

The Amphibian Filmmaker: A new evolutionary species In the time of the Post-truth

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Abstract

This proposal is an exploration where film and new media art (particularly post-internet art) are approached from a perspective of the so-called post-truth. To do this, it starts from questioning the ideas of objectivity and the subject/object pair from two related points of view: how these ideas are interpreted in documentary films and how they play a role in the current scientific method crisis. This serves to give context to the problem of the image as a system of representation in both realms (film and science), and how truth is portrayed particularly in the realm of the technical image, serving to aesthetic and scientific purposes. Having mapped out this epistemological tension, three types of films are briefly discussed - the biopic, the intimate documentary and the false documentary - emphasizing on the latter and presenting it as the direct forerunner of the so-called "fakes" on the Internet. Moreover, the pair truth-objectivity is challenged in favor of false narratives that through humor or irony depict critical issues in a more engaging way. In order to do this, several examples are presented showing how the historical evolution of the single screen of the cinema into the multiple screens of the network society not only hybridizes creators with consumers, but expands with diversity the prior unequivocalness of the objectivity discourse. Finally, the concept of the amphibian filmmaker is posed, as a metaphor of a creator who is able to move on these fuzzy aesthetic territories being faithful to an artistic vision but also to a social and activist ethos.

Keywords: Cinema-science Relationship, New Media, Post-truth, Technical Image, Manifests

Introduction

It is undeniable that new media and the possibilities of the digital image, have affected deeply cinema. In that sense, it can be said that every aspect of film - or audiovisual artifacts at large - is changing due to the affordances and technicalities posed by software and algorithms. From production, capturing, post-production and distribution, moving images can no longer be seen without considering digital processes. This digital turn in cinema has been largely discussed (Manovich 2010) (La Ferla 2009) being part of what has been called *media convergence* (Jenkins 2008). Moreover, as the digital image can be *calculated*, some theoretical discussions about moving images have been challenged, particularly the relationship - mediated by the camera as a registering apparatus - between images and reality. Though there has been a large tradition of moving images detached from factual images (for the sake of the digital image think of the abstract computer experiments of Lillian Schwartz),

the legitimacy agency ascribed to the moving images still remains as the fundamental contract (particularly in documentary films) of cinema. One unexpected consequence of this described convergence is that this fundamental construct of film theory (image as an index of reality) is again contested in the realm of the digital image, with the now omnipresent buzzword of post-truth. Shortly, the raise of computer networks and especially social networks as an effective medium for the distribution of images and the democratization of production resources have flooded the media landscape with audiovisual artifacts that appear to be *factual* when they are not. Obviously, this is one of the problems that the term Post-truth conveys, augmented by the possibility of recording almost anywhere by anyone brought by handheld devices. Furthermore, computer science techniques such as machine learning have worsened the situation, providing a path for realistic image manipulation or even image generation where it is possible to fake the utterances of an individual portrayed in an audiovisual artifact.

This article is located within the framework composed by the digital image and the value of truth that lies on it. The text departs from the following question: what are the possibilities and ethical considerations of film making in the age of post-truth? Specifically, the aim is to turn around the common narrative of the post-truth concept as a menace, and rather assess it as a field of opportunity for engaging and fruitful audiovisual creations. Even though this movement cannot be claimed as entirely new, following the premise allows us to explore some antecedents, troupes and film works that supported it. Moreover, this account leads to a more propulsive tone, embodied in the form of a short manifest. Argumentatively speaking, the offered approach rests on two main columns: one more complex and interdisciplinary, and the other more straightforward and media informed. The first of these columns draws from a non-linear parallel between film making and science. There are historical and philosophical reasons to proceed in this way: namely the intertwined histories of science, art and technology that are at the core of the genesis of cinema, and a common preoccupation for dichotomies such as objectivity/subjectivity and reality/representation. We have to remember that this relationship is urgent, especially when considering the technological and scientific nature of the solutions provided to fight post-truth narratives (such as fake news) and the potential role of arts in this discussion by providing an alternative to this dangerous determinism. The second of the mentioned argumentative columns consists of a new media approach based on the well-known work of Lev Manovich and his *The Language of New Media* (Manovich 2001). More precisely, one of the postulates of Manovich's work is that there are some traits of the

so-called new media that result familiar because they were anticipated by cinematic language. Likewise, the fake narratives so commonly discussed when addressing the post-truth concept could be traced back to some cinematic specific genres as forerunners. In doing so, a clear hypothesis surfaces: the success of fake narratives relies partially on the fact that we are already prepared for them. Finally, a clarification is due: the register of these columns is different, with the pair cinema (more specifically, documentary) science at the foreground but with the new media argument constantly present on the background in a tacit way.

The article is organized as follows: a second section will discuss the concept of objectivity in science and cinema, their relationship and why it has become a myth. The next section will problematize the function of the image in science and film, especially when it is considered a factual representation. After this, a fourth section will present some examples on how film has played with the factual tension of the image, providing a rough classification based on the problem of the duple objectivity/fiction and some of its possibilities. Then a similar exercise is conducted through depicting a further crisis of the image - digital image - in the age of the so-called post-truth and the proliferation of fakeness. To solve the predicament a defense of the false narratives is posed using the form of a short manifesto where the metaphor of the amphibious filmmaker is presented. Finally, the conclusions section will address further issues as ethics, and some implications of this proposal to the media landscape.

Science and the moving image: intertwined myth

Science, as understood by the classical scientific method that appeared in the XVII century, is a quest to read the book of nature through the application of a systematic approach. Specifically, "science offers 'facts' and 'truth' through its reliance on numbers, words, and objectivity" (Leavy 2015, 302). Thus, scientific knowledge must be structured, reproducible and verifiable, pairing directly accuracy with measurement. That is, identifying knowledge with quantification (Santos 2009, 24). The way of gaining knowledge through measurement requires then observation and experimentation, in order to obtain theories, and thereafter laws that describe precisely the object of interest, mostly a natural phenomenon. The paradigm of science then is characterized by its rationality and suggests a dominance of nature by the human. This short account of science is probably superficial and fails in several details - due mostly to space constraints - but suffices in providing some key aspects useful to establish the dialog with the aim of this text. First, it states clearly the preponderance of objectivity, and the separation of the subject and the object of research, noticeable in the gap between researcher and nature. Second, it highlights the importance of observation in the scientific enterprise, and the use of devices to obtain the required measurements. As noted again by Boaventura de Sousa Santos, the intrinsic qualities

of the (observed) object, are less relevant than the (numerical) representations of the measurement's devices. Finally, and perhaps of paramount relevance, it is the monopoly of facts and truth which science identifies with. Though as it is explained in the next paragraph, several of these defining aspects were about to be contested in the XX century, the narrative of a universal, indisputable and pure science still attains a great influence, particularly on media.

The critique on this idea of science mainly builds on the inconvenience of dichotomies such as objectivity/subjectivity, culture/nature, rational/irrational among others and on the fiction of science being an incremental process. From that, the solely idea of a perfect science appeared then problematic, and the oversimplification showed by those constructs of modernity (dichotomies and linearity) were a hint to the upcoming crisis. The first case was already present in the dualisms posed by Descartes, and they are a fundamental part of the modern discourse of science; for instance: rational/irrational (with science on the first side). Scholars of philosophy of sciences, notably Bruno Latour, questioned the idea of these dichotomies, pointing out that society or nature are both social constructions and that society, not nature, was able to distinguish both falsehood and truth (Latour 2012, 142). Similarly, Latour conducted ethnographic studies in laboratories and managed to de-construct the idea of the science process as rational and neutral and showed how it was affected by social, historical, political, economic and cultural conditions (Latour 1987). The second case is part of the evaluation of a science process coming from several authors. To name a canonical one, Thomans Kuhn pinpoints that science does not advance based on an accumulative and stable process (introducing for that the concept of paradigms and defying linearity) going as far to state that science *forces* nature in already fixed compartments and that science community legitimates itself assuming that they know how the world is (Kuhn 2004, 29-30). But not only scholars and critics trace the path for a turn in this former unquestionable narrative of science; it was science itself with some discoveries and new theories the one that would push the frontier. Think for example of quantic mechanics and its findings that A. observation affected an experiment and therefore B. there were random events and phenomena in the then predictable building of science.

At this point one might ask, what is then the significance of such positions and advancements for cinema? First, and as aforementioned (and expanded in the next section), there is a close relationship between pre-cinema devices and science measurements devices; unfolding an interlaced genealogy where projected images were used as scientific resource and lied at the tension between registering reality (for science) or entertaining. Furthermore, some key topics as the dichotomy objective/subjective and the relationship with the truth and linear evolution of cinema are at the center of the discussion of cinema as an art, industry and medium. As in science, some film makers have similar aspirations regarding what reality used to be: "[w]hat I want is for cinema to be

a pure and simple recording of reality, without any subjectivity intervening or getting mixed up in it" as put by director Jean Eustache and quoted in (Baumbach 2014, 266). Though this statement deems some forms of cinema as *objective*, it can be said that objectiveness is particularly troublesome, especially for documentary films. And even though the lines between documentary and fiction are blurred from an aesthetic perspective (with the latter understood by definition as not objective) (Otway 2015, 3), "documentary filmmaking has always had a tenuous relationship with the idea of truth" (Otway 2015, 3) Also, as in science, documentary films are subject of film makers' manipulations; therefore, putting in question pureness and neutrality: (on documentaries) "[t]his is not to say that they're 'objective'. Like any form of communication, whether spoken, written, painted, or photographed, documentary filmmaking involves the communicator in making choices" (Bernard 2010, 5) Continuing with documentary films, they rely on a contract with the audience "that what is being presented as the truth - and the evidence used - are both honest and truth" (Bernard 2010a). All these statements highlight the problem that truth is "closely associated with the problem of objectivity" (Blumenberg 1977, 19) and even more, that objectivity is non-existent (therefore, subjectivity is unavoidable). About the linear narrative of science, which is deemed as a continuous accumulative process, there is a similar parallel in cinema history. Following Colde Aldana when he mentioned the classic *Arqueología del Cine* (Archeology of the Cinema) from C.W. Ceram, to assume that the history of cinema predates the visual developments of the XIX century, is a consequence of mechanistic theories that conceive history of mankind as a continuous process (Conde Aldana 2019, 87). Finally, we had these three elements: objectivity, truth and continuous development as a kind of myths shared between science and cinema. It is essential to understand two important issues in the argumentation: the value of truth assigned to images and the role of falsehood in cinematic narratives.

The ongoing tension between Truth and Images in cinema

Even though science has in verbality, (spoken and written), its main communication medium, images have always played an important role in science quest for explaining nature. Despite its prior subordinated place as illustration, images are part of the media artifacts required to describe scientific observations, findings and developments. Consider the well know tradition of scientific illustration, which searched simultaneously accuracy and beauty. Scientific illustration, as observed in the review of *Images of Science: A History of Scientific Illustration*, record the state of human understanding but also are object of manipulation, as *what* to illustrate constitutes a (non objective) choice (Toresella 1995). In the same vein, Julia Marshall reports that according to Sturken and Cartwrig (and echoing the idea of paradigms of the already mentioned

Thoman Kuhn), illustration images carry a mantle of truth and objectivity, "scientific imagery often comes to us with confident authority behind it" and therefore must be interrogated (Marshall 2004, 139). Scientific illustration tradition is also related to the emergence of the traveling artist (and scientist) as in the case of renowned German explorer and scholar Alexander Von Humboldt, whose sketches informed European imaginaries of other territories and are exhibited in museums as well. But as put by futurist Umberto Boccioni, "[t]here will come a time when paintings are no longer enough" (Coen 2007, 43), and Flusserian technical images such as photography and cinema, appeared to fill a new need of representation. As proposed by Flusser, these images required apparatus (therefore technical), revolutionized epistemology (Flusser 2011, 16-17) and even though they display an apparent objectivity, they deem the difference between false and true superfluous (Flusser 2011, 49).

As noted, the history of cinema and moving images can be framed under the technical image construct. This means that their evolution passed equally through the science and entertainment history and that both realms met in the requirement of apparatus. The common rhetoric of cinema prehistory (shared by disciplines such as archeology of media) highlights figures as Athanasius Kircher (to whom knowledge, theology, art and technique were closely related) (Zielinski 2006, 44), and developments as the *camera obscura* (dark chamber) or the magic lantern, whose applications served equally scientists and entertainers. A similar gesture is pointed out by the very same Flusser, who was aware of the substrate of this "magic thought" and its technical experiments at the origin of modern sciences (Zielinski 2012,141). Precisely there is evidence of the use of the camera obscura "both scientifically and as a device for conjuring spectacle" (starting the assumption that the projected image was actually there) and the magic lantern, invented by Dutch scientist Christiaan Huygens being used in common spectacles from the XVII century until well entered the XIX century (White 2009, 17). Experiments as the chronophotography applied to movement, by Eadweard Muybridge, also constitute examples of what Conde Aldana calls the transit of cinema from scientific inquiry towards spectacle showing the ability of capturing life, movement and other aspects of reality (Conde Aldana 2019, 90). Properly speaking of cinema, two well-known opposites postures show how the invention of cinema and the capture of movement was interpreted and the problems surrounding different positions. On one hand, there is Henry Bergson, who described cinema as "the very model for false movement" (Baumbach 2014, 262), a move that later Deleuze attributed to the specific time the affirmation was made (beginnings of the XX century) when cinema had not acquired its modern conventions. Precisely, and on the other hand, Deleuze critiqued the state of cinema at that time in favor of times were conventions as montage were developed. This differentiation pairs the primitive stages of cinema with movement, and not with Deleuze's construct of movement-image; therefore, (as quoted by Baumbach)

"[w]hat we get instead is only false movement, a form of cinema that is neither science nor art, and that conceals its potential because it mimics 'natural perception'" (Baumbach 2014, 263). From that one can infer that 1. raw capture of movement simulates "natural perception" but 2. it hinders the real cinema, where capture is manipulated via montage. To conclude, it can be said that one of the tasks of Deleuze in his two well-known books *Cinema 1* and *Cinema 2*, is not only to trace the evolution from the moving-image to the time-image, but how this step required the birth of montage and other manipulation techniques. In doing so, cinema reaches its true essence not by trying to simulate an accurate representation of the world, but by creating something new where, in Flusserian words, the tension between false and true, on what was real was not of central relevance.

Portraying the multidimensional truth: a personal taxonomy

At this point it should be evident that the language of cinema is in part indebted to science experimentation but acquired its own identity, where capture and representation of reality are important elements, but they do not encompass the whole possibilities of the medium. As mentioned, concepts as objectivity, truth and linearity are dwell in cinema practices, but they cannot be understood as simple dichotomies and rather show a very complex nature (as in science). What does this actually mean? That more than oscillating between absolute classifiers as *True* or *False*, certain types of cinema draw from an established relationship between author and society offering a palette of possibilities where what is real and true is continuously negotiated. This is particularly problematic in genres as documentary, that, on one side are still grasped as objective and factual (as the definition of the Merriam-Webster dictionary shows) and on the other side, documentaries "presuppose an implied contract of trust between filmmaker and the audience, a contract that stipulates the accurate representation of a filmic reality" (Otway 2015, 5). In other words, documentaries deal with representations of reality (not reality itself), but they themselves are subjects of the operations of cinema, time operations (montage) according to the Deleuzian time-image. In fact, documentary films, as put by Sheila Curran Bernard, require drama (Bernard 2010a). And currently there are movements that work from a documentary perspective in a zone where fixed typologies are eluded in favor of mixed approaches where fictions are reintroduced in reality, playing with conventions of different genres (Lipovetsky 2009, 161). This diversity of approaches is not new, and several previous movements such as *Direct Cinema*, *Cinema Verité*, *Observational Cinema* or even before as *Kino Pravda*, have reflected on their distance with the truth, the objectivity, and their relationship with the mainstream cinema conventions; developing in the process their very own identifiable language. As a related footnote, these reflections processes have originated some cinematic artifacts that are linked to

the idea of a real mode, such as handheld cameras, a video quality of the image, abrupt movements and, more recently and due to the entrance of smart phones, the vertical format.

If categories in documentary cinema or other genres informed by its postulates no longer hold truth, what is the purpose of a taxonomy? Reputed classifications of documentary films such as the one from documentary theorist Bill Nichols have been challenged several times, considering 1. the size of the tasks of organizing such a complex and large matter as non-fiction representation and 2. the embracement of confusion and celebration of hybridity and stylistic bricolage celebrated by new documentary approaches (Cagle 2012, 46). However, this exercise of a personal taxonomy does not pretend to provide a theoretical basis for a rational organization of the genre, and rather pursues to exhibit some modern developments that are useful to support the aim of this text and the description of an *amphibian filmmaker*. Consequently, the following categories are hybrid in language and media support and are proposed considering the influence of other media (mostly social networks), except for the last category, which is a classic genre but it is argued to be the most important one. The offered description is intuitive, subjective and based on the perception of the author. The categories are:

Reality shows: although they are more based on an in-between medium such as TV (occupying a middle position between classic cinema and Internet), these shows portray - as the name suggest - a real unscripted situation, even though the heavy manipulation and uncommon settings suggest the opposite. The documentary *fly on the wall* style points out to montage as a way to build a more engaging narrative. Whereas reality shows came into the mediascape in the turn of the century (circa 2000), they were predicted by Films as *Network* (1976). Audience feelings on characters and plot-turns in reality shows are heavily discussed on social networks.

Biopic: nowadays is very common to find the sign "based on true events" at the beginning of several films. Normally, biopics (or the related genre of docudrama) is based on a re-enactment of factual events, introducing fictional elements (such as characters or situations) for dramatic reasons. Whilst the artifice is clear from the beginning, discussions on the fidelity to the true facts in the film are usually discussed and criticized. Films as *Spotlight* (2015), *Argo* (2012) or more recently the successful *Bohemian Rhapsody* (2018) - to name a few - are good examples.

Intimate documentary: a genre with increasing popularity - perhaps mostly among students - is to turn away from big narratives and concentrate in personal or familiar everyday situations. For this reason, intimate documentaries portray a central character (usually represented by a relative: mother, father, grandparents etc.) and the relationship of the filmmaker with them. The closeness allows to include other visual artifacts as familiar photographs and home movies. A prominent example that can be named is *No home movie* (2015) by Chantal Akerman.

False documentary: a genre with a long tradition where fictional events are presented in a documentary style. Despite the fact that not all the cases fall in this statement, it is very common that they used humor and parody to offer a critique or commentary on a real situation. Very well-known examples are *Zelig* (1983) by Woody Allen or *F for Fake* (1973) by Orson Wells, (though the latter is classified as docudrama for including some real characters). Of special interest for this group is the film *Un tigre de papel* (A Paper Tiger) by Colombian filmmaker Luis Ospina. The example is relevant not only because it includes cases that depart from common canonical examples but because it exhibits a quality that this text pretends to encourage: through a false narrative and an invented character, the director offers a precise commentary on Colombian social and political problems.

The quest of believing: the image in the age of post-truth

With the entrance of digital technologies, the moving image faces new challenges. In a kind of contradiction, the now dominant numerical codification of digital images - that through sampling reality reduces its representation to a sequence of 1s and 0s - has brought more flexibility to the image representation. That means that with just two discrete elements and the algorithmic operations made upon, reality is not only represented but calculated. Like cinema itself, digital technologies have also an intertwined history where technologies of image representation and technologies of calculation coalesce. If cinema has its prehistory in devices used for science and entertainment, calculation and image technologies have also a common trunk where the image is not directly captured from reality but interpreted and numerically calculated. Think of well-known examples as the Jacquard loom - created in the XIX century at the peak of a scientifically informed industrial revolution - which is a technology related to serial image production but it is also considered as a forerunner of modern computers (La Ferla 2009, 53). It is not the objective of this text going through the rich and vast common history of computers and image technologies in the last century, but suffice it to say that this hybridization have led us to media convergence where distribution platforms, audience, industry and narratives are interdependent and encourage participation, closing the gap between producers and consumers of content (Jenkins 2008, 14). The current omnipresence of affordable devices capable of capturing, processing and distributing media content, such as smart phones, only has deepened this convergence trend. But going back to the problem of objectivity, factuality and representation of reality, digital technologies and their affordances, allow a broader spectrum of representation. On one side, they improved with their numerical operations the capture, processing and distribution of regular live action images. On the other side, they have made possible the rendering of non-existent worlds, that only exist as abstract numerical models in a computer.

This observation does not imply a dichotomy, as for example in 3D animation films. These numerical representations are just simulations of reality that do not fall far from Hollywood narratives (Daly 2010). That is, they are still trapped in the time-image frame not realizing the potential of the new media. This spectrum rather offers a range of prospects where, remembering Flusser, “true” or “false” refer to unattainable horizons (making the distinction useless) and assert the nature of the technical image, namely, that is not observation of objects (as the traditional image) but computations of concepts (Flusser 2011, 10)

The already mentioned media convergence has brought problematic issues as the buzzword *Post-truth*. Without going deep into the so-called word of the year 2016, for the aim of this text the concept - indifferently from its origin- is important for several reasons: first, it is completely bound to social media and networks as a distribution medium. Second, it relies on participatory culture and in the capacity of consumers to become producers of content. Three, it is seen as a negative outcome of modern new media and brings again to the foreground the dualistic discussion of what is true or false and the urgency of being able of telling one from the another. Specifically, post -truth awareness has put fake narratives into the center of discussion, turning to science (again) to obtain help in fighting content that is seen as dangerous. And even though there are indeed visibly undesirable outcomes of this global media convergence phenomenon (such as the incidence of fake news in election processes around world), the oversimplification made by the critics of the post-truth tropes can be complicated itself. Moreover, there is a long tradition - besides the scarce examples provided in the previous section - of narratives of falseness that go beyond the realm of cinema. To consider just two cases, think of the famous and influential radio broadcast of the *The War of the Worlds* (1938) by Orson Wells or the anecdote, informed as well by the fictional characters Luther Blisset and Sonja Brünzels, of the false reviews distributed by Engels to different newspapers to stir controversy and promote *Das Kapital* form Karl Marx (Blisset 2006, 5). To showcase the reach of digital technologies and the challenges posed by the so-called *machine learning* to this global concern with post-truth narratives, the following examples are provided, highlighting that, once again, reality and factuality are at the center of feverish media discussions. In every description some relevant remarks are made:

1. Synthesized Obama: researchers of the University of Washington, trained a neural network with fourteen hours of footage of former US President Barack Obama. With this they obtained a virtual model of his mouth that can be superimposed on Obama's face, coordinating the mouth movements with the voice of other person. This example show the hybridization of real captures and computer models, requiring real footage for the training, an algorithmic process and producing a *fake* real footage that puts into question our perception (BBC News 2017)

2. Laughing Putin: researchers from Stanford University, University of Erlangen-Nuremberg and Max Planck Institute for Informatics have developed a software that using just fifteen seconds of YouTube footage can generate a 3D model of the person. Additionally, using a web cam a second person's gestures are captured and mapped on to the already generated 3D model, providing the complete manipulation of target individual facial gestures. Like the previous example, artificial intelligence techniques are used but the objective is slightly different: not only the mouth is modeled but the whole face. On the downside, this software does not provide tools to simulate the voice. This example requires two real footages, the one of the source individual which provides the gestures and the one from the target individual who will be *faked*. Again, perception of what is real is deceived (Quartz 2016)
3. Deep Fakes: very similar to the previous example, this term points to a technique aided by software where a face from a source can be mapped onto a target face. Differently from the previous example, both source and target can be obtained using footage obtained from the Internet. The term has gained a wide media coverage because of its common use of mapping celebrity faces onto pornographic videos. Though perhaps the artifice is clearer than the other two cases, ethical concerns have jumped mass media portraying the technique as potentially dangerous (Villainy 2019).

These examples pose important issues for the discussion. Beyond their novelty, they are the result of scientific and technological endeavors working the moving-image and its manipulation possibilities, expanded by the calculated image processes. At the same time, they put on the table again discussions though as already settled. In this sense, this passage of Flusser appears as a prediction that establishes again the inconvenience of the false-truth dichotomy: "Could the televised image of a politician be the performance of an actor imitating that figure? These are not good questions. They permit no answer relating to technical images because the questions assume a distinction between true and false, and in the universe of technical images, such distinctions have become superfluous" (Flusser 2009, 49).

The amphibian filmmaker: a fake manifesto

Deceived by the techno-utopianism of the early Internet ages and by the lies of the salespersons, army of the digital powers at the clouds, we believed in the false myth of the dichotomy of the digital native and the digital migrant. In that, we assumed a deterministic favor for the figure of the almighty digital native and his/her knowledge of the codes of the new frontier. But it turns out that the cyberdream is over and mistrust is the secret crypto-currency of the brave new digital world. What can we do? What can we believe in when we are surrounded by illusionary pixels everywhere? First, to abandon the idea of a unique truth and then

embrace the fact that even though this exciting universe is based on two states (one and zero, true or false), its possibilities are endless. For this reason, we rescue the figure of the digital migrant with all its value. The migrant knows several worlds, several languages and several codes. The digital migrant remembers the past, a past populated by the marvels of cinema and the possibilities of the technical image to model his/her own environment. The digital migrant is fluent in the several colors that the false-truth spectrum has. Moreover, remembering the shared parenthood of cinema and calculating machines between science and magic, the digital migrant can metamorphose in a new metaphor regarding the audiovisual world: the amphibious filmmaker. Pursuing the prefix *meta*, the amphibious filmmaker is an evolutionary step apt to move on the troubled waters of cinema or on the moody grounds of digital media. The amphibious filmmaker does not recognize genre limitations and knows that reality lies on the eye of the beholder. For these reasons, the amphibious filmmaker occupies several semiotic realms armed with the soft camouflage of the media convergence. The amphibious filmmakers are aware that:

1. They are members of a participatory community where media artifacts flow freely, like the waters of a media swamp
2. They do not expect a kiss from a mass media prince to vindicate their practices. They know that there is beauty in the apparent ugliness.
3. They jump from lotus onto lotus and from jump cuts onto jump cuts, knowing the aesthetics of delirium.
4. They take advantage of promiscuous media reproducibility and aspire to lie their tongue on the terse skin of the magic creature of viral content.
5. They know that you can catch more flies with subjectivity than with non-existent objectivity.
6. Amphibian filmmakers don't condemn post-truth, and even thrive in its warm sanctuary.
7. Amphibian filmmakers are not afraid of the vertical format and pursue multiple evolutions.
8. Amphibian filmmakers jump on different realms equipped with their portable machines and mutable concepts.
9. And finally, amphibian filmmakers recognize the inconvenience and oversimplification of the binary construct true-false, knowing that it is a discussion that predates even when amphibians appeared on the earth.

Conclusion

This section closes the discussion in three stages, namely, providing a critical summary, discussing the artifact of the manifest and offering an insight on the modes of audiovisual production in the age of post-truth. First, the whole argumentation is built on the premise that the topic is only accessible considering a diversity of sources and disciplines. This is only a realization of the complex and multidisciplinary nature of cinema and new media, both being at the middle of the dialog between science, arts and humanities. From

there, and following a subtle argumentative path, it is exhibit that the inquire for the nature of truth, objectivity and their relationship with factual events is at the core of scientific inquiry and the potential of the technical image. Perhaps the most valuable consequence of this train of thought is the affirmation that the simple dichotomy true-false is misleading and that this very discussion has been an ongoing matter of debate for scientist and filmmakers since the beginnings of their respective disciplines. This move allows to position the post-truth topics not as a novelties pertaining only new media developments but as a new instance in a complex problem that predates it and that has been treated several times in cinema, particularly in documentary cinema. By this mean, a similar assertion as the one from Manovich described in the introduction is made. More precisely, some cinema techniques, conventions and genres prepared us to digest post-truth artifacts such as fake news almost effortlessly. That itself constitutes an invitation to face the problems of post-truth from another perspective, a more assertive one. In that sense, ideas as the one of cinema 3.0 - interactive cinema - as an evolution of *Cinema 1 and 2* (Daly 2010) or even as the film series *Post-truth cinema* held in Utrecht (Netherlands) by the Impakt Festival (Impakt 2018).

Second, the section devoted to a manifest fills this mentioned assertive vein. At one moment of the argumentation, it was felt that the argumentative and historical mode of writing was not enough to portray the creative excitement that a current topic as post-truth represents for filmmaking. For this reason and drawing from the tradition of manifests in art, a creative writing exercise was conducted. However, and as a conceptual twist though the narrative deals with important topics, a mantle of doubt is desired, is it a real manifest? Nevertheless, the creative artifact allows to enounce some aspects that a filmmaker should observe in the age of post-truth. The metaphor of the amphibian calls for this speciousness using the resource of an animal that feels comfortable in several terrains and that is part of an evolutionary process. In doing so, creativeness is encouraged as a more proper way of resolution for the predicaments posed by post-truth tropes. As a sample, a small example: the smart phone video *Tombo hijueputas* (2018) (being "tombo" slang for policemen and "hijueputas" a well know Spanish insult) went viral on social networks in Colombia (where the author lives) at the end of 2018. It shows a young man who insults a group of policemen on the streets and starts to run while being chased. Although from the beginning there were several questionings on the authenticity of the video, its street streaming aesthetics and visual style confused the country for a week until the trick surfaced. In the meantime, several memes were created, and a public discussion took place dealing with sensible topics as police brutality and political state of affairs at that time. Is it the work of an amphibious filmmaker? For now that does not matter, but the piece serves the purpose of tracing possible paths of creative endeavors for filmmakers in the age of Internet.

Third and perhaps of the most importance, there are some ethical connotations coming from the defended position. It is very common the oversimplified narrative where post-truth is seen as a confirmation of the post-modern postulate that truth is a social construction or that it is the byproduct of technological evolution and that we must accept it. This can be seen as just another reproduction of a dichotomy that leaves out other alternatives; as the ones that artists and filmmakers can propose. Of course, there are undeniable problems for democracy and the public sphere at large posed by practices framed by the post-truth construct. But it can also bring opportunities. Then what would a possible course of action be? Two examples can shed a light: currently there are scholar experiments that deal with fiction as a method of inquiry (Shaw and Reeves-Evson 2017) or speculative design (Dunne and Raby 2013). In those, the departing point is not trying to model reality but fictionalize it. Short films, as *Uninvited Guests* (Superflux 2014), are one example. The other case is the observation of literacy made in (Apkon 2013). This can be interpreted as a call to redefine visual literacy in the age of post-truth and give the audience elements to discern malicious content without losing the ability of using a medium creatively. On related note, the post-truth complications have arisen the usual technological determinism devices where software is proposed as a way to detect and filter fake content. However, if this is the path to follow, a derived and sad interpretation is enforced: we have lost the ability of judgment and we must rely on machines to decide what is true from what is not. And even though a cyborg approach can support this direction, humanism and our ability of perception must be also defended.

Finally, a couple of thoughts: the amphibian filmmaker metaphor and the science/cinema approaches taken have provided us before some hints for the current situation: if Descartes supported methodical doubt as a way to gain knowledge, Rancière invited us to fictionalize reality in order to think about it (Ilich 2011, 10). And in this multidisciplinary approach indebted to science and arts, we can maybe find a creative solace among the vertigo of digital chaos.

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