

## A Portrait of the Computer as a Young Artist

Holger Briel  
Xi'an Jiaotong Liverpool University  
Monarch University

### Abstract

From Emojis to Manga, from western adverts to “foreign” brand consciousness, visual products are continuing their near instantaneous circulation around the globe. Especially their apparent “naturalness” and freedom from translation is appealing. But here also lies the problem: many of the consumers of these images are oblivious to the fact that these materials have been constructed by social actors with specific backgrounds and specific agendas in mind; thus, especially their “foreign” receptions create challenges, including ethical ones.

In order to properly study these fairly new phenomena, a different kind of terminology is needed, not one that relies on older media concepts, but one that does them justice in terms of their contextual and technological complexity, multivalence and mobility. I will propose the term “VisionBytes” for these phenomena. These denote complex visual arrays, oftentimes of foreign cultural origin and consisting of still or moving images. They circulate within a system of non-photography as sketched by François Laruelle (2013) and are akin to the “objects” described in Quentin Meillassoux' *Beyond Finitude* (2010). Invariably, they touch on issues of belonging, identity, exclusion, globalisation, human and AI rights, all points featuring strongly in this text. Already today, these images have begun participating in the preparations for the gaze of the (technological) Other, of a possible singularity which for the first time will allow humans to re-view themselves and thus be seen by non-human intelligent others, a trajectory already taking its course.

As so often, art is at the forefront of these mediated upheavals. In the final part of the article, I will examine a number of recent art pieces/installations from a 2016 Art Fair in Shanghai, from the 2017 *Dokumenta 14* in Kassel, and from an ongoing internet project. These select pieces all point to an ever more life-permeating media future where wanting to merely live with media will never do.

**Keywords:** VisionBytes, visual products, visual, digital art

## The Rise of the Visual

Throughout history, vision and images have gone in and out of favour. From hero worship in the form of statues and images to the orthodox iconoclasts of the past and of the present, images have been eulogised and reviled. But they have never gone away and today, more than ever, they have imposed themselves as the preferred way of cognition and communication. In the process, they have successfully challenged the recent reigning mode of cognition and communication, the written text, and have opened up the age of the image.

With a very broad stroke, one might posit the reign of the text from ca. 3000 BCE to the 1920s. Since then, and in many guises, images have begun to challenge the power of the text and especially so since our entry into the digital age.<sup>1</sup> This was a long road leading from medieval illustrated texts to captioned images to “pure” images, with such recent way stages as newspapers admitting images into their textual universe, the acceptance of Manga, anime and graphic novels a “high” culture, and the rise of online social networks where communication is almost exclusively conducted via images.

The popularity of the image is not surprising. Many people feel that images are more natural than text and promise/give quicker access to realities. But right away, and partly due to their promise of instant comprehension, they are also considered only a stepping stone, an early stage to deeper knowledge to be acquired from written code. At first, children are given picture books, but once in kindergarten or primary school, they are expected to concentrate on the written text and popular items such as comic books are still considered a waste of time by many parents.

Yet, images are on the rise. Proof for the reign of the image is compelling. Thus, on 1 August 2016 MTV celebrated its 35th anniversary. This was not only quite an achievement in the fast-changing world of mass entertainment, but also in the way consumers used the station to negotiate both individual and hybrid audiovisual media. On the one hand, MTV is credited with revolutionising the production, marketing and dissemination of music, in itself no mean feat. On the other, it also revolutionised the way music is processed today, namely synthesised with images. YouTube, another hugely popular video/music channel, would not be imaginable without the foundation laid by MTV for general visualised music consumption.

Another milestone was reached in September 2017 when Instagram reported 800 million users. Already in 2014, it had overtaken Twitter with then 300 million monthly users. For the first time, the sharing of images had superseded the sharing of written code. No doubt also due to technology and a continuing increase in computing capacities, today iconic communication seems to have become more desirable than text-based communication.

This is certainly also the case when observing the communicative practices of the young and the not-so-very young. Invariably, in these groups, a large part of communication is instigated through selfies. While one might argue that this in itself is a move toward (visual) authenticity, this argument falls to wayside when one learns that in many circles, up to 100% of selfies are modified before uploading.<sup>2</sup>

---

<sup>1</sup> This is of course only an overgeneralisation. One might also claim that vision and decoding images is always already at the heart of reading. However, in its abstraction, reading did win out against most of the visuals originally making out the alphabet for instance.

<sup>2</sup> This is certainly true for all my students, as empiric and anecdotal evidence has shown.

Joanna Finkelstein's *The Art of Self-Invention: Image and Self-Identity* (London: Tauris, 2007), written just at the breaking of the Selfie fashion, already made it very clear that one's good image is more important than ever before. This includes a good dose of auto-voyeurism and narcissism, as mobile phones' ever popular mirror function clearly demonstrates.

If further proof were needed, one might point to one more event that attests the victory of the image:

On February 27, 2015, much of the globally networked virtual world was only discussing one question: "What colour is it?", leading to the first globally synchronised discussion of images and sight. A photograph of a dress had been uploaded onto tumblr.com and the question of the colour of the dress had been posed. Within hours, twitter and buzzfeed were inundated with tweets and posts, with two fractions bitterly opposing each other: those who saw the dress as gold and white and those who saw it as black and blue.



Tumblr.com

For the first time ever, netizens were deeply engrossed in discussions of colour theory, image philosophy and reception theory. The image had truly arrived.

The last example makes it clear, however, that images are not as innocent as many might claim and that serious interpretative work has to be invested in order to come close to any meaning images might possess. The very fact that they are so powerful, especially on an emotional level has led to iconoclasts rejecting them outright. But once a few aspects of theirs are accepted, their power might actually be harnessed for a better understanding of the realities surrounding us. Some of these aspects include:

- a) All images are in need of interpretation
- b) All images are constructed
- c) Their representational functions are complex
- d) They come without translations, subtitles or instructions for usage, which need to be supplied by their viewer and/or the communities of practice within which they appear.
- e) Words are only able to describe images in a very limited way. This is already true for the names we give to visual media. Take for instance the words “film” or “movie”, both of which are able to describe only certain aspects of the phenomenon; the former using the material upon which the phenomenon appeared at a particular moment in its history, the latter describing part of the illusion created by it. It can be rightly claimed that this phenomenon is so much more than that. At times, languages do allow to delve deeper into the subject, though, as is for instance the case for the Mandarin equivalent of these terms: 电影院 (Diàn yǐng yuàn), the “space for electric shadows”, a promise with a warning, opening up many ways with which to interpret and analyse this particular medium and a much stronger phrase than the more aspectual terms “movies” or “film”.

Fortunately, over the last few decades, more and more academics have begun to take images more seriously and have used points such as the above to gain a deeper understanding of them. In the following, due to space constraints, I will briefly sketch the visual reception situation prevalent today and how to make it more fruitful to visual studies.

### **Philosophical and Disciplinary Contextualisations**

Academia has been trying to catch up with image proliferation, with varied results. Over the last 40 years or so, the field of visual studies has grown exponentially. Today, much research is done on vision from a variety of angles and disciplines. These include, medicine, psychology, advertising, aesthetics, philosophy, art, and literary and cultural studies.

While this visual turn is still a relatively recent phenomenon, in the early 21st century Visual Studies or an equivalent thereof are taught in many large-scale universities in the world. The field had received its initial push with the publishing of W. J. T. Mitchell’s 1986 *Iconology* and his positing of the “pictorial turn”. This new method of analysis became necessary as traditional humanities departments found themselves unable to properly study and account for this explosion of constructed visual materials due to their interdisciplinary nature. Especially in the USA, and mostly within the context of cultural and communication studies, visual investigations increased. In Europe, other scholars, most notably those coming from semiology or semiotics, have had much influence, some even prior to *Iconology*. Guy Debord, Roland Barthes, Vilém Flusser or Hans Belting come to mind, with others such as Nicholas Mirzoeff, James Elkins or Irit Rogoff following more recently.

Yet, despite all these texts arriving, they are still not enough to find an appropriate approach. Case in point is the unusually frank admission by Kirsti McGuire in the Introduction to the 2013 *Theorizing Visual Studies*: “We tried to come up with a theory – and we failed.” (2013)

I believe that here are three elements in the study of vision that are being underrepresented and that these contribute to the challenges visual studies are facing today. The first is the

overreliance on terminology borrowed from other disciplines; the second the underestimation of the intrinsic interculturality of most images; and the third the rise of the technical image.

### Linguistics and Vision Studies

First of all, a disclaimer: The following is not intended to subtract from the validity, and indeed necessity, of linguistic analysis made fruitful for media studies. It is merely intended to sensitise readers to the fact that interdisciplinary approaches at times might need to come with a warning label.

In the 1970s, all of the material of cultural, sociological, media and humanistic studies underwent a number of re-evaluations. One aspect of this was the way in which cultural material was viewed and referred to. Suddenly, everything became a “text”. Even today, we are still describing many of the present phenomena with the instruments of textual analysis. It was especially Christian Metz with his formalist grammatical approach for film studies who was very successful with creating such a “textual” media universe. In his *Film Language: A Semiotics of Cinema* (1974), Metz discusses narrative structure via his “Grand Syntagmatique” by splitting up scenes into syntagms with a strong reliance on Saussurian linguistics. I do believe there is some valence to this as it opened up new ways of inquiry for filmic and visual material in general; however, at the same time it did a disservice to attempts aimed at creating a more native vocabulary for describing such newer phenomena. Especially where visual material wants to differentiate itself from textual material, using a nomenclature borrowed from the other might be disingenuous. These are defined with a non-visual system of inquiry in mind and cannot fully account for the image’s unique features.

More recently, this linguistic challenge has reappeared in another guise. Here I am referring inter alia to Lev Manovich, who in his 2013 *Software takes Command*, underlines the fact that multimedia have become unicode, images, music, text can all be rendered via the same programming language and that traditional disciplinarity needs to add this fact to their basic manner of self-understanding. As a result, Manovich and a number of other academics want to establish software theory as the meta-discipline for all things online. A similar line of reasoning is found in Federica Frabetti’s 2014 *Software Theory*, where she argues that such a theory ought to be considered constitutive of culture and human thought.<sup>3</sup> Once again, I agree with both, but only up to a point. The study of software is necessary, but its alphanumeric units do not yield enough relations to digital reality to make them into a meta-science. Manovich proposes a linguistics of the digital, but just as the linguistic mode of enquiry does fall short when trying to describe visual phenomena, a software approach is not sufficient to sketch our world and only works in conjunction with the social sciences, the humanities and the like. It is no doubt constitutive, but also utterly co-dependent on other modes of analysis.

This is not to say that there are not important lessons to be learned by visual studies when looking at linguistics. For instance, there is a lot of mileage to be gained when trying to find

---

<sup>3</sup> Fuller puts this the following way: “And it is this paradox, the ability to mix the formalised with the more messy – non-mathematical formalisms, linguistic, and visual objects and codes, events occurring at every scale from the ecological to the erotic and political – which gives computing power effects, and which folds back into software in its existence as culture.” (Fuller 2008: pp. 5–6) I would still argue that the cultural ascription/projection is done by humans and is not generated by the code itself.

answers to one of the main areas of debate, the question of whether there exists a universal grammar. This will question will for instance have an impact on the next section of this text when discussion the possibility of universal vision and asking whether there exists a universal weak visual matrix of cognition, akin to the weak Whorf-Sapirism that continues to have a large number of followers today. However, due to the interculturality of the sign, there are breaking points, significant metonymies of meaning between cultures and also visual cultures.

Coming back to the linguistic approach to visual studies, I would suggest that for diacritical reasons, quotations marks around such words as “text” or “plot” or grammatical descriptors when referring to images are desirable. Linguistic terms are appropriate as long as they are metonymic in relation to the described phenomena and not mimetic in their application.

### **Visual Interculturality**

When it comes to cultural studies, many texts have been published which treat the subject. Theories of inter-, trans-, and multi-cultures have been en vogue for more than 30 years and have contributed immensely to the changing ways in which cultures are viewed/view themselves (e.g. Samovar 2011, Sorrell 2012 and a host of others). But within these cultural theories, visual (re)presentations have not featured prominently, if at all. Even when they are taken up, they are generally restricted to mere intra-cultural discussions, or they imply that the dominant culture’s interpretation would naturally stretch to any foreign reception as well. That this is not the case is fairly easy to demonstrate: one only has to think of the aversion to film subtitles in certain cultures and their acceptance in others. Visual codes do differ and this difference needs to be addressed. Oftentimes, the above-mentioned books start from the premise that while visual regimes might differ from time period to time period (cf. J. Crary, *Techniques of the Observer* (1992)), they are one and the same when viewed synchronically.

If within intercultural studies visual media do not feature very prominently, the reverse is true for media studies, where intercultural enquiries are few and rare in between. Media studies approaches elicit exciting results when looking at vision, but either remain within one cultural setting or posit a universal application. Case in point is the work of François Laruelle. If in the 1830s people rejoiced because it was thought that photography would yield scientific and universal results for the understanding of reality, these hopes were quickly squashed. At the latest, with Benjamin it became clear that this understanding would come at a price – if not the loss of a stable identity, at least it becomes a pale shadow of itself. More recently, François Laruelle (2011) has claimed that photography was actually a wonderful tool, because it deconstructed the reality of which it took a picture, turning the common approach to photography upon its head. He calls the result of image taking “photo-fiction”. This is a much deeper going kind of fiction, questioning our sense of reality vis-à-vis photography than the more traditional approach taken even recently by Wheeler for instance, who is still trying to distinguish between “photo-truth” and his “photo-fiction”, as gleaned from press photography. (Wheeler 2002). Laruelle questions a stable reality everywhere, which is a major task, but he does not ask about differing visual realities as they might exist in different cultures. Most theorists so far have underestimated the intercultural aspect of vision. So far, there is little movement to establish a visual pendant to Stanley Fish’s pluralistic “communities of interpreters” for visual studies.

To my knowledge, there exist only very few texts which explicitly deal with intercultural implications for visual studies, and even most of these shy away from more theoretical investigations. One of them is Ronald and Suzann Scollon's *Discourses in Place: Language in*

*the Material World* (2013), in which they study the social meaning of the material placement of signs in the world. The book is a valuable compendium of examples of how image interpretations differ from place to place. It takes a semiotic approach, but it is telling that the words “discourse” and “language” still figure prominently in the title of their book. Another text is Irit Rogoff's *Terra Infirma: Geography's Visual Culture* (2000). She takes seriously Donna Haraway's “situated knowledge” approach when discussing spatial displace sign systems of luggage, mapping, borders and bodies in the work of a number of artists. Both Scallion and Rogoff's books can thus be seen as attempts of de-universalising vision, but on a limited turf.

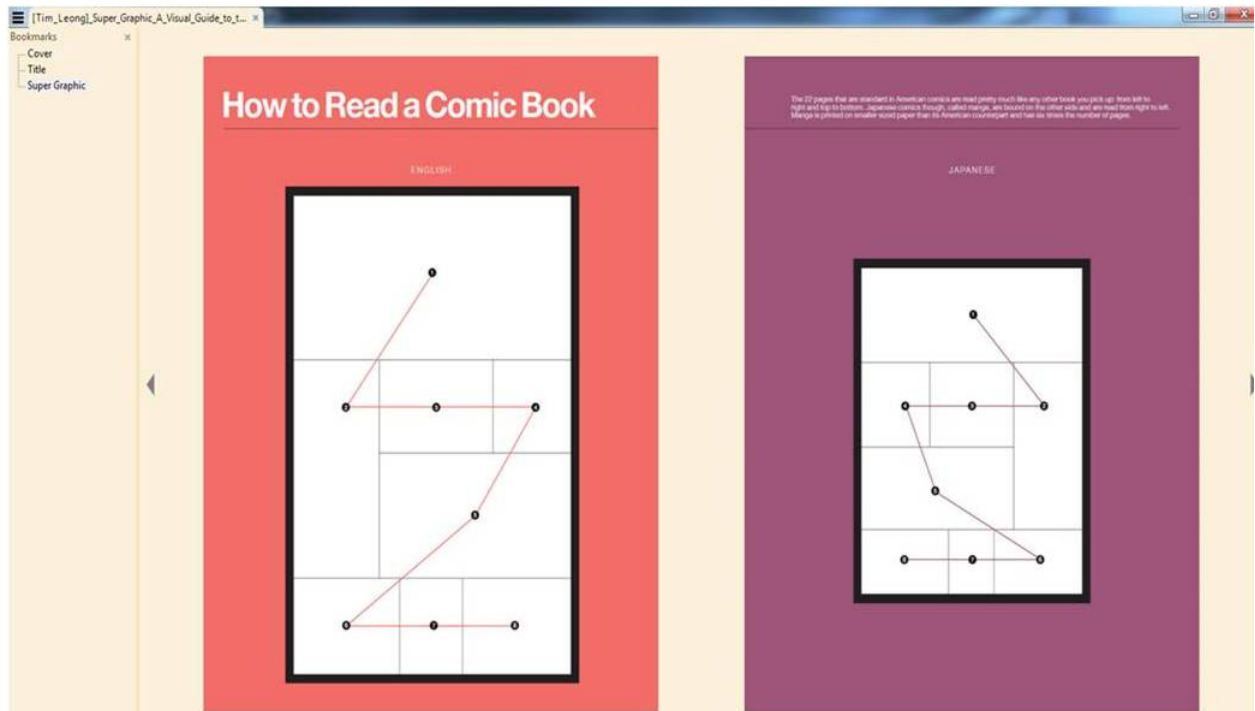
One prominent omission from the canon of visual culture texts therefore remains: *visual studies treated as an intercultural and transcultural process*. There exists this strange situation, then, that neither intercultural studies nor media studies have treated the phenomenon appropriately, each of them assigning it to the realm of the other. And this despite the fact that developing intercultural visual proficiency is one of the most important skills anybody working internationally would need to acquire. It is very seductive to think that while texts require translation, images do not, but this would be very far from the truth.

This omission is even more surprising as there exists much scientific support for the cultural determination of vision. One example is a study conducted on the recognition of other-race faces which clearly shows that with proper training, recognition processes can improve:

In the present behavioral study, with more face items to remember and to test, we find clearer ORE (other race effect) with Caucasians who are within 1-year of stay, and gradually toward other-race advantage, or better recognition memory for Chinese faces than for own-race Caucasian faces, with more years of stay in Taiwan. This not only indicates that ORE could be observed both in behavior and in their neural substrate but shows again the influence of life experience upon one's face recognition ability.'

(<http://i-perception.perceptionweb.com/journal/I/volume/2/article/ic238> 2011)

Another helpful example comes from the realm of comic books. Here the constituent fact is that language and images are inextricably linked, but with a preponderance of the latter. This is especially the case for Japanese Manga which are more image-laden than their western counterparts. When testing how “readers” view their comics, it became evident that westerners (left panel below) read comics differently from Japanese ones (right panel below). This of course has to do with how panel sequences are constructed. Roughly following the sequence of the differing scripts, Japanese ones are sequenced from right to left, whereas western ones are sequences from left to right. This was considered natural in their respective cultural and linguistic domains, but became problematic when Manga began to be exported to the west. While the textual elements were duly translated, early exports neglected to flip the panels as well, thus seriously hampering comprehension.



How to read a comic book in Leong (2013).

Studies such as the two outlined above question whether a stable global vision exists. Some researchers have stipulated that this is the case, or at least for certain areas of vision. For the last 40 years or so, Paul Kay (2011) for instance has been rather successful in trying to prove that colours are viewed similarly across all racial and cultural barriers. But other research exists as well, at least challenging a strong visual universalism. Thus, Anna Wierzbicka (2010) criticises the following points: 1) The existence of true colour terms cannot be proven; 2) Semantic ranges of colour have not been sufficiently examined; and 3) Western universalist tradition remains with its conceptual confines.

Be that as it may, it seems clear that while images were mostly produced and circulated within the same cultural realm, their interpretation was less problematic than is the case today, where digital social media spread image across the globe in real-time.

## The Technical Image

The technical side of the image has certainly been under discussion ever since daguerreotypes and photographs appeared. This discussion received an additional boost by Benjamin's work on film in the 1930s and has continued unabated since then. With the arrival of social and digital media, this discussion has necessarily deepened and today most of our images are arrived at, disseminated and consumed in digital form. Take for instance the images we are confronted with when looking at Google maps. This is not the older generations' map anymore: "Wrapped up in this enterprise is a complex and cross-hatched tapestry of time and space which is woven together through the hypothetical person's use of Google Maps: social time and cyberspace; digital processing time and subjective sense of place; biological time and corporate "geo-services"; global networks and local navigations" (Stroem 2015). Furthermore, the discussion of the map does not only relate to its use value, but has to be begun even earlier, namely when Google vans were beginning to circulate in countries and municipalities in order to cartograph areas for its maps. Especially in Germany at the time, many people successfully



objected to their cartographical registration which they saw as invasion of their privacy and commodification. This serves as an important reminder that technology is never socially neutral and is always already involved in power processes.

The technological processes interesting me here, though, are not merely related to the traditional creation of images, but rather to how technology creates images for its own purposes. FeiFei Li (2015) has recently pointed out the way in which computers are being taught to understand images. This involves a moving away from a human-centred approach. The about-face in philosophy gaining hold in some form of speculative realism is commensurate with the about face which is taking place in Artificial Intelligence (AI) Research, where machine (re-)cognition research is progressing in leaps and bounds. Machine vision is already revolutionising the way our social lives are administered. This does not come without its own problems, for instance with neural networks being able to detect sexual preferences (Wang 2017). Or compare the following statement taken from an AI Research company's website:

The human face evolved over millennia to instantly communicate a range of complex emotions. Affdex harnesses this information in a clear, readable form, using computers to measure emotional response. The system captures a user's facial expressions through their existing webcam, in real time. Tracking gestures and key points on the subject's face, Affdex is able to analyze subtle movements and correlate them with complex emotional and cognitive states. This is much more than simple facial recognition. The Affdex system can identify and follow dozens of precise locations on an individual's face. The muscular micro-shifts of every smile, yawn, or moment of confusion are captured and reflected in the data.  
(Protected: Affdex Anywhere (2017))

This is not the question of a male or female gaze anymore, with all philosophical and social implications they entail, but it is the question how humans are being viewed by machines. It is the move from the gaze on an other to the gaze of oneself as an other, where oneself can be read by the machine, but the machine is beyond being read by us. As mentioned above, this move is also in line with recent philosophical investigations into what is termed “speculative realism. Meillassoux and Brassier (2010) maintain that since Cartesian times, the insistence on the “I” as the *sine-qua-non* arbiter of philosophy was mistaken. They posit that a reversal of inquiry perspective ought to take place, including the gaze of the other onto us in our gaze fastened on the other itself. This would include a necessary redefinition of the notion of “representation” and something they call “speculative realism”. The speculative part here is not a reverting back to transcendental philosophy, but rather to a speculation on how meaning is contingent. This would certainly be the case when considering the interaction with AI, where our necessary shortening of our temporal horizon might lead us to believe the optical illusion that we are approaching either paradise or apocalypse.

### **The VisionByte**

In order to address the issues in visual studies highlighted in the previously said, it seems that new conceptual tools are needed and it is the intention of the following paragraphs to establish such a tool. Besides the partly conceptual dearth in visual studies already outlined, another movement would need to be taken into account here, and that is postmodernism. Since 1979, Jean-François Lyotard has insisted on the demise of the *grand récits*, of the grand narratives, which had underpinned ideological positions for decades if not for centuries. Such a demise of ideologies has not happened in visual studies, where at least some older meta-narratives of

investigation still hold sway. But the subject of these more semiotic approaches has inevitable changed: it is not the long visuals any more that used to entertain viewers, clad in ideology, but rather the short ephemeral viral content found on ubiquitous handheld devices. The long take has been replaced by rapid images or videos coming from afar, or to use Lyotard's words once again, the visual equivalent of his *petit récits*. These are more and more determined by interculturality and technological development, rather than a universal humanist approach.

The reader might recall that one of the reasons why McGuire failed with a definition for visual studies was that she did not possess the instruments necessary to describe and understand the breadth of newer visual material. It is therefore time to propose one tool which might be of help here. It is perhaps not so much a tool than a cognitive shift, a re-imagining of visual phenomena indubitably shaping our life world.

### **The VisionByte: A Definition**

VisionBytes are complex visual arrays which are usually of foreign or intercultural ordinance. They are formed by electronic (moving) images and are ephemeral and permanent at the same time, akin to Laruelle's quants in his quantum philosophy (2013).

As moving images, they would be of a length of three seconds or more to be consciously meaningful due to the limitations of human vision.

VisionBytes are post-spectacle and hyper-social in their ubiquity.

VisionBytes circulate within a changing non-system of production, dissemination and consumption.

VisionBytes are typically perceived through electronic communication devices.

VisionBytes are born of cinematic digital effects, vertigo-inducing and questioning every other moving image in the first instance, and then rapidly assemble into open systems of non-meaning.

VisionBytes can be deconstructed through visual participation and the application of transtheoretical tools of analysis.

Many, if not most VisionBytes are at culture specific and contain inter-cultural elements.

VisionBytes are ruled by and akin to products and processes of artistic production.

### **Art Works**

The above definition of VisionBytes necessitates a look at art as it is constitutive in their make-up. When trying to understand the recent explosion of digital art, one needs to have a quick look at the way art has been represented/created with electronic means.

Already during the early film and TV era of the 1920s, artists took to the screen in large numbers. One might think of expressionist films such as *The Cabinet of Doctor Cagliari* (Robert Wiene, 1920) or the films by man ray, Luis Bunuel or Dzigo Vertoff. Moving images were seen by many artists as the new direction into which art should develop. The rise of the

commercially oriented Hollywood studio system and the war in Europe interrupted this development and while film remained an important art, in the 1940s and 50s film *as* art was quickly relegated into a negligible niche market.

This would change dramatically with the rise of the 1960s counter culture. Artists such as Andy Warhol in the United States, the Nouvelle Vague in France and the artists associated with the 1962 Oberhausen Manifesto in Germany would once again view film as a revolutionary tool.

Beyond the overt political art created through such films, other artists would begin to treat the medium as a creative physical tool in itself. Stan Breckenridge would insert glue or feathers directly onto the celluloid and Nam Jun Paik would incorporate physical receivers such as TV sets into his art. Others, such as Bill Viola, would come to understand and treat film as an installation, as an immersive environment, thereby already foreshadowing the fulfilment of film makers' dream to negate the distance screens create between their work and their audience. One of Viola's largest exhibitions, his 2003 *Five Angels for the Millennium*, was on display at the Oberhausen Gasometer, an industrial ruin turned into art platform, thereby making clear that his video art did see itself in the tradition of radical critique, something oft forgotten when being immersed in his installations. Much earlier on already, in 1966, Robert Rauschenberg had formed the group *Experiments in Art and Technology*, or EAT, in order to bring artists and engineers together. For the first EAT event, called "9 Evenings: Theatre and Engineering", Rauschenberg applied infrared cameras, radio transmitters on tennis rackets and video projections to create a multimedia performance.

With the arrival of digital technology these artistic film movements received added impetus.<sup>4</sup> Its beginnings can be traced back to the early 1970s when Manfred Mohr presented his show *Computer Graphics*, aptly subtitled *Une Esthetique Programée*. He had begun using computer algorithms in his art in 1969 and his work was displayed in 1972 at the Musée d'Art Moderne de la Ville de Paris. For his time, he asked revolutionary questions with and in his work, such as, 'What do you think of aesthetic research made with the help of a computer?' Today, this question has been roundly answered as many artists regularly create art with the help of a computer and some computers create art without the help of humans.

Over the intervening 40 years, digital and video art has proliferated, with many artists working with these new tools and a number of important and dedicated festivals opening their doors, e.g. the *Ars Electronica* in Linz. At first, artistic production was hampered by lack of computing power, but this has changed dramatically. In the following, I would like to quickly present four pertinent artworks which exemplify the theory of the VisionByte.

---

<sup>4</sup> For more on the history of digital art, cf. Cubbitt (1998), Colson (2007), and Pollock (2010).



Maria Hassabi, staging solo 2017 (c. Holger Briel 2017).

Maria Hassabi presented several video works at the 2017 Dokumenta 14 in Kassel. Her videos consisted of still background images from the collection of the Ethnologisches Institut Berlin overlaid with moving images of natives from the countries featured in the background image. The work received its power from the visual connect and disconnect of the two images which

seem to coalesce in a timeless fashion, but remain discrete enough to make a statement in regards to their differing intentions: While the background images were part of the colonising drive of the last centuries, the newer images question the older ones and reveal the perfidy of creating ethnographic institutes pretending to serve science while in reality being used to cement the belief in the superiority of the white race and to thus provide an excuse to continue with the looting of and the killings in the colonies. The overlaid images create a much more realistic and assertive image of individuals from these erstwhile colonies. Both images have travelled from afar, but with very different intentions. That they are now entwined, entangled speaks to their attempt at overcoming spatial and temporal rifts.



Xianodong Liu, *Weight of Insomnia*, Chronos Art Center, Shanghai, October 2016 (c. Holger Briel 2016).

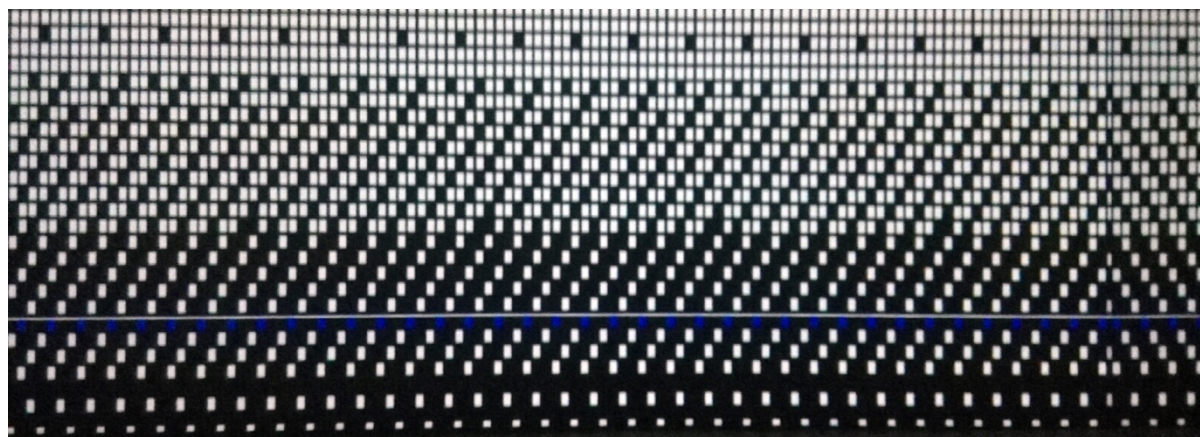
Quite a different work is *Weight of Insomnia* by Xiaodong Liu. It is a computer generated gallery installation, but which receives live feeds from city street corners. The catalogue explains:

LIU Xiaodong translates traffic streams, human movements from multiple locations monitored in real time, into emotional residues precipitated over extremely long time-lapses. It is as if the artist, reincarnated in a robotic consciousness, wrestles through an endless, restless insomnia to piece together an ever-evolving jigsaw of amorphous desires and anxieties, fleeting nightmares and ruptures, which cannot be otherwise amassed without his technological accomplice, to construct a new awareness of contemporaneity. It also implicitly invokes the imperative of the post-human present in which a new sensibility of inter-objectivity begins to emerge, in which humans and other objects reciprocally co-create the world as we know it.

(*Weight of Insomnia* (2016))

Here, the human becomes a negligible co-creator for a computer creating real-time presentations of distant street scenes. Humans need to sleep, the computer will continue as long as there is electricity, a live feed and paint. The weight of insomnia of the title is the negation of the *conditio humana*, which the computer easily transcends. Meaning is invoked and rescinded with every brushstroke, with more and more proto-images overlaying each other spatially and temporarily.





Carsten Nicolai (Alva Noto) *unitape* Chronos Art Center, Shanghai, October 2016, (c. Holger Briel)

Another piece shown in conjunction with Liu's work was Carsten Nicolai's *unitape*. It is a film in which lines change mostly slowly with serial sound motifs accompanying the changes. It was installed in a large darkened room and the slow changing images along with the serial music exuded a mesmerising quality. The piece is a comment on the industrialisation process, invoking the invention of the Jacquard card which played a major role in the creation of mechanical looms. Its creation by Joseph-Marie Jacquard (1752–1834) allowed for the quick production of complex fabrics using automated punched cards. This technique was introduced in 1830 in Saxony, where it revolutionised textile production, as it eventually did throughout Europe (Nicolai 2016).

Nicolai here “reflects on communication processes in the industrial era while at the same time addressing issues related to the socio-psychological aspects of the interaction between man and machine” (Nicolai 2016). In particular, it is the mesmerizing effect that stays with the onlooker, the vastness of the screen and the feeling of being lost in front of the machine. The machine has not lost its spell-binding power; if at all, it has increased. And herein lies the threat and promise of the computer at the end of the industrialised era, with the machine remaining an instrument of magic, even after 200 years of mechanisation and against better judgement.



Screen grab from Sebastian Schmieg, *Search by Image*, 2011  
<http://sebastianschmieg.com/searchbyimage/>

The last piece to find discussion here is Sebastian Schmieg's *Search by Image*. The title is a reference to one of the search modes in Google. The project started in 2011 and has been exhibited in various locales since then. At that time, Google's Search by Image function had existed for over 10 years, and millions of people were using it on a daily basis. Few of them ever thought about the algorithms behind this feature. Schmieg explains:

There are two strong currents running through my practice. One, which started with *Search by Image*, is looking at computer vision and archives of images. The other one is looking at how this constant connectivity changes the way we work . . . . A friend told me about this brand new feature which instantly fascinated me. I was basically just playing around with it, without having any idea where it would lead. I was just throwing any image that I could find at it, and trying to find out what would happen. And when I saw that, for example, when you feed dogs into it you get back naked men or women, it became clear that this is a totally different way of searching to the one Google regularly offers. I then instantly had the idea to generate videos with it and I made lots of experiments with that. Out of this process the video that got the most exposure is the one starting with a transparent PNG.

(Malevé, 2017)

Schmieg here raises important questions about the way AIs are processing images and creating data for humans. It is not the human anymore who can control the search process, but the machine. As such, machines are creating a visual world, complete with artificial contextualisations, with minimal input from us and which we then inhabit. One might question the results for a moment (from dog to naked man or woman), but as humans are pattern dependant, we will probably accept and try to rationalise the search result and its contextualisation in one way or another.<sup>5</sup>

All four artworks share the definition of the VisionByte – they bring to the fore issues of interculturality, machine/AI – human interaction and question our “blind” reliance on images. They do not fall into a dichotomy of good technology – bad technology, but investigate visual phenomena further. They do take worries about the power of the image (and the AIs behind them) seriously. That danger is clearly there. Earlier art had already given us hints of this danger. Thus, pointillism, Gestalt therapy and Benjamin and Adorno's constellations – all of these point to the power of the human mind for creating visual images despite/because of missing information. While this was largely a visual game, with big data, this missing information is easily filled in. As such, it is not just an artistic loss, a loss of a certain kind of aesthetic, but rather also a political loss, a loss of power ranging from consumer profiling to face recognition at traffic nodes and restaurants, from health monitoring to issues of identity and continuing on deep into social media.

Much of today's art is a commentary on these developments and it is up to its audience to draw the right conclusion from it. Heidegger's infamous statement, “Nur noch ein Gott kann uns retten” (Only a god can save us) (Heidegger, 1976, p. 193) is perhaps more apt than ever before, as we are poised to become creators of the digital divine, if we have not already done so. It is as if Benjamin's Angel of History, looking backwards while being blown into the future by the force of history, has indeed become alien made flesh. And the gaze of history has taken on a new meaning from the eyes of an Other, for us and for the other. While we are still perfecting our performance, awaiting the gaze of the Other, the Other has already begun watching us and we are left with (anxiously) watching the Other watching us.

## Conclusion

As this text attempted to demonstrate, dealing with visual images has become one of the main tasks of humanity and its technical Other in the 21st century and beyond. While scientific theories abound on interculturality, cybervision and the fears and chance of AI technology, research on the day-to-day circulation of billions of VisionBytes, many of those already generated by machines for machines, is still in its infancy. In my own research, I have begun looking at some of these phenomena, be they the ritualisation of other-cultural products (2013); filmic adaptations of ideologically opposed ethnographic ideals (2012); entertainment visualisations and their neurological underpinnings (2009); or the attempted translation of Manga for western audiences (2010, 2014).

While the time horizon of image consumption is becoming shorter and shorter and the time stamps of and for image conservation are aging quickly, images have begun to supplant texts

---

<sup>5</sup> At the time of this writing, Google had suspended its search by image function, apparently due to a deal struck with Getty Images relating to copyright infringement. (<https://searchengineland.com/google-image-search-removes-view-image-button-search-image-feature-292183>) Whether the removal will be permanent remains to be seen.



as the main building blocks of human and machine communication. Over the centuries, art has consistently shown the way on how to deal with and adapt to new social situations and continues to do so. It is guiding and warnings about neoliberalism's attempts at completely commercialising images and reducing them to mere brand signs. Viewing these images as VisionBytes helps to remember where they come from and to give answers to pertinent questions such as: Which agenda do they have? Who profits from them? Which messages do they carry? What translative strategies might be applicable in decoding them? What do they tell us about the ghost in the machine? While not all answers might be to our liking, they will serve to better understand ourselves and vis-à-vis the Other. The age of the VisionByte has begun.

## References

- Balakrishnan, A., & Boorstin, J. (2017). Instagram says it now has 800 million users, up 100 million since April. Retrieved from <https://www.cnn.com/2017/09/25/how-many-users-does-instagram-have-now-800-million.html>.
- Belting, H. (2014). *An anthropology of images*. (Dunlap, T. Trans.). Princeton: Princeton University Press
- Bentkowska-Kafel, A., Cashen, T., & Gardiner, H. (Eds.). (2005). *Digital art history: A subject in transition computers and the history of art volume one*. Bristol: Intellect.
- Berger, John (1972). *Ways of seeing*. London: Penguin.
- Briel, H. (2014). Visual diasporas: comics as transcultural Phenomena. In E. Zantides (Ed.), *Semiotics and visual communication concepts and practices* (177–193). Cambridge: Cambridge Scholars
- Briel, H. (2013). Television and (trans-)national consciousness: Dinner for one as serious German cult TV. *Intensities: The journal of cult media*, 6 (Autumn/Winter), 111–128. <https://intensitiescultmedia.files.wordpress.com/2014/02/briel-television-and-trans-national-consciousness.pdf>
- Briel, H. (2012). Native Americans in the films of the GDR and Czechoslovakia. *European journal of American culture*, 31(3), 231–47. [https://doi.org/10.1386/ejac.31.3.231\\_1](https://doi.org/10.1386/ejac.31.3.231_1)
- Briel, H. (2010). The roving eye meets travelling pictures: The field of vision and the global rise of adult manga. In Beringer, M (Ed.), *Comics as nexus of culture* (187–211) Jefferson, North Carolina: McFarland.
- Briel, H. (2009) Club visuals as liminal art. Retrived from <http://www.inter-disciplinary.net/at-the-interface/education/visual-literacies/project-archives/2nd/session-8-visual-literacy-as-identity>
- Colson, R. (2007). *The Fundamentals of digital art*. London: Thames and Hudson.
- Crary, J. (1992). *Techniques of the observer*. Cambridge, MA: MIT Press.
- Cubbitt, S. (1998). *Digital aesthetics*. London: Sage.
- Debord, G. (2000). *The society of the spectacle*. Detroit, MI: Black and Red.
- Finkelstein, J. (2007). *The art of self-invention: Image and self-identity*. London: Tauris.
- Fischer, T. Iperception. Retrieved from <http://i-perception.perceptionweb.com/journal/I/volume/2/article/ic238> 2011
- Frabetti, F. (2014). *Software theory*. Lanham, MD: Rowman & Littlefield.

- Fuller, M. (Ed.) (2008). *Software studies: A lexicon*. Cambridge, MA: MIT Press.  
<https://doi.org/10.7551/mitpress/9780262062749.001.0001>
- Elkins, J. (Ed.) (2008). *Visual literacy*. New York: Routledge.
- Hall, S., & Hall, J. (Eds.) (1999). *Visual culture: The reader*. London: Sage.
- Hassabi, M. (2017). <http://www.documenta14.de/en/artists/13493/maria-hassabi>.
- Heidegger, M. (1976). Nur noch ein Gott kann uns retten. *Spiegel* 31. August, p. 193.
- Jenks, C. (1995). *Visual culture*. London: Routledge.
- Kay, P. (2011). *Basic color terms: Their universality and evolution*. Stanford, CA: The Center for the Study of Language and Information.
- Kittler, F. (2002). *Optische Medien. Berliner Vorlesungen 1999*. Berlin: Merve.
- Kwastek, K. (2013). *Aesthetics of interaction in digital art*. Cambridge, MA: The MIT Press.
- Laruelle, F. (2013). *Principles of non-philosophy*. London: Bloomsbury Academic.
- Laruelle, F. (2011). *The Concept of non-photography*. Falmouth, UK: Urbanomic/Sequence Press.
- Leong, T. (2013). *Super craphic: A visual guide to the comic book universe*. San Francisco: Chronicle.
- Li, F.F. (2015). How we're teaching computers to understand pictures.  
[https://www.ted.com/talks/fei\\_fei\\_li\\_how\\_we\\_re\\_teaching\\_computers\\_to\\_understand\\_pictures](https://www.ted.com/talks/fei_fei_li_how_we_re_teaching_computers_to_understand_pictures).
- Liu, X. (2016). Weight of insomnia. <http://lab.chronusartcenter.org/weight-of-insomnia/?lang=en>.
- Lyotard, J.F (1979/1984). *The postmodern condition: A report on knowledge*. Minneapolis: University of Minnesota Press.
- Malevé, N. (2017). The politics of image search – A conversation with Sebastian Schmieg. Retrieved from <https://unthinking.photography/themes/machine-vision/interview>.
- Manovich, L. (2013). *Software takes command*. London: Continuum
- McGuire, K. (2013) A short Introduction to failure. In J. Elkins et al. (Eds.) *Theorizing visual studies*. London: Routledge.
- Meillassoux, Q. (2010). *After finitude: An essay on the necessity of contingency*. London: Bloomsbury Academic.

- Metz, C. (1974). *Film language: A semiotics of the cinema*. Oxford: Oxford University Press.
- Mirzoeff, N. (1999). *An introduction to visual culture*. New York: Routledge.
- Mirzoeff, N. (Ed.) (1998). *The visual culture reader*. London: Routledge.
- Mitchell, W. J. T. (1987). *Iconology*. Chicago: University of Chicago Press.
- Nicolai, C. (2016). Unitape. Retrieved from <http://www.carstennicolai.de/?c=works&w=unitape/>
- Pollock, G., & Bryant, A. (Eds.) (2010). *Digital and other cultures revision of the image*. London: I.B. Tauris.
- Protected: Affdex Anywhere (2017). Retrieved from <http://www.affectiva.com/solutions/affdex/>
- Rogoff, I. (2000). *Terra infirma: Geography's visual culture*. London: Routledge.
- Samovar, L. (2014). *Intercultural communication* (14th ed.). Belmont, CA: Wadsworth.
- Scollon, R., & Scollon, S. W. (2003) *Discourses in place: Language in the material world*. London: Routledge.
- Schmieg, S. (2011). Search by Image. Retrieved from <http://sebastianschmieg.com/searchbyimage/>
- Smith, K. L. et al. (2004). *Handbook of visual communication*. London: Routledge.
- Sorrells, K. S. (2012). *Intercultural communication: globalization and social justice*. London: Sage.
- Stroem, T. E. (2015). Frontiers in Google Maps: Commodification and territory in the borderlands. ACCS, Osaka.
- Wang, Y. & Kosinski, M (2017). Deep neural networks are more accurate than humans at detecting sexual orientation from facial images. Retrieved from <https://osf.io/zn79k/>
- Weight of insomnia (2016). Retrieved from <http://lab.chronusartcenter.org/weight-of-insomnia/?lang=en>
- Wheeler, T. H. (2002). *Phototruth or photofiction?: Ethics and media Imagery in the digital age*. London: Routledge.
- Wierzbicka, A. (2006). The semantics of colour: A new paradigm. In Pitchford, N. J., & Biggam, C. P. (Eds.), *Progress in colour studies: Volume I. Language and culture* (pp. 1–24). Philadelphia: John Benjamins.

**Corresponding Author:** Holger Briel

**Email:** [ijcs@iafor.org](mailto:ijcs@iafor.org)