Editorial

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Drones are "the only game in town." With these words CIA Director Leon Panetta famously endorsed President Obama's counterinsurgency strategy as he spoke before the Pacific Council on International Policy in Los Angeles in 2009. In a rare public acknowledgment of US air strikes in the tribal regions in Pakistan, Panetta insisted that he couldn't discuss specifics due to the "covert and secret" nature of the operations. "But I can assure you", he continued, "that in terms of that particular area, [the drone] is very precise and it is very limited in terms of collateral damage and, very frankly, it's the only game in town in terms of confronting and trying to disrupt the al-Qaeda leadership." (Panetta 2009; CNN 2009)

Indeed, drone technology has been widely perceived to be a "game changer" (Kahn 2013, 200). In the context of counterinsurgency or the combat of terrorism, for example, it is deemed to combine "accurate targeting capability with real-time intelligence", and to "produce an insurmountable, asymmetrical advantage: the capacity to kill literally anywhere and at any time without exposure to risk." (Kahn 2013, 200) What the drone changes, then, seems to be the time-space relation, and what is appreciated about it, is its mobility and versatility, its being smart and technologically connected and, not least, its being uninhabited. But in the eye of the critics, it is precisely these strategic and tactical advantages that constitute the problem: the drone makes tracking down ever more targets possible literally anywhere and anytime, without exposure to risk (Sauer and Schoernig 2012; Zenko/ Kreps 2014). The promise of precision deploys its own logic and story of success (Krasmann 2016; Weber 2009). The presumed precision of drones also is made into an argument to justify aerial bombings in "cities under siege" such as Damascus, Baghdad or Gaza City even as 21st century warfare has turned out to be predominantly asymmetric and therefore urban (Boyle 2013; Graham 2011; Weizman 2006; 2011). What, then, does it mean to consider drone technology as a game changer? What game and whose game is it that changes its nature? For President Obama and CIA director Leon Panetta, it is the war on terror for which the drone has shown substantial strategic advantages (see Klaidman 2012, 121). As critics observed, however,



this advantage meant anything but a strategical shift from a highly contested practice of indefinite detention and torture in the combat of terrorism after the terror attacks of 11 September 2001 towards a governmental practice of killing terror suspects through air strikes abroad (Proulx 2005; Wittes 2010). This practice still is highly contested both morally and legally. Just to mention some of the burning questions: how can terror suspects be killed without trial; how can they pose such a substantial threat while staying overseas thousands of miles from the United States; how and where is there an armed conflict that could justify targeted lethal interventions by whom and against whom; what are the criteria of targetability? (For a critical assessment of the implications of this debate, see Allinson 2015; also Gholiagha, this issue).

What constitutes the game changer hinges not merely on the technology itself, for example, what it allows us to do, how it modifies our view and our realm of access or action, and how it changes established practices or facilitates the emergence of new ones. The change rather always already takes place within a particular game defined by certain epistemological, legal, political, cultural or strategic coordinates. The game itself is located within a particular regime of truth (Foucault 1972) that renders it decipherable, tangible, and sayable in the first place. What kind of game we address and which coordinates we deem to be relevant thereby says a lot about our own ambitions: of fighting terrorism while respecting certain legal and moral norms, for example, as well as about our self-understanding, for example, as ethical and humane selves. Drones, we may even contend, are already made for contemporary warfare: the promise of precision, for one, allows for connecting the technology with the notion of "targeted killing". It evokes a humanitarian discourse – and the liberal desire of a limited use of force. The practice of targeted killing in turn changes the understanding of what counts as legitimate or legal forms of state sponsored killing – to the extent that it relocates the relevance of pertinent legal norms or bodies of law, such as the distinction between warfare or law enforcement (Gunneflo 2014; Krasmann 2012; 2016; Walters 2014).

In order to capture the performative power of drones, and the practice of targeted killing, we should therefore inquire the newness of the sociotechnical constellation. As Armin Krishnan (this issue) observes, it is not that drones are merely unmanned, as these kinds of aircrafts were already in use as far back as World War I, and the threat of atomic missiles shaped the Cold War period; neither is it simply the degree of accuracy drones may achieve. What is new rather is the complexity of a technology that is interlinked with an advanced surveillance technology, with satellite imageries that enable a new view and vision from above (Adey et al. 2013) and that are part of a networked control and command structure (Niva 2013). Rather than merely changing the nature of war, "it is the transformed nature of [networked warfare] that makes unmanned systems technology [...] so relevant today." (Krishnan, this issue) Network-centric warfare substitutes the Cold War politics of deterrence and balance of power with a focus on high-tech supremacy via information sovereignty. It is based

on the close networking of information technologies (see also Cebrowski/Garstka 1998; Arquilla/Ronfeldt 1996) that operate on the basis of robots, data mining and small, dispersed and flexible troops bound together with a Global Information Grid – "initiating a whole-scale re-thinking of the very basis of military organization, doctrine, force requirements, procurement policies, training and operational concepts." (Dillon 2002, 73) What is more, this transformed nature of a networked form of warfare is by itself already a response to and game changer of the identified nature of the threat: of insurgent groups interpreted as terrorist networks (Belcher 2014; Zebrowski 2009). The network doctrine as a *Weltanschauung* and "secularized cosmological vision" assumes that "the entirety of the human and non-human chain of being as one [is] wholly comprised of networks and dynamic relations systems – agents, clusters, lattices, and randomness abound." (Belcher 2014: 169; Dillon 2007)

Drone technology provides access to military as well as civilian air space and territory in a previous unknown way. As Kristin Sandvik (this issue) reminds us, drone technology used in the Global South and especially in Africa is not only "subject to political contestation and to the realities of professionalism, finance, and politics [...] but it is also shaped by the continent's historical legacy of technological imperialism and colonial airpower." Lowering the cost of "penetrating, conquering and exploiting new territory were among the preconditions for imperialism." This development resonates with the prophecy of US General Fogleman who claimed already in 1996 that the military would soon be able "to find, fix or track, and target anything that moves on the surface of the Earth" (Fogleman 1996) - which has at least partially become a reality. In principle, a global precision strike capability allows attacks with conventional unmanned weapons anywhere in the world within an hour – provided that the airspace of the country in question is not protected entirely. But penetrating civil airspace in a variety of new ways is also part of the game changing capabilities of drones: think of the use of drones such as the Globalhawk or Eurohawk which are also used to monitor and analyze megacities and wide areas and which can be or already are integrated in global information systems such as EUROSUR or New York's Domain Awareness System that include satellites, advanced camera and object recognition systems, huge postrelational databases and data mining programs. The possibility of nearly real-time intervention – for the military but also law enforcement – has decisively increased and the time span might be even more reduced with the deployment of autonomous weapon or surveillance systems (Suchman/ Weber 2015). From EUROPOL and FBI to local police brigades, human and non-human agents are networked and the entire approach is strongly technology-oriented (Dandeker 2006; Graham 2011). In these networks, drones have become an obligatory weapon of choice – sometimes even fitted with rubber bullets or Tasers. They are deployed for border, crowd and event control, evidence gathering, traffic control, searches, observation as well as documenting "troublemakers", the surveillance of buildings and VIPs, searching, controlling, targeting undocumented migrants, workers,

protestors, etc. The EU project INDECT worked with a scenario of the permanent deployment of drones in urban areas, while experiments with the Eurohawk point in a similar direction. The European Border Surveillance Program EUROSUR is a common platform of several European states using drones, data mining etc. to "secure" its borders against so-called irregular immigration. Many local police organizations in Europe and the US use drones for law enforcement as well. The British Merseyside police, for example, already deployed drones with digital closed circuit TV in 2010 (breaching regulations of civil airspace), which could record highresolution images in the visible and infra-red spectrum from heights of 500 meter and more. Many British police drones have a "built-in speaker to allow instruction to be relayed to civilians on the ground" (Graham 2010, 1). These police agencies also have Forward Intelligence Teams (FITs) who use cameras, camcorders and audio recorders to openly record the public (at demonstrations, political meetings etc.) but also Covert Surveillance Units to gather undercover intelligence (for example, by intercepting Wi-Fi traffic). These applications are integrated in networked systems which are supposed to provide information from a wide variety of sources – including social media, biometric data, databases of criminals or suspects and many more (see also Krishnan).

But why has the installation of enormous networked technosecurity architectures based on drones, smart CCTV, body scanners, high-resolution satellites, big data analytics etc. become not only popular but widely accepted by the populations of Western democracies? Obviously, a precautionary logic that takes the potential dangerous or even catastrophic character of the future for granted (Aradau et al. 2008) and focuses on the management of contingency and unpredictability of possibilistic events (Amoore 2014) feeds a technology-oriented mode of governing security (Aas et al. 2009; Marx 2001) for which drones turn out to be a perfect device (Krishnan; Sandvik, this issue). They are able to produce full spectrum dominance, not only for hunting terrorists but also car thieves or squatters and to control social hotspots or to fight so-called anti-social behaviors.

Technologies of worst-case imagination such as computer simulations, scenario-planning techniques, data mining and other technologies are developed to premediate any possible risk and counteract uncertainty (Bogard 2012; de Goede 2008; Grusin 2004; 2010; Krasmann 2015; Salter 2008). A preemptive technosecurity logic that puts "imagination over the power of fact" (Salter 2008, 243) ties in with the emergence of a new technoscientific epistemology in the second half of the 20th century. It translates imagination into automatized processes of recombination and tinkering, develops the design of (im)probable scenarios and uses post-processing and search heuristics as its epistemological base (Weber 2010). The prerequisites for preemptive analysis, real-time tracking and targeting are big data analytics as well as drones (and satellites) with enhanced visual systems that provide unprecedented amounts of data. Unpredictable risks will never be tamed by these advanced technologies (Burgess 2011), but, and this seems to be part of the nature of the game, they fuel the desire for

technological superiority – which was one of the main goals of network-centric warfare from the start and is now increasingly naturalized in civil life (i.a. Bigo/Jeandesboz 2009; Der Derian 2009; Hayes 2009).

And there is more about the drone as a game changer. How is it, Sabine Selchow (this volume) asks, that we tend to identify any kind of aerial vehicle without a human operator on board that flies remotely controlled or guided through dynamic automation systems (UAV) as a drone – whether it is of military or civilian use, whether it is employed for security purposes or as a consumer good, and whether it measures eleven meters of length with a span of twenty meters across the wings or is a tiny little thing like those quadcopters with a diameter of, let's say, thirty centimeters? Hobby users who enjoy the view and the images the tool can produce, for example, prefer to dissociate their devotion from the military use and the practice of targeted killing usually associated with the drone – and vice versa. [1] And in fact, as Sarah Brady (see also Krishnan, this issue) observes, the "drone state" exists on a global level, because so many countries, among them the US., UK, and Israel, have developed and deploy the technology, while the people become the subjects of it: In countries such as Pakistan, Afghanistan, Gaza, Iraq or Yemen people get traumatized by the permanent threat of a deadly attack: "I no longer love blue skies. In fact, I now prefer grey skies. The drones do not fly when the skies are grey", explains Zubair Rehman (2013), a 13-year-old Pakistani boy who was injured in a drone attack in North Waziristan on 24 October 2012 and testified to his and his sister's injuries as well as the killing of his grandmother Mamana Bibi at a US Congressional briefing later. The Palestine writer Atef Abu Saif gives testimony of the ubiquitous presence and impetus of combat drones in the last Gaza war in his diary "The Drone Eats with Me. Diaries from a City Under Fire" (2015). Nevertheless, people in the Global North have become subject to permanent monitoring and (some) are aware of the presence of drones in the world. Drones have become part of our culture, and their multiple gaze, which is and is not our own gaze, takes us to a "collapse of 'above' and 'below'" (Brady, this issue), of the subject who is governed by and who governs through drones.

Much of the fascination with drones in the Global North springs from the translation of a – until now predominantly military – scopic regime into everyday life. The flattened, rasterized view of flyover pictures was used in the military from WW I on and is now translated into the realm of popular culture and also law enforcement. The decisive difference is, as Andreas (this issue) explains, that these flyover pictures can now be analyzed in near real-time. These new drone visualities open not only possibilities for dragnet investigations by law enforcement agencies which can – at least in principle – match biometric and geospatial information. The possibility of rasterizing the world and allowing for a "God's eyes view" (Haraway 1988; Wilcox 2015) that seems to provide a privileged perspective and access to knowledge from afar has its own seductive quality. This new "scopic regime" (Gregory 2011) brings together the traditional flyover pictures, which provide a distanced view of a rasterized world, with an aesthetics of military manhunt and a

[1] See, for example, the Drones & Aerial Robotics Conference (DARC), the first worldwide on (mainly) civilian drones, held at the NYU in October 2013. Videotapes are available at: http://www.youtube.com/playlist?list=PLYFLRpJu7SowVcoPIxE6 woXcFIUlZKDb7.

near real-time close-up vision of the battlefield (Andreas, this issue). Within this regime, the relationship between distance and closeness, visibility and invisibility, and public and private is being rearranged (Choi-Fitzpatrick 2014). The "soda straw view", for example, on the part of the pilots who press the kill button from their arm chairs in a far distance and who are therefore no longer pilots, let alone heroes of warfare (Brady, Broeckling, this issue), accounts for only one part of a multilayered view within, and reality of, the networked arrangement of command (Gregory 2014). Moreover, as Sara Brady (this issue) observes, combat drones are present in the media and they are part of our imagination, though, actually, we rarely come across a real drone. Similarly, targeted killing operations are somehow present in the everyday, through counter narratives as presented by projects like Forensic Architecture [2], for example, through representations in popular culture like motion pictures and, not least, through the satellite images that are available on the internet and become increasingly popular giving us an idea of the drone view. At the same time, targeted killing operations take place in a shadow world where neither the criteria of targetability nor the number of victims are being disclosed, but remain opaque despite so many public sources providing a counter knowledge. What seems to be publicly accessible knowledge today and what we see and cannot see is both politically and technologically induced. Moreover, it is a question of "what is considered visible" and knowable, "and what is considered to be hidden" or unknowable (Steiner/Veel 2015, xx). Contemporary works of artists like James Bridle, Harun Farocki or Trevor Paglen reflect upon this aesthetic experience and challenge our common view and vision through their photographs.

The integration of full spectrum dominance technology via drones into everyday life with its mixture of extreme distanced and ubiquitous views and close-up vision is reconfiguring our perception of space and time. At the same time, civil airspace is heavily contested for commercial usage which might result not only in a profound change of mobility and other infrastructures but also in the commercial appropriation of our everyday airspace. While drones are increasingly made to work, it is important to ask what kind of world we are inventing, what are its underlying epistemological and ontological assumptions, as well as its economic, sociocultural and aesthetic implications.

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[2] The project is based at Goldsmiths College, University of London: http://www.forensic-architecture.org/.

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