

Precision + Guided + Seeing

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THE SCENE: the hot zone of a busy airport concourse. Late afternoon sun shining through the atrium windows. Travelers drifting about in a state of anxious suspension. All around me, it is pure theater. The star of the show is an impeccably dressed woman, hunched over her laptop, performing some sort of demo for the man next to her, who seems to be only marginally interested. She is clicking away with forceful, jerky motions, causing the computer, which is perched on her knees, to sway perilously. A pink Post-It, loosened from the momentum, flutters to the ground.

Curious, I move in for a closer look. She appears to be demonstrating some kind of search technique. According to her, the technique is designed to "cut through the clutter" and save time. It allows her to move across the expanse of the web, telescope in and out as necessary, and zero in on the EXACT bits and pieces that she needs. She emphasizes the word "EXACT," as if she's somehow able to tap into some kind of original hookup between sign and thing. As she says "EXACT," she stomps her foot (WHOP!), the clap of her shoe precisely synching with her enunciation. Impressive. I try to sneak a peek at her screen, but I cannot figure out what she is doing. She is moving too quickly. She is "flying" the computer like a fighter pilot.

It's an aggressive technique. I admire her extreme physical engagement with a process that, for most of us, is rather immobilizing. She's completely charged up by it, as if she's found a way to seize control of the ship. After typing and clicking furiously for several more minutes, she pauses for a moment and sits back, as if to catch her breath (or rather, to refuel). She collects herself, glances quickly at the man, and then grabs a pencil, preparing to make a point. She tells him that this search-and-target method is by far the most PRECISE. She elongates the word "PRE-CISSSE," drawing out the sound of the "sssss," as she simultaneously thrusts the sharp end of her pencil toward the computer screen. She seems to propel the pencil forward with the force of her enunciation, as if the pencil were a missile hurling toward its target. As if the precision-pencil-missile could puncture the computer screen itself -- or rather, the abstracting field of language -- to apprehend her "real" quarry.

I stare at an imagined point of impact on her screen. Is there a "real" to be captured here, concealed beneath the frames and words? What is the real object of the precision-impulse? Of course, in its Lacanian sense, the real cannot be assimilated into the symbolic order. No matter: she will strive to capture it, as quickly and efficiently

as possible. It is a necessarily illusion: the engine through which her physical activity is produced.

At this point, with nowhere else to go -- after all, if there *were* a real object at the end of the precision-impulse, it would be vaporized as it was enacted -- she cuts to another device. The abandoned pencil falls to the floor. When one runs-around, what is there to do but to reach for a gadget? She locks her gaze onto her pocketbook, thrusts her hand inside, unearths a camera-phone, flips it open, and snaps a picture of the man -- all in one motion. The man, dazed by her quick draw, was no doubt captured in an unflattering image, like the unprepared, hapless victim in a slasher flick who, mouth agape, is instantaneously immortalized by both camera and killer.

I consider that the precision-woman is showing off her technological prowess for the elusive man. As she brilliantly juggles devices and windows, perhaps she is trying to seduce him. The seduction-demo. The exacting woman seducing the inexact man. After tapping into the phone and transmitting the image that she just took of him, she explains to him that the picture will be geocoded -- anchored with GPS coordinates -- and integrated into a mapping application, which forever weds image to site. **THIS** site. Good for the woman, horrors for the man: a bad picture, not only forever archived in the database but fixed in place on a map like a tourist attraction. A ghoulish snapshot suddenly transformed into a wax museum figure. I wonder what "weight" this image is given, when it is cartograph-ized. By permanently anchoring it to a material site, does it carry a stronger trace of the real? Store a more vivid memory, a more embedded experience, a more affective relation? A more **PRECISE** and direct link between mobile representation and ground-level actuality?

Surely, I think, the woman's next step is to do a retinal scan, in order to further inscribe him in the real. I glance at her purse, wondering what further devices it may contain. The man, somewhat uneasily, says he will be right back, and quickly exits the room. I consider that he will flee out the back exit, running off into the horizon, toward some other set of landscape metadata. The precision-woman, wasting no time, pivots back to her computer and begins to peck away.

I consider her methods. Are they the result of a precision-driven impulse to wed sign and thing and therefore "capture" the object more directly and efficiently (cut through the clutter) -- or do they manifest some kind of deeper, longed-for attachment to the real? In other words: am I witnessing the drive for an evermore precision-driven representation amidst the clutter of everyday information overload, or am I witnessing a longing to jettison representation entirely, in favor of a more direct relation to the real object of attention?

The precision-woman suddenly stops and sits back quietly, as if surrendering her arms, and begins to stare wistfully offscreen. A momentary lapse in her war on distraction. I sit back, too, and let my vision drift.

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A **PRECISION-DRIVEN** methodology, which works with technologies and symbols in order to increase efficiency and accuracy. A longing to jettison representation entirely, in favor of a direct and unmediated relation to the real. In every case, technology is central. For it has already determined, in advance, the manner of approach[1] -- as part of the larger circuit through which all acts of viewing must pass.

Let's address this question of "precision" on two fronts: one, as a technologically-enabled drive toward efficiency and accuracy -- a drive to augment human capabilities by developing new human-machine composites, connecting and joining forces with multiple processing agencies, wherever or whatever they might be; and two, as a technologically-assisted drive to reduce mediation and offer a form of direct connection to our real objects of inquiry. We might call these the *effective* and the *affective*. Both aim for the goal of instantaneous vision: **a real time perceptual agency** in which multiple actors, both human and machinic, are networked and able to act in concert. A real time perceptual agency in which time and space intervals can be eliminated, reducing the gaps between detection, analysis, and engagement, or desire and its attainment. A real time perceptual agency that can somehow touch the real.

Yet the drive for the real, as Žižek suggests, always culminates in its opposite: theatrical spectacle. Why? Because the real is only able to be sustained if we fictionalize it.[2] To look for the real, then, is not to look for it directly: it is to look to our fictions, discerning how reality is "transfunctionalized" through them.[3] Perhaps the real object of the precision-drive is not only arrived at through reduction, but through expansion. To look to the object of the precision-drive is not only to narrow the optic, honing in on the target of attention: it is to look to the cultural fictions in which the object becomes lodged. It is to open the optic; theatricalize it. To accommodate cultural fictions is to acknowledge the constitutive role of conflict. What aspects of the real are transfunctionalized through our conflict imaginaries?

It's difficult to acknowledge the necessity of conflict, because we often assume that selfless cooperation is the norm. When we speak about the formation of real time perceptual agencies -- which, again, manifest a distributed processing and storage capacity among humans and machines, enabling increased efficiency and accuracy (cutting through the clutter) -- we often assume that cooperation reigns. We're all in this together, after all, building the utopian dream of the global village, the wired world, or the global brain. And yet: competition plays an equal role. We don't necessarily want to see on a level playing field alongside everyone else. We need to see faster, better, and more precisely -- whether in the name of convenience, profit, or protection -- in order to outwit competitor and combatant alike. We are driven equally by such acquisitive and aggressive impulses. They are the stuff of our cultural dramas. They derive from the production demands of both consumerism and warfare -- to the extent that these become mutually reinforcing components of the same economic engine. The engine is also a subjective and somatic one.

When, in a competitive consumer-security culture, machine-aided perception moves toward the strategic, the panoptic, and the pre-emptive, then we no longer see but track.

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TRACKING ARISES as a dominant perceptual activity in a computerized culture where **looking has come to mean calculating** rather than visualizing in the traditional sense[4] and where seeing is infused with the logics of tactics and maneuver -- whether in the mode of acquisition or defense. Such processes of calculation, and their necessary forms of information storage (memory), are distributed and shared in a larger field of human and technological agency. The object is dislodged from any inherently fixed position, and instead becomes a mobile actor in a shared field of competitive endeavor. In Virilio's terms, the object becomes a *traject*.

What happens when we track? We aim for a real time perceptual agency, in a more direct and precise relation to the moving object at hand. We aim to detect, process, and strategically codify a moving phenomenon -- a stock price, a biological function, an enemy, a consumer good -- in order to gain advantage in a competitive theater, whether the battlefield, the social arena, or the marketplace. The power to more accurately "see" a moving object is the power to map its trajectory and extrapolate its subsequent position. In an accelerated culture of shrinking space and time intervals, tracking promises an increased capacity to see the future. Leapfrogging the expanding present, it offers up a predictive knowledge-power: a competitive edge. It promises to endow us with the ability to outmaneuver our adversaries, to intercept our objects of suspicion and desire.

To track is to endeavor to account for a moving object -- which could be one's self, since we track our own activities and rhythms -- in evermore precise terms so as to control or manage it, lest it become unruly, wasteful, dangerous, or unattainable as property. It is to somehow access the moving object more fully and deeply. When the suspicious and acquisitive eye tracks its objects, it fixes its sights on them as targets to be managed, eliminated, or consumed. In so doing, it inscribes itself in the real, in a process that brings both object and embodied subject into being.

Tracking necessarily strives to narrow its scope, to move more directly into the space of the body substrate, as if it could then fully and completely "own" its object of attention. Through this process, its subject comes to know itself and "readies" itself to act -- more quickly, efficiently, safely. It cuts through the clutter.

So the drama goes.

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WHILE TRACKING is about the strategic detection and codification of movement, it is also about positioning. It studies how something moves in order to predict its exact location in time and space. It fastens its objects (and subjects) onto a classifying grid or database-driven identity assessment, reaffirming precise categorical location within a landscape of mobility.

Rather than being fully about mobility on the one hand, or locational specificity on the other, tracking is more accurately about the dynamic between. We might call this **inclination-position**. Based on my previous patterns of writing and the literary conventions that it follows, I am likely to write three more sentences in this paragraph. Based on previous patterns of keystrokes, I am likely to take a break at 3:10. Based on previous airport records, my flight is likely to depart in two hours and eighteen minutes. The tracked object may be THERE, but it is moving like THIS and will be in THIS future position at THIS future moment.

This is a landscape in which **signifiers have become statistics**.

It is how computers think, and how we begin to think with them.

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TRACKING EMERGED out of the mid-century demands of war and production.[5] It emerged through the development of computing, the wartime sciences of information theory and cybernetics, and the development of structuralism. It coalesced out of a fear of the enemy Other, and helped bring a modality of both friend and enemy into being.[6]

Rather than performing a historical analysis, let us set the stage for a performance. We begin at the historical tipping-point where tracking coalesced as a techno-discursive ensemble -- that is, as a cluster of tools, procedures, and metaphors, which function at the level of language, materiality, and belief.[7] For as Guattari would point out, technologies do not merely convey representational contents, but contribute to the development of new assemblages of enunciation.[8] These techno-discursive ensembles become stored in the operational strata of organization and practice.[9] They are bundled into tracking. Character background. Back-story.

Tracking, then, is not simply a technology or a modality of perception, but a cluster of discursive orientations. It is through such discourses that subjects, machines, and institutions are linked.

As tracking mediates between viewer, screen, and world, it generates the tactical mindsets, communication modes, and sensorial and somatic adjustments that are appropriate to it. It provides a scrim through which relevant data is historically selected, systems of address and command determined, and human and cultural sensoria differentiated and re-integrated.

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THE LEAD ACTOR in this historical performance is the military command, control, and communications system known as SAGE.[10] Developed in mid-twentieth century wartime, SAGE was a system that automatically processed digitally encoded radar data generated by linked installations around the perimeter of the U.S., and then integrated this with other communications and cartographical data. It integrated abstract information about position and movement and then superimposed it upon schematic maps. If a hostile incoming object was detected, jets could automatically be directed to intercept it. Within the matrices of SAGE, tracking emerged as a form of machine-aided, calculated seeing, studying movements of objects in order to prepare for their possible interception.

The conditions of the scene are well told by Heidegger. To represent something is to put ourselves "into the picture" in such a way as to take precedence over our object. We put ourselves into the scene: we enstage ourselves as the normative setting in which the object must thereafter present itself. We become the representative of that which has the character of object.[11] We attest to it, normalize it. The user is pressed into the mold of the real by the fact and act of the system: brought into a direct relationship with it, as something that could only heretofore be intuited. Technology sets the conditions for the approach.

What we see is defined within the discursive paradigm of such technologized seeing. Subsequently, we begin to see ourselves in these terms. We internalize the classificatory logics. Worlds and bodies are tagged, annotated, and anchored within a new symbolic-material landscape, providing models for thought and identification.

They affect how we speak, perceive, and move. They set in place a calculus of ontological division, which presses both subject and object into service.

A vigilant seeing arose through the mechanisms of SAGE, accompanied by a demand for "preparedness," both in terms of one's own body and the collective machine-body of the military: an individual and collective alertness-on-the-edge-of-action. An analytical perception combined with an incipient mobilization. New patterns of organization, vigilance, and action took form: new modes of awareness and perceptual activity that could enframe and make sense of the volumes of abstract information that were suddenly at hand. A new landscape of preparedness coalesced, which traversed individual body, nation, and culture alike, generating a myriad of cultural effects. Duck-and-cover drills. Bomb shelters. Detective fiction.

We are not only speaking of a technology, but of a subjectifying and socializing technique, which impacts on language as well as the entire sensorium of the body.

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STRATEGY GAMES also play an important role in this historical drama. Especially during the Cold War, increasingly powerful modeling and prediction technologies were needed in order to reach into the future and anticipate events, since actual weapon technology could not be used. This fueled an orientation of pre-emptive seeing: a form of vision that was always slightly ahead of itself, which not only anticipated probable events but, in some corner of the imaginary, seemed to mold reality to fit the simulated outcome. Simulated worlds paralleled real worlds, and beliefs about each were reflected in both. To be prepared was to anticipate the worst, and the worst could only be modeled. Once modeled, it was introduced into reality. Assumptions, beliefs, and mind-sets arise out of the technical-semiotic machinery of simulations as they are practiced, as such orientations in turn get embedded in its operational strata. A mechanism of training, or rehearsal, in new forms of movement, combat, and identification.

From mid-twentieth century onward, the systematic, logical rules of computing helped produce the sense that everything -- ground realities, warfare, markets -- could be formalized, modeled, and managed. Reality was figured as mathematical and "capturable" through a formal programming logic. The world became predictable, pliable; the future controllable.[12] Again, this is not something that military technology alone produces: it is bound up in a much larger historical enunciative field -- in this case, a field of structuralist orientation, where reality began to be seen as determined by linguistic codes, and attention turned to the codes and conventions that produce meaning.

One could suggest three intersecting conditions, descending from this wartime technical-discursive ensemble, that are bundled into tracking from the start. First, the perpetuation of an idealist orientation where humans have no access to unmediated reality and the world is actively constructed in terms of relational information systems. Here the world is scripted as inherently controllable, filtered through a scrim of information that modifies both system and materiality. Second, following from the first, is an emphasis on data patterns over essence: an ever-greater abstraction of persons, bodies, and things, and an emphasis on statistical patterns of behavior, where the populace is pictured as a calculus of probability distributions and manageable functions. Third, a fundamentally agonistic orientation, deriving from a

world built on confrontation and oppositional tactics, of tactical moves and countermoves.

These conditions form part of the operational strata of all contemporary media. Particularly with television and Internet, the media viewer is infused with an artificial sense of control over the machine and an exterior world represented on the screen. Reality is subsumed within the dictates of the interface. An unruly or unproductive situation is dominated, over and through the technology, and a de facto power relation is established between observer and observed.

The stage is set. Moving through a world of information and communications technology, information is increasingly seen as more essential than that which it represents. Pattern is privileged over presence.[13]

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THE SUN IS slipping below the horizon outside the airport, backlighting the cluster of planes gathered outside. The precision-driven woman lowers her computer screen in synch with the diminishing light. With the click of the laptop's closure, the sun vanishes.

Perhaps she has had enough computer time. I watch as her eyes drift hazily around the concourse. I have caught her in-between media inputs, it seems -- her attention momentarily adrift, her subjectivity suspended. I think of the extent to which consciousness and attention are effects of media technology -- effects of storage, computation, and transmission systems. Kittler would see this woman in terms of different states of information storage and transfer, an embodied subject coalescing around a circuit of perceptibility.

I think about her precision-driven methodology, and her embrace of technologies of positioning. Surely, she is aware of the trade-off: her technologies are those that aim to increase productivity, agility, and awareness, yet they vastly increase the tracking and data-mining capabilities of the corporate sector. Tracked, she becomes a target: a consumer-citizen pinpointed with ever-greater accuracy within the worlds of marketing and state surveillance.

Yet at the same time, she's in the driver's seat, shaping her arena of visibility. I think about the forms of maneuver and masquerade that she engages in: blogs, friendship networks, phonecams, Flickr. A pervasive web of shared resources that offers boundless opportunity for identity refashioning. For her, no doubt, the challenge is not to resist the gaze of tracking, but rather to channel it to her own advantage, maneuvering productively within its matrices of visibility. In a database-driven culture of accounting, one needs to appear on the grids of registration in order to "count." To be accounted for is to exist. Yet appearances are contradictory, constituted in multiple, polyrhythmic forms and paths.

Appropriating the technical-discursive ensemble of tracking, I shape my own horizon of objective identity. Internalizing it, I self-identify. Tracking is also a technology of the self.

Gradually, out of the corner of my eye, I notice an enormous jet gliding by through the concourse window. Its fuselage is the same shade as the dark sky outside, and the

illuminated passenger windows seem to hover in the void. One by one the expectant travelers, cropped identically, slide by as if frames in a filmstrip. They stare straight ahead in the direction of takeoff; I stare straight ahead in the direction of the precision-woman. They sit immobilized in their vehicle; I sit rigid in mine. Yet my vehicle does not move.

The plane suddenly revs its engines, sending a deep roar through the concourse like an earthquake. The vibration shakes my seat and jolts me into awareness of my own body, as if someone abruptly grabbed my shoulders and shook me. I am thrust onto the stage, acutely confronted with the fact of my own embodied presence and my own subjective status as observer -- but I'm unaware of my lines. What role am I playing, here and now, within this script? Where am I located in this matrix of observation? What is my own subject position vis-à-vis my tracked object?

The nature of my voyeuristic gaze now stands revealed. In scanning the movements of the precision-woman, I have positioned myself at the fulcrum of control, establishing a power relation through which I am reinforced. The precision-woman exists for me and for me alone, within a contained world that prohibits reciprocation. She is but an object or a conduit, which anchors my gaze or channels it. If she were to look back at me -- if her eyes were to meet mine -- the entire world-system would vanish.

I gradually realize how, in this way, tracking silently incorporates its own erotic economy, shaping its own enclosed, libidinous, predatory world -- a world built on desire and the impossibility of its satisfaction. If I adopt the gaze of the tracker and thereby preempt the possibility of reciprocity, then my tracking-gaze becomes something on the order of a stare: the cold, unflinching stare of the machinic apparatus that sees with me, through me. It is a look that is uncomplicated with human subtleties, unfettered with the complications of the flesh and of social decorum. It neither registers embarrassment nor flirts. It is not constituted in a subtle dance of revealing and concealing, or of availability and withdraw. Lacking a sense of reciprocal play, it does not know when to look away. It cannot "see" or modulate socially; rather, it can only study, aim, and own.

The precision-driven woman has demonstrated her research technique; I now must demonstrate mine. What is the real object of *my* precision-impulse?

Abruptly, I turn away from both the thought and the woman, as if the precision-woman constituted my own unsustainable Real. My only recourse is to avoid, or rather, to expand: widening the scope to reveal the larger matrix of tracking in which we are both ensnared, the shared stage upon which we both now act. I allow the media-technological institution to catch us, objectivize us, and the analytical to give way to the theatrical.

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ACCORDING TO Virilio, the real time interface has replaced the interval that once constituted and organized the history and geography of human societies. Problems of spatial distance have been supplanted with problems of the time remaining.[14] Again, tracking is motored by the need for an instantaneity of action, where time delays, spatial distances, and "middlemen" are reduced through computational systems that facilitate the sharing of human and machinic functions. A combinatory

field of perception arises within a distributed field of shared functions, and a new form of agency emerges, spanning spatial distance and merging information from multiple sources.

Consider the new generations of post-SAGE actors: "network-centric" warfare systems, which aim to develop a worldwide satellite, sensor, and communications web geared for panoptic global oversight and instantaneous military response. The goal is a wireless, unified computing grid that can link weapons, systems, and personnel in real time, making volumes of information available instantly to all military and intelligence actors. According to one major player in this industry, such a system will allow every member of the military to have a "God's eye view" of the battlefield.[15] Through such a system, the military predicts that it will be capable of "finding, tracking, and targeting virtually in real time any significant element moving on the face of the earth." [16] Tracking as the ultimate panoptic ideal, propelled by a sense of divine right, could not be more explicitly stated.

This integrative history -- a history of prosthetic extension -- belongs to military and mass media alike.[17] The intertwining of human and machinic capacity, in the generation of a combinatory field of perception, is the history of popular media itself.

Consider that the spectator and the cinematic apparatus are mutually dependent in the act of conducting representation. One must be trained to behave and see in accordance with the conditions of the device. The viewer is immobilized and sensitized to a language of movement through which an extensive world is understood. The human becomes reliant upon the apparatus that populates its field of vision, adjusting to the rhythmic codes of its conveyance. A perceptual capacity and a signifying apparatus emerge through an integration of human and machine.[18] Consider, too, the extent to which television integrates the viewer in a shared machinic circuit. Reflecting the viewer's own thought process, it develops its own conventions of simulated deliberation, absolving the viewer of the labor of decision-making[19] -- as when a laugh track allows one to maintain a relaxed composure while the machine assumes the labor of chuckling.

In any spectatorial situation, a subject is distributed within a larger circuit of engagement determined through technological systems of communication, storage, sorting, and retrieval, contoured under the social and institutional construction of knowledge. A viewing subject is linked or inserted into larger networks of seeing and linguistic meaning.

As always, time is of the essence. For both the military and the civilian observer, there is little time for reflection. In the military realm, reflection adds time and space in which the target might slip away. It expands, not lessens, the gap between detecting and intervening, sensing and shooting. In the popular realm, slowness -- the stuff of reflection and deliberation -- is to be avoided. In a real time media landscape, there is no time to think.

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TRACKING IS, again, not simply conducted through abstract data about position and movement. It is conducted through forms of computer-aided visualization. It is conducted through sophisticated graphic information systems, formatted according to geographic or other spatial paradigms, oriented for the humans who must interpret it

and transform it into actionable intelligence. These visual interfaces function in terms of the tradition of cartographic-representation as well as the tradition of simulation: while the former maintains a strict division between viewer and image, the latter complicates that divide, embodying users in a virtual, immersive space, which reorients or replaces the actual space in which they are located.[20]

These graphic systems have not developed in isolation. They have developed in conjunction with film and television. They reflect the conditions of popular news and entertainment media, as in turn, these media embody the conditions of computer visualization. There is a constant flow back and forth. To a large extent, tracking has been integrated into a regime of networked spectacle that no longer heeds media distinctions. It has helped generate **a landscape of preparedness that traverses media forms and civilian-military bodies alike.**

According to Friedrich Kittler, what we understand as media are increasingly mere effects on the surface of a much more comprehensive digital base. As the general digitization of information and information channels increases, the differences between individual media are erased. Since any algorithm can be transformed into any interface effect, media are becoming mere interfaces within the (increasingly globalized) information circuit.[21] To understand tracking, we are compelled to look broadly, at the combination of media forms, agencies, and rhetorical modalities that it registers.

In many ways it is the entertainment industry that has led the charge. Following the end of the Cold War, the Department of Defense -- which has been the major source of funding for high-end computer graphics, visualization technologies, and network infrastructure for decades -- has become increasingly reliant on commercially-available items and components, many of which are developed in the videogame market. In terms of ideas, personnel, and products, there is a continuous exchange between the military, commercial designers, and the entertainment industry. Military planners work closely with industrial partners in team fashion. Research work for high-end military products is seamlessly integrated with systems in the commercial sector.[22]

Consider the extraordinary successful genre of "serious games," developed by the military in the commercial realm, which serve as a combo of entertainment, military recruitment, training, and public relations. One such game, *America's Army*, ranks as one of the most popular games in history. As military simulations are adapted to the commercial game market, so, too, are commercial videogames adapted for military purposes. Once it was the military that drove the development of graphics and processor hardware. No longer: it is now the commercial videogame market that drives it. In much of the developed world, the game industry is reaching the level of film and television in its importance as a popular entertainment medium.

One could suggest that film and television are fast on their way to becoming integrated within a much larger hybrid simulative field.[23] In a sense, programming like FX Channel's "Over There," which is about soldiers fighting in Iraq, is already a simulation: it is the first American television drama that has tried to process a war as entertainment while it was still being fought. In such a media landscape, perhaps simulation is becoming less a modality of representation than a mechanism of translation: a form of incipience or potentiality that moves across various stages of enaction.

The desire for realism in tracking does not derive from military applications alone. It derives from film, television, and fiction. Developers of videogames and military flight simulators alike have been influenced by popular films and novels.[24] The world of the military and the world of entertainment are both driven by a cultural imaginary, which is a composite of multiple narratives whether fact or fiction.

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SUCH ARE the theaters in which tracking must be situated. It is part of a vast production machinery that is hungry for content, realism, and compelling narrative. Back-story is key, requiring the development of databases of historical and geographical data. The drive for compelling narrative development in simulations -- whether from imagined or actual warfare scenarios -- influences popular news and entertainment programming. One could in fact suggest that the latter are driven by the demands of simulation.

Consider the relentless 24-hour machinery of contemporary news. It is a profit center that demands ever-new, constant dangers for reportage and commodification. It fuels a constant battle for attention-space, where the whole of reality is transformed into a dramatic stage for alluring catastrophe. There is no time to remember, because the next crisis -- always imminent -- demands our full vigilance. **Battle simulations, television shows, and interactive games inhabit a mutually reinforcing system of marketable threats, enticements, and protections.** A disaster imaginary takes hold, which traffics across the worlds of fact and fiction, promiscuously borrowing its parts and depositing them across a wide range of cultural phenomena. The phenomenon of "news gaming" is one obvious manifestation -- though the term is redundant, since news has already been structurally absorbed within the entertainment machine, with gaming one of its primary engagement modes.

We are here in the territory of the "logistics of perception management"[25] -- the realm of spin and "reality control," where facts, interpretations, and events are mutually shaped to conform to strategic doctrines; where reality is positioned as something that is inherently pliable; and where the public becomes a surface for the production of effects. There is nothing outside of this system, and especially as it is increasingly able to tap into the affective dimension, where danger is eroticized. It produces a subject who is prepared for both disaster and desire, as both are subsumed into a larger cosmos of affective stimulation: a citizen indoctrinated to "be ready," in both a physical and cognitive sense, for any call to action.

A citizen inscribed in the real.

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THE SKY OUTSIDE the airport is now ominously dark. The overhead spotlights have transformed the concourse into an enormous stageset. More flight delays have been announced (including my own). Travelers have become agitated and morose. Children are screaming, arms aflail. Adults hovering menacingly.

The precision-driven woman has boarded her flight. Surely, she is now following her plane's trajectory on the onboard GIS. Even though she is gone, I continue my awareness of my own subjective position as tracker -- if only to more fully inhabit the

drama, probe my role in the script, stay in the game. I aggressively look for new objects of study. Suddenly, I hear all-too-familiar address over the intercom system, compelling me to report suspicious persons. Action! I heed the call, and adopt a position of dutiful vigilance: the citizen-detective. Eyes narrowed, I scan the concourse for suspicious behavior. I secretly wonder what kind of suspicious activity I should be looking for, and what could possibly compel me, were I to locate a person displaying it, to scurry over to Security to report them.

I glare at a woman who has stopped abruptly in the main corridor. She stands idle amidst the flow, the rush of passersby nearly tumbling over her. (Suspicious deviation in normal patterns of movement-flow.) I cast a wary glance at a man in a green sweatsuit as he fondles an object of concern, concealing it from public view. (Deviant repetitive movement and suspicious level of transparency-avoidance.) I stare at a man who repeatedly pats his pocket nervously. (Suspicious level of agitation.) I spot a solitary bag. (Unattended object.) A book. (Dangerous ideas.)

Across the concourse, a wayward child points in my direction. Suddenly, I realize the most insidious part of the drill: What about ME? With this realization, I am transformed. I am the person at Sartre's keyhole, caught in the act, who knows that he is seen at the moment he sees. I have now become an object for the gaze of another. Looked at, I look at myself. My awareness of my subjective position as tracker has now shifted to that of my objective position as suspect. I modify my actions accordingly, submitting myself -- subjectively and bodily -- to this normative performance-machine. My posture straightens, I look at my watch, and I am "back on track." The unobtrusive traveler who, edges smoothed, blends seamlessly into the crowd.

This performance-machine, however, when inhabited fully, does not necessarily end up reinforcing norms. Rather, it produces deviance from them. It's only a matter of time. To internalize the gaze of suspicion is to eventually find wrongdoing in oneself, even if it has to be self-generated. Guilt is produced, to be denied or accepted into the calculus of identity.

In this shifting matrix of tracking, it is but a short distance between tracker and suspect. Or more accurately, there is no distance at all: for to track in one context is to become target in another. If the voyeuristic position of the tracker is the key subject position for a new consumer-security culture, then perhaps the target is its key object position, which always overlaps with it.

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IF TRACKING moves toward an instantaneity of action -- eliminating time and space intervals and connecting multiple actors, human or not, as if they were one -- then in the extreme case, as Virilio would have it, this real time arena is one in which "coincidence" takes the place of communication [26], and the emphasis shifts from the "standardization of public opinion" to the "synchronization of public emotion." [27] In a real time world where there is less and less time to act, or where action plays out in barely-measurable fractions of seconds, interpretive attention must turn away from exterior movements and instead toward "interior" states: *dispositions* to act that accumulate just at the horizon of the visible.

We are talking about incorporealization not representation. Implication, not objectivity. Bodily intensities, not linguistic mediation. A domain that is occupied with

qualities of movement and rhythm, rather than calculi of symbolic positioning. A domain that traffics in motivating power, rather than in meaning or rational logic.

Rather than that of the effective, this is the domain of the affective. What is the difference? If we follow Deleuze's description and understand affect as a modality of perception, then it is one that ceases to yield an action and instead brings forth an expression. It is a movement that is not engaged outwardly (with visible effects) but rather absorbed inwardly -- a tendency or interior effort that halts just this side of doing. It is about how one experiences oneself as oneself, or senses oneself from the inside:[28] the perception of one's own aliveness, vitality, and changeability, which can be sensed as "freedom." [29] It is the body's sense of the aliveness of a situation, which also moves across the intercorporeal world,[30] generating a sense of coincidence between subject and object. As such, it allows us to further toggle between the positions of tracker and target, to the extent that these distinctions blur.

This is a contradictory domain, where scopophilic pleasures and surveillant anxieties cohabit. "Morbid curiosities" flourish. Violence is both horrific and pleasurable. To acknowledge this domain is to admit danger and conflict as constitutive elements of attraction -- manifest in the unpredictable, perilous web of intrigue that pulls us into the narrative world, and which compels us to inhabit the drama. In the next moment, we could be the victim. The tracker could be target. We do not know what danger lurks ahead, but we must continue at our peril. At any moment, desire could meet its constitutive other -- death. As Bataille would remind us, what compels us is the possibility of union.

This is a domain that brings us closer to the real. We will try to track and capture it, as quickly and efficiently as possible -- as I do within the paragraphs of this text. I try to put my finger on it, touch it with precision, press it into the service of argument. Yet it cannot be assimilated. It cannot be incorporated into the symbolic order of language or into the domain of shared images. It is however a necessarily illusion, for without it, our entire apparatus of signification would crumble. Tracking would cease to exist.

Which is why, when we consider the real object of the precision-impulse -- a technologically-enabled drive to augment human capabilities by developing new human-machine composites, or a technologically-enabled drive to reduce mediation and offer a form of direct connection to our real objects of inquiry? -- we must acknowledge the extent to which these effective and affective dimensions are complimentary.

Hence the embodiment of the dynamic in this essay.

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ANALYTIC or performative? Objective or implicated? Onstage or off?

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THIS AFFECTIVE space-time of bodily awareness, disposition, and readiness is one that has become increasingly measurable and analyzable[31] through new technologies of tracking and filtering. These technologies are able to probe into the

intimate and nearly instantaneous states of bodily movement, orientation, disposition, and mood; array them as calculations, statistics, and simulations; and cross-reference them with databased records of consumer or citizen behavior. This produces a newly constituted body of measurable states and functions -- a new ontological state -- whose **inclinations to act** are quantifiable and understood as predictable. Inclination-position scripts an object that is already ahead of itself, a shadow future state that exerts a strong gravitational pull. It plays out in new systems of production that aim to narrow the intervals between conception, manufacturing, distribution, and consumption -- shrinking the delays between detecting an audience pattern and formatting a new enticement that can address it. It plays out in pre-emptive policing and warfare systems that aim to close the gap between sensing and shooting. And it plays out in videogames, where one doesn't look at the moving target directly so much as anticipate its future position.

According to John Armitage, the U.S. Department of Homeland Security's "Be Ready" campaign operates on this space of imminent mobility. The "readiness" it promotes has no real object, and is simply perpetuated in a kind of self-generating machine. Yet it is a profoundly operational space, where the individualized "desire for mobility" -- the consumerist impulse -- is recoded and displaced onto the theaters of embodied threat.[32] Desire and fear cohabit here, at the threshold of action, as such concepts as "freedom" do double duty, promoting a freedom of mobility as well as a sense of freedom that can only result from "defending our way of life" -- that is, the right to own and consume. Buying, then, functions as both pleasure and defense: a form of bodily and social enhancement, and a form of defense against that which would threaten it.

This is an interlocking mechanism of acquisition and defense that becomes the very condition of mobility -- a "freedom of mobility" that is about defending the right to own and circulate objects, to constitute oneself as an object to be marketed, to defend these objects from harm, and to forge new pathways within unruly, "dangerous," or adventurous market territory. It is a process of defining the self in terms of an unbounded menagerie of attractions and fears, which leaves it forever lacking. Through an interlocking mechanism of selling and consuming, looking and buying, acquiring and defending, one grazes along endless arrays of enticements offered up for the desirous and protective eye -- enticements that are aimed at the replication of desire in the eyes of others, or of drawing the groundlines of defense.

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"READINESS," then, probes the embodied dimension of the perceptual mode of tracking. It is a useful analytical concept because it de-privileges the visual, or concepts of the perceptual that do not fully engage the affective dimension -- as we find in the ocular-centric discourses of visual studies. It maintains a dimension of pleasure, ignored in many theories of contemporary power. For it is not simply repressive in a disciplinary sense: it is also *excessive*. [33]

Through the scrim of readiness, we can understand tracking as characterized by a shift toward real time engagements and continuous, heightened states of alertness and preparedness, in such a way as to generate an embodied state of receptivity for both conflict and libidinous consumption. It produces the body as a receptive site for both fears and attractions, integrating combat and commodity.

What is needed in order to address this landscape is not only a biopolitics but, as Nigel Thrift suggests, a *microbiopolitics*.^[34] **If new technologies of networking, speed, and tracking have opened up this site of the micro -- the affective space of intimate bodily awareness, disposition, and readiness -- then this is a space that can be politicized.**

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A LARGE BODY of theoretical work has focused on the delocalizing or deterritorializing effects of real time technologies. They are often regarded as having contributed to the evacuation of geographical space, overriding the specifics of place and distance. Virilio, for example, has often suggested that real time technologies and their accompanying dimension of "liveness" have prompted the disappearance of physical space -- in other words, that "real time" has superseded "real space." For him, such deterritorialization can only lead to inertia.^[35]

What we are witnessing today, however, is not a one-way delocalization or deterritorialization, but rather a volatile combination of the diffused and the positioned, or **the placeless and the place-coded**. Perhaps nowhere has this been more apparent than with mobile GIS and location-aware technologies. These technologies and discourses are serving to weave together degrees of temporal and spatial specificity. They are helping to generate an emerging precision-landscape where every object and human is tagged with geospatial coordinates: a world of information overlays that is no longer virtual but wedded to objects and physical sites. Communication is tagged with position, movement-flows are quantified, and new location-aware relationships are generated among actors, objects, and spaces.

Tracking has played a primary role in this shift. Its landscapes of inclination-position fuel the geospatial interfaces -- such as evidenced in Google Maps and the C5 GPS media player^[36] -- which are becoming important modes of access to any phenomenon. As media become contextualized with geospatial data and become interoperable, the web is transformed into a real time atlas of sorts. The geospatial web browser emerges as a primary interface. Reading and researching, in this case, is transformed into a search-and-target mission -- a cut-through-the-clutter, precision-driven viewing experience that, as always, is both fueled and delimited by media-technologies and their institutions. These technologies and institutions determine specific rules that circumscribe how we search, speak, and write. Within their matrices, actors, objects, and sites coalesce. New cartographies arise.

With its instantiation in location-aware media, has tracking helped inscribe us in the real, or has it, following Zizek, culminated in its opposite -- theatrical spectacle? To what extent does conflict -- whether in terms of competition, war, or drama -- provides its necessary friction?

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I BOARD MY FLIGHT at last and enter a new arena of performance. The cabin lights dim, the engines roar, and the plane accelerates. The man across the aisle from me -- a blurry mass of anxiety and pleasure -- grips the armrest, thrusts his head back, and opens his mouth in a wild grimace. Fear or delicious exhilaration? A roller coaster ride or a dance with death?

The plane levels off, and the cabin springs to life. A chorus of gadgets lights up across the aisles: seat-mounted monitors, DVD players, laptops, videogames. A carnival of media inputs, bathing the cabin in the glow of otherworldly distraction. All passengers are absorbed into a world of entertainment: a spectacular nonplace that is everywhere but here. I consider for a moment that tracking -- precision-guided seeing for a mobile, competitive, and accelerated consumer-security culture -- is fast absorbed into a much more constitutive mode of engagement.

What is that mode?

My seatmate plugs into her game console, as I type the cliffhanger for this act.

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Notes

[1] Martin Heidegger. "The Age of the World Picture," reprinted in Timothy Druckrey, ed., *Electronic Culture: Technology and Visual Representation*, London: Aperture, 1996, p. 49. For an important discussion of the contemporary relevance of Heidegger's work see Arthur Kroker, *The Will to Technology and the Culture of Nihilism: Heidegger, Nietzsche, and Marx*, Toronto: University of Toronto Press, 2004, especially "Hyper-Heidegger: The Question of the Post-Human."

[2] Slavoj Žižek. *Welcome to the Desert of the Real*, London: Verso, 2002.

[3] Ibid.

[4] This insight is that of Lars Spuybroek, cited in Mark B. N. Hansen. *New Philosophy for New Media*, Cambridge: MIT Press, 2004, p. 123.

[5] One could begin with the development of radar during World War II, or even much earlier. But my emphasis is on computer-enabled tracking. I will understand tracking here in its computer-assisted, rather than earlier analog, forms

[6] Peter Galison. "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision," *Critical Inquiry* 21:1, Autumn 1994, pp. 228-266. See also Peter Galison. "War Against the Center," *Grey Room* 04, Summer 2001, pp. 6-33.

[7] Paul N. Edwards. *The Closed World: Computers and the Politics of Discourse in Cold War America*, Cambridge: MIT Press, 1996, pp. 1-15.

- [8] Felix Guattari. "Regimes, Pathways, Subjects," in J. Crary and S. Kwinter, eds., *Incorporations*, Cambridge: MIT Press, 1992, p18.
- [9] Felix Guattari. *The Three Ecologies*, London: Athlone Press, 2000, p48.
- [10] For a comprehensive analysis of the history of SAGE, see Paul N. Edwards. *The Closed World: Computers and the Politics of Discourse in Cold War America*, Cambridge: MIT Press, 1996.
- [11] Heidegger, pp. 57-58.
- [12] Edwards, pp. 1-15.
- [13] N. Katherine Hayles. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, Chicago: University of Chicago Press, 1999, pp. 19. This book is essential reading for anyone who wants to understand the privileging of information over embodiment, across the wartime sciences and cultural products of the twentieth century.
- [14] Paul Virilio. *Open Sky*, trans. Julie Rose, London: Verso, 1997, pp. 10, 19, 30.
- [15] "A Network of Warfighters to Do Battle in 21st Century Conflicts," New York (AFP) Nov 13, 2004, from SpaceDaily.com, 15 Nov 2004. Thanks to Irving Goh for this forward.
- [16] General Fogelman, speaking to the House of Representatives, cited by Paul Virilio in *Strategy of Deception*, London: Verso, 2000, pp. 17-18, from an article by F. Filloux entitled "Le Pentagone la tête dans les étoiles" in *Libération*, 20 April 1999.
- [17] For a brilliant discussion of this integration, see Ryan Bishop and John Phillips. "Sighted Weapons and Modernist Opacity: Aesthetics, Poetics, Prosthetics," *Boundary 2*, 29:2, 2002, p. 158-9.
- [18] Sean Cubitt. *The Cinema Effect*, Cambridge: MIT Press, 2004.
- [19] Eliane Scarry. "Watching and Authorizing the Gulf War" in *Media Spectacles*, Marjorie Garber, Jann Matlock, and Rebecca L. Walkowitz, eds., London: Routledge, 1993, pp. 57-73, as cited in Margaret Morse. *Virtualities: Television, Media Art, and Cyberculture*, Bloomington: Indiana University Press, 1998, pp. 36-67.
- [20] This definition is from Lev Manovich. *The Language of New Media*, Cambridge: MIT Press, 2001.
- [21] Friedrich Kittler. *Grammophon, Film, Typewriter*, Stanford: Stanford University Press, 1999.
- [22] My discussion of the integration of the military and entertainment industry owes a huge debt to Tim Lenoir's pioneering research. See Tim Lenoir. "All But War is Simulation: The Military-Entertainment Complex," *Configurations*, Fall 2000. Tim Lenoir and Henry Lowood. "Theaters of War: The Military-Entertainment Complex" in *Kunsthammer, Laboratorium, Bühne--Schauplätze des Wissens im 17. Jahrhundert*,

eds. Jan Lazardzig, Helmar Schramm, and Ludger Schwarte, Berlin: Walter de Gruyter Publishers, 2003, pp. 432-64.

[23] This statement makes reference to Lev Manovich's statement that "Born from animation, cinema pushed animation to its periphery, only in the end to become a particular case of animation." Manovich. *The Language of New Media*, p. 302.

[24] Tim Lenoir. "All But War is Simulation: The Military-Entertainment Complex," *Configurations*, Fall 2000.

[25] John Armitage. "Beyond Postmodernism? Paul Virilio's Hypermodern Cultural Theory," in Arthur and Marilouise Kroker, eds., *Life in the Wires: The CTHEORY Reader*, Victoria: CTHEORY Books, 2004, pp. 354-368. Paul Virilio. *War and Cinema: The Logistics of Perception*, trans. Patrick Camiller, London: Verso, 1989.

[26] Paul Virilio. *[CTRL]SPACE: Rhetorics of Surveillance from Bentham to Big Brother*, Thomas Levin, Ursula Frohne, and Peter Weibel, eds., Cambridge: MIT Press, 2002, p. 112.

[27] Paul Virilio. "Cold Panic," *Cultural Politics*, Vol. 1 Issue 1, 2005 p. 29.

[28] Hansen. *New Philosophy for New Media*, pp. 134-5.

[29] Brian Massumi. cit. in Nigel Thrift. "Intensities of Feeling: Towards a Spatial Politics of Affect," *Geografiska Annaler* 86 B (2004), p. 61

[30] Nigel Thrift. "Intensities of Feeling: Towards a Spatial Politics of Affect," *Geografiska Annaler* 86 B (2004).

[31] Ibid, p. 65.

[32] John Armitage. "On Ernst Juenger's 'Total Mobilization': A Re-Evaluation in the Era of the War on Terrorism," *Body & Society*, Vol. 9(4), 2003, p. 204.

[33] J. McKenzie. cit. in Thrift, p. 64.

[34] Thrift, p. 69.

[35] Paul Virilio. in John Armitage, ed., *Virilio Live*, London: SAGE, 2001.

[36] <http://www.c5corp.com/projects/gpsmediaplayer/index.shtml>

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