# Shot on auto mode

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# Table of Contents


FOREWORD . . . . . 13

Curator's Statement . . . . . 15

APERTURE . . . . . 39

Vernacular Photography, A Definition . . . . . 39
Aperture, Curator's Note . . . . . 40
The "Analogue" Era . . . . . 41
The Digital Era . . . . . 43
Automated esse . . . . . 46

EXPOSURE . . . . . 55

The Bigger Picture . . . . . 55
Instant Pleasure . . . . . 56

TIMELAPSE . . . . . 63

Vernacular Photography, Meet Astrophotography . . . . . 63
A million suns . . . . . 65

FOCUS . . . . . 75

Human Algorithms And Tools . . . . . 75
The Photographed . . . . . 77
Ungodly . . . . . 78
(De)Humanising Curation? . . . . . 79

POSTFACE . . . . . 83

Metaphors On Auto Mode . . . . . 83
(De)Humanising Photography . . . . . 84

BIBLIOGRAPHY . . . . . 86

“It is the most natural thing in the world for someone to open their wallet and produce a photograph, saying ‘this is my dog’”.

Alan Sekula, 1982

Tammara Leites 2018, *This is my cat, waiting for Santa.* **Analogue photo.**

“The potential of photography will be identified as a medium that slows down time and can teach us humans to look at ourselves and our environment differently.”

Joanna Zylinska, 2017

# FOREWORD

In June 2019, Apple announced improvements to its *Photos* application. Machine learning algorithms would now go through the whole archive and choose the "best shots" taken by the user. Criteria for analysis would be based on a combination of image aesthetics and content meaning, intelligent processing would alter the selection based on the current date and its relationship to past events.

Photography is an art that has always been associated with technology, the use of a machine is needed to capture loyal reproductions of the world around us. The democratisation of photography, by George Eastman, gave people access to keeping a personal, vernacular archive of their lives. What started as a luxury for a limited audience quickly evolved into an everyday practice for certain societies. Today, smarter machines are used to capture and record our lives either with or without a human operator (smartphones, surveillance cameras, body scanners, space satellites).

This work aims to analyse how our evolving relationship with digital technologies of automation has shaped vernacular photography. What is the role of "intelligence-powered devices" in the process of contemporary vernacular photography? How do nonhuman photography and the focus on metadata influence our tools' approach to curatorial work? Can vernacular photography become a plausible foundation for new media supports, such as Virtual Reality?

In the form of an exhibition catalogue, this master thesis presents a succinct history of the relationship between automation and amateur photography, as well as a selection of artistic projects which illustrate or question both new and pre-established notions in photography and its "technical" evolution.

Family photo albums have traditionally collected personal highlights, acting themselves as exhibition catalogues of our lives. Through the curator's eye, our memories have been classified, organised, prepared for exhibition, then stored. Thus the choice of the exhibition catalogue as the format for this work.

## Curator's Statement

At the time of writing, a simple hashtag search on Instagram shows only two images identified as #shotonautomode. Yet, technologies of automation have accompanied photography since its very beginning. Today, both the majority of point and shoot compact cameras and smartphone cameras have fully automatic modes, while manual controls are not always present. Indeed, auto mode is true for most images that are shared on the aforementioned photo-sharing social platform as well as on similar ones. Since the first Kodak camera, to digital cameras, to the latest smartphones, automation has been a key feature targeting the amateur, consumer market.

*Shot on auto mode* is an exhibition aiming to elicit visitors' reflection about the tools that have and will continue to shape photographic practice.

The exhibition is organised into four parts or areas, each defined by their role and intention. Moreover, each one is named after camera functions that have been automated and their content is related to the word's meaning in a non-photographic context.

*Aperture* constitutes an entrance, the first area, offering a glimpse into the main subject: vernacular photography. It intends to provide visitors with basic background knowledge, offering insights into a brief selection of the analogue and digital tools that made personal photography a widespread, instant success. Most of these technologies of automation have influenced the way photography is perceived, made or shared.

*Exposure* offers a window into the social implications of personal photography turned public, by exploring how the appearance of a multitude of photo-focused social networks has influenced people's notion and approach to vernacular photography as well as their photographic practice.

*Timelapse*, named after an automatic mode often used to document change in natural or scientific phenomena, compares two different approaches to astrophotography in order to illustrate how we perceive our own photography.

Finally, *Focus* sheds a light on technologies of automation entrusted with the photographic or curatorial work. What will the implications of the generalisation of automation be? How can new media, such as Virtual, Augmented and Mixed Reality, make use of vernacular photography?

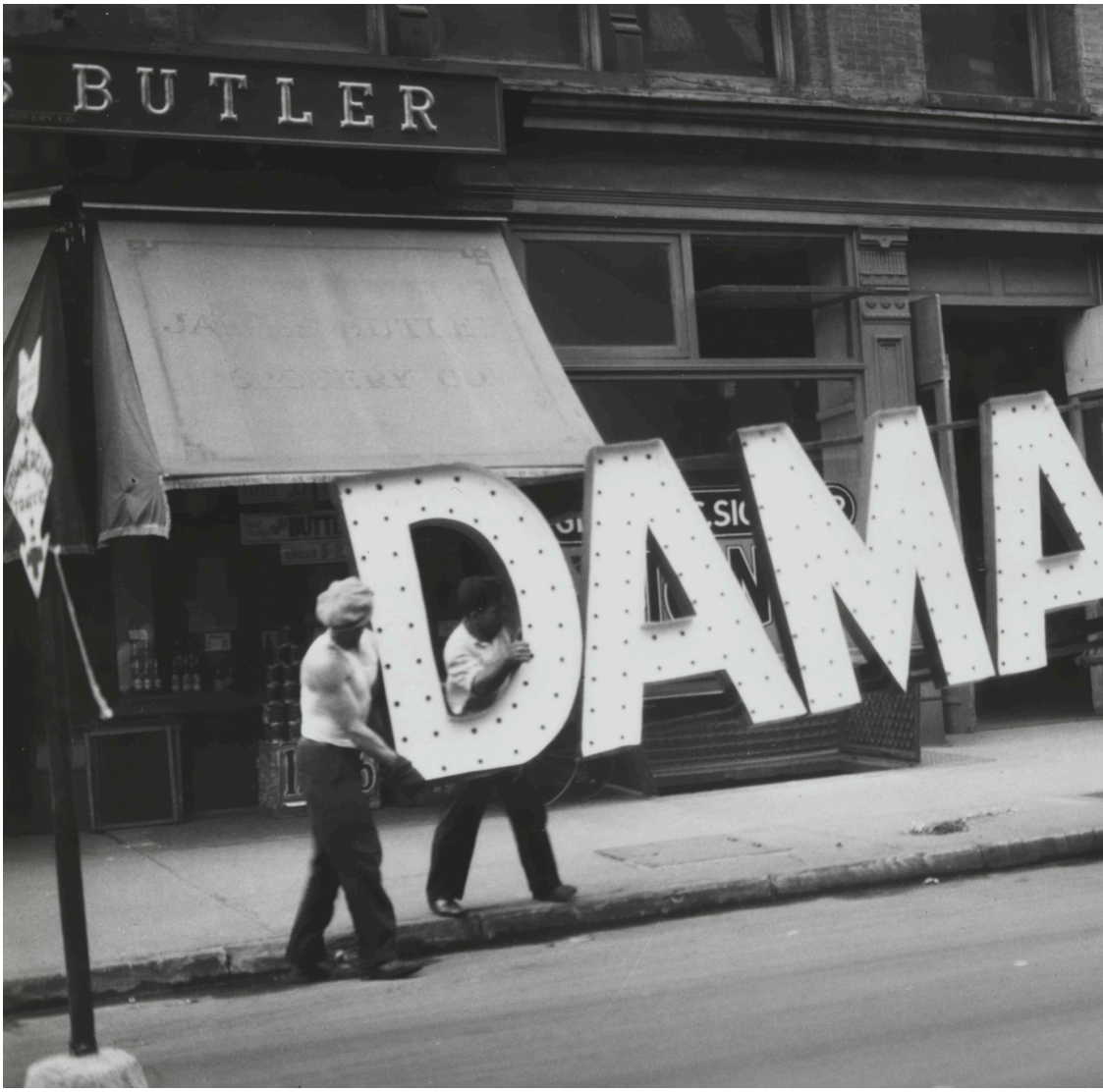
“[...] images involve the execution of technical and cultural algorithms that shape our image-mak-ing devices as well as our viewing practices.”

Joanna Zylinska, 2017

Fig. 1
Joseph Nicéphore 1826-27, *View From the Window at Le Gras.* **Analogue photo.**

Anonymous 1895, *Croisement de deux routes*. **Analogue photo.**

Walker Evans 1928, *Couple at Coney Island, New York*. **Analogue photo.**


BUTLER
DAMA

Walker Evans 1928-30, *Truck and Sign*. **Analogue photo.**

William Eggleston 1970-3, *Untitled*. **Analogue, colour photo.**

William Eggleston 1971-4, *En Route to New Orleans*. **Analogue, colour photo.**

Martin Parr 1986, *Margate, Kent, England*. **Analogue, colour photo.**

Fig. 2
1888, *First Kodak box camera*. **Product.**

Fig. 3
1889, *Kodak camera ad*. **Ad.**

Fig. 4: 1938, *Kodak Six-20 camera ad*. **Ad.**

Fig. 5
1938, *Kodak Six-20 camera*. **Product.**

Fig. 6: 1963, *Instamatic ad on LIFE magazine*. **Ad.**

Fig. 7
1963, *Kodak Instamatic 100*. **Product.**

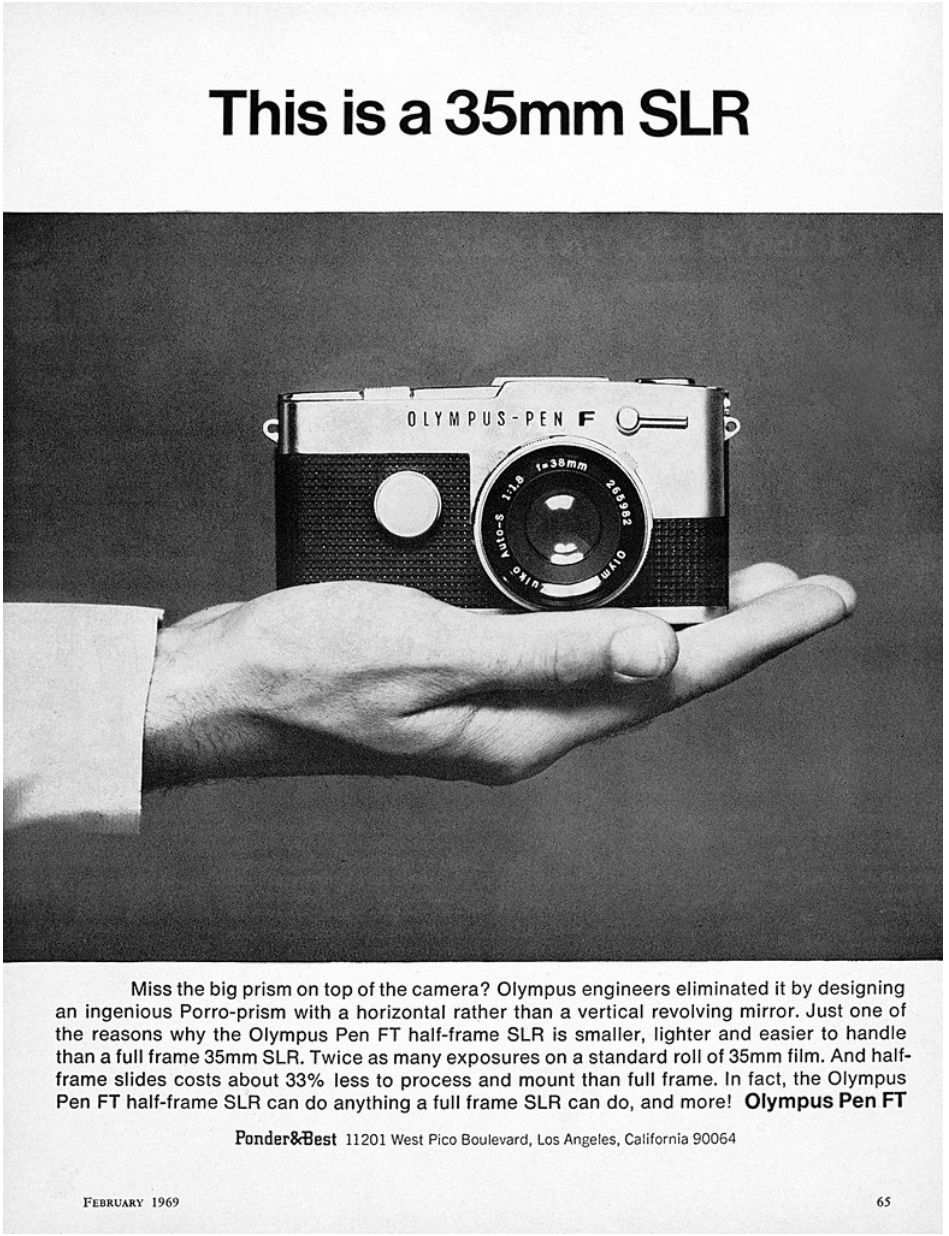



Fig. 8: 1969, *Olympus Pen ad on Modern Photography magazine.* **Ad.**

Fig. 9
2007, *iPhone*. **Product**.

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2007, *iPhone ad*. **Ad.**
https://www.youtube.com/watch?v=6Bvfs4ai5XU

Fig. 10
2012, *Lytro camera website*. **Website.**

Fig. 11
2016, *Snapchat Spectacles.* **Product.**

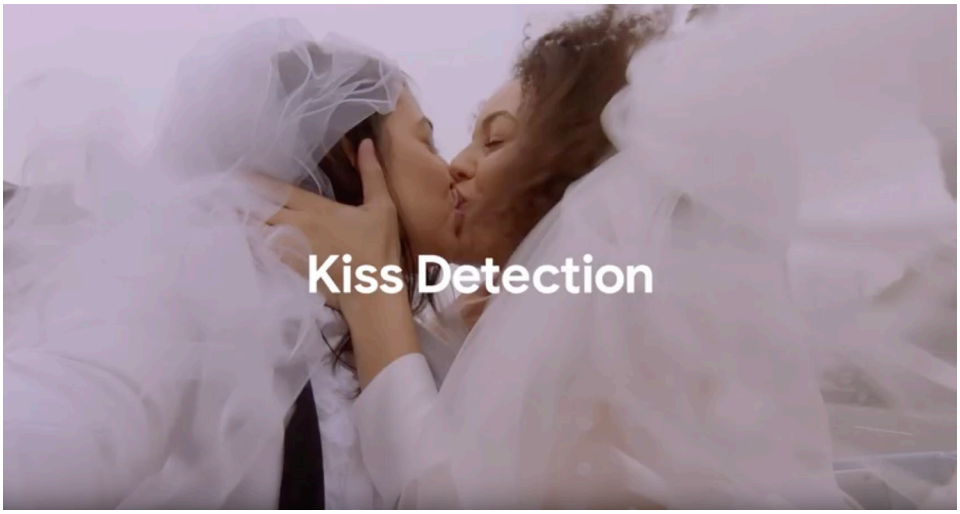


Fig. 12
2019, *Google Pixel ad*. **Ad.**

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2019, *Google Pixel ad*. **Ad.**
https://youtu.be/CeW6o6wgUog

PART I

# APERTURE

## Vernacular Photography, A Definition

What is vernacular photography? Clément Chéroux, photography historian and senior curator of photography at the San Francisco Museum of Modern Art, defines vernacular photography as homemade, utilitarian and external to the commercial world. He explains:

> "Etymologically speaking, 'vernacular' comes from Latin 'verna', meaning slave. It entails, firstly, an area of human activity linked to servitude, or at least services. [...] More precisely, in Roman law, the term 'vernaculus' described a category of slaves born in the house, as opposed to those who were bought or traded. [...] It is a domestic production –'homemade', which is a priori destined to personal consumption rather than its commercialisation."
>
> Clément Chéroux, 2013

Although the definition might seem simple, vernacular photography implies more than just our family albums. A photo that was taken with a specific purpose, such as a product image for a catalogue, does not become vernacular until it is deprived of its initial practical purpose, as Chéroux explains.[1] Thus, it is sometimes difficult to recognise vernacular photography. For instance, he points to the fact that their homemade quality does not always imply a lack of aesthetic value. Furthermore, there's vast evidence of cases in which professional photographers turn to the aesthetics of vernacular imagery for their artistic pursuit; such is the case of Walker Evans, William Eggleston or Martin Parr.

The Museum of Modern Art provides the following definition of vernacular photography:

> "An umbrella term used to distinguish fine art photographs from those made by non-artists for a huge range of purposes, including commercial, scientific, forensic, governmental, and personal. Snapshots capturing everyday life and subjects are a major form of vernacular photography."
>
> 'Vernacular Photography', n.d.

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1 Clément Chéroux. 2013. *Vernaculaires. Essais d'histoire de la photographie.* Le Point du Jour. p.13

## Aperture, Curator's Note

The curated selection of technologies of automation that have contributed to vernacular photography presented in *Aperture* is purposely brief. It means to provide the visitor with a subjective choice of snapshots of what amateur photographers have adopted, as well as what has not elicited general interest. Furthermore, it explores consumers' presumed concerns at different times in history, ranging from exposure accuracy to portability, to image storage capacity, to archive organisation, to instant capture leaving composition for post-processing, to instant sharing, to forgetting about the capture and focusing on meaning. Moreover, it raises questions about design choices and how they might have affected personal photographic practice. For instance, had we kept on using manual exposure, would have camera manufacturers been able to make smaller cameras? The variety of subjects covered as well as a deeper look into contemporary practice and technologies aim to trigger visitors' reflexion about what the future of their photographic practice may become.

## The “Analogue” Era

It is often said that personal, everyday-life, homemade photography was democratised thanks to George Eastman’s Kodak roll film camera, introduced in 1888.

### You press the button, we do the rest: The Kodak No.1

Back in 1871, Richard Leach Maddox had introduced an emulsion that allowed photographers to take pictures without the need for on-the-spot plate preparation and immediate development. Dry-plate photography revolutionised the medium, allowing for it to be portable. Fast forward to a decade later, when Eastman introduced the Kodak (Fig. 2-3) in 1888, a roll film box camera. His concept not only took care of the photographing act, but it contemplated the whole process by conceiving development centres, thus eliminating the need for a dark room or development knowledge. The camera came preloaded with 100 snapshots worth of film and, when the roll was finished, all the user had to do was send everything to one of the Kodak development centres. The prints, as well as the camera loaded with a new roll of film ready to use, were then returned to the user.

Whereas previous cameras and processes required the photographer to master both camera operation and film processing, the Kodak camera needed no special skills. “You press the button, we do the rest”: with this slogan, Kodak became an instant success, making photography available to the general public, therefore paving the way for the commodity it is today.

In the very beginning, photography was not perceived as a way of reproducing life exactly as it happened. In fact, the first photo ever made, *View from the Window at Le Gras*, by Joseph Nicéphore (Fig. 1), needed eight hours of exposure. As a result, it does not depict reality: shadows and lights create an inexistent architecture since they correspond to different hours of the day. For many years, what followed in terms of photography was –essentially– conceptual. Visual experimentation was fuelled by the improvements in technology, the results of these ventures promoting new understandings of reality.[2] Later, “improvements in camera technology and color printing no doubt contributed to the strengthening of this link between photography and verisimilitude –and thus to the forgetting of the fact that early photographs were ‘translations, not transcriptions’”.[3]

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2 Joanna Zylinska. 2017. *Nonhuman Photography.* The MIT Press. pp.20-23

3 Joanna Zylinska. *Ibid.* p.24

### The electric eye: Kodak Six-20 and automatic exposure

Following the first Kodak's success, Eastman perfected its camera technology creating, in turn, a folding pocket camera as well as an inexpensive, user-reloadable point and shoot. It wasn't until 1938 that he was able to introduce the Kodak Six-20 (Fig. 4-5), the first camera with automatic exposure to be sold. A selenium light meter set the right aperture when pressing the shutter. In terms of automation, it also featured a mechanism which cocked the shutter when advancing the film, preventing double exposures and blank images.[4]

### Too easy for words: Kodak Instamatic

Kodak's Instamatic (Fig. 6-7) cameras were affordable, pocket-sized automatic cameras. They were the first cameras to make use of Kodak's 126 film format and cartridge. The cartridge allowed users to pop it in the camera and start shooting with no need to wind the film in, thus avoiding wasting the first frames. They were a worldwide success, with several models being launched from 1963 to 1976 and more than 50 million units sold over seven years until they were finally discontinued in 1988.[5]

### Half the size, half the weight, twice as many pictures: Olympus Pen

Pen (Fig. 8) was the name given to the family of the first half-frame cameras, produced by Olympus between 1959 and the beginning of the 1980s. Nowadays, Olympus has reused the name to refer to a digital camera model. Back in 1959, the Pen was one of the smallest cameras featuring 35mm film. Some models allowed for manual exposure control, whilst most popular ones featured automatic exposure. Unique in its kind, it allowed users to double their exposures without spending more on film or processing.[6]

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4 'Kodak Super Six-20'. n.d. *Camerapedia.*

5 Nabyla Daidj. 2015. *Developing Strategic Business Models and Competitive Advantage in the Digital Sector.* USA: Business Science Reference. p.26

6 'Olympus Pen'. n.d. *Wikipedia.*

## The Digital Era[7]

According to Martin Hand, Associate Professor in the department of sociology at Queens University, digital cameras' main innovation was the elimination of the waiting time between making a photo, viewing it, and distributing it. Moreover, he highlights the tight relationship between digital photography and previous developments in analogue photography and computer science.[8] Technologies included in *The Analogue Era* in this exhibition have contributed key notions to digital photography, which became its governing features: one-button operation, automatic exposure, camera portability, image capacity, the practicality of the media support. However, digital cameras before the iPhone have been deliberately omitted in this exhibition in order to highlight the first innovation to drastically change the nature of vernacular photography to what Nathan Jurgenson calls "social photography".

Jurgenson, founder and editor in chief of Real Life magazine, remarks that "Social photography jumped from point-and-shoot digital cameras to the smartphone—a small networked computer that is far more likely to always be on or near its owner".[9] In his book, he studies the nature of personal photography subsequent to the emergence of multiple image-based social networks in which automated distribution is present.

### Hello: the iPhone

The first iPhone (Fig. 9) was released in 2007. It was not the first phone to have a camera, but it has become the most widely used camera in the world according to Flickr.[10] Numerous blog articles have been written about the influence the iPhone has had on photography and about its current status in the field in relation to other cameras. More and more, professionals in both photography and film industries prefer to have a portable camera with connectivity features than carry their traditional equipment.[11] The iPhone's camera not only takes pictures and allows users to instantly share them, but it also analyses them; it geo-tags them, it recognises faces, and stores more "traditional" meta-data such as date, size, format. It contains a set of filters or added functionality borrowed from older digital cameras, such as live photo, i.e. the possibility of saving some seconds prior to and after the instant the image is captured. The iPhone and its app ecosystem allowed for the whole process of photography to be completely accomplished on one single device: from actual image capture and "development",

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7 There have been numerous attempts of digitalisation derived from evolution both in the fields of photography and that of computer science. However, in the interest of compendiousness, only breakthrough technologies have been included in this cataogue.

8 Martin Hand. 2012. *Ubiquitous Photography.* Great Britain: Polity. pp.124-125

9 Nathan Jurgenson. 2019. The Social Photo: On Photography and Social Media. New York, USA: Verso. p.14

10 'iPhone Takes Top Rank as Flickr's Most Used Camera'. 2017. *Cnet*.

11 David Pierini. 2019. 'How the iPhone Revolutionized Photography'.

to post-production, to exhibition or sharing. Coupled with increased image storage capacity, these new functionalities contributed to a major shift in personal photography. Lack of visible limitations seem to have redefined vernacular photography's subjects, from special family events or occasions to every-day, mundane clichés.

### Shoot first, focus later: Lytro

The Lytro (Fig. 10) camera was a light-field camera, which made it possible to refocus on an image after it had been taken, in post-production. The first Lytro camera was launched in 2012. Although the idea might have been appealing, it failed to deliver in ergonomics and specifications, as well as in photo quality.[12] With efficient autofocus present in almost every consumer camera available on the market, it seems difficult to justify an important loss in image quality for an unneeded feature. Consequently, the Lytro was often dismissed as a toy. Moreover, Joanna Zylinska qualifies the Lytro camera as "just one more element in the long-term humanist narrative about 'man's domination over the earth', a narrative that drives the progressive automatization of many of our everyday devices".[13] It is included in this cataogue as a technology that did not meet worldwide success, in contrast to its automated counterpart: autofocus.

### Snap Spectacles

Although technically targeting video, Snapchat's Spectacles (Fig. 11) built on the idea of even easier distribution. Automatically synced to a smartphone's Snapchat account, they introduced a new level of simplicity and automation in terms of visual content generation and sharing. Controversy first arose concerning their covert appearance and image rights. Could this have been the reason for their defeat? Approximately 220 thousand units were sold, thus failing to become a widely-used, everyday accessory. However, they are an interesting example of automated social photography distribution for this exhibition.

### A sensitive camera: Google Pixel

A few years ago, Sony and Olympus digital cameras introduced face and smile detection to automatically trigger the shutter. Following this trend of cameras acknowledging the human, in June 2019, Google announced an upgrade to its Pixel 3 (Fig. 12) smartphone camera app. It would now be able to detect two people kissing and fire the shutter automatically. The announcement was opportunely made during pride

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12 'Lytro'. n.d. *Wikipedia*.
13 Joanna Zylinska. 2017. *Nonhuman Photography*. The MIT Press. p.66

month.[14] Although there are no available stats for images taken using kiss mode, general Pixel 3 sales were not as significant as expected. However, it is included in this catalogue as an umbrella technology for all automated shutter firing as a result of specific human actions. It bears witness to several attempts at this kind of technology and the public's response to them.

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14 'First Cameras Had Smile Detection, Now It's Kiss Detection on Google's Pixel...' 2019. *Afaqs*.

## Automated esse

Photography as a cultural practice has always accompanied innovation in technology. George Eastman paved the way for enthusiasts to become knowledgable amateurs, for people to create an archive of the most important moments in their family lives, all thanks to a mix of mechanics and chemistry. Moreover, he enabled other companies to innovate, and take it a step further each time. As Susan Sontag noted in 1971, photography no longer required cumbersome and expensive equipment that only wealthy people could afford, and that only clever or obsessed people could operate and comprehend, "sleek pocket cameras [...] invite anyone to take pictures".[15]

> "Recently, photography has become almost as widely practiced an amusement as sex and dancing –which means that, like every mass art form, photography is not practiced by most people as an art. It is mainly a social rite [...]"
>
> Susan Sontag, 1979

Sontag, who is described as "one of the most influential critics of her generation"[16], has made observations about photography that remain as equally valid today as they were at the time she wrote them. For instance, as early as 1971, she talked about the importance photography had acquired in people's lives and its new role –how it went from being perceived as an art form to becoming a salient social practice. Furthermore, she refers to its documentary quality as part of family life, to the importance given to having a photographic memory of special events or occasions.

Present-day authors like Joanna Zylinska, Professor of New Media and Communications, and Co-Head of the Department of Media and Communications at Goldsmiths, also acknowledge the fact that the evolution of digital photography as a social practice has made it a quintessential part of life, to the point that our very existence is influenced by it. It is interesting to note that her work focuses on what she calls "nonhuman photography" –or photography not involving humans. From medical scans to satellite imagery, to legal documents, photography can examine our health status, attest to scientific phenomena, and even prove or deny that we are whom we claim to be. Thus, digital images have become indispensable in countless areas of life.

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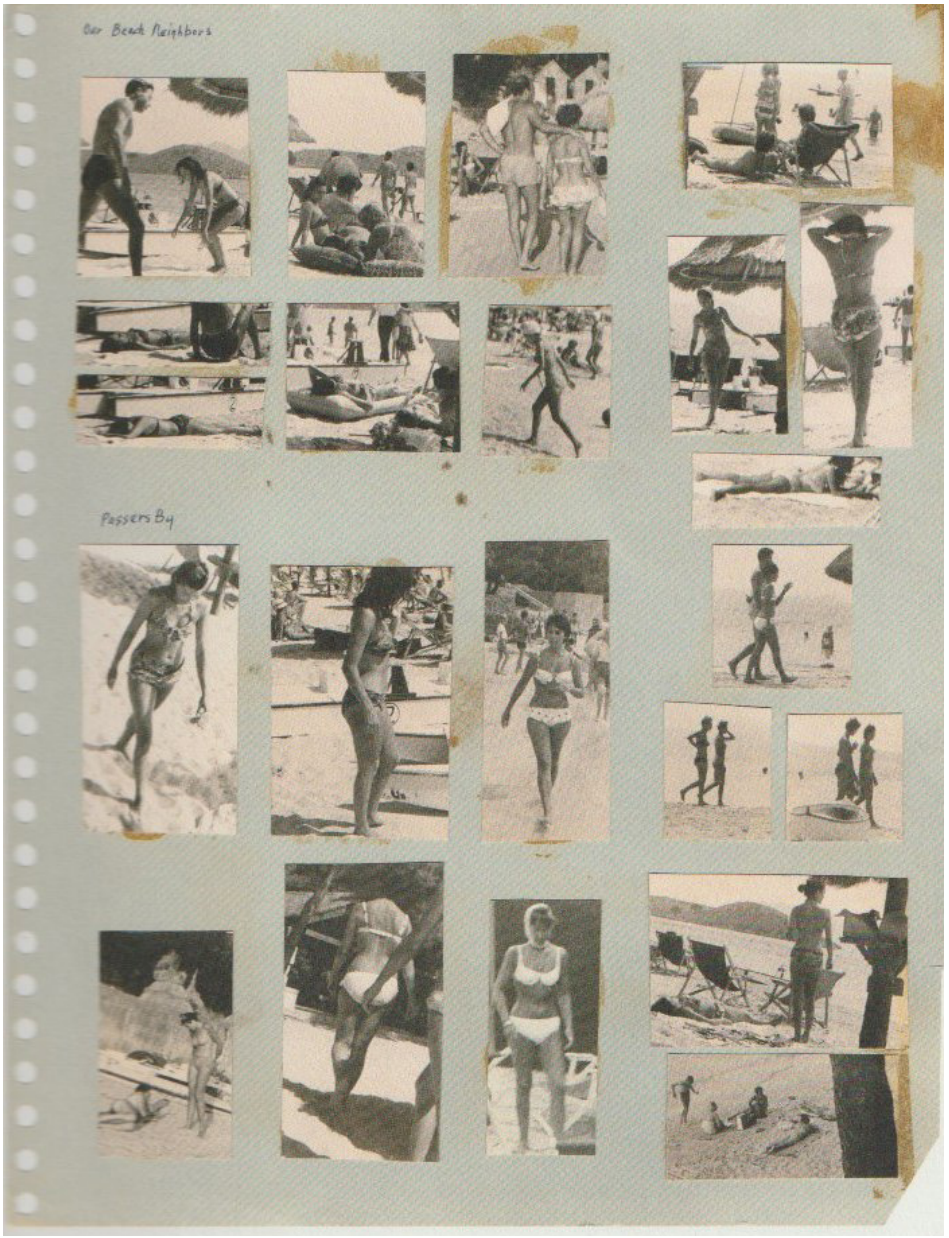
15 Susan Sontag. 1979. *On Photography.* Penguin Books. p.11

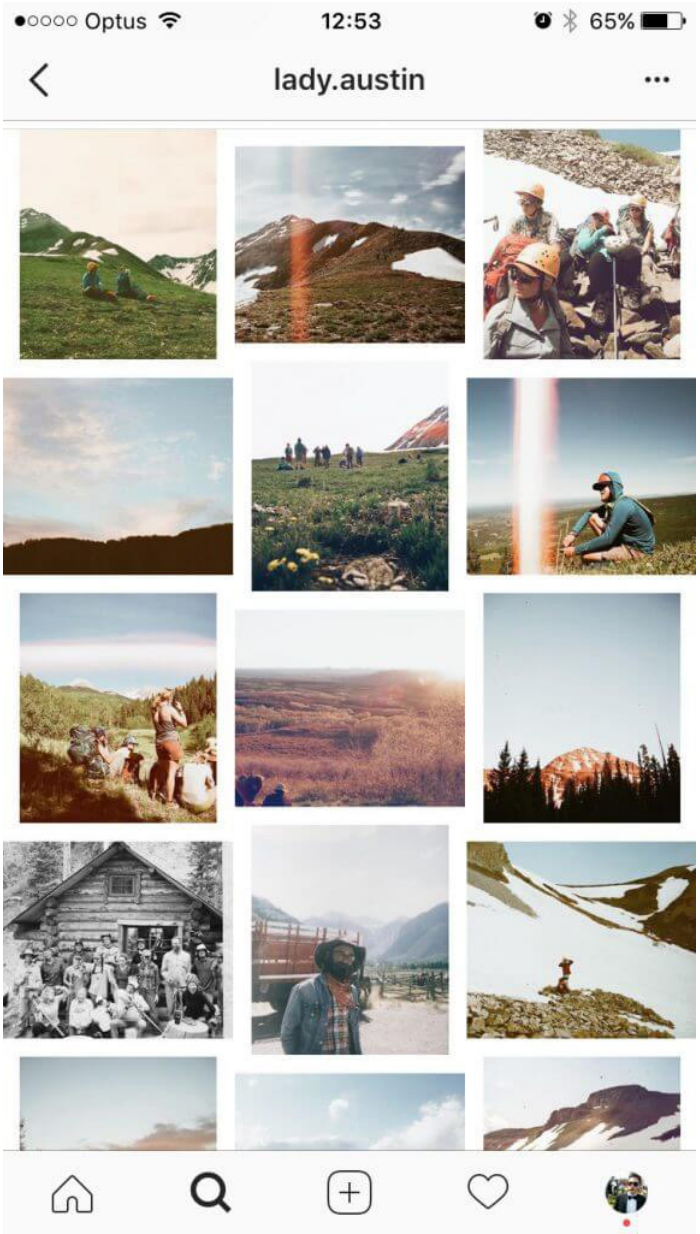
16 'Susan Sontag'. n.d. *The New York Review of Books.*

“There is life in photography, [...] life itself is photographic”.

Joanna Zylinska, 2017




Anonymous 1965, *"Our Beach Neighbors" page from family album*. **Analogue photos.**




Anonymous n.d., *Instagram feed sample*. **Screenshot.**

Fig. 13
Erik Kessels 2014, *24 Hrs in Photos*. **Installation.**

Fig. 14
Erik Kessels 2014, *24 Hrs in Photos*. **Installation.**

Fig. 15
Jenny Rova 2013, *I would also like to be - A work on jealousy.* **Photo series.**

Fig. 16
Jenny Rova 2013, *I would also like to be - A work on jealousy.* **Photo series.**

Fig. 17
Sascha Pohflepp 2006-10, *Between Blinks & Buttons*. **Artwork**.

PART II

# EXPOSURE

> "Taking photographs fills the same need for the cosmopolitans accumulating photograph-trophies of their boat trip up the Albert Nile or their fourteen days in China as it does for lower-middle-class vacationers taking snapshots of the Eiffel Tower or Niagara Falls."
>
> Susan Sontag, 1979

## The Bigger Picture

In her book *On Photography*, Susan Sontag irrefutably identified photography –or, the camera– as inherent to family life. It is the importance we have given to keeping a record of events and people in our lives that makes the amount of personal, vernacular photography unmeasurable. Furthermore, it is both the ease of automated image storage as well as the documentary and fact-verifying status we have imposed on photography that contribute to this ever-growing, infinite-seeming total.

As Chéroux explains, in terms of quantity, vernacular photography occupies a much bigger place in the general spectrum of photography than artistic photography does. Yet, as it is seen as utilitarian or belonging to the private domain, it is not often shown or exhibited in traditional distribution channels, although digital photography has increased the level of social exposure. Moreover, personal photography is often perceived as having no aesthetic or cultural value, as it is not considered as rare or of good quality.[17] As a consequence, the number of vernacular photographs that exist –be it in print, hard and cloud drives or social networks– is beyond estimation.

17 Clément Chéroux. 2013. *Vernaculaires. Essais d'histoire de la photographie.* Le Point du Jour. p.13

## Instant Pleasure

Susan Sontag talked about the social need filled by photography. Nowadays, besides making and keeping these personal clichés, the act of sharing them has grown to become a social practice defining of present times, one that seems to respond to the need Sontag referred to.

The period between 2004 and 2010 saw the creation and exponential growth of countless services and social networks dedicated to photography, be it partially or exclusively. Twenty-two of them remain active, whereas eighteen are officially no longer maintained or offline. Flickr was certainly not the first one, but it benefited from great popularity with 87 million users as of May 2013.[18]

Following Flickr's success, Instagram was launched in 2010 as an iPhone-only app. The platform quickly expanded, proposing a native app to cater for Android phones and a web-based service for the remaining users. In a series of articles about Instagram that have now become a book, Lev Manovich, professor of Computer Science at the City University of New York, tries to find the meaning of this photo-oriented social network in the context of media history. For him, Instagram allows for "Camera, photo paper, a darkroom, exhibition spaces such as galleries, and publication venues such as magazines [to] exist together in one hand-held device. This single platform medium is remarkable development in the history of modern media. It allows you to capture, edit, and publish photos, view photos of your friends, discover other photos through search, interact with them (like, comment, repost, post to other networks), enter into conversations with photo authors and others who left comments, create photo collections, change their order, etc. all from a single device."[19]

Today, Instagram benefits from overwhelming success as, according to the latest report from Reuters dating back to 2016, users shared more than 95 million photos and videos per day on the popular platform.[20] Futhermore, it is not the only social network on which users share their personal photos; amongst the most popular ones, Facebook is reported to host over 300 million new photo uploads per day, while Snapchat contributes to an unknown grand total with 3 billion snaps created every day.[21] This remarkable success may be due to the fact that these platforms exploit the brain's reaction to community feedback. By creating a system based on social approval –likes– individuals feel instant gratification.[22]

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18 'List of Image-Sharing Websites'. n.d. *Wikipedia.*

19 Lev Manovich. 2017. *Instagram and Contemporary Image*. p.11

20 Yasmeen Abutaleb (edit. Peter Cooney). 2016. 'Instagram's User Base Grows to More than 500 Million'.

21 Dustin W. Stout. n.d. 'Social Media Statistics 2019: Top Networks By the Numbers'.

22 Association for Psychological Science. n.d. 'Social Media "Likes" Impact Teens' Brains and Behavior'.

Erik Kessels tries to expose the tip of the iceberg, by addressing this unmeasurable amount of vernacular photography that is shared on social networks each day and rendering it tangible in his installation at Foam Amsterdam in 2011, called *Photography in Abundance* (Fig. 13-14). The artist printed and piled up "a million photos that were uploaded to Flickr, Facebook and Google over a 24 hour period".[23] However, this amount falls short compared to the number of images posted, as –according to BBC– Kessels downloaded and printed only the photos that were public on the aforementioned three social networks. Today, it would be unimaginable to omit images shared on Instagram or Snapchat.

The emergence of these platforms allowed for the photo album to leave its forgotten drawer in the family home and for people to openly share vernacular photography quite democratically (provided they have access to the necessary technology, with varying degrees of ease of use depending on the available tools and services). Personal snapshots go through a first triage in which some of them are selected, so they can then be retouched, shared, promoted, –perhaps– seen and, finally, quickly forgotten as they are lost in a sea of images.

A glimpse into the various platforms dedicated to image-sharing and storing seems to reveal a pattern, in which early services like Photobucket appear to focus on replacing their analogue counterpart –the family photo album–, whereas most recent approaches like Instagram's tend to highlight the social aspect. However, do we honour Instagram's or Facebook's feeds with the same status we used to grant our family albums? In my opinion, memory has gone from being family-centred to being individually-focused, from significant, somewhat scarce events, to every-day, mundane images conveying a general feel.

Sascha Pohflepp's project, *Between Blinks & Buttons* (Fig. 17), explores the camera's position as a networked object and the relationships that can be created by the association of images taken at the same moment. The artist explains that by pressing the button, users make their photos public on the internet, creating a trace. Each image is embedded with meta information about the context of its creation, very much like in social networks "making it possible to see what happened simultaneously in the world at that instant. This work tries [...] to create narratives that run between one's own memory and a stranger's moment which happened to coincide in time".[24]

In his book *The Social Photo*, Nathan Jurgenson refers to affirmations made by José Van Dijck in 2008, in which he claims that young people reveal more interest in sharing photos as experiences and not as (art) objects. It is no longer the image or its aesthetic

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23 'Artist Erik Kessels Unveils 24 Hour Photo Installation'. 2011. *BBC | Entertainment & Arts*.
24 Sascha Pohflepp. 2006. *Between Blinks & Buttons*. Product design.

quality that counts, but the story it tells, alongside all the other photos in the stream.[25] The story is better conveyed thanks to classification or organisation methods. Firstly, metatags, which can automatically create links between images by different authors, as seen in *Between Blinks & Buttons.* Secondly, tagging. Tagging refers both to the use of hashtags, allowing for content to be regrouped into topics of interest, as well as to the act of identifying another user (person or brand) on an image.

Jenny Rova's project *I would also like to be - A work on jealousy* (Fig. 15-16) explores the complexity of the moral boundaries inherent to the public, personal image. Her work exploits the use of identification tagging and the public character of vernacular photography shared on social media, adding another dimension to it. By carefully editing the pictures to insert herself in them, Rova creates new family memories that never did, nor will exist.

The artist explains:

> "I'm following and spying on my ex-boyfriend and his new girlfriend. I pursue them on Facebook, downloading all the pictures they have been uploading there of themselves and each other. I'm placing myself in the new girlfriend's position, imitating her pose, expression and dressing myself in the same outfit. I'm photographing myself in the same light as in the picture of them. The figure of me I glue onto the original picture, covering the girlfriend. In this way I build a dream life of my own on top of theirs. During the process of taking the new girlfriend's poses, I'm once again, briefly a part of my ex-love's life and I can imagine how it would be to be her."
>
> Jenny Rova, n.d.

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25 Nathan Jurgenson. 2019. *The Social Photo: On Photography and Social Media.* New York, USA: Verso. p.28

Photography is “the act of reproducing an image an endless number of times. It’s about pausing something that has life and movement so we can watch it when it’s still. It’s about creating movement through fixed images.”

Rebekah Modrak, 2011

Fig. 18
Anonymous n.d., *Huawei's Moon Mode sample image*. **Digital photo.**

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Lew Later 2019, *The Huawei Moon Photo Scandal*. **Video.**
https://www.youtube.com/watch?v=sUSVXjNYoXQ

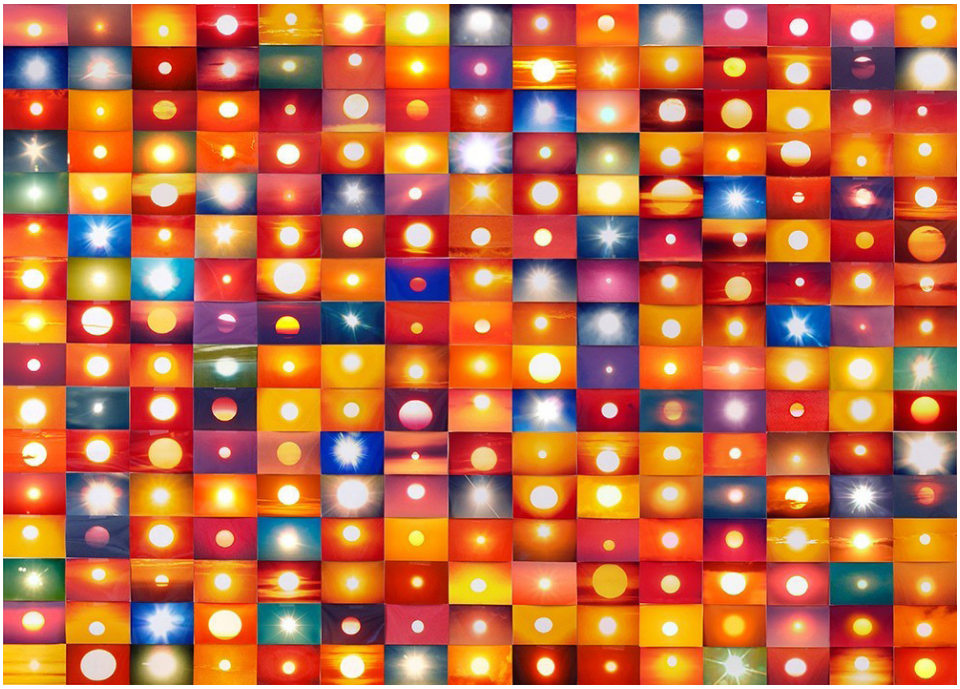
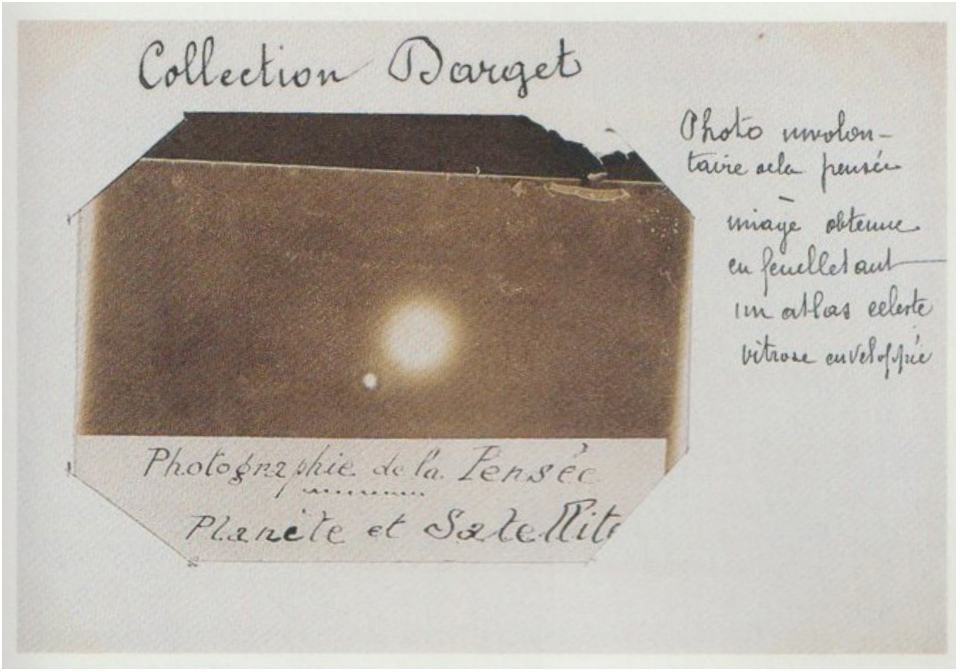


Fig. 19
Penelope Umbrico 2016, *Suns from Sunsets from Flickr (Partial).* **Installation**.




Louis Darget 1897, *Photographie de la pensée. Planète et satellite*. **Analogue photo.**

PART III

# TIMELAPSE

> "Image cultures that develop around technological media are defined [...] by cultural "languages"—systems of conventions and techniques that define the subjects, narratives, editing, compositions, lighting, sequencing, and other image characteristics."
>
> Lev Manovich, 2017

As Manovich expresses, there are cultural languages that develop around vernacular photography, presets and automatic settings can account for similarities in aesthetics, and virtual communities for content analogy. What is the role of social codes in the perception of automated features in personal photography?

## Vernacular Photography, Meet Astrophotography

*The Huawei Moon Photo Scandal* (Fig. 18) is a video published by Lew Later channel on YouTube.[26] In it, Lewis George Hilsenteger –the channel's host– addresses the diatribe against Huawei following the release of its moon mode technology. Controversy arose when users of Huawei smartphones discovered their impressive moon photographs could, in fact, not be theirs per se. The Chinese company makes use of algorithms to combine information about the user's location and an existing database of professional moon imagery. It then uses AI to enhance the satellite in the user's image. *Voilà*, the perfect moon picture, thanks to another occurrence of automation in photography.

Although Huawei issued statements claiming their technology consists of only enhancing the user's image, some websites assure that as per "anecdotal research by some industrious photographers though, this is potentially not completely true. According to tests performed by Wang Yue at Zhihu, the Huawei P30 Pro isn't just enhancing the image information the user captures but actually placing pre-existing imagery of the moon into the photo".[27]

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26 Jack McCann. 2019. *The Huawei Moon Photo Scandal.*

27 C. Scott Brown. 2019. 'Huawei P30 Pro "Moon Mode" Stirs Controversy'.

Rather than attempting to find proof of veracity in any of the existing claims or engaging in libelling, the inclusion of this video as part of the exhibition intends only to address several users' particular reaction to the issue. In doing so, it means to entice visitors' reflection about what personal images mean to the amateur photographer, to themselves. An alumnus of Digital Arts Photography and Video Editing at the Toronto School of Art, Hilsenteger notes that many amateur photographers, while perfectly comfortable with the use of Snapchat's augmented reality filters or automatic photo enhancement apps or even "face editors" such as *FaceApp*, express being bothered by the use of image enhancement in this particular case – and without them knowing–, claiming that images in moon mode are no longer their images. As a consequence, the use of advanced algorithms to unnaturally improve what the photographer was seeing appears to eclipse not only their sentiment of ownership but also the importance of the moment that is often emotionally associated with personal photography.

## A million suns

Penelope Umbrico's project *Suns (From Sunsets) from Flickr* (Fig. 19) approached the issue of astrophotography in a different way, recognising the importance of emotional attachment to the moment of taking a photo. In 2006, "sunset" was the most tagged word on Flickr[28], so the photo artist "collected those sunsets from Flickr that had the most defined suns in them, and cropped just the suns from these images."[29] Umbrico's project not only recognises the technical limitations in photographing a sunset, but it also acknowledges the very human need of "capturing" the moment, despite its technically imperfect result, despite the multiplicity of images of the same sunset. The artist sensibly expresses that "Perhaps part of the beauty of taking a picture of a sunset is that while you are doing it it's likely that a million other people are doing it as well – at exactly the same time. I love this idea of collective practice, something we all engage in despite any artistic concern, knowing that there have been millions before and there will be millions after. While the intent of photographing a sunset may be to capture something ephemeral or to assert an individual subjective point of view– the result is quite the opposite - through the technology of our common cameras we experience the power of millions of synoptic views, all shared the same way, at the same moment".[30] As Pohflepp's *Between Blinks & Buttons*, Umbrico explores the notion of collaborative construction or reconstruction of a moment through vernacular photography.

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28 Joanna Zylinska. 2017. *Nonhuman Photography.* The MIT Press. p.119

29 Penelope Umbrico. 2006. *Suns (From Sunsets) from Flickr.* Photography.

30 Penelope Umbrico. 2006. *Ibid.*

“Photography from its beginning has developed a parallel trajectory of nonnaturalistic experiments, working against the equipment’s technical limitations or even embracing them as modes of artistic expression.”

Joanna Zylinska, 2017

Fig. 20
Anonymous 2017, *Apple's Shot on iPhone campaign*. **Photo.**

Fig. 21
Adam Harvey 2010, *CV Dazzle*. **Artwork.**

Fig. 22
Marta Revuelta 2018, *AI Facial Profiling, Levels of Paranoia*. **Artwork.**

Fig. 23
Bonamy Devas 2015, *Phototaichi*. **Collaborative artwork.**

Fig. 24
Simon Senn n.d., *Be Arielle F.* **Artwork.**

Fig. 25: Erica Scourti 2014, *So Like You*. **Artwork.**

Fig. 26
C. Kerem Nasipoglu n.d., *Winner in EyeEm's AI-curated contest*. **Photo**.

PART IV

# FOCUS

"Pattern recognition is at the heart of the human brain; it is one of the traits that has been most helpful to us as a species."

Mimi Onohua, Diana Nucera, 2018

## Human Algorithms And Tools

In a talk at Microsoft Research in 2011, Brian Christian, author of *The Most Human Human* and winner of The Most Human Human award in 2009, attempts to define what being human means. The award recognises both the machine and the human who are able to better fool the judges that they are indeed human. During his talk, he mentions the fact that the use of tools was once referred to by scholars as the defining characteristic of the human species, as the one that differentiated us from other living beings.[31]

Even if this idea was later proven to be wrong, I ask myself –as a photographer and human– if this could be one of the reasons so much emphasis was placed on developing more ergonomic, more efficient, more accessible and automatic tools? Subsequently, what would be the social implications and cultural shift rooted in placing the power of image-making on automated tools and claiming or advertising this power no longer relies nor depends on humans? While Zylinska duly notes that –contrary to popular belief and alarmist preaching– there is human agency in every automated process[32], there seems to be a global effort to develop "thinking" machines, capable of deciding instead of merely executing sequences of orders.

In terms of vernacular photography, Zylinska asserts that the automaticity of photography is executed both on an algorithmic level as well as on the framing level, arguing that, not only the correct exposure options are chosen for us, but that the screen we use for framing influences our perspective, thus rendering its flatness natural.[33] Furthermore,

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31 Microsoft Research. 2016. *The Most Human Human: What Talking about Computers Teaches Us about What It Means to Be Alive.*

32 Joanna Zylinska. 2017. *Nonhuman Photography.* The MIT Press. p.19

33 Joanna Zylinska, *Ibid.* p. 31

she argues that Instagram and similar platforms allow the user to experiment with a definite set of filters and options "which have all been preprogrammed and preseen by the camera's [viewpoint] and editing software's algorithm".[34] This could presumably be contested by pointing to the fact that there is a multiplicity of apps which allow the user to choose manual settings when using their phone's camera. Admittedly, my personal observations seem to hint that the preferred mode would be auto mode.

Conceivably, this preference could address a desire for simplicity, ease of use, speed. Could it also mean that we wish our photos to be identified with the tool we're using, if we are indeed still attached to our tools? Is there a relationship between the choice of tool and social status in vernacular photography? Lev Manovich, who based his research about the subject on readings of diverse authors such as Pierre Bourdieu, claims that "People use particular visual aesthetics and styles to define their membership in subcultures, to signal their 'identities', and to identify with particular lifestyles".[35] In January 2019, Apple relaunched its campaign based on the hashtag #shotoniphone (Fig. 20), previously used on social networks. The campaign allows users publicly sharing images using the tag to have their photos printed on billboards across the world, if selected by the jury.[36] At the time of writing, an Instagram search shows 9.9 million public images using the tag, as well as other tags specifying the exact iPhone model used. The mere fact that users choose to tag their exact iPhone model may be a clear pointer to Manovich's ideas about identification.

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34 Joanna Zylinska, *Ibid.* p.25

35 Lev Manovich. 2017. *Instagram and Contemporary Image.* p.40

36 Apple. 2019. 'Apple Highlights Best Photos Shot on IPhone around the World'.

## The Photographed

> "To photograph is to appropriate the thing photographed. It means putting oneself into a certain relation to the world that feels like knowledge—and, therefore, like power."
>
> Susan Sontag, 1979

The notion of power through image appropriation is even stronger in the era of surveillance devices. It is not uncommon for artists to conceive critical projects contesting their status as subjects to the nonhuman photographer. Such is the case of Marta Revuelta's work *AI Facial Profiling, Levels of Paranoia*, Adam Harvey's *CV Dazzle* or Bonamy Devas' *Phototaichi*.

*CV Dazzle* (Fig. 21) aims to create a set of defined "cheats" in the form of accessories to appear unidentifiable to surveillance cameras. "CV Dazzle explores how fashion can be used as camouflage from face-detection technology, the first step in automated face recognition".[37]

*AI Facial Profiling* (Fig. 22) challenges the presumptions that can be made against individuals based on their physical traits and behavioural patterns. "More and more, states are implementing complex intelligent control systems to help and speed up the procedure of border crossing, using risk assessment tools to analyse biometric data related to individuals to prevent potential threats and support the border guard in his decision making".[38]

*Phototaichi* (Fig. 23) is a collaborative project, in which people attempt to confuse the camera's panorama algorithm and post the result on social media using the hashtag #phototaichi. "This process deliberately subverts the iPhone's camera software to reveal the digital image for what it is: the algorithmic construct of an apparatus".[39]

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37 Adam Harvey. n.d. *CV Dazzle.*

38 Marta Revuelta. n.d. 'AI Facial Profiling, Levels of Paranoia'.

39 Bonamy Devas. n.d. *Phototaichi.* Digital performance.

## Ungodly

In *Nonhuman Photography*, Joanna Zylinska argues that nonhuman vision in photography needs to be acknowledged in order for humans to "unsee themselves in their godlike positioning of both everywhere and nowhere".[40]

*Be Arielle F* (Fig. 24), a multi-disciplinary artistic project by Simon Senn, places the viewer or user in a position of power. In this work, Senn uses a legally-bought 3D photography of a real person and creates a virtual reality experience in which he embodies the model. Rather than focusing on non-consensual nonhuman photography, Senn's work raises the issue of nonhuman reproduction and use of an image for human consumption, one that could be legitimately referred to as placing the human in a "godlike" position. His work is of particular interest to this exhibition, since it makes use of several technologies –fully available to consumers– that automate image reproduction processes and create new forms of exploring visual imagery, as is the case of virtual reality.

"Simon Senn bought a digital replica of a female body on a website for $12. The file contained a static, photorealistic representation in three dimensions of the naked body of a young woman. He used a free online tool to give her digital bones; this enabled him to get her moving".[41]

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40 Joanna Zylinska. 2017. *Nonhuman Photography.* The MIT Press. p.15

41 Théâtre Vidy-Lausanne. n.d. 'Be Arielle F.'

## (De)Humanising Curation?

Beyond the act of taking the photo itself, Apple's intelligent algorithms can discern which images are worth showing to the author/user and how they should be highlighted, whilst hiding the rest. Functionalities include choosing the "best" images in a given set from the same date and place, identifying key events repeated through the years, hiding probably-unwanted images such as screenshots, as well as zooming in order to adapt previews for a more attractive film roll presentation. As Apple explains on their website:

> "Years highlights the best of your past photos. Months presents your photos by significant events. Days surfaces your best shots. [...] Using on-device machine learning, the Photos tab hides similar photos and reduces clutter by removing screenshots and receipts, so you can easily enjoy your best shots."
>
> Apple, n.d.

Considering machine learning involves the algorithms learning from experience, will this mean we will all have phone image galleries showing us the same kind of compositions, subjects, places and events? Will the "relatively narrow scope of available subjects and viewpoints"[42] present in social network feeds be translated into the private ecosystem of our own smart device?

Notwithstanding the aforementioned –and in oblivion of socially-driven aesthetics–, was the time of film photography not limiting in terms of standardised focal distances in lenses, standardised shutter speeds, film iso, aperture values, film chemistry, as well as camera construction? Were there not clearly identifiable tendencies and trends in photography which went hand in hand with photographic equipment evolution? Did we not produce the same kind of pictures when they intended to depict reality and truth: war, nature, landscape, street photography?

In 2014, long before Apple's announcement, and experimenting with Google's Image Search feature, British artist Erica Scourti's project *So Like You* (Fig. 25) focused on the similarities that exist between her family photos and strangers' images. "In the process, she collects strangers' images to create multiple mirror versions of her own life –which loses its singularity and becomes a replication of cultural [...] code".[43] The series of photos in *So Like You* bears witness to the fact that, while some images show straightforward parallelism in content, others are a mere result of the aesthetic analysis of an algorithm, lacking any human sensitivity as to what a correspondence represents in terms of vernacular photography.

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42 Joanna Zylinska. 2017. *Nonhuman Photography.* The MIT Press. p.25
43 Joanna Zylinska. *Ibid.* p.35

Furthermore, in his book focusing on Instagram, Manovich properly notes that "Photography, including Instagram's version, is about making visual images that communicate through their techniques, styles, and visual choices—and not only content".[44] Could Google's algorithmic curation be associated with this idea? Could we, as humans, identify with its visual associations?

Building on the notion that curation can be delegated to trained algorithms as it is today to trained human vision, in May 2016, EyeEm's Head of R&D, Appu Shaji published an article about how the company had managed to successfully train an algorithm to identify beauty in a photograph. Surprisingly, one of the featured winning images in the article (Fig. 26) is, in fact, what a jury of photographers could probably consider worthy of mention. Detaching itself from the cliches of an algorithmic selection, EyeEm created an app called *The Roll*, which is said to curate the user's smartphone photo roll. Unfortunately, at the time of writing, the app was not available on the App Store and could not be tested.

Shaji claims that "[...] technology can never replace your personal taste and judgments. But we sincerely believe that we are entering a fascinating stage in which technology can power curation, enabling human stories to be discovered within the firehose of photographic data — starting with your very own camera roll".[45] (As is the case in Apple's iOS devices).

As an alternative to fully automating the entire curation process, EyeEm's website complements their proposal with the possibility to "Train your own aesthetic model and instantly filter content to match your style".[46] In doing so, the user has a seemingly more active role in the curation process, although it could be argued that –based on the user's usual choices and reactions to images– EyeEm's algorithm already knows what kind of content to display.

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44 Lev Manovich. 2017. *Instagram and Contemporary Image.* p.40

45 Appu Shaji. 2016. 'How We Trained an Algorithm to Predict What Makes a Beautiful Photo'.

46 'EyeEm Vision - Leading Computer Vision Technology API'.

“Any prudent and effective way of envisaging and picturing a transformation of our relation to the universe must thus be conducted not in terms of a human struggle against the machine but rather in terms of our mutual co-constitution, as a recognition of our shared kinship.[...]

In challenging the self-possessive individualism of the human eye, photography that seriously and consciously engages with its own expansive ontological condition and its nonhuman genealogy may therefore be seen as a truly revolutionary practice.”

Joanna Zylinska, 2017

# POSTFACE

## Metaphors On Auto Mode

*Shot on auto mode* aims to offer a window on the current status of vernacular photography in relation to its evolution in terms of automation. What are the metaphors employed in this work?

*Aperture* may refer to an entrance to the subject of vernacular photography and automation or the opening of the diaphragm in a camera. Technically, the latter accounts for the amount of light it lets through. As part of this exhibition, it allows visitors to get a glimpse of a curated selection of technologies that have contributed to current notions in vernacular photography.

*Exposure* may focus on social exposure and distribution of personal photography, what some authors have called *social photography*. However, exposure also accounts for the time the diaphragm is open, either freezing a scene to a fraction of a second or capturing its inherent movement for as long as the photographer so decides. Parallel notions can be drawn between perceptions of photography: from more traditional views which focus on a single image's quality or beauty, to more recent conceptions of photography as a "feed", as a collection of mundane images that tell a story.

*Timelapse* is an automated way of capturing evolving phenomena (generally, natural) in equal time intervals. Figuratively, it allows visitors to observe the social reactions associated with two different approaches to comparable subjects. Ultimately, as a method that has traditionally allowed scientists to document and account for change, it incites readers to reflect on their own practice and reactions to the subject on the table.

*Focus* is the act of rendering one or more planes sharper than the others, allowing for either the whole image or just a detail of it to be well defined. It depends on the set aperture value. Thus, following what had been exposed in *Aperture*, I chose to focus on new paradigms in vernacular photography, ending this work with a glimpse of what the future of our personal, collected –even, collective– memories may be.

## (De)Humanising Photography

In her work *Nonhuman Photography*, Joanna Zylinska argues that the traditional paradigm under which photography is usually categorised and analysed, i.e. as per its classification as art or as a social practice does no longer cater for what the practice has evolved into. She states that "There is more to photography than meets the (human) eye and [...] all photography bears a nonhuman trace".[47] Moreover, she quotes Vilm Flusser, who stated that the relationship between the human and the technical apparatus significantly shifted after the Industrial Revolution and that human beings now "function as a function of apparatuses".[48]

In order to understand her standpoint and relate it to the subject of this exhibition, one needs to look at the new forms that vernacular photography has adopted and the new practices it has merged with.

Firstly, let us focus on the social network phenomenon. For Katrina Sluis, it seems as if "a photograph's value might not lie in the specificity of its content but rather in its legibility to machines and the data generated around it. This reflects a paradigm shift in which there is less value to be extracted from individual images than from the relationships between them. These relations tell us much about audience sentiment, patterns of consumption and potential future demand for images".[49] Zylinska seems to agree, maintaining that the human is reduced to "a source of digital capital in social media" and to a "visual disturbance in Google Street View imagery".[50] Indeed, if we consider photography from a nonhuman point of view, these affirmations seem to foreground the fact that a person's entire existence –be it their photographic archives, health data, studies, purchases, travels, preferences– is just mere data to larger entities.

The beginning of this catalogue quoted the definition of vernacular photography by Clément Chéroux, who characterised it as meant for private, non-commercial consumption. Even though shared images on social networks are considered to be of a vernacular nature according to Chéroux, the aforementioned affirmations focus on the subject from a very divergent point of view: that of the big data-driven companies automatically analysing these images. Both their collective and individual status would then be of an array of metadata, according to Zylinska and Sluis.

Nonetheless, does the moon mode controversy not manifest that there is more meaning than data from a human photographer's perspective? Is it not plausible to think that –even in a data-dominated era– personal photography could keep its tradi-

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47 Joanna Zylinska. *Ibid.* p.51
48 Vilm Flusser 2000, cited by Joanna Zylinska. *Ibid.* p.77
49 Katrina Sluis 2014, cited by Joanna Zylinska. *Ibid.* p.35
50 Joanna Zylinska. *Ibid.* p.27

tional emotional status from the human amateur's point of view? Do you remember how many photos you took on your last trip? Would you be able to recall them in chronological order? However, can you recall who or what is on your photos, even reminisce about the precise moment you took a specific picture?

Secondly, as per Zylinska's definition, images not destined for human consumption are part of the proposed denomination of nonhuman photography. This could include radar, satellite or thermal imagery, which are processed by a nonhuman mediator and translated into visual content adapted for human interpretation. Furthermore, they adhere to the definition of vernacular photography proposed by Chéroux, in which he specifies that images become vernacular once deprived of their initial purpose. These nonhuman, vernacular images and the data associated with them are carefully kept for human analysis, generally in professional contexts (medicine, science, security, etc.).

Finally, the rising emergence of applications and software allowing amateurs to transform their images into formats compatible with new media creates a playground for experimentation and innovation. Readily-available solutions facilitate the automation of previously complex tasks that required a manifest degree of technical literacy. Such is the case exposed by Simon Senn's *Be Arielle F*, where new media is generated by a nonhuman mediator, based on human photographic production. At the time of writing, the App Store provides several choices of apps able to 3D-scan objects, faces, scenes, people, environments. Facebook provides an option to transform a 2D image into a 3D one, adding a parallax effect, thus slightly augmenting the field of view. Furthermore, several platforms have made tools available to customers for the simplified creation of augmented reality filters, which may –or may not– make use of users' own photography. Results vary and are not yet comparable to professional creations, but they are available to general consumers. Could vernacular photography be a viable foundation for new media content in a near-future? How can this be articulated taking into account rising trends in nonhuman curation?

# BIBLIOGRAPHY

## Artworks


Adam Harvey. n.d. *CV Dazzle*. Accessed 15 August 2019. https://cvdazzle.com.

Bonamy Devas. n.d. *Phototaichi*. Digital performance. Accessed 2 October 2019. https://www.bonamydevas.com/filter/%23phototaichi/PhotoTaiChi.

Erica Scourti. 2014. *So Like You*. Photography. https://thephotographersgallery.org.uk/whats-on/exhibition/erica-scourti-so-you.

Penelope Umbrico. 2006. *Suns (From Sunsets) from Flickr*. Photography. http://www.penelopeumbrico.net/index.php/project/suns/.

Sascha Pohflepp. 2006. *Between Blinks & Buttons*. Product design. https://pohflepp.net/Buttons.

Simon Senn. n.d. *Be Arielle F.* Accessed 27 October 2019. http://www.simonsenn.com/be-arielle-f/.


## Websites


Apple. 2019. 'Apple Highlights Best Photos Shot on IPhone around the World'. *Apple* (blog). 26 February 2019. https://www.apple.com/newsroom/2019/02/apple-highlights-best-photos-shot-on-iphone-around-the-world/.

'Photos for IOS and IPadOS'. *Apple* (blog). Accessed 27 October 2019. https://www.apple.com/ios/photos/.

Appu Shaji. 2016. 'How We Trained an Algorithm to Predict What Makes a Beautiful Photo'. *EyeEm* (blog). 31 May 2016. https://medium.com/stories-from-eyeem/how-we-trained-an-algorithm-to-predict-what-makes-a-beautiful-photo-e8de8bccd642#.i5od2es2z.

Association for Psychological Science. n.d. 'Social Media "Likes" Impact Teens' Brains and Behavior'. Association for Psychological Science (blog). Accessed 13 November 2019. https://www.psychologicalscience.org/news/releases/social-media-likes-impact-teens-brains-and-behavior.html.

'Artist Erik Kessels Unveils 24 Hour Photo Installation'. 2011. *BBC | Entertainment & Arts* (blog). 16 November 2011. https://www.bbc.com/news/entertainment-arts-15756616.

C. Scott Brown. 2019. 'Huawei P30 Pro "Moon Mode" Stirs Controversy'. *Android Authority* (blog). 24 April 2019. https://www.androidauthority.com/huawei-p30-pro-moon-mode-controversy-978486/.

David Pierini. 2019. 'How the IPhone Revolutionized Photography'. *Cult of Mac* (blog). 27 June 2019. https://www.cultofmac.com/488402/iphone-photography-camera-industry/.

Dustin W. Stout. n.d. 'Social Media Statistics 2019: Top Networks By the Numbers'. *Dustin Stout* (blog). Accessed 9 November 2019. https://dustinstout.com/social-media-statistics/.

'EyeEm Vision - Leading Computer Vision Technology API'. n.d. Official website. *EyeEm* (blog). Accessed 27 October 2019. https://www.eyeem.com/eyeem-vision.

‘First Cameras Had Smile Detection, Now It’s Kiss Detection on Google’s Pixel...’ 2019. *Afaqs* (blog). 2 July 2019. https://www.afaqs.com/news/advertising/55340_first-cameras-had-smile-detection-now-its-kiss-detection-on-googles-pixel.

‘Instamatic’. n.d. *Wikipedia* (blog). Accessed 1 October 2019. https://en.wikipedia.org/wiki/Instamatic.

‘IPhone Takes Top Rank as Flickr’s Most Used Camera’. 2017. *Cnet* (blog). 9 December 2017. https://www.cnet.com/news/iphone-top-camera-flickr-2017-report/.

Jenny Rova. n.d. ‘I Would Also like to Be - A Work on Jealousy’. Personal website. *Jenny Rova* (blog). Accessed 12 August 2019. http://www.jennyrova.net/projects/8/i_would_also_like_to_be_-_a_work_on_jealousy.html.

‘Kodak Super Six-20’. n.d. *Camerapedia* (blog). Accessed 1 October 2019. https://camerapedia.fandom.com/wiki/Kodak_Super_Six-20.

‘List of Image-Sharing Websites’. n.d. *Wikipedia* (blog). Accessed 7 November 2019. https://en.wikipedia.org/wiki/List_of_image-sharing_websites.

‘Lytro’. n.d. *Wikipedia* (blog). Accessed 1 October 2019. https://en.wikipedia.org/wiki/Lytro.

Marta Revuelta. n.d. ‘AI Facial Profiling, Levels of Paranoia’. *M. Revuelta* (blog). Accessed 7 November 2019. https://revuelta.ch/ai-facial-profiling.

‘Olympus Pen’. n.d. *Wikipedia* (blog). Accessed 1 October 2019. https://en.wikipedia.org/wiki/Olympus_Pen.

‘Susan Sontag’. n.d. *The New York Review of Books* (blog). Accessed 1 November 2019. Théâtre Vidy-Lausanne. n.d. ‘Be Arielle F.’ *Théâtre Vidy-Lausanne* (blog). Accessed 7 November 2019. https://vidy.ch/en/be-arielle-f.

‘Unbox Therapy’. n.d. *Wikipedia* (blog). Accessed 27 October 2019. https://en.wikipedia.org/wiki/Unbox_Therapy.

‘Vernacular Photography’. n.d. *MoMA* (blog). Accessed 27 October 2019. https://www.moma.org/collection/terms/181.

Yasmeen Abutaleb (edit. Peter Cooney). 2016. ‘Instagram’s User Base Grows to More than 500 Million’. *Reuters* (blog). 21 June 2016. https://www.reuters.com/article/us-facebook-instagram-users/instagrams-user-base-grows-to-more-than-500-million-idUSKCN0Z71LN.

## Books

Chris Chesher. 2012. ‘Between Image and Information: The IPhone Camera in the History of Photography’. In *Studying Mobile Media: Cultural Technologies, Mobile Communication, and the IPhone*, by Larissa Hjorth, Jean Burgess, Ingrid Richardson. Routledge Research in Cultural and Media Studies.

Clément Chéroux. 2013. *Vernaculaires. Essais d’histoire de la photographie.* Le Point du Jour. Joanna Zylinska. 2017. *Nonhuman Photography*. The MIT Press.

Lev Manovich. 2017. *Instagram and Contemporary Image*. http://manovich.net/index.php/projects/instagram-and-contemporary-image.

Martin Hand. 2012. *Ubiquitous Photography.* Great Britain: Polity.

Nabyla Daidj. 2015. *Developing Strategic Business Models and Competitive Advantage in the Digital Sector.* USA: Business Science Reference. https://books.google.ch/books?id=hiGXBQAAQBAJ&pg=PA26&lpg=PA26&dq=instamatic+cameras+worldwide+success&source=bl&ots=9NTKTzNbPM&sig=ACfU3U1K6Woo4zSjDLQo_e8z6n2GkYc__g&hl=en&sa=X&ved=2ahUKEwij596C6hNjlAhVa6qYKHXI1AtMQ6AEwFXoECAcQAQ#v=onepage&q=instamatic%20cameras%20worldwide%20success&f=false.

Mimi Onohua, Diana Nucera. 2018. A People’s Guide to Artificial Intelligence. Michigan.

Nathan Jurgenson. 2019. *The Social Photo: On Photography and Social Media*. New York, USA: Verso.

Rebekah Modrak, Bill Anthes. 2011. *Reframing Photography: Theory and Practice.* London: Routledge

Susan Sontag. 1979. *On Photography.* Penguin Books.

## Videos

Jack McCann. 2019. *The Huawei Moon Photo Scandal.* YouTube. https://www.youtube.com/watch?v=sUSVXjNYoXQ.

Microsoft Research. 2016. *The Most Human Human: What Talking about Computers Teaches Us about What It Means to Be Alive.* https://www.youtube.com/watch?v=anMBmUS5yyo.

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