

FILM  
CULTURE

IN TRANSITION

THE WEBCAM  
AS AN  
EMERGING  
CINEMATIC MEDIUM

PAULA ALBUQUERQUE

Amsterdam  
University  
Press

## The Webcam as an Emerging Cinematic Medium

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*Paula Albuquerque*

Amsterdam University Press

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# Introduction

From a very young age, I intuitively knew that I was living in a cinematic world. The sensation of constant observation has guided me throughout my career as an experimental filmmaker. After first exploring the thin boundaries between fiction and documentary, I turned to archival materials and found footage. Since 2001, I have been observing and recording webcam streams.

This book is the result of my artistic research project wherein I use webcam-generated footage as the sole source material for making experimental films and installations. My study is an analysis of the possibility of a new mode of filmmaking, one that is broadly accessible and networked, and that creates archives for future categorization of the audiovisual materials that document city life. Central to the dissemination and pervasiveness of this new cinematic medium is *affect*. Affect is present in the relations between individuals and the cameras and affect also influences processes of subjectification. My art project has its roots in 1999. This was the year that I became aware of the growing number of cameras that streamed in real time over the Internet, in an unregulated manner and for no apparent reason. I had realized by then that cameras normally used for surveillance were being sold as webcams to any household that could afford them. I wondered what made ordinary people stream imagery of the public space of their street to Internet viewers from cameras they positioned in their windows. It was around that time that I got in touch with a group of activists who were designing city maps to identify the routes where surveillance cameras could not capture images of individuals.<sup>1</sup> When occupying an empty house to fight real-estate speculation, for example, squatters could avoid being filmed if they followed the cartographic indications. Squatters could also prevent recognition by wearing a cap or a hooded jacket if the cameras were too pervasive in the area. Fascinated by both the increasing purchase of

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<sup>1</sup> I met these environmentalists and social-justice activists through my work at nongovernmental organizations. I prefer not to name these activists directly, but recent versions of maps similar to those they were making can be found online via Google.

webcams by ordinary households and how the awareness of the cameras' existence had such high influence on the activists' street routines, I started to observe publicly accessible webcam streams regularly.

My first film using this footage was made in 2001. *Siesta* is a short film set in Amsterdam in which I searched for images streamed from different time zones and captured them in real time, always approximately at noon Amsterdam time. The resulting imagery includes streams offered by webcams located in various countries, with the film starting in the United States in the morning and ending in Japan at night. In *Siesta*, people can be observed commuting to their jobs in New York, a couple is filmed getting married in a Los Angeles chapel, and images of two individuals are captured while they apparently discuss shoes next to a mall cinema somewhere in Italy, all while the darkness of night covers Tokyo's skyscrapers. This methodical collection of images across several time zones and disparate locations allowed me to compress time and space into a short five minutes of edited footage. The outcome was an experimental film conveying a potentially universalizing portrait of the "any-day-whatever" of global time.

During the years leading up to the present book, I continued to develop art projects by using online cameras. I have observed the moments when they first appear on webcam-dedicated sites and when, after some time, they go offline. For instance, I have witnessed how cities may influence the images they provide to the online public by changing the cameras' location. To illustrate, around the year 2005, Amsterdam's webcams were mainly found streaming from picturesque shopping streets. However, their location has recently been moved to construction sites, as the emphasis seems to have shifted away from the touristic appeal of branded retail pleasure to urban design. Judging from the available camera streams, Amsterdam may be trying to present itself as a world-class metropolis by showcasing the city's current architectural achievement. Regardless of how cities choose to present themselves at a given moment, I have learned through observation that the vast majority of webcam streams capture people shopping, eating, conversing, or just standing around in the streets.

In this regard, several of my works focus on the intimacy people sometimes display in front of cameras positioned in public or semipublic spaces. Such conduct appears, for example, in my 2009 film, *GMT minus 5*, which was shot by a webcam located in a bar in New York City's Times Square. In the footage, two young women working behind the counter at the lobby, who are likely aware of the camera, fill the empty moments between customers by retouching each other's makeup and laughing together. When, but not before, customers arrive (who are mostly male), the women adopt a stiff professional

posture. The camera is the single witness to their restful moments, when the women are relaxed and appear genuine in the way they express themselves and interact with one another under the webcam's observation. They appear oblivious to the fact that millions could be watching online.

Before I began the present film-based research, I assumed that people were unaware of the cameras constantly filming them and simultaneously streaming their imagery. After a few years of intensive observation, I wondered if they had forgotten about the cameras' presence. Finally, I realized that the pervasive presence of video surveillance had been internalized, leading me to conclude that there had ceased to be an "outside" to the city's cinematic realm. Networked cameras had formed a closed circuit in which everyone was involved, either by pointing the camera at the streets, by observing its image streams, or by being filmed.<sup>2</sup>

## Artistic Research

When I was four years old and grew fully conscious of my own physical image, I had the feeling that, wherever I was, there would be an invisible camera filming me at all times. This may be due to the fact that I come from a family of engineers, where cameras had been constantly present since the beginning of the 1900s. With these cameras, our family produced a history of domestic portraiture in photography and film. Surrounded by cameras, I believed that someday my own life would be played back to me as an unedited collection of uncut raw footage. This awareness has always stood at the forefront of my film experiments and profoundly affects my artistic practice and theoretical studies still today.

As an experimental filmmaker grasping at the underlying philosophical issues of a phenomenon that I am a part of, I embarked on the present research project. I engaged with film philosophy, media theory, and critical analysis in my questions about how a subject is affected or even created by the constant presence of cameras in urban spaces. Once I began my research, it became clear I needed to establish a relation between surveillance and the cinematographic apparatus that led to a deeper understanding of the specific medium of webcams. Surprisingly, interactions between concepts like *film*,

<sup>2</sup> The object of my research is specifically the webcam that transmits public streams. It is not necessarily stationary, since all laptops and smartphones embody cameras nowadays. However, publically accessible streams are mostly produced by stationary cameras, of which the majority originally consists of standard models intended for surveillance.

*factory, prison, and city* have arisen during my study. These concepts further directed me in the research to build coherent conceptual constellations that would suit my analysis. As my autonomous practice as an artist required my involvement with theory on a deeper level than before, this particular project took the shape of artistic research. The discussion surrounding the emerging field of artistic research is polemic, with both strong support and opposition from academics and artists. I have encountered its potential to support the development I sought as an artist and researcher, and what follows is a short account of that experience.

In order to keep a balance between the roles of theoretical discourse and artistic practice in the results of the research, I made a conscious effort to avoid using a scholarly approach to explain my film pieces. The research presented here is specifically a text-based analysis of the rising phenomenon of the webcam as a cinematic medium and its impact on urban life. It is not an interpretation of my practice as a filmmaker in theoretical terms. In providing information about the films and installations I make with webcam footage, I have favoured a descriptive approach to the constitutive elements of the artistic work to unveil *how* the projects were developed rather than *why*. In addition, I purposefully do not use the film pieces made during my artistic research as illustrations of my theoretical study. The art pieces documented as part of this book form a paratext that triggers its own theory. The documentation reveals that approximately half of the research occurred during the making of the film pieces, which is when specific ontological aspects of the webcam as film medium emerged for experimentation. In summary, the relation between my two research components is based on an interweaving of writing text and making art that is mutually supportive yet methodologically independent, since artistic processes significantly differ from scientific ones.

Every artist approaches his or her artistic research differently. In my particular case, I find that this process has enriched my art practice with a theoretical body of knowledge that allows my film-based artworks to achieve other layers of signification. Conversely, my experiments with webcam material have further directed my studies through the pursuit of particular insights that theory fails to offer. Namely, these are the insights that occur as I experiment with the actual material and explore the potential that the medium affords. For example, I have made extensive use of critical analysis during this research, which produces knowledge after the fact and that, as a discipline, could be enriched by the scholarly endeavours of artists.

It is equally important, though, to emphasize how determinant critical analysis has always been for the emergence of new fields of knowledge

and also for the making of new art as well as the extensive influence this process has had upon the contemporary discourse of artistic research. Artist and scholar Hito Steyerl summarizes this point when she highlights that specific scientific methods lead to shared knowledge, while singular (artistic) methods create individual forms of logic. According to Steyerl, artistic research moves among and affects both methodological approaches.<sup>3</sup>

Henk Borgdorff, who has written extensively about artistic research, similarly asserts that practices can never really be independent of their context of production. As such, they are always part of a social history and artistic discourse.<sup>4</sup> This means that artistic practices emerge from existing fields of knowledge while simultaneously influencing them in return, not only in terms of adding to their artistic content but also by altering their modes of operation.

Those who pursue institutional forms of artistic research require a specific place within academia, one that is anchored in the ability to relate theories in paradigms derived from firsthand experience with the materiality of the artistic medium and object. Those working in the field are aware that artists possess an intimate knowledge of processes that are mostly unseen and unfelt by those who only experience the final result. This personal knowledge could be shared through artistic research projects developed within existing academic contexts that are customized to suit the artist's aims and requirements. These may in turn add valuable contributions to the scientific fields the artist engages with during such projects. I hope that my research will add a qualitative contribution to film philosophy and those streams of film and new media theory that focus on how cameras and screens influence subjectification. I equally hope that this book will contribute to further investigation and realization of the transformative potential of experimental and autonomous audiovisual art in contemporary approaches to filmmaking.

The scope of film pieces referred to in this book includes those of other artists and filmmakers. It ranges from mainstream cinema, including standard fiction and documentary, to experimental film and video art, including installation and expanded cinema. The rationale behind my broad selection of audiovisual forms and techniques is related to the way in which my own practice is situated amidst all these art practices, disciplines, and

3 Hito Steyerl, "Aesthetics of Resistance? Artistic Research as Discipline and Conflict," 2010, accessed 11 August 2014, <http://eicp.net/transversal/0311/steyerl/en>.

4 Henk Borgdorff, "The debate on Research in the Arts," 2006, accessed 29 July 2015, [http://www.pol.gu.se/digitalAssets/1322/1322713\\_the\\_debate\\_on\\_research\\_in\\_the\\_arts.pdf](http://www.pol.gu.se/digitalAssets/1322/1322713_the_debate_on_research_in_the_arts.pdf).

display modes that are commonly presumed to be disparate. My career as an audiovisual artist began with stage photography, moved to making standard short films and documentaries, and then shifted to experimental forms, video installations, and live-editing performances. As an artist, I do not regard these forms of filmmaking, including expanded and post-cinema, as separate from one another, regardless of their platform – be it analogue or digital, online or offline, mobile or immobile. Moreover, the presence of these platforms contributes to the emergence of a constant cinematization of human experience. My notion of the cinematic includes all that is linked to our experience of cinema – an experience that is deeply linked to our previous knowledge of the medium-specific language of film. It is visible how the cinematic takes place in the city and affects people through multiple cameras and screens. I conceive, though, that the cinematic also occurs beyond the presence of any optical equipment. I propose to understand the cinematic as a condition of urbanity to which webcams actively contribute with their continuous audiovisual generation.

### **The Cinematic as Mode of Existence**

In the pervasiveness of urban video surveillance, the cinematization of public space rapidly emerges as a new paradigm. Such surveillance has materialized into a fast-growing reality, engulfing daily routines, changing people's habits, and altering their sense of self. Thus, before defining the actual cinematic medium of the webcam and the surveillance apparatus from which it emerges, I will briefly explore its origins. I will analyse the spatial and temporal realm that originates from the surveillance apparatus and, in turn, that is shaped by it: the urban contemporary cinematic reality. Through the use of Bruno Latour's theories, I attempt to define the cinematic reality as a potential "mode of existence". On the website dedicated to his project *An Inquiry into Modes of Existence*, Latour states:

When one speaks normally about the mode of existence of some group or individual, one refers to their customs, their mode of being, their ethology, their habitat in some way, their feeling for a place. In this inquiry, we are keeping all the connotations of the phrase, but we are giving the two terms "mode" and "existence" stronger meanings that don't direct attention towards human groups or individuals, but towards the beings about which humans are interrogating themselves. The word "being" should not be unsettling: it is another way of replying to the question,

“What, for example, is the law, or religion, or science?” “What is important to you?” and “How can I talk about this properly with you?”<sup>5</sup>

Latour demarcates his approach from the more commonsense notions that relate to modes of existence corresponding to what could be considered the *lifestyles* of individuals or groups. From my interpretation, by emphasizing the terms “mode” and “existence”, the philosopher concentrates his focus on institutional entities interacting with the individuals and framing their actions. What Latour refers to as “the beings about which humans are interrogating themselves” is at the centre of his thesis. He further clarifies by the claim that these institutions are to be regarded as “beings”, as nonhuman entities that directly interact with and affect humans. For the purpose of developing the present hypothesis in relation to Latour’s placement of the beings of law, religion, and science, another term that could be added to the list is *surveillance*. Initially belonging to the realm of law enforcement, surveillance has arguably become an autonomous institutional entity of its own, a being with remarkable effects and influence on subjectification. I propose that the contemporary state of maximum preemptive surveillance is determined by the premise that the entire existence of every citizen is being filmed and stored in the form of a stockpile of vast amounts of audiovisual data, and that the individual is aware of this fact. This camera – and archive – awareness has a profound impact on the sense of self. Both camera and archive derive from and allow for the creation of a cinematic environment, where the individuals involved in the process of image production and distribution play a part. It is not only the individual or authority owning the camera that has a stake in the making, maintenance, and transformation of this mode of existence; the people in the street being filmed contribute to its creation and preservation as well. Both those who collect webcam imagery and those who allow for the mass archive of audiovisual documentation of the self contribute to the growth and maintenance of the integrated circuit that is the core of this mode of existence. The fact that surveillance has become internalized does not imply that it is no longer an emerging phenomenon: if anything, the cameras’ invisibility testifies to the speed at which they increasingly pervade our lives and influence people’s actions at an accelerated rate. Surveillance cameras that constantly display content to whoever decides to access them on the Internet are no longer a surprise to many, they have indeed become invisible and yet all the more insidiously active. The title of this book points

5 Bruno Latour, *An Inquiry into Modes of Existence*, accessed 22 June 2015, <http://www.modesofexistence.org/>.

to webcams potential to create cinematic environments that are in constant production. However, this potential may be subject to reversal by those who act upon them – a line of thought that will be developed in the next chapters.

The profusion of media that record and transmit imagery over the Internet characterizes a contemporary cinematic mode of existence, wherein audiovisual media are a constant and pervasive presence. This is not a monolithic approach, as I do not conceive of it as the only contemporary mode of existence.<sup>6</sup> In order to analyse it in depth, however, I will need to focus solely on its main characteristics, its technology, and the impact thereof. It is useful to look at the writings of another anthropologist, Arjun Appadurai, when attempting to delineate and conceptualize a cinematic mode of existence that is defined by a profusion of and reliance on mass media.<sup>7</sup> He argues that the phenomenon of globalization, both unifying and fragmenting, has given rise to a series of global *scapes*: ethnoscapescapes, technoscapescapes, financescapescapes, mediascapescapes, and ideoscapescapes. Of particular interest for the present book are the content-based mediascapescapes, which determine the form and the content of the information provided to the public. In Appadurai's words, these "tend to be image-centered narrative-based accounts of strips of reality."<sup>8</sup> This definition indicates that the knowledge of reality in contemporary society is provided and constituted by fragmentary mediated visions. Webcams generate mediated forms of (processed) information. In doing so, webcams produce their share of "strips of reality" as a seemingly transparent documentation of urban activity through live streaming. Appadurai generalizes mediascapescapes as "images of the world created by [...] media." In a similar process of mediation and production, webcams may create representations and simulations. In general, the media fabricate these visions, but their presence may already contribute to altering or adjusting the actions being documented. Within the context of a controlled environment, such as the public space of the city framed by webcams, a potentially predetermined action will occur and a vision of reality may be fabricated. As such, the webcam shapes a mediascape disguised as objective representation of reality.

6 Bruno Latour, "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern." *Critical Inquiry*, Vol. 30, no. 2 (Winter 2004): 225-248. In this article, Latour draws attention to the evidence that no object, or *thing*, or phenomenon should be observed in isolation. I therefore analyse the cinematic mode of existence as existing in a network of preexisting and emerging modes of existence that constantly overlap and interact with one another.

7 Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis-London: University of Minnesota Press, 1996).

8 *Ibid.*, 35.

Another concept that is relevant to the understanding of the operational model of the cinematic mode of existence is Steven Shaviro's idea of the *mediasphere*. The mediasphere is an environment that has become one with contemporary reality, an all-encompassing single unit or network.<sup>9</sup> One could say that it contains a wide array of networked mediascapes and their generators. The mediasphere is described as the embodiment of networked mass media that is so pervasive it can be regarded as a Latourian mode of existence. Shaviro considers the mediated reality that people accept as a part of their lives. The pervasiveness of smartphones, tablets, and laptops to which people have become attached and completely dependent upon for work and entertainment now define people's actual environment.<sup>10</sup> For example, beyond online business meetings, people nowadays routinely communicate with friends and family across the globe through Facetime, Messenger, WhatsApp, and other chat systems. This results in personal relations that become mediated to the point that they acquire an existence outside of the material world. This hyper-mediation of the mediasphere is furthermore exemplified by users that routinely connect to self-replicating automated virtual beings, such as bots, through social media. Seemingly endless bot armies swarm the Internet and people engage with them as they would with other humans.<sup>11</sup> Emulating human emotions and contributing to online debates, the cyber character of the bot has been accepted as just another form of end user. They contribute to polls, and influence public opinion and election results. Shaviro goes so far as to affirm that the mediasphere has become nature to humans – that it shapes their identities as subjects.

As other notions and terms relevant to the present study, those of *Media Ecologies* and *Polymedia* are worthy of mention, even if in brief. To begin with the first, Matthew Fuller refers to media ecologies in the plural, since there are several slippery definitions or uses of the already ambiguous term. The author maps some of these definitions in his book, namely three that are seemingly the most productive for his specific study on pirate radio. In short: the first is related to informatization and human resources; the second to environmentalism of media-based culture, and the third is based upon its function as an object of reference for cultural analysis.<sup>12</sup> I have decided not to use this term in my direct analysis besides a brief mention due to its

9 Steven Shaviro, *Connected, Or What It Means to Live in the Network Society* (Minneapolis-London: University of Minnesota Press, 2003).

10 Ibid.

11 Ibid.

12 Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture* (Cambridge: The MIT Press, 2007).

less defined outlines and its very broad scope. Finally, and somewhat more specifically, Daniel Miller and Jolynna Sinanan conceive of the existence of *polymedia* within the particular context of the webcam.<sup>13</sup> According to them, this camera is always part of a media ecology where the existence and utility of the camera are defined by those of all other media that surround it. As the authors point out, no one is ever only on Skype since people routinely complement their audiovisual communication with messaging, while active on Twitter and Whatsapp simultaneously with three or four other users.

In order to analyse and further define the networked mediasphere that produces mediascapes as a cinematic mode of existence, it is important to distinguish its two most determining forces: the global media network of the Internet and the cinematic technology of webcams.

## The Global Media Network

Webcams' paradigmatic structure of the cinematic mode of existence is the network. This is because, quite simply, without the Internet, there would be no webcams. The identity of this network is eminently corporate. It represents and expresses the financial interests reflective of the network's capitalist mode of production. Under the guise of an attempt to democratize the means of information access, people are encouraged to support the initiatives taken up by authorities and multinationals allegedly to overcome the digital divide.<sup>14</sup> This pervasive form of peer pressure has grown through the use of aggressive marketing techniques selling the idea that "intelligence is a distributed networked phenomenon".<sup>15</sup> As such, everyone is expected to integrate into a growing and self-updating online community, which supposedly harbours all the knowledge ever produced. Every minute spent disconnected is a minute of precious information lost. The methodologies of the corporate network reconcile "the conflicting imperatives of aggressive predation on one hand and unquestioning obedience and conformity on the other."<sup>16</sup> People are led to believe that they need to belong to the online community as active users or they will otherwise be punished by exclusion and lack of access to means of communication. This situation would ostensibly result in complete societal collapse. The consumption

13 Daniel Miller and Jolynna Sinanan, *Webcam* (Cambridge: Polity Press, 2016).

14 *Ibid.*

15 *Ibid.*, 3.

16 *Ibid.*, 4.

of content disseminated over the Internet is mandatory for people who consider themselves well-informed citizens and responsible members of society. This implies that people are constantly engaging with the Internet to produce and consume content. This behaviour feeds the capital mode of production based on networked information exchange.

Everything in the world, then – i.e. the mediasphere as well as nature – exists in order to be captured. With this as its mission, the Internet pervades the personal lives of all users by owning not only their data profiles but also providing most of their activities in their waking life. As the Internet extends beyond the limitations of any medium, there is no longer the need to access an interface, such as a computer, tablet, or smartphone, to connect with in order to access the network.<sup>17</sup> The network has invaded the material world and imposed its modes of functioning upon daily reality. Constant distraction, multitasking, and the inability to concentrate on one thing at a time are generally accepted in contemporary society. A walk to the shop around the corner involves the production of a few tweets and many likes, not to mention the many Facebook posts that are generated on a daily basis from public toilet stalls. In the present mediasphere, at a time when information seems to be what people most value and all they produce, everything has become worthy of sharing: all experiences are mediated and fed into the network. This mediatization results in constant access to and production of overlapping fragments of information for the public. Most people actually spend entire days connected to ensure participation. In being completely dependent on the network, people enable its conditions of production to thrive. This simultaneously allows for vast amounts of data to be collected, including credit card statements and medical records and for the recording of public life by audiovisual surveillance.

Internet-based media capture and archiving of events are still generally, and erroneously, regarded as transparent digital processes of data collection that document reality.<sup>18</sup> This is due to a technical opacity that desensitizes the

<sup>17</sup> Ibid.

<sup>18</sup> Bernard Stiegler, *Technics and Time 1: The Fault of Epimetheus*, trans. Richard Beardsworth and Georges Collins (Stanford, California: Stanford University Press, 1998), 21. Stiegler also comments on the apparent seamlessness of technology, when he affirms that “today, we need to understand the process of technical evolution given that we are experiencing the deep opacity of contemporary technics; we do not immediately understand what is being played out in technics, nor what is being profoundly transformed therein, even though we unceasingly have to make decisions regarding technics, the consequences of which are felt to escape us more and more. And in day-to-day technical reality, we cannot spontaneously distinguish the long-term processes of transformation from spectacular but fleeting technical innovations.”

end user. Most people are ignorant of the technical aspects of the Internet. Yet, they remain completely dependent upon it in order to receive and produce content. The far-reaching consequences of each technological discovery on moral and ethical levels are typically disregarded in order to promote the function attributed to the medium. One example that is key to this project is the effects on identity formation. As the tools used by the network to collect live action as audiovisual data, webcams have had a considerable impact on the ways in which people perceive themselves and others through screens. The effects of webcams on self perception appear unquestioned by the very people who buy these devices and install them in their streets to film others. Thus, it is increasingly apparent that the mediasphere, which is at the core of the cinematic mode of existence, has become internalized. People move through the Internet online and offline without apparent inquiry into the levels of intentionality behind its high-tech tools (including visual media) or even the level of the politicized code (profoundly race- and gender-determined).<sup>19</sup> This lack of questioning calls for an analysis of the cameras inherent to this media-based mode of existence that is, in its essence, cinematic. What follows is a short introduction to the relevance of the networked surveillance of webcams for the cinematic mode of existence.

### The Cinematic Technology

It is necessary to highlight the morality and ethics involved in storing and using the imagery produced by webcams when analysing their influence on the perception of the world through the Internet and how this relates to subject formation. As articulated in the previous section, webcams cannot be seen as purely transparent media because they are not used solely as instruments for the transmission of audiovisual content. The ethics attached to the use of webcams cannot be defined as an extra signifying layer produced after recording. Regardless of its alleged potential to enhance safety and assist in crime prevention, video surveillance produces elusive and fragmented realities that are independent of the live action it is supposed to depict in real time. The intentionality behind the creation of these

19 Jonathan Beller, Ante Jeric and Diana Meheik, "From The Cinematic Mode of Production to Computational Capital: An Interview with Jonathan Beller for Kulturpunkt," by Ante Jeric and Diana Meheik, 31 January 2014, *Kulturpunkt*, <http://socialtextjournal.org/from-the-cinematic-mode-of-production-to-computationalcapital-an-interview-with-jonathan-beller-for-kulturpunkt/>.

cinematic realities should be critically analysed by inquiring whether the cinematic is a precondition for the conception of webcam technology or if the cinematic instead derives from webcam technology and only takes shape at a later stage.

Latour writes that technology and humanity have been interdependent for about two and a half million years.<sup>20</sup> In his view, one does not preexist the other. Because without technology humanity would forever remain unchanged and thus not evolve, Latour's view implies an intertwining of both the intentionality behind the conception of technology and the effects this has on the humanity behind it. Latour describes, "[t]echnologies belong to the human world in a modality other than that of instrumentality, efficiency or materiality".<sup>21</sup> This citation indicates that Latour refers to technologies as belonging to a moral and ethical level, which extends beyond material reality. Much more than a means to an end, media technologies both produce and are produced by a mode of existence. If we consider webcams within this context, it is reasonable to conclude that the cinematic reality webcams create is not the direct product of the initial intentionality that underlies surveillance. The cinematic reality of webcams is an unforeseen result of the aim behind the production of documentary imagery for people's protection. Additional unforeseen results are the preemption of criminal activities and the archiving for future categorization. These actions enable a forward-looking analysis for retrospectively tracing terrorism.

Thus, webcams create the cinematic reality during the dual process of capture and transmission by the same webcams. Latour compares the technological regime to the surrealist "exquisite cadaver", a multidimensional object containing all times and spaces of its own existence within itself.<sup>22</sup> In relation to the webcam, the exquisite cadaver of its technological regime presupposes a variety of *folds* that encompasses a heterogeneity of times and spaces (of production, capture, and dissemination). This presupposition is in combination with the action brought about by the intervening individuals: the owner, the observer of the camera, and the person being filmed, or an artist appropriating the material. As technology transforms humanity, webcams stand for more than mere mediators between reality and perception. The initial instigators of the surveillance society could not have foreseen the resulting technological regime according to Latour's logic.

20 Bruno Latour, "Morality and Technology, The End of the Means." *Theory, Culture and Society*, no. 19 (2002): 247-260.

21 *Ibid.*, 248.

22 *Ibid.*, 249.

Therefore, new realities that may oppose the primary function of its tools are created. For example, the cinematic aspects brought about by a renewal of public spaces are further influenced by people's growing awareness of being constantly filmed (this exceeds, by far, the initial crime prevention intended for surveillance).

One could argue that webcams are a direct result of a preexisting cinematic mode of existence that promotes the dissemination of networked audiovisual media. Producing imagery of the world for Internet users to access seems to be a legitimate result of this mode of existence that promotes self-surveillance in the form of voluntary data collection and entertainment. However, as everyone produces their own means of self-regulation, people adapt their behaviours since they are aware that their image may constantly be observed and stored for future viewings. In Latour's terminology, the medium of the webcam is a "tool" that should not be reduced to an extension of the human eye. Rather, the webcam transforms the eye by forcing it to focus on the flat surface of the screen when observing a moving image with a deep depth of field. Furthermore, as an archival tool collecting live recordings from the street, the webcam network and its storage system should not be regarded as memory prosthesis. This is because the webcam tool affects memory. In conclusion, rather than merely fulfilling the use for which they were primarily conceived, webcams are optical devices and producers of archival materials. They have created a realm that did not preexist their birth and, from that moment on, a realm that was formally unforeseeable. Even if they emerge from a protocinematic mode of existence, webcams are creating a new phase in the cinematic dimensionality of contemporary urban life with moral and ethical implications. It is interesting to return to Latour's status of the tool when he notes that:

If we fail to recognize how much the use of a technique, however simple, has displaced, translated, modified, or inflected the initial intention, it is simply because we have "changed the end in changing the means", and because, through a slipping of the will, we have begun to wish something quite else from what we at first desired.<sup>23</sup>

A collective amnesia appears to occur when it comes to realizing the impact media technologies have on subjectivities, desire, and expectation. According to Latour, the circumstances of creating a tool have been altered by the tool itself, so much so that the aim at the origin of its making can no longer be

23 Ibid., 252.

recalled. Surveillance cameras primarily intended for protecting people in the streets, which entailed prompting action upon suspicious on-camera movement, have metamorphosed into the production of future visions. Ensuring the safety of the present moment is no longer the centre of concern – preemptive action is. The medium simulates a potential that curbs itself as a result: by knowing that they are being observed, individuals allegedly do not commit crimes.<sup>24</sup> However, another side effect of this tool creation is that people's desire to see and to be seen has become more noticeable. Since video surveillance has come about, it has contributed to the dissemination of webcams and resulted in artworks that appropriate surveillance and webcam imagery. Additionally, online real-time documentary forms have emerged.<sup>25</sup>

To sum up, the technology of the webcams like that of other insidious visualization devices such as domestic drones, should not be considered as merely functional or technically neutral because it has created unforeseeable results.<sup>26</sup> These results have not only altered the urban space, but have also affected the ways in which people act in public places.

## Chapter Overview

My research project analyses the webcam as an emerging cinematic medium. It considers both its construction and its impact on the contemporary urban mode of existence. I will focus on specific “actants”, in a Latourian sense, that together form the apparatus of this new mode of networked filmmaking and affect both the online and the offline world.<sup>27</sup> These actants are the affected cameras (in relation to what is in front or behind them), surveillance and panopticism, the film apparatus, chronotopic temporality,

24 William Bogard, *The Simulation of Surveillance: Hypercontrol in Telematic Societies* (New York: Cambridge University Press 2010).

25 *Lifecasting (video stream)*. Accessed 15 September 2014, [http://medlibrary.org/medwiki/Lifecasting\\_\(video\\_stream\)](http://medlibrary.org/medwiki/Lifecasting_(video_stream)).

26 Even though drones fall outside of the scope of the present book, they play a part in the cinematic mode of existence. In areas surveilled by drones, people's behaviour is highly conditioned by their presence and their watchful eye. For more on the subject of drones, visibility, and the intensified militarization of life see: Lisa Parks, “Drones, Vertical Mediation, and the Targeted Class,” *Feminist Studies*, Vol. 42, No 1, *Everyday Militarism* (2016), pp. 227-235. Accessed September 2017, <http://www.jstor.org/stable/10.15767/feministstudies.42.1.227>.

27 Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford, New York: Oxford University Press: 2007). The Actor-Network-Theory explores the relations between “actants” within the network. These actants consist of human and nonhuman actors.

archival modes, and, finally, the filmmakers and artists working with the aesthetic potentialities of these media.

Since this study starts with the premise that at the basis of webcam pervasiveness is an affective relation to the medium, the steps I take in this book commence on a more personal level. As such, the first chapter titled “Video Surveillance Versus the Affected Personal Cam” approaches the ownership of the webcams by analysing the different degrees of affect they have.<sup>28</sup> By studying works on affect theory, specifically those of Brian Massumi, I maintain a differentiation between surveillance cameras, CCTV, and publicly accessible webcams. This differentiation permits the definition of the level of attachment a company or an individual may have towards a camera, as well as the affects thereby produced. This differentiation also offers itself as a theoretical framework for studying the specific affected ownership of the camera and the purpose of positioning a streaming video device in an urban area. In addition to analysing the produced content and its forms, I consider the role of the observer and the ways in which this role can at times be inverted with that of the observed.

In the second chapter, “Post-Panopticism and the Attention Economy”, I step back from the intimate realm of individuals’ relations with their cameras. I analyse the contemporary condition of surveillance and its impact in the social realm by observing the collective experience of a world pervaded by audiovisual documentation, collection, and distribution. This chapter engages with the primary function of video surveillance and post-panopticism in order to understand how influential these cameras may be for the reorganization of time and space. Furthermore, I consider the cameras’ consequential influence on people’s behavioural patterns in the street. I then study the transition from the Panopticon, as theorized by Michel Foucault, to the post-panopticon infrastructures of maximum surveillance. It is in the post-panopticon infrastructures that human beings have become identified with the data they produce. A central character in this scenario is the “data double”, which stands for the *shadow* of an individual that inhabits the

28 Gilles Deleuze, “On Spinoza,” 1978, accessed 26 April 2017, *Lectures by Deleuze*, <http://deleuzelectures.blogspot.nl/2007/02/on-spinoza.html>. For clarity, I use the terminology “to have affect” in the same tradition as Deleuze when he states, “There are greater differences between a plough horse or a draft horse and a race-horse than between a horse and a plough horse. This is because the plough horse and the race-horse do not have the same affects nor the same capacity for being affected; the plough horse has affects in common rather with the ox.” What interests me in this quote is not necessarily that it refers to horses, but that Deleuze claims that these animals (plough, race, draft) *have* affects. As such, I apply it to the webcams and their footage: they *have* affects.

virtual world. The data double is imbued with a large degree of credibility while categorizing all the activities that form a digital footprint.<sup>29</sup> Metadata includes the actual image of an individual constantly recorded by video surveillance and constructs the data double. The chapter will further delve into the position of webcams within the attention economy by comparing their audiovisual production to that of classical cinema and the expanded forms thereof. To further emphasize webcams' contribution to present-day systems of capital production with their continuous captures and streams, my study draws on Jonathan Beller's book *The Cinematic Mode of Production* (2006). I engage with Beller's analysis of the contemporary heightened form of capitalism that has monopolized eyes and colonized synapses. In following this general view on the status of the contemporary forms of the Panopticon as source of mass entertainment, it is imperative to specify the ways in which traditional analogue film cameras have metamorphosed into webcams. Furthermore, the consequences for contemporary filmmaking must be understood.

The third chapter is titled "From Cinematographic to Cinematic Apparatus". In this chapter, I define the cinematic potential of this emerging cinematic medium by analysing it as an apparatus with an apparently seamless mode of operation. Jean-Louis Baudry's writings on the classical cinematographic apparatus are used to isolate the technical aspects of webcams, including the roles of the camera, the projector, and the screen. Isolating these aspects enables a deeper insight into the specificities that make the webcam a medium that generates meaning in its own right.<sup>30</sup>

One characteristic of this new cinematic medium in relation to surveillance and the documentation of urban life is the emergence of a new temporality. This temporality is unique in that it fuses preexisting filmic forms of time with Internet time. In the fourth chapter, "Cinematic Chronotopes: Temporality of the Cinematic Mode of Existence of the Webcams", I deconstruct the generally accepted notion of temporality that supports the alleged documentary value of such imagery, i.e. real time. In order to analyse the specific temporal form of webcam footage, I synthesize the notions of cinematic time (the single shot) and network time (global time and transmission) into the conceptualization of a third term that I call *Realttime*.

29 David Lyon, *Surveillance Society: Monitoring Everyday Life* (Buckingham-Philadelphia: Open University Press, 2011).

30 Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," in *Narrative, Apparatus, Ideology: A Film Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986).

The latter consists of a temporality that includes delays in transmission disguised by an apparent immediacy. Moreover, *Realtime* stands at the basis of the webcam's potential to generate *chronotopes*, i.e. time-space narrative units. Borrowing from the writings of Mikhail Bakhtin, I further propose to consider images captured and streamed by webcams as consisting of chronotopes not unlike those existing in literature initially, and in film and expanded cinema more recently. I argue that webcams construct a fictive documentary reality produced by a narrative *dispositif*.

Following this argument, it is important to research the locations where footage is stored, the ways in which it will be accessed in the future and for what purposes it will be used. Chapter five, "Webcams and the Archive", delineates the instances of digital archiving of the webcams' cinematic account of reality. I study and compare both former and recent approaches to the archive of time in analogue film and in digital media. In order to challenge the claims that cinematographic referentiality would be lost when transitioning from analogue to digital, I reevaluate the linguist Charles Peirce's notion of the index as trace and as deixis by applying it to both analogue and digital footage. Further, I challenge views that consider digital platforms as immaterial and regard data as unchanged when travelling across storage media. Wendy Chun's writings on code as matter as well as Matthew Kirschenbaum's ascertainment that data can be retrieved beyond erasure help demonstrate that the digital also possesses an inherent traceable material constitution.<sup>31</sup> This materiality allows for the construction of an ever-growing archive in which digital signals are stored and can be retraced in the future. However, this archive has lost some of its classical linear narrative structure and instead has adopted database logic. In this chapter, I will further analyse the way in which this logic may still be dictated by authorities that own the archive. In addition, I also consider how the archive has had its narrative linearity replaced by the seemingly endless possibilities of algorithmic recollection of data stored in all corners of the network. These vast amounts of personal data that leave traces on every visited platform are stored in millions of dormant yet pulsating hard drives inside gigantic cooled data centres, waiting to be accessed.

In the sixth chapter, I look at the aesthetics of webcam footage within the context of precarious archival image sources appropriated in politically engaged art. The visual material generated by different forms of mass media

31 Wendy Chun, *Programmed Visions: Software and Memory* (Cambridge, Massachusetts and London, England: The MIT Press, 2011). Matthew Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, Massachusetts: MIT Press, 2008).

may acquire myriad combinations, as in the work of Steyerl, which demonstrates such varied formations. It may also serve to propel the construction of cinematic spaces as can be experienced in Harun Farocki's films and installations. Or, it may exist to make us understand the intangibility of the experience of war, as seen in Walid Raad's Atlas Group Archive. Differing in kind and in meaning, what these three approaches share is the choice to use precarious archived visual material. This mainly consists of low-resolution imagery that has often been produced by deficient optics that are repeatedly copied or inadequately archived, resulting in "poor images" full of glitches and noise.<sup>32</sup> This visual material displays a precarious aesthetic wherein the mode of operation of the medium itself is inscribed in the materiality of the imagery, and is, therefore, inherent to it.<sup>33</sup> The chapter further emphasizes how the choice to use such footage constitutes a political standpoint within a cinematic mode of existence pervaded by the audiovisual input and output of archival materials.

Finally, I will retrace the steps taken in chapters one through six by analysing the cinematic medium of the webcams that stems from panoptic principles, but is disseminated by a mode of production based on affect. With great effect on contemporary societies by influencing subjectification, webcams have contributed to the emergence of the contemporary cinematic mode of existence wherein production, consumption, and simultaneous archiving take place.

32 Hito Steyerl, "In Defense of the Poor Image," *e-flux journal* no. 10 (2009), <http://www.e-flux.com/journal/in-defense-of-the-poor-image/>.

33 Arild Fetveit, "Medium-Specific Noise," in *Thinking Media Aesthetics: Media Studies, Film Studies and the Arts*, ed. Liv Hausken (Frankfurt: Peter Lang, 2013).