geographical distribution of digital cameras as the means to display the affective through its cinematic reemergence between sensor and actuator. Affect has accidentally resulted from the failure in the seamless relay between multitude perceptions and actions of these ubiquitous sensors and actuators, and found footage has exploited this affect as the new resource for filmmaking. In this respect, this new film genre also reflects the media industry's recent strategy to monetize even audiences' failure to pay attention.

In the film theories of the second half of the last century, the cinematic meant the quality effected from the alignment or misalignment of the images montaged together along the concealed actions of machines, such as a shutter's flickering, the camera's movement within a single shot, or its geographical displacement between two shots. Jonathan Beller (2006) says that "the cinematic mode of production," which operationalized the attention economy of the last century, was based on the "separation and expropriation of vision from the spectator" (p. 8) through substitution of this machinic circulation of images for our voluntary motor responses to the field of perception. For him, the cinematic means the

neurophysiological extension of the logic of industrial capitalism. He says, "Instead of striking a blow to sheet metal wrapped around a mold or tightening a bolt, we sutured one image to the next (and, like workers who disappeared in the commodities they produced, we sutured ourselves into the image)" (p. 9). In other words, what the expropriation of the kinetic means of perception production in a theater leaves for the audiences to do is invest their "freedom reflex" (or neural plasticity liberated from the physical and geographic constraints of human bodies) into the production of surplus meanings between montaged images according to the imagined motor responses of the coherent/schizophrenic narrative subject. The cinema in the discourse of attention economy during the first decade of this century[1] has been, in this sense, defined by its twofold kinetic operations to create "suspensions of perception" (Crary, 2001)—first by its mechanical operation to translate the field of perception into the images framed in each fragment of celluloid, and second by its embedding imaginary motor responses of normative/schizophrenic subjects within the filmic texts as the software to reprogram attention. As the surplus value in cognition, attention reifies images into something bigger than real, not because audiences add physical labor of motor response to the images, but because they believe that someone behind the camera (such as a protagonist or hidden narrator) is moving his or her body to pay attention to the objects. Attention separated from the intentional motor responses of audiences in front of a screen is instead reinflected through the mechanical or algorithmic relay of images and turned back to the audiences as the attention already given to those images by the actions of imaginary others textually or statistically constructed (especially statistically in Google's PageRank algorithm). The cinematic as the mode of attention production in this sense operationalizes a theory of (re)action that audiences need to internalize.

On the other hand, the surplus of cameras in every corner of our lives and following every move we make, which found footage mobilizes to extract hidden narrative values from the peripheries of attentions, defines another productive mode of attention. "The profound sense of helplessness and paranoia" (Och, 2015, p. 209) characterizing the affects aroused in *Blair Witch* and *Paranormal Activity* is mainly attributable to the person behind the camera not taking proper actions, such as panning and zooming in to follow and recenter the anomalies at the edge. Something is haunting where our attention reaches, but does not return anything to reconstruct a normative subject who would translate the sliding-by images into the rational movements of attention. What becomes productive for unfolding a narrative is instead the audiences' withstanding the images without taking actions in order to charge the circuit between a sensor and actuator with affective feelings. These intensive qualities are dischargeable through the multiple disordered vectors with arbitrary cuts, whose hidden connectivity could be refound only at a meta-level. The new normative subject to rationalize the economy of attention in found footage is not the owner of the gaze

[1] Attention economy was suggested in the late 1990s as the concept to explain the source of "scarcity" that governs the new economy of the cyberspace, whose oft-misconceived resource, information, is always "abundant" and "overflowing" and thus impossible to be a "basis of an economy" (Goldhaber, 1997). On the other hand, the amount of attention that audiences pay to the information is always limited. In the subsequent works of the researchers, such as Jonathan Crary (2001) and Jonathan Beller (2006), to expand the concept's coverage even to the media culture of the early 20th century characterized by the abundance of images and spectacles, cinema has been discussed as a technique to convert the attention into the form measurable and exchangeable in an economy. For the overview of the theoretical discourses on attention economy, see Crogan and Kinsley (2012).

behind the camera, but the archivist whose job is to excavate the fragments of footage and reassemble them for display; an example is the hidden commentator at the beginning of *Blair Witch*, who says, "In October of 1994, three student filmmakers disappeared in the woods. . . . A year later their footage was found."

Let me call this new mode of attention production postcinematic, following Steven Shaviro (2009), in that cameras are now the "*machines for generating affect*, and for capitalizing upon, or extracting value from, this affect" (p. 3, emphasis in original). The poltergeists as the sources of the paranoiac affects, whose exhibition values are rediscovered by the archivists at the meta-level, can be then understood as the metaphors for something hidden in the peripheries of our attention, which the attention economy recently attempts to monetize. In this respect, it is not a coincidence that, in a conversation on *Paranormal Activity*, Shaviro relates what the house is possessed by, namely "the demon in the *PA* movies," to "an immense collection of data" performed by the self-tracking technologies in today's smart buildings (Grisham, Jeyda, Rombes, & Shaviro, 2016). Even though we have ownership of all these machines, "It isn't always clear who 'owns' all the data." Like the woman possessed by the demonic being omnipresent in the house of *Paranormal Activity*, our quantified selves generated in real time as our digital double from ubiquitous sensors are, he says, owned mostly by "Google and Amazon" (Grisham et al., 2016). As Cheney-Lippold (2017) says, "In most instances of algorithmic identification, we are seen, assessed, and labeled through algorithmic eyes, but our reaction is often available only to be obliquely felt," and "we may very well feel we are being watched but never see what sees" (p. 24). However, in this reappropriation of the rhetoric of horror film criticism called the return of the repressed, Shaviro overlooks the fact that, in the film, the use of self-tracking technologies for the obsessive data collection is not the demon's means to possess the woman's body, but a part of her husband's attempt to persuade her that there is nothing paranormal. To rationalize the phenomena occurring beside the center of attention, he is willing to share what his camera recorded with a psychic, professional analyst for paranormal activities. However, what he rediscovers even after he "lightened up the footage" artificially with video editing software is the fact that the ambiguous quality of the video typical for surveillance footage becomes even more ambiguous as he pays more attention to the periphery through a technological aid. As Sayad (2016) acutely points out, the husband's belief

> that by turning on the camera when an eerie presence haunts [his wife]'s sleep he can tame and control it establishes an ironic pattern that underscores both the film and its sequels: the act of filming invariably backfires, granting the "monster" access into the characters' lives. (p. 52)

The horror of found footage in this sense shows the irony of the recent democratization of sensor technologies and simple data processing tools. By retrieving these means of attention production, which support the recent streaming culture in which an audience seems to retrieve the power to direct even the attention of others to the action he or she locally takes and broadcasts through a webcam, we also rediscover something para with which we have always shared our spaces—something embedded beside as the stain in the peripheries of attention and withdrawing further beside under our limited tools for data processing, such as the digital zoom to enlarge the images already recorded. It should be refound and rearchived at the meta-level to be reintegrated into the economy of attention. Put differently, something affective or postcinematic in its mode of being appears from the grassroots and needs to be recirculated in the higher level.

The New Low and High

As Gillespie (2000) once pointed out, reality television programming in the late 20th century already provided the platform for these affection-images emergent from ubiquitous sensors to be redeployed in an institutional context, and we can examine this TV genre as having mobilized our affective concern over the peripheral for the emerging new attention economy even before found footage emerged as a film genre.

Neither constructed around the semicircular movements of the camera in a studio nor chasing the actions of journalists, surveillance TV series such as *World's Wildest Police Videos* (1998–2001) and *Real TV* (1996–2001), in Gillespie's (2000) analysis, have a generic form as the collection of "found footage" as "images produced outside of the entertainment television apparatus: workplace surveillance footage, police dashboard camera surveillance, hidden camera footage, amateur home video, and raw television news footage" (p. 37). Whereas this seamful collage of low-tech videos inevitably contains inherent ambiguities, the stacked layers of audio—from "on-camera soundbites from police officers, witnesses, victims" (p. 37) to an expert's comment weaving all of these reports from below together—function in these series to extract multiple vectors from the videos to then interconnect into a narrative describing images stuck within a city's sensor network as pathological and criminological, such as hidden dangers of crime, vandalism, and terrorism. According to Gillespie, the legitimate and illegitimate uses of video cameras for the participatory bottom-up process of surveillance, often called "synopticism" (Andrejevic, 2004) or "sousveillance" (Cascio, 2005), have been defined. In *Video Justice: Crime Caught on Tape* (1997), a special on FOX, the voice of the narrator authorizes footage as a viable use of home video: "a white man being harassed by neighbors about his homosexuality sets up a camera and records himself being brutally attacked"; another is conversely categorized as the deviant use of video technology: "a video made by several black youths as they gleefully drive around Los Angeles shooting paintballs at transients and pedestrians" (Gillespie, 2000, p. 39). These two cases of camera movements—which I term withstanding without action and discharging through unorganized action—represent two poles in a continuum of possible actions that a local sensor device could take, from a complete inaction to a completely disordered reaction, which also expose the affects stuck in-between perception and action of the city's "artificial nervous system" (Hayles, 2016; Hill, 2008) in the forms of paralysis and haphazard responses. If the footage in these cases were intentionally selected to display something affective, unresolvable by a sensor's modular action, the editorial processes of reality television, on the other hand, emphasize the necessity of the discursive control of the expert's voiceover to redeploy something para sensed from below in a sensemaking narrative (which the amateur documentary producers in *Blair Witch* failed to do).

The bottom-up process of surveillance is textually reconstructed by the stacked layers of audio and video in this TV genre, but it is not simply participatory or successful in democratizing the visual pleasure of the panoptic observer. The bottom-up is rather reinterpreted as the institutionalized route for the citizen sensors' concerns for the invisible dangers sneaking around their limited attention to be redirected to the authority accessible to a citywide sensor network, preventing them from jumping to the paranoiac delusion of a demonic network behind. (For instance, the husband's stepwise attempt to bring his footage to a psychic in a town, and then to famous demonologist Dr. Johann Averies in *Paranormal Activity*, is, despite his failure to do so, the only possible cure for his wife's paranoiac jump-to-conclusion regarding the poltergeist.) In this sense, the two modes of video technology, which Fiske (2002) calls videolow and videohigh, are in a

new complicity in surveillance TV shows. And along the vertical pipeline through which the producer in the high extracts hidden narrative values from the videos in the low (or along the pipeline that distinguishes found footage as a film genre from surveillance TV shows, in that the former's armature producer always fails to control these videos in the low, whereas the TV producer is always exploitive to these grassroots), affects are now not simply discovered, but cultivated as the resources for the network's sustainable expansion. Regarding this affective quality of videolow, Fiske (2002) says,

> Like the Rodney King video, their lower-quality images, poor but closely involved vantage points, moments of loss of technical control (blurred focus, too-rapid pans, tilted or dropped cameras), and their reduced editing all serve to reveal the discursive control that official news exerts over the events it reports. Videolow shows that events can always be put into discourse differently from videohigh, and this enhances its sense of authenticity. (p. 389)

For Fiske (2002), the authenticity of low-tech video is due mainly to "its user's lack of resources to intervene in its technology" (p. 387). The user, or citizen sensor with "a camera, but not a computer enhancer," could "produce and replay an electronic image, but could not slow it, reverse it, freeze it, or write upon it," and thus the images the user creates appear "so authentic to so many precisely because he could not" (p. 388). His definition of authenticity of mechanically produced images is distinguishable from that of Bazinian realism based on the images perceived and relayed purely by the mechanical action due to a human operator's intentional nonintervention (Bazin, 2005). Authenticity of videolow for him is rather a sort of affective value added to the footage due to the operator's inability or frustrated attempts to intervene in its hidden meanings. Redefined as these mechanical images charged with either meanings or affects according to whether they are successfully redeployed in a citywide surveillance network or still stuck in-between a local sensor and actuator, found footages as videolow proliferating in the recent urban landscape turn out to interface two very different networks beyond our accessibility. First, there is the network of cameras whose simple and modular actions can be reassembled by an institutional agent in an editing room for reality TV programming, or control room for citywide security cameras (Sadowski & Bendor, 2019), and the imaginary network of demonic beings or terrorists the citizen sensors obsessively infer beyond their perceptibility. These two networks are symmetrical; the former's intervention in the low becomes more justifiable as people become more paranoid and jump to conclusions at the presence of these invisible evils beneath the surface. The participatory and democratic form of bottom-up surveillance, which reality TV programming idealizes and monetizes, is in this sense driven by audiences' generalized paranoia, or their self-reflexive and gut feeling that there is always something nonrepresentable left beside their technologically mediated attentions. In other words, for the bottom-up to be agreed on by the participants as the solution for their local issues, it needs to be believed by them: Everywhere is haunted by nowhere in which something demonic is embedded. It is always unclear who really occupies this nowhere, since it constantly moves beside our actions to grasp it. However, for that precise reason, videohigh claims its right to videolow; or mediahigh in the upper layer of cloud servers, such as "Google and Amazon," accessible to not only optical sensors, including webcams, but all kinds of digital sensors, claims ownership of data collected from a user's material lower layer insofar as the problems lurking in the space are too dispersed to be identified by our local action of zooming in. The proper actions to exorcise them are still supposed to be programmed by the high capital, high technology, and high power with enough means to intervene

everywhere in a simultaneous and timely manner, just as the expert's voiceover in FOX's special redisposes all the lower layers of video and audio for a sensemaking narrative.

In this respect, the found footage both as a film genre and raw material for surveillance TV series reflects media systems' recent division into the new low and high, whose vertical complicity is strengthened by the problems whose symptoms are distributed too horizontally. For this complicity to be sustainable—in other words, for more symptoms to appear to be identifiable only through their redisposition in the high—the sensor technologies owned by individuals need to be postcinematic in the sense of the term by which Shaviro means machines for generating affect. The most urgent problem for these sensors to put under their local surveillance is something perceived beside their restricted focuses and moving further beside as they take actions to catch up. For capitalizing upon, or extracting value from its constant sidling movements at the bottom, the software at the top should be accessible to these local technologies to trace its escaping vectors (just as a human operator in a control room improvises a multitude of local actions of security cameras to reassemble the ambiguous hints distributed at the edges of each screen into something criminal happening in the city). Media's systems of visibility and statement are restructured along these autonomous sensors with simple modular actions, and their bottom-up process to make statements about what is going on in the space is no longer dependent on the normative actions of anthropomorphic paying attention, through which the mechanical, or algorithmic, relay of images used to be interpreted into something perceived by a hidden subject behind a screen. Instead, the only normativity of the actions in the editing room and control room is the flexibility in reassembling a multitude of small actions in a timely manner. There is nothing behind the cameras for us to internalize as the normative observer of what happens at the peripheries, only the modular actions of the sensors and their algorithmic interoperations, never anthropomorphized by the continuous editing because they are "operatorless" (Sayad, 2016, p. 48).

What, then, are these worldly problems always outside our attentions and thus represented as something demonic by the high? Regarding this question, the rhetoric of the return of the repressed is still helpful in describing the productive mode of repression in the recent attention economy. Attention as the surplus in cognitive production is not simply added to the images as "we sutured one image to the next" (Beller, 2006, p. 9) according to the actions and choices performed by an imaginary normative subject such as the average user algorithmically reconstructed. What should be monetized further in the time where everyone is an editor of one's own attention in the customized software interface is the fear of the marginalized in their limited focus—the generalized concern for the fact that our too human attention leaves too many blind spots. "The sense of lurking danger is enhanced as much by our fear about seeing things as by our anxiety about what we do not see, and the generation of this uncertainty about whether or not we will see anything involves choices in framing" (Sayad, 2016, p. 55). By speculative economy of attention, I mean this new structure of attention economy in which audiences' overvalued concerns over their inattention are speculatively reinvested into their overvalued hope for algorithmic attention. The following interpretations have been nominated for the demons occupying these blind spots overvalued by our inattention, or attention always-not-enough-paid: the danger of terrorism (Massumi, 2015), nonlinearity of environmental changes (Lanzeni, 2016), non-self-recognizable inefficient resource use (Strengers, 2016), and products you are likely to like but unlikely to pay enough attention to (Thaler & Tucker, 2013). As found footage appropriated for a horror genre allegorizes, the urgency of this nowhere is overvalued as a person's local actions to detect it are frustrated repeatedly. On the other hand, the advanced software of

surveillance—what the expert narrator in the surveillance TV show allegorizes—is supposed to exorcise this nowhere through its sophisticated redeployment of multitude sensors and actuators, which eventually illuminates the hidden dimension, hitherto felt only affectively, as measurable in terms of statistical patterns. The demons are discovered by the ubiquitous sensors and then reinvented as the problems to be solved by the ubiquitous actuators, just as the unresolved ending of *Paranormal Activity* leaves a problem resolvable by the interoperations of self-tracking technologies in *Paranormal Activity 4*. This is also the reason why, in the era of smartphones embedded with multiple sensors, we need to agree that the applications empowered by cloud servers also have the right to activate a phone for collecting data about what happens to the phone and its user.

John Durham Peters (2015) says, "The cloud evokes ancient ideas of a heavenly record containing everything ever said and done, a record both worldly and infallible. If ever there were a target for old-fashioned Marxist demystification, this would be it" (p. 332). On the other hand, regarding the power of data clouds that the supposedly omnipotent smart artificial intelligence applications are based on today, our resurrected faith in the cloud is rather our rational response to the rediscovered boundary of our restricted subjectivity—beyond which we encounter not only the demonic, but lots of algorithmic beings communicating with each other about the demons on behalf of their human users.

Speculative Economy of Attention

The recent achievement of miniaturizing sensor, processor, and actuator technologies to the point where they can be embedded in a variety of objects in various environments has popularized the adjective smart as applicable to various social spaces of different scales (Crandall, 2010). Now our smart life stems from the awareness of our very standing at the interlocked boundaries of these spaces, each redivided into low and high—such as our physiological, domestic, and urban spaces tracked by different sets of sensors embedded in the lower layers of a smart cloth, smart home, and smart city under the control of different software applications in the cloud servers. We can consider the middle between this new infrastructural low and software-running high as the space for the new market of speculative attention economy to be cultivated, in that the domains of our life, from a body to city, resituated in this gray area are now fully charged with the demonic; this is comparable to the various vital signals under wearable sensors and people's collective behaviors under citywide environmental sensors, elusive from our local monitoring, but detectable through a network of distributed smart objects. The more we feel affective to these flows beside our attention in our generalized concerns for dormant health problems, invisible dangers of violence, or distracting surpluses of information, the more attentions we might delegate to the software application that redirects our attention. "Smart disclosure," a policy to encourage "the release of government information, corporate disclosures, and customer usage data in machine-readable form," can in this sense be understood as a recent government-driven effort to redirect this distracting tendency of digital flows into the algorithmic reorganization of attention through various "choice engines" (Thaler & Tucker, 2013, p. 49). But for these engines in the cloud to be smart enough to draw our attention back to the best choice out of many available consumerist solutions for our worldly well-being (such as better diet, healthcare, housing option, retirement plan), we first need to agree, willingly or reluctantly, with the disclosure of our own social network profiles, online/offline behavior patterns, and the scores of psychometric tests we take consciously or unconsciously online (Stark, 2018)—both to the government and corporate agents, and even to the third-party

intermediaries as the prerequisite for all other smart disclosures. And it is through this delegation of attention investment to the attention engines that the problems, which the husband in *Paranormal Activity* attempted to catch in a single camera take, turn out to be in fact stretched along many different domains. To take examples, your heartbeat under the 24/7 monitoring of your smart watch can also be an efficiency problem in the task to find the most optimal behaviors in your house/office/city, just as detecting terrorists can be a problem to find irregular shopping behaviors online. In other words, the algorithms' redirection of our attention back to the urgent problems is potentially never-ending insofar as even a tiny pulsation such as your heartbeat could reappear in many different embodiments along the network, such as your physical states not yet optimal to work out, sleep, have sex, and so forth. Redeployed in the high, these worldly problems are put in the forms not only easy but also necessary to attend to because they are displayed as "push" notifications on your smartphone and smart watch, or spoken directly by a smart speaker in your living room.

The demonic, once the source for the rupture in our habitual identification with a camera's restricted POV in found footage, no longer ruptures the new attention economy because our paranoiac concerns for the invisible problems are now reinvested in the software in the high. Our new technological field of perception appears under algorithmic optics to be full of urgent problems, but what unfolds this problematic space out of databases collected from ubiquitous sensors is neither the simple action we take with our body and camera, nor the imaginary action of the normative subject. It is, rather, unfolded by the sidling movements of the demonic, now redirected to the network of smart sensors and actuators, which translates these affection-images from the low into the images corresponding to the executions of software in the high. For example, the chaotic traffic congestions perceived in each intersection in the low could be recognized from the high as the images corresponding to the collective responses of drivers to the smart traffic lights distributed in a city (Xie & Wang, 2018); your irregular heartbeat perceived by the smart watch on your skin is translated into the image corresponding to your running pace guided by the fitness app in the cloud. In this sense, Deleuze's typology of perception-images, affection-images, and action-images along the images' circulation in a machinic nervous system has now another field of postcinematic application in the wireless sensor and actuator networks in the IoT (Internet of Things)-based smart buildings and cities. Something affective still emerges sporadically within the bottlenecks between sensors and actuators (or perceptions and actions) in the form of the temporal paralysis of software or abrupt discharging through the shutdown of software, reminiscent of *Paranormal Activity* and *Blair Witch*. But these horrible moments are also when the users are asked to invest their affective concerns into the bottom-up process of reporting errors in order to help the developers update the software's capability to further capitalize on the elusive signals.

Rather than being the surplus labor of cognition to add imaginary values to the images attended, our attention in this speculative economy is now capitalized indirectly as its investment delegated to the software ironically overvalues the urgency of problems hidden in the periphery of our attention. The software in the high, on the other hand, exploits the overvalued hope for its algorithmic preemption of the problems at the bottom as what justifies its permanent data collection practice. The motive power for the perpetuation of the attention economy of the past century was audiences' neurophysiological investment of desire for the images they consumed (Terranova, 2012). The speculative economy of attention is, on the other hand, perpetuated by the overvalued dangers to which nobody could pay enough attention—or the overvalued

hope for the network of manifold sensors and actuators, which is supposed to redirect our attention back to these urgent problems. As Andrejevic (2013) acutely points out, "Data mining is, in this regard, speculative as well as comprehensive" insofar as "data is captured not solely for current use, but also to take into account the possibility of any and all future scenarios and technologies" (p. 78). The problems expected to lurk in our lives will never be resolved immediately after we purchase a smart watch and move into a smart home in a smart city. But our investment in these technologies is still justifiable insofar as their constant data collection promises a near future in which all these problems are data minable; and thus, until this future comes, we need to delegate our investment of attentions to these sensors everywhere.

Chronicle

Asymmetry can now be understood as the key term that describes the sensorimotor relation through which we are engaged with our surroundings. In mathematics, symmetry means the feature of an object or its properties invariant under certain transformations such as rotation, projection, and displacement. Take our field of perception as this sort of object under constant transformations. The world appearing symmetrical to our perception would be then restricted to the world of objects that return invariant or orderly variant responses to the actions we take with our body and technological sensors under our control. However, the increased number of sensors we are accessible to would not guarantee our more symmetrical engagement in the world, because it would rather redraw the boundary between two worlds in which we are engaged symmetrically and asymmetrically. Even if we could control all the zooming and panning of the webcams and surveillance cameras, we cannot trace all the problems embedded in a space—not just because we cannot monitor all of them simultaneously, but because some of them are traceable only by a sophisticated montage of the cameras' interoperations. (This advanced montage is comparable to the job of a criminal investigator who reconstructs the course of a disastrous event from the ambiguous hints distributed in the surveillance footages, but only after the event already happened.) These problems are asymmetrical to our simple actions, but present to the advanced software in the high capable of reassembling the sensors' worldly operations in an equation of higher degree. Their asymmetries are nevertheless felt as something affective in the low. Until these unknown problems are resymmetrified in the high, we thus need to withstand our staring nowhere without taking any significant action. In this sense, it is the lesson of *Paranormal Activity*: Do not attempt to communicate with the poltergeist, and do not play with a Ouija board before you contact a demonologist. What appears then as our common response to this restraining order is a "paranoid worldview in which everything is hopelessly complex but, with the right (data) tools, can be made deceptively simple and explainable" (Hu, 2015, p. 124). This obsession with hidden orders "buried beneath the surface" (p. 122) of ambiguous symptoms is nevertheless rational insofar as it promises a future where all these esoteric meanings would be explained even though it is infinitely postponed until one discovers the proper algorithms, data analysts, or demonologists. For the audiences of the speculative economy, paranoia is even understood as "a strong theory" because it appears to be "capable of accounting for a wide spectrum of phenomena which appear to be very remote, one from the other" as resulted from "a common source" of danger (Sedgwick, 2003, pp. 133–134). As Ulrich Beck (1992) noted in the 1980s, their paranoiac beliefs in the latent dangers are "oddly immune to the critique of science" because these fatalistic beliefs also earn "their 'truth' and their supporters not before science, but in interaction with [science]" (p. 169), such as environmental science, behavioral science, or data science,

whose algorithmic procedures to identify the problems are now reincarnated in the form of smart applications.

A person in found footage, standing behind his or her own camera without paying enough attention or taking proper action to the anomaly occurring at the edge of the frame, is therefore a perfect exemplum of the audiences for the new attention economy, whose persistent investment of attention to somewhere means their investment of undismissable fears to somewhere else. For this person, the demonic is nowhere this person can attend, or everywhere he or she fails to attend, so that its emergence from the peripheries is never rationalized through the anthropomorphized continuous editing and thus needs to be put under the algorithmic perception through ubiquitous sensors. If our asymmetrical engagement to the surroundings is what justifies our decision to delegate our attention to the software to resymmetrify them, the possibility to subvert this new hierarchy can be, on the other hand, thought of from the possibility that the local media users could hijack the software in the high as the means to redefine their affective surroundings not as demonic any longer, but fully charged with potentiality, as the Spinozian affect originally means.

Josh Trank's *Chronicle* (2012), another supernatural found footage film in the early 21st century, can be examined with regard to this subversive possibility. Like many other entries in the genre, *Chronicl*e takes the form of a personal record of supernatural phenomena that three teenagers experience after their encounter with an alien technology. The same aesthetic restriction of the genre, namely all cameras set-up, operated, and moved by a person standing on the same material footing, is consistently applied, but the styles of footages recorded before and after their encounter are significantly different because of the telekinetic superpower they earned from the encounter. This power enables a boy, Andrew, to control the movement and operation of his camera without physically touching it. In the early footages that he records manually, the camera is thus always fixed or held in Andrew's hand (Figure 3). However, this restriction is not simply due to his lack of a technological aid for the more sophisticated camera operations, but to his need to behave as if nothing is recording whenever someone unexpected gets into the frame, such as his father, a street gang, bullies, and the boyfriend of the girl he peeped at a party. He must withstand their harassments rather than warn them about the camera; otherwise, they will take away his camera and break it. Both his inactions and failed actions leave something unresolved within the frame, felt only affectively. On the other hand, after earning the superpower, he does not need to be afraid of taking action, not only because nobody can beat him up any longer, but because the cameras floating up in the air are still fully under the control of his telekinesis. The more skillful he becomes at using his power, the more cinematic his life appears to be in the footage. In the latter half of the film, where his cameras' free floating becomes more sophisticated than any crane shot, the screen, once flattened as a two-dimensional plane typical of other found footage films such as *Paranormal Activity*, eventually appears to be crowded with lots of hidden objects; these objects are not "lurking dangers" any longer, but aligned along the camera's unfolding a deep space reminiscent of institutional cinema.

***Figure 3. An inactive shot in the earlier part of* Chronicle.**

One afternoon after he first used his power to retaliate against bullying, Andrew alone in a junkyard talks to the camera: "A lion does not feel guilty when it kills a gazelle. Right, you do not feel guilty when you squash a fly, and I think that means something. I just think that really means." This "something," once felt only affectively because of the lack of proper action to dramatize it, gets to be concretized into his theory of "apex predator" as his actions now reach everywhere. During his monologue, the camera starting from the close-up of his elated face slowly moves to a wide-angle shot, and at the end of his speech, it reveals the hidden telekinetic cause and effect between the action of his hand to squeeze the air, and the deformation of a junk car in the background. His mobilization of the telekinetic resonance between his surroundings and cameras culminates in its climax for self-narrative when he confronts his buddy Matt in the night air of downtown Seattle. Ignoring Matt's warning against violence, Andrew hijacks dozens of video cameras from the people in a building and surrounds his body with these cameras to record his rebirth as a super human from as many angles as possible (Figure 4); he does so against the city's surveillance network, which translates something affective in the air into the familiar narrative of breaking news (Figure 5). Like a reality television producer, Andrew mobilizes a random set of cameras speculatively wherever he goes, with the expectation that there remain hidden dramatic values still embedded in his home, school, and city: the expectation that would be fulfilled afterward by the anonymous editor who found his footages and reedited them into a chronicle of the emergence of a superhuman/terrorist out of the affective.

Figure 4. A shot cinematized along multiple cameras.

***Figure 5. Surveillance footage in* Chronicle.**

Through the physical relocation of cameras from the low to high, *Chronicle* provides a magical scenario in which an individual's investment of attention to his own life through multiple self-surveillance devices guarantees a high return. The wager Andrew is betting on with the cameras overinvested with his superpower is not like Pascal's wager. According to Pascal, betting on an extremely improbable future event is justifiable insofar as the stake to lose is too high after it occurs by any chance; examples are the existence of afterlife, or the possibility that your house is really haunted, or your neighbor is really a terrorist, or the item Amazon recommends is really important to improve your life. Making these sorts of wagers is rational

because to win the race is not to earn the reward, but to lose nothing; if you win, you lose nothing, but if you lose, you lose everything. On the other hand, Andrew's betting on the cameras is to earn everything, to claim his ownership over the data his cameras generate without gauging how many dramatic values are really embedded there.

We can take Andrew's speculative investment of attention in *Chronicle* as an allegory for the early quantified-self movement led by the technology gurus in *Wired* magazine such as Gary Wolf who delegated his attention investment to as many self-tracking devices as available to monitor "every facet of life, from sleep to mood to pain, 24/7/365" (2009, article sub-head), from different angles. Their expectation of the reward from this experimental practice was also very high: namely, to discover the hidden parameters of everyday life for its unprecedented level of optimization and efficiency. However, it did not take long for the air, once opened to their decision to deploy which sensors in which positions, to be black-boxed by the ready-made smart objects and the IoT applications—smart enough to redeploy themselves in the rightest positions, not only to exorcize, but also to monetize the inoptimality and inefficiency in their users' life. In consequence, affect becomes once again the most immediate response of humans to the world under new media's 24/7/365 surveillance and to their own body revealed to be possessed by lots of unknown problems out of their conscious control. As reported by many self-tracking users today, "a lack of ability to self-regulate" (Lupton, 2016, p. 62), or our asymmetrical engagement even to ourselves, is what people find first from their selves quantified by self-tracking devices. This generalized asymmetry as the rediscovered human relation to one's own surroundings—whose hidden levels reappear symmetrical only to the advanced data mining applications—is the reason for "an obsession, compulsion or 'addiction' with one's data to the exclusion of other aspects of one's life" (p. 64).

In this respect, the telekinesis in *Chronicle* suggests a magical solution to put this commercialized air, or cloud, back under the control of an individual to mobilize it for his self-narrative. The open-source movement and computational literacy may be the keys to reopen this black box, but how to realize the film's magical solution through viable technologies is still an open question.

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