Art and Design in the Digital Age

Notes by Davide Lanza

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Outline

We tend to think of **art and technology** as two separate, almost opposite things. But what if we showed you that the development of technology owes its debt to artists? And that art would not be what it is, without technology? "The digital age", born out of the scientific and technological revolutions of the last 500 years, exposes the artificial divergence of disciplinary categories.

It is an exciting moment in art and design history. On the one hand, technological tools change what we are capable of doing – and contemporary artists/designers indeed use those technologies with much imagination: from image processing to immersive virtual environments; from social networks to flash mobs and cyber-attacks; from fake news to surveillance systems - art had never had so **many tools** to play while directly interacting with us within our social realities. On the other hand, art does so while examining, distorting, criticizing and inventing new technologies as it allows us to **imagine the furthest frontiers** of what technology may be able to do.

This course aims to look at these inter-disciplinary cross-overs between art, design and technology while asking: **how does this new technological age is changing our culture**, society and life? What do these teach us about ourselves? How can we reflect through it about our pasts, presents and futures?

The course is aimed at anyone who is curious about what it means to be born and to live in "the digital age". The course combines lectures, interviews with theoreticians and artists, artwork analysis, case studies and stimulating discussions. The course also offers some practical exercises that will introduce you to basics in programming, digital image processing and 3D printing.

This course was created and produced by Shenkar - Engineering. Design. Art.

Objectives

1. Provide a **comprehensive review** of the history and theory of art as it is seen in the digital age, informing them of the reciprocal relationship between art, design and technology

2. Engage students in **active discussions** and provide them tools to critically think of art and technology

3. Provide students with a set of **terms and a language** that will enable them to assess and analyze contemporary art and design

4. Provide students with **knowledge of digital tools** that are used in today's developing industry

5. Introduce students to some of the **leading thinkers** in the field

Instructor

Dr. **Lee Weinberg** is a senior lecturer at Shenkar College of Engineering Design and Art and an associate researcher and head of curatorial studies programme at the University of Haifa. Born in Haifa, Israel she spent her childhood in Belgium. Completed her first degree in Art Practice: Sculpture and the three-dimensional space in Central Saint Martin's College of Art and Design in London. Completed a further BA in French Literature at the University of Haifa. In 2005 Weinberg embarked on a curatorial career at the Haifa Museum of Contemporary art. In 2012, Weinberg completed her diploma in Teaching and Management in Higher Education as part of her capacity as a lecturer at Goldsmiths, University of London. In 2014 Weinberg completed PHD in Creative Curating at Goldsmiths, University of London. Her thesis Curating Immateriality: In Search for Spaces of the Curatorial, proposed new theories for curatorial practice that could embrace the vast changes that the profession is seeing with the advent of digital technology and computer science.

Platform (Edx)

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Syllabus

Week 1: Historical & Theoretical Tangents between Art and Technology
- Definitions of art and technology & how they could be the same?
- Art & Technologies interlinked: from cave paintings to the modern age
- Setting the fence between art and technology: a conceptual ridge
- Art and technology in the Renaissance
- Photography's early histories

Week 2: Art as Media as Language
- Art as media: How art can be defined a communication media? Or a language?
- Nelson Goodman's theory of Digital and Analogue
- The Technology of Notation and Music
- The History of Music Technology and its Implications in the Digital Age

Week 3: Art at the Turn of The Mechanical Age
- The meaning of images post WWW2
- The contemporary meaning of images in relation to technological development
- Revising Walter Benjamin's and John Berger's Ways of Seeing
- The work of Culture in the age of Cybernetic Systems
- The evolution of the moving image
- Avant Garde movements and the moving image
- Old cinema and new media art: video installations and new media technologies in the gallery space.

Week 4: After Photography
- Learn about the 4 industrial and technological evolutions
- Agency, The emancipation of the spectator and free will in a world governed by machines
- From mechanisms of chance in art to mass customisation in design
- Critical encounters between art and technology: early experiments with computers

Week 5: How to think about Technology & Mid Course Assessment
- Self-Assessment mid-course
- 6 approaches towards the critique of media and technology in the digital age

Week 6: Art and the Internet
- Net.Art
- Tactical Media and subversion
- Google: technological and informational biases
- The conundrum of privacy in the digital age: We live in Public
- Strategies to cope with surveillance capitalism: how not to be seen and obfuscation

Week 7: Digital Aesthetics
- The Cut & Paste aesthetics and the remix culture
- Time and space in the digital age: how to re-read spatio-temporal perceptions. After Paul Virillio and Katherine Hayles
- The selfie and the narcissistic and exhibtitionary complexes of social media

Week 8: Digital Futures
- Truth, Fiction and Virtual Realities
- The Internet of Things
- Object/subject relationship in virtual realities
- Performance and virtual reality
- Posthumanism and the anteoposcene
- The myth of immateriality
- Ability, disability, super ability

Contents

Chapter 1

Art as Technology as Art

Intuitively, we understand quite well what the term "**digital age**" means. It is a **proliferative term**, used almost at any occasion to characterize our present day. And it is rather difficult to ignore the fact that it suggests the dawn of a new era, a revolution propelled and characterized by the widespread use of new technologies, and their diffusion into every aspect of our personal, social, and political life. When we think of the digital age, it seems that we are quite convinced, generally speaking as a culture, that those technologies are making a huge difference.

Somehow, in our common cultural imagination, **art seems** to have been **attached to certain media** and certain ways of operation. When someone says art, we tend to think of painting, sculpture. Maybe some of us think of installation or performance, conceptual or abstract art. But generally speaking, we tend to think of art as **something that is displayed in designated spaces of contemplation**, such as art museums or galleries. as something that is subtitled and has a formal explanation. **But art nowadays** is profoundly **linked to the current technological reality**, it is an art that converses with digital technologies. This does not make it completely different from previous art, but to analyze and comment it we need an appropriate, dedicated language.

On the one hand, the course looks to offer a **new history of art** suggested by contemporary scholars, under the premise of re-examining the relationships between art, design, and technology, and how these have evolved throughout the ages. On the other hand, this course looks to offer **theoretical tools** that may assist us in understanding why things are happening the way they do, and what could they possibly mean.

1.1 Historical & Theoretical Trajectories

○ Theoretical Tangents between Art & Technology

Two main approaches are prevalent in thinking about the relationship between art and technology:

- Straightforward approach: **technology is a tool for the creation of art**.

  If in the past artists used little stones and glued them together to create religious images or used charcoal to imprint images on pieces of paper and walls of stone or clay to construct figures, then today, artists simply use different tools to create art objects and images. These are based on computer programs that imitate the effects of traditional media, like painting, drawing, photography, or sculpture.

  With this approach nothing fundamental changes in thinking about the relationship between art and technology.

- Medium approach: **technology** not as a tool that imitates existing artistic media, but **as a medium in and of itself**.

  Digital technologies and the platforms that are created with their use allow a set of new relationships between viewers, artists, and artworks, one that is conditioned not only by physical aspects, such as distance, space, and location, but also by different and diverging contexts, such as the personal computer, the TV or mobile phone screen.

$\rightarrow$ Artists take advantages of those new conditions of this new medium.

In his article, "*How to Speak about Art and Technology*" **Mick Wilson** from the IADT, Ireland, attempts to reconstruct the language we use in order to explain relationships between art and technology. Until the late 17th century, art and technology were not understood as two completely separate domains. Before Enlightenment and the Scientific Revolution, these words were used rather interchangeably. It was a need of the further specialization of the domains that created this distinction.

Vilem Flusser, a philosopher that delved into the definition and origins of design, technology, and art, also used an etymological root to excavate the original meanings of these words:

> "The Greek *Techne* means 'art' and is related to *Tekton*, a carpenter. The basic idea here is that wood, *Hyle* in Greek, is a shapeless material to which the artist, the technician, gives form, thereby causing the form to appear in the first place. The Latin equivalent of the Greek techne is *Ars*, which in fact suggests a metaphor similar to the English rogue's 'sleight of hand'. The diminutive of *ars* is *articulum*, i.e. little art, and indicates that something is turned around the hand, as in the French tour de main. Hence, *ars* means something like agility or the 'ability' to turn something to one's advantage, and artifex, i.e. 'artist,' means a trickster above all." (V. Flusser, *The Shape of Things*, Chapter 1)

Flusser redraws the semantic field of the word *techne* through a cluster of related words and synonyms, which include the words machine, art, design, etc. He does find a **common denominator**, a meaning that all of those seem to share: deception. **Deception** seems to be the very root from which all these derive:

> "To take one example, the lever is a simple machine. Its designed copies the human arm. It is an artificial arm. Its technology is probably as old as the species Homo sapiens, perhaps even older. And this machine, this design, this art, this technology is intended to cheat gravity to fool the laws of nature, and by means of deception, to escape our natural circumstances through the strategic exploitation of law of nature."(*ibid.*)

Flusser therefore concludes that **any act of design, of art, of technology** is a means of **tricking laws of nature**, or at least **our perception of them**, with the aim of concealing our direct dependence and relationships to nature and with it the inevitable consequences of life and death.

Both Wilson and Flusser contend that the **separation** between these fields is in fact **artificial** and that throughout history of humanity, art, design, and technology did not come to mean completely different things as we conceive of them today.

Artists that use digital technologies as media tend to resonate with this approach. They don't see an essentialist difference between art and technology, but see them as expressions or mirrors of each other. They, therefore, do not necessarily think of technology as a tool for the creation of meaning through art. And they don't see art necessarily as a vehicle for the creation of meaning or for the simulation of a reality through mimicking how it looks.

But such a relationship between art, design, and technology can be justified from a historical perspective as well?

○ Alternative Narratives of Art as Technology

What made us imagine other possible realities and realize those through the use of technology, design, and art? As Flusser suggested, art, design, and technology all derived from the same motivation– to **change our position in relation to the natural world, to see through reality and imagine how it could change and what it could be**. Taking these questions into account, it is indeed possible to think of art and technology in the same terms.

Looking through the history of civilization with such a perspective would allow us to see how these different branches of human creativity meet throughout their separate histories?

Back in time, Hunter-gatherers did have a little bit of technology. Every once in a while, a sharper tool or a better arrow would appear, but nothing to startle us as a technological or cultural breakthrough. In what archaeologists call the **Creative Birth**, or the **Upper Paleolithic Revolution**, apparently we started to imagine more. We seemed to have developed an ability to put our minds together and to invent all kinds of solutions to problems we didn't even recognize before.

The first signs are inscribed on the walls of the caves by hunter-gatherers. The oldest artwork that we know of today dates from approximately 40,000 BCE. Archaeologist **David Lewis Williams** in "*The Mind in the Cave*" describes evidence he found that made him believe that those paintings were much more than a depiction of everyday life scenes drawn by bored cavemen. The details of the painting suggests that the creatures depicted were many times mythical, hybrid, composed of two different animals, or even depicting hybrids that combine human and animal form. Generally speaking, **we may have painted** on the walls of caves for completely different reasons, **more to do with the set a beliefs we have started to develop about parallel universes and worlds beyond the actual reality as it is perceived through our senses**.

One of the things that convinced him most was the painting of **abstract geometric patterns** that seemed to have no relationship to things we may find or perceive in the outside world. Yet, these patterns were repeatedly found in caves all around the world– in Europe, South Africa, and South America. According to Williams, they describe a **similar structure of our ancestors' internal world**, the structure **of our imagination**.

The trigger was the Agricultural Revolution (10'000 BC). The creative burst in cave paintings of the Upper Paleolithic Revolution allowed us to **start communicating abstract ideas** that derive from our imaginations and **share those in the great system of signs**, symbolic figures and paintings depicting processes and observations about our inner worlds and the outside world as well. The **Agricultural Revolution** allowed us to somehow **put those observation into practice** and understand how to cultivate wheat and process seeds so we may create our own food sources rather than run around trying to find them.

Could this be the relationship between the oldest artwork ever found and the oldest technological revolution? Archaeologist **Klaus Schmidt**, who had started the excavations of the renowned archaeological site at **Gobekli Tepe**, thinks so. The monumental structures found at the south of Turkey are currently dated to between 15'000 and 20'000 BC, while the first breed of cultivated wheat was found only miles away from this site and dates to the same period of time. For Schmidt and Williams, it could very well be that the cultivation of wheat started, in fact, from a need to feed the great numbers of craftsmen that it took to build such monumental pieces. For others, it is the ability to cultivate wheat that allowed their construction in the first place. What we know for sure is that the **ability to imagine a reality beyond the perceived present as well as the ability to change environments according to our imagination and ideas, are indeed connected**. There are, in fact, two perspectives of the same ability.

Some believe that the Gobekli Tepe constructions were planned to align with certain constellations in the night sky. Similar to the pyramids in Egypt, Stonehenge, and other such monumental structures, they had a direct relationship to measurements. Those giant signs left to us by our ancestors could have been a mean of transferring knowledge and observations both about the outside world and about their internal worlds for generations to come. If we take this perspective, **we could say that those artworks were, in fact, the first communication medium that was ever invented**.

We know for long that art and the invention of scripts were historically related and that paintings in time turned into organized systems of representation we now refer to as writing, writing being the biggest communication revolution that will allow us to literally start our journey in history. So **can we think of art as a form of language, a form of communication medium, a form of technology?** And, vice versa, can we think of language, of communication media, of technology developed for sharing abstract ideas and thoughts as art?

1.2 Art at the Dawn of Reproduction

○ The Renaissance Revolution

Renaissance (between the 14th and the 16th century) is a period of time worth the focus on in understanding digital art and the relationships between art and media. The Renaissance is a crystallization of a general intellectual and **ideological shift** that put the **human at the center of scholarly occupation**, and human intellect and knowledge were perceived as invaluable. Renaissance artworks are still viewed as the **masterpieces of Western art**. Those artworks told alternative stories in relation to medieval themes, combined mythology with Christianity, and participated in the hot debates around the political structures of the city.

City life, civilian life and its newly defined public sphere, rapidly evolved during the 13th and 14th century. Increasing population and density of living spaces driving by the **city's economical growth**, required a new set of systems that would control and conduct civilians, including a whole array of behavioral definitions, manners and instructions for good conduct: a guidance to leading a **civil life** (here is where the term originated). It is definitely possible to see a **direct relationship** between these civil behaviors that spread quickly across Europe and the later development of secular **moral philosophy** of values and the development of **democracy**, as well as the revolutionalization of legal systems.

In the art world, the **invention of the canvas** allowed artworks to be circulated like never before and the artwork became somewhat autonomous from sacred spaces and traditional politics of commission. As the artwork detached itself from the walls of religious institutions, the figure of the artists came to the fore. Unlike earlier periods in history where artists worked in workshops and were not recognized by their name or personal identity, the Renaissance **gave birth to an individual artist**. The birth of the individual artist had political consequences and brought to the establishment of a **free art market**, freeing the artists from previous structures of power and allowing him or her to become a powerful, independent, social, and political agent, still assigned with the task of creating a vision for evolving social imaginaries.

Art flourished under **private patronage** and first became a symbol of civilian and political power, and the central pillar in constructing communal identity. Whilst Christian beliefs were still very much at the center of social and cultural life, the **church, as a political power, was undermined** as the feudalist models of governance was contended. This shift in power between civil, commercial society governed by a newly developed **middle class** of merchants and explorers, was further propelled and strengthened by the invention of the printing press.

The invention of the printing press by **Gutenberg** in **1439**, marks a new era, comparable to the advent of digital communication technologies and the internet. Historians point to the vast **accumulation** of information, the **proliferation** and unprecedented **dissemination** of ideas across different social classes, which traditionally, would not have had access to any form of education. The circulation of new ideas and materials becomes even easier. The **15th and 16th century** were filled with **blood and religious and civil wars** that would gradually shape the cultural characters, the borders and identity of nation states. Printing press allowed intercultural exchange as well as national identity reinforcement, with the imagination of new political forms. The dissemination of alternative translations of the New Testament brought about new interpretations of Christianity (**Luther** hung up his Protestant pamphlets on church doors).

Humanism, combined with the printing press, brought to an explosion of ideas. The Copernican Revolution, the discovery of the Americas, the revolutionization medicine, and advances in construction, engineering, warfare, and Maritime vehicles had totally shaken the way men understood the world. Much of the discourse following the invention of the press was centered around the **interpretation, control, and use of this powerful medium**. Consider the following example:

> Press allow the development of new literary forms, mainly *"la novel"*, a term that was used at the same time to describe both amusing short stories and news. News, generally speaking, has evolved as a new commodity, even before the first printed newspaper. News, up until the Renaissance, were seen quite differently: they were usually accepted in the form of letters or personal messages and accessible only to higher classes of the social ladder. **The concept of news as we know it** today, whereby each civilian had a right to know of local happenings, was an invention of the Renaissance.

One of the most viral debates of the time was around how one could tell the difference between rumors and gossip and real news. With this in mind, it is no wonder that scholars of the time had to really rethink and **redefine what truth is, what knowledge is**. Methodologies and constructing knowledge that **relied on evidence and facts**, gradually evolved and brought to the later definition of science and scientific thought. Hence the **scientific revolution** is much more than the first advances of science. It is the invention of a new way of thinking and the invention of what would become to this very day, a mechanism of creating truth and order in a world of complete chaos.

Optics grew tremendously during the Renaissance. Until that time, optical devices of different sorts, lenses, telescopes, and even spectacles, were regarded with much suspicion. Vision was philosophically entangled with perception of truth ("I'll believe it when I see it"), thus any interruption to the field of vision was perceived as an interference with a perception of truth itself. The dominant paradigm was

that physical reality, the creation of God, existed prior to human perception. Research and experiment in optics did not only give birth to Galileo's telescope , but would also bring to the invention of a new optical devices. optics and optical devices was mainly explored by artists, who at the time of the Renaissance would invent techniques of **diametric perspective**, the use of the **camera obscura** and the use of the **anamorphic**, an optical illusion created by artists to correct human vision. These devices, with time, will be transformed into the microscope, the camera, and the stereo scope, among other devices. Needless to say, **all these media that extend human visual capabilities**, transforms both visual perceptions and inherently re-evaluate what the realities and what truth is. **By the 18th century**, optical devices used for scientific experiments were used to **entertain the masses** and became a dominant feature of popular culture.

 Jonathan Crary, an art and media historian, traces the evolution and popularization of optical devices in the 18th and 19th century, and the relationship to the development of new approaches to phenomenology, metaphysics, and physics. In his book *Techniques of the Observer*, he delivers a detailed account of how such **new theories in optics** have influence artists of all disciplines to **explore visual perception from a different point of view**. Notably, the **impressionists** were fascinated by the fact that the perception of color is not related to what is painted, but is related to the operation of the human eye. Many tend to think of Impressionism and modern art movements evolving out of a survival impulse as the camera became the most reliable and objective device to represent reality. **For Crary**, the camera did not change art as much as artistic incentive and scientific exploration brought to the popularization of the **camera as a political, rather than an artistic tool**. It is in fact it was **only with the artistic and subversive use of the camera in the early 20th century** that will redefine **photography as subjective** and undermine its statues as a valuable documenting device for the representation of truth.

○ The Afterimages

In *Techniques of the Observer*, Jonathan Crary goes back to explore the writings of some of the scholars that were reoccupied with the relationship between vision, perception, truth and reality. One of the scholars he finds particularly interesting is Johann Wolfgang von Goethe. **Goethe** was also important in developing theories in optics, and more specifically **theories of colour** that will become influential in the decades after his death. Crary explores Goethe's experiments with vision, noting more specifically his investigation of a phenomenon called **afterimage**. Here is what Goethe writes about this phenomenon in his 1810 *Thoery of Colour*, as quoted by Crary:

> "Let a room be made as dark as possible; let there be a circular opening in the window shutter about three inches in diameter, which may be closed or not at pleasure. The sun being suffered to shine through this on a white surface, let the spectator from some little distance fix his eyes on this bright circle thus admitted.

> The hole being then closed, let him look towards the darkest part of the room; a circular image will now be seen to float before him. The middle of the circle will appear bright, colorless, or somewhat yellow, but the border will appear red. After a time this red, increasing towards the centre, covers the whole circle, and at last the bright central point. No sooner, however, is the whole circle red than the edge begins to be blue, and the blue gradually encroaches inwards on the red. When the whole is blue the edge becomes dark and colorless. The darker edge again slowly encroaches on the blue till the whole circle appears colorless"

○ Photography and Representation: Early History

Goethe, belonged to the Romanticism. The Romantic perception of the world was inspired by this idea, that reality in itself is an abstract concept which we cannot fully understand as to the limits of our own sensual perception and cognitive and intellectual abilities. Optical illusions, such as the afterimage, laid the ground for philosophers, scientists and artists to believe that **reality itself cab only be perceived and understood from a subjective and individual perspective**. Our accepted notion of reality, that prevailed throughout modernity saw reality as an object, which is reflected through our senses accurately. To put it in Descartes terms, **reality**, from the second half of the 18th century and pretty much **until the 1960's, was understood as an a-priori phenomenon** - that is - a phenomenon that exists prior to and independent of human experience or perception. This is a model that resonated, to remind you, more closely with religious aspects of truth as we have learnt them in previous lectures.

Throughout modernity we will see that this understanding of reality and truth as stable and objective, would become a central pole in current discussions about reality in the digital age.

The camera, according to Crary - had a lot to do with this persisting model of reality, and the promotion of the camera over other optical devices of them time, was a crucial **socially-constructed technological trend that had far-reaching consequences on how we perceive vision, perception, truth and others**, to this very day.

○ Photography and the Post Colonial Perspectives

Photography, in its early days, was truly conceived as having a **direct relationship to truth**. The camera became the **objective witness**, and photographs were regarded as documents, or as a proof for the existence or non-existence of certain phenomenon.

Up to this day, anthropologists, historians and other scholars are referring to photographic images as evidence, or as a way of imagining the past. When we see a black and white photographs, we also tend to look at them as a documents. Museums and archives are filled with photographs that illustrate to us how reality looks like.

Some contemporary scholars tend to disagree on the common opinion that whatever was photographed, at the time, could only be what was there in reality. In fact, there is **evidence to suggest**, that already in the 19th century, **Daguerreotype were manipulated** by hand to add details, figures and delete others, so that photographs would be more fitting of expectations people have of certain places, and people. In this sense, many of the photographs presenting the 'Holy city of Jerusalem' in the 19th century, for example, were **complete fabrications, staged photographs** that aimed at maintaining a certain fantasy of the mystical city: from the choice of viewpoints and angles that would resonate with mythical descriptions of the city, to staging actual scenes, like the photograph of Jews praying in front of the wailing wall below.

In his book *Orientalism* (1978), **Edward Said** defines the West's patronising representations of "The East"—the societies and peoples who inhabit the places of Asia, North Africa, and the Middle East. According to Said, **Orientalism** (the Western scholarship about the Eastern World) is inextricably tied to the imperialist societies who produced it, which makes much Orientalist work inherently political and servile to power.

Fabrication of Orientalist scenarios are as a matter of fact the **fabrication of history itself**. This is why, in contemporary art and culture, photography is regarded with a pinch of salt. In the same way – other technologies of representation – should be regarded with suspicion.

○ Photography and the Origin of Technological Biases

From the previous discussion, we saw how any representation of reality – whether it is done by mechanical or other means – is only just a representation. Reality is always greater than a chosen frame that represents it. The critique of photography, as a tool for the construction of colonial power is one of the most important debates in understanding the relationship between photography, political bias and the perception of cultures and races outside the Western European world.

Sarah Lewis wrote an enlightening article on The New York Times, explaining how racism was built in into the technology of photography:

The Racial Bias Built Into Photography

Sarah Lewis explores the relationship between racism and the camera.

By Sarah Lewis

April 25, 2019

Shirley Card, 1978.
Courtesy of Hermann Zschiegner

This week, Harvard University's Radcliffe Institute for Advanced Study is hosting Vision & Justice, a two-day conference on the role of the arts in relation to citizenship, race and justice. Organized by Sarah Lewis, a Harvard professor, participants include Ava DuVernay, Henry Louis Gates Jr., Wynton Marsalis and Carrie Mae Weems. Aperture Magazine has issued a free publication this year, titled "Vision & Justice: A Civic Curriculum" and edited by Ms. Lewis, from which we republish her essay on photography and racial bias.
— James Estrin

Can a photographic lens condition racial behavior? I wondered about this as I was preparing to speak about images and justice on a university campus.

"We have a problem. Your jacket is lighter than your face," the technician said from the back of the one-thousand-person amphitheater-style auditorium. "That's going to be a problem for lighting." She was handling the video recording and lighting for the event.

It was an odd comment that reverberated through the auditorium, a statement of the obvious that sounded like an accusation of wrongdoing. Another technician standing next to me stopped adjusting my microphone and jolted in place. The phrase hung in the air, and I laughed to resolve the tension in the room then offered back just the facts: "Well, everything is lighter than my face. I'm black."

"Touché," said the technician organizing the event. She walked toward the lighting booth. My smile dropped upon realizing that perhaps the technician was actually serious. I assessed my clothes — a light beige jacket and black pants worn many times before in similar settings.

As I walked to the greenroom, the executive running the event came over and apologized for what had just occurred, but to me, the exchange was a gift.

My work looks at how the right to be recognized justly in a democracy has been tied to the impact of images and representation in the public realm. It examines how the construction of public pictures limits and enlarges our notion of who counts in American society. It is the subject of my core curriculum class at Harvard University. It also happened to be the subject of my presentation that day.

It is what my grandfather knew when he was expelled from a New York City public high school in 1926 for asking why their history textbooks did not reflect the multiracial world around him. The teacher had told him that African-Americans in particular had done nothing to merit inclusion. He didn't accept that answer. His pride was so wounded after being expelled that he never went back to high school. Instead, he went on to become an artist, inserting images of African-Americans where he thought they should — and knew they did — exist. Two generations later, my courses focus on the very material he was expelled for asking about in class.

After the presentation was over, the technician walked toward me as I was leaving the auditorium. I had nearly forgotten that she was there. She apologized for what had transpired earlier and asked if one day she might sit in on my class.

What had happened in this exchange? It can be hard to technically light brown skin against light colors. Yet, instead of seeking a solution, the technician had decided that my body was somehow unsuitable for the stage.

Her comment reminded me of the unconscious bias that was built into photography. By categorizing light skin as the norm and other skin tones as needing special corrective care, photography has altered how we interact with each other without us realizing it.

Kodak's Multiracial Shirley Card,
North America. 1995.
Courtesy of Dr. Lorna Roth,
Concordia University, Montreal, Canada

Photography is not just a system of calibrating light, but a technology of subjective decisions. Light skin became the chemical baseline for film technology, fulfilling the needs of its target dominant market. For example, developing color-film technology initially required what was called a Shirley card. When you sent off your film to get developed, lab technicians would use the image of a white woman with brown hair named Shirley as the measuring stick against which they calibrated the colors. Quality control meant ensuring that Shirley's face looked good. It has translated into the color-balancing of digital technology. In the mid-1990s, Kodak created a multiracial Shirley Card with three women, one black, one white, and one Asian, and later included a Latina model, in an attempt intended to help camera operators calibrate skin tones. These were not adopted by everyone since they coincided with the rise of digital photography. The result was film emulsion technology that still carried over the social bias of earlier photographic conventions.

Concordia University professor Lorna Roth's research has shown that it took complaints from corporate furniture and chocolate manufacturers in the 1960s and 1970s for Kodak to start to fix color photography's bias. Earl Kage, Kodak's former manager of research and the head of Color Photo Studios, received complaints during this time from chocolate companies saying that they "weren't getting the right brown tones on the chocolates" in the photographs. Furniture companies also were not getting enough variation between the different color woods in their advertisements. Concordia University professor Roth's research shows that Kage had also received complaints before from parents about the quality of graduation photographs — the color contrast made it nearly impossible to capture a diverse group — but it was the chocolate and furniture companies that forced Kodak's hand. Kage admitted, "It was never black flesh that was addressed as a serious problem at the time."

Fuji became the film of choice for professional photographers shooting subjects with darker tones. The company developed color transparency film that was superior to Kodak for handling brown skin. Yet, for the average consumer, Kodak Gold Max became appealing. This new film was billed as being "able to photograph the details of a dark horse in lowlight," a coded message for being able to photograph people of color. When I first learned about this history from my own father, a photographer, well before I learned of this history from professional photographers, I finally understood why he went, almost obsessively, to the camera store down the street from our apartment in Manhattan in the 1980s to buy Kodak Gold Max film to capture the broad range of skin tones in our family.

Digital photography has led to some advancements. There are now dual skin-tone color-balancing capabilities and also an image-stabilization feature — eliminating the natural shaking that occurs when we hold the camera by hand and reducing the need for a flash. Yet, this solution creates other problems. If the light source is artificial, digital technology will still struggle with darker skin. It is a merry-go round of problems leading to solutions leading to problems. Researchers such as Joy Buolamwini of the MIT Media Lab have been advocating to correct the algorithmic bias that exists in digital imaging technology. You see it whenever dark skin is invisible to facial recognition software. The same technology that misrecognizes individuals is also used in services for loan decisions and job interview searches. Yet, algorithmic bias is the end stage of a longstanding problem. Award-winning cinematographer Bradford Young, who has worked with pioneering director Ava DuVernay and others, has created new techniques for lighting subjects during the process of filming. Ava Berkofsky has offered her tricks for lighting the actors on the HBO series Insecure — including tricks with moisturizer (reflective is best since dark skin can absorb more light than fair skin). Postproduction corrections also offer answers that involve digitizing the film and then color correcting it. All told, rectifying this inherited bias requires a lot of work.

What is preventing us from correcting the inherited bias in camera and film technology? Is there not a fortune to gain by the technology giant who is first to market?

Sarah Lewis at Aperture Magazine's opening presentation of "Vision & Justice," a special issue addressing the role of photography in the African-American experience, which she guest edited. May 2016.Credit...Margarita Corporan

In the meantime, artists themselves are creating the technology for more just representation. We are hearing more about issues with race and technology as we consider the importance of inclusive representation with the success of films from "Black Panther" (2018) to "Crazy Rich Asians" (2018). Frederick Douglass knew it long ago: Being seen accurately by the camera was a key to representational justice. He became the most photographed American man in the 19th century as a way to create a corrective image about race and American life.

Yet, for many, the question is still: Why does inclusive representation matter so much? The answers come through viral examples such as the image of a young 2-year-old Parker Curry gazing up at Michelle Obama's portrait by Amy Sherald at the National Portrait Gallery, her mouth dropped open, convinced that Mrs. Obama was a queen. Former White House photographer Pete Souza has captured an image of a young boy, just 5 years old, who wanted to know if his hair texture really did match that of the president. You can't become what you can't accurately see.

I often wonder what would have come of more time to talk with the technician. Her eyes were glassy as she said goodbye. Mine were, too, grateful for her vulnerability. The exchange was the result of decades of socialization that we often don't acknowledge has occurred whenever we look through the lens.

Race changed sight in America. This is what my grandfather knew. This is what we experience. There is no need for our photographic technology to foster it.

Sarah Lewis is an assistant professor at Harvard University in the department of history of art and architecture and the department of African and African-American studies. She is an author, a curator and the guest editor of the "Vision & Justice" issue of Aperture (2016), which received the 2017 Infinity Award for Critical Writing and Research from the International Center of Photography. This week's event grows out of her research and teaching in her course, Vision & Justice: The Art of Citizenship.

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This article has been revised to provide more context.

When contemporary artists look to engage with technology, they are very much aware of the history and the politics embedded in the use of such devices as the camera. They **explore, manipulate and try to subvert those biases**. Looking into **contemporary technologies**, such as digital photography, video and artificial intelligence, they aren't any different, in fact they draw from the same history, the same politics and therefore the **same discrimination**.

In artificial intelligence, for example, computers are less likely to identify a person of colour as a human, simply because the images that are fed to the algorithm are based on the scanning of images of mainly white people. This prevalence of whiteness, already derives from the history of photography. It is as simple as that: Less people of colour are historically represented in images. Our history of image making is one imbued with problems. And those problems are embedded within our technologies and the way we use them.

Chapter 2

Art as Media as Language

2.1   Art as Media

To say that **art, design, and technology** are expression of the same human urge still does not explain how those three disciplines, which have such distinctive manifestations, connect and communicate with one another, let alone **how they relate** to one another in practice. To answer such questions, we should firstly attempt to define what art may mean in this context.

 The **definition of art** is a very problematic issue philosophers have been trying to deal with for a very long time. One of the major challenges in defining art is that historically, it seems that **the definition changes**. Traditionally, the attempt was to characterize the aesthetic dimension of art in order to define it, that is, **what criteria** in the appearance or construct of human creation makes us understand it as art (in classical and Renaissance architecture for example, we know symmetry and proportion were important aspects). There are **two approaches** to the definition of art's function. The first saw art's role in representing, or mimicking, reality, what **Plato** called *mimesis*. The second, rationalized by **Aristotle**, saw art as a means of expression or releasing emotional tension to the arrival of a certain sensational climax to which he called *catharsis*. Hence, art has always been defined on the ground of those **two notions, representation and expression**, while aesthetic properties of a form of art would change from culture to culture and in time.

 Transitions in the art of the **20th century** influenced by a cluster of different revolutions had take taken art away from this traditional definition and in a way, steered philosophers stash of cards:

- On the one hand, works like those of **cubist, fauvist**, and **expressionist** artists **reframed the idea of presentation in relation to expression**.

- On the other hand, works of art like those of **Dada**, who presented *ready-made* object as art and used chance operation to generate random images in performance that heavily involved the presence and participation of audiences/computer/machines generating artworks, **reframed the idea of individual expression altogether and the stable anchor art seemed to have in visual representation**.

 The **avant garde** movements of the 20th century demanded a **reconsideration of art's functions and definition**, since many of the traditional definitions and courting aesthetics statics were no longer capable of containing those new examples of art. Art theoreticians and historians sought to find a proper new definition of art that will be capable of containing all art forms and all possible art forms that may exist. Conclusions are mixed though, and the debate continues as to whether art can be defined at all. Influential philosopher **Ludwig Wittgenstein** even proclaimed that **any definition of art is quite a useless thing**, since art is such a wide category of things that it cannot be defined, and even if it were defined, the mere definition of art could be bad for art, as it will limit the freedom of its expression.

 Most contemporary philosophers agree, however, that art has **certain properties that can be recognized independent of cultural and historical contexts**, and that some properties change throughout history altering the definition of what may be seen as art. Art historian **Arthur Danto** defined as "**art world**" all those systems of taste and power that seem to dictate and control the definitions of art.

Therefore today, the discussion in aesthetics is a little fragmented. Some theoreticians choose to look at unchanging properties of art in an attempt at reaching a universal definition of art, while others are more concerned with the development of specific characteristics of different box of art (so the art of the Renaissance cannot be understood and judged using the theoretical tools we have to analyze modern African art). The perspective offered by **this course** is related **specifically to contemporary art** that uses, abuses, and comments **on digital technologies** and their implications. To help us understand how art can be defined in this context, we will have to turn to **two theoreticians** – McLuhan and Goodman – who sought to define art as part of a larger field of cultural practices, on the one hand, as related to the instinct of **language** and on the other, related to **communication technologies** and their evolution.

○ Art as Media (McLuhan)

Marshall McLuhan, a renowned media theorist, in his book *Understanding Media* defines **technology** as the **extension of man**, referring to the human body and its abilities. **Media**, on the other hand, was defined by McLuhan specifically as the **extension of one's senses**. Following this definition, we can understand that **cameras, screens, and telephones** for example, are considered media, because they extent our abilities of seeing and hearing and consequently, our ability to record and remember sensual inputs. McLuhan concludes from this definition that if we further think of how media functions in our everyday life, we could see it as an **extension of our awareness or consciousness**. He therefore committed his career to researching and understanding how communication media change our perception of reality, social, and cultural structures.

In the same book, in the famous chapter titled **_The Medium is the Message_**, McLuhan continues to explain the evolution of media and concludes that

> "**the content of any medium is always another medium**. The content of writing is speech, just as the written word is the content of print, and print is the content of the telegraph. If it is asked, "What is the content of speech?," it is necessary to say, it is an actual process of thought, which in itself is non-verbal."

Hence, McLuhan is **connecting** the definition of **media to language**. Just a paragraph after that, he refers to art, and he writes:

> "An abstract painting represents direct manifestation of creative thought processes as they might appear in computer designs. What we are considering here, however, are the psychic and social consequences of the designs, or patterns, as they amplify or accelerate existing processes."

He is not the first or the only one to consider art as language. However, this **two-fold definition of art** can advantage us. While looking on the one hand at art as a media technology that extends the human psyche, and on the other hand affirming that art is a language or a psychic process in itself, this definition can assist us in **understanding the relationship between art and technology and how it is possible that one medium, such as art, makes use of other media as its vehicle**.

Art as media technology extends the human psyche	Art is a language and a psychic process in itself

We tend to think of language in its verbal form, words and numbers, but in fact we are literate in many more languages. For example, when we speak to each other, it is not only the words that we are processing: we're processing movement, sound, tone, the environment in which one is placed, and even objects that may be around us. All of these transfer information to us from which we infer how to interpret and react to the words that we are hearing.

LANGUAGE
↓
The extentions of psyche

WORDS MOVEMENT NUMBERS

SOUND SPACES TONE

OBJECTS
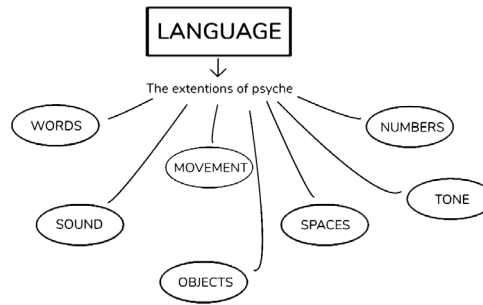
When thinking of all those instruments as forms of language, it is easy to see that **art is** simply the **masterful use of media**, while **often testing the boundaries, conditions, laws, and behaviors stipulated** by these media.

> We could say that the **arts in general are an extension of the human psyche taking advantage of languages or media**, such as words, objects, icon, images, sound, movement, etc... to create an abstract message.

- One useful aspect of such a definition of art is that it can cover all kinds of different art forms and not only visual art. So **in music for example**, is the masterful use of sound. While theater is a combination of the masterful use of words, images, spaces, objects, movements, and sound.

- Another advantage is that it is wide and abstract enough to include within it the changing definition of good aesthetics, or what we have called **mastery**, as they evolve through history. An abstract painting for example, would be the exploration of color, material, simple forms, and the correlation between them, while – let's say – medieval art is the masterful creation and use of icons. In this sense, as distant as these two periods may be in terms of their aesthetic, we can see that in essence, they are the same, they are only investigating different levels of mediation.

- This definition also allows us to see a certain **relationship art and science** may have as two representational practices that simply use different systems of symbols in order to describe reality.

Finally, we were able to define art for the purpose of our course. But **are all these languages actually identical?** What does it mean **different levels of mediation**? And why do we have a feeling that the way we use and understand words, letters, and numbers is so different from the way we use abstract shapes or images?

○ Languages: Digital and Analogue (Goodman)

Aesthetician Nelson Goodman, in his book *The Different Languages of Art* (1968), follows McLuhan's claim that **the medium is the message** and seeks to understand the nature of **different languages** and how their internal structures shape the way we use them and think of them. Goodman's theory is elaborated and complex, and the scope of this lecture is far too small to do it justice. However, for our purpose, we will relate to the differences between **two types** of languages Goodman recognizes– digital and analog.

Digital languages, such as the alphabet, the Arabic numerical series, or the binary code, are defined by two main properties:

1. They are **synthetically articulate**.
   - This means, first, that the medium has **distinctive characters** – that is, recognizable, referential units like notes or words.
   - And second, the characters are **discriminable**, which means that in principle, any instance of a character can be determined to be an instant of one and only one character.

2. Two, they are **semantically articulate**.
   - This means that they preserve **only one assigned meaning independent of the context** in which they are used.

Analog systems of signs, however, do not answer such criteria and are far less stable in that each arrangement of, let's say, red and blue circles on a canvas can have various meanings all at the same time. Goodman defined such systems of signs as **dense**, as they are more **dense in meaning and flexible in their arrangement**.

We tend to think of traditional visual art like painting, sculpture, and even photography in terms of analog or dense media. This is why Goodman contends the **notion of an original** has had such an importance in the history of **visual art** because each work of art is fully unique in its composition. On the other hand, in art forms such as **literature**, the notion of forgery or original does not exist because the systems of symbols used to create it are digital. And therefore, its uniqueness is in the arrangement of preconceived signs. As long as the same arrangement is carefully maintained, there is no real difference between different copies or performances of the same literary piece. In fact, in art forms such as theater or music, for example, the geniality of a performance is exactly in the interpretation one gives to the non-digital aspect of the work while in an art form like traditional printmaking, for example, each print needs to be immaculately identical to the other to be considered of the same value and geniality or as part of the same series. That is, it needs to be considered as an original.

Digital:	**Analog:**
Visual Art (painting, sculpture)	Other art forms (literature)
Unique in its **composition**	Unique in its **arrangement of** preconceived **signs**

The two systems of symbols indeed work in completely different ways and are therefore able to produce different aspects of communication, as we will see in the next section.

2.2 Art & Language

∘ The technology of notation and music

Dganit Elyakim is a a composer and an artist. Her artistic research seeks to articulate the hybrid state between two eras, the mechanical era and the digital era, and the various ways in which technologies had a direct influence on music creation throughout history.

As language, music is a system of metaphors and symbols that translate experience into our outered senses.But while words are a technology of explicitness, music is the carries multiple meanings, sometimes seeking this implicit plurality of content. Elyakim is trying to **reconstruct the music of our ancestors** and understand how it sounded like. There are many verbal descriptions that portray the aesthetics of ancient music, but despite this wealth of information, the sense and sound of ancient music proved incredibly elusive, and there is a good reason for it. Let's consider folk music, for example: most of it is anonymous. One reason for this is that this music is transmitted orally, therefore, it is **dynamic**. In this sense, the contribution of the last person who performed it, his interpretation and subtle modifications, are just as important as the input of the one who invented the tune, because there was no musical score as we know it today. **The written score**, instead, **is static** and it delivers a message of power and authority. Of course, there are some huge advantages in the written, as Guido d'Arezzo has realized,[1] but this shift to written music sacrificed words of meaning and pushed Western music into the uniform visual medium of literacy.

The **musical transcription** is a special **technology**. Like the alphabet, it is comprised of signs that have no meaning on their own: they are used to correspond to sounds that are produced on musical instruments in various ways. Within the years, more notation marks were invented to characterize not only the pitches, but also the way in which it is to be played in relation to the whole of the musical piece.

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[1]**Guido d'Arezzo** was a musician and music theorist who lived in Italy in the Medieval Era. His early career was spent at the monastery where he was faced with singers who had difficulty in remembering Gregorian chants. Around 1000 Common Era, he came up with a method for teaching the singers to learn chants in a short time, and his method became famous all across Europe. Although it went through some slight changes, this method is still the way we read and write music until this very day.

Another mechanical technology that governs music is the **clock**. Great cultural changes occurred in the West when it was found possible to fix time as something that happens between two points. The clock started its modern developments in the medieval monasteries with their need for rule and for synchronized order to guide communal life. From this division of time into uniform visual units comes our Western feeling for time as duration– uniform seconds, minutes, and hours. The mechanical clock, which governs the common way of thinking about time in modern culture, is an important component in creating a mechanically powered universe. When imagining **premodern cultures** and the music, time as a uniform concept was not a prevalent perception. For us, it may be a little difficult to imagine a society where **time is not run by a central clock**, since social unified time is a concept that gradually pervaded all fields of our lives. And since it is such a central agreement in our social construct, no wonder that music also came to accommodate itself to the clock. By the 1600s, the **Baroque Period**, durations measured by **beats** has fully dominated music. We learned to play an instrument with the help of a mechanical technology, the musical transcription, which is also governed by another mechanism, the clock. In a few hundred years, **classically trained musicians found themselves playing by reading this instead of just playing**. The score became so very mechanical that the performers become somewhat a machine too: **the creative impulse of making music was separated from its performance**.

On the same note, this separation also brought many **interesting developments** in music. It allowed composers to design **musical pieces**: musical structures, such as the sonata, fugue, and many others, could not have been considered without this fragmentation and without notation. To design such organized, long pieces of music that are comprised of a few things that keep recurring and developing, writing is needed. The **complex polyphonic** music writing for a few voices that create different harmonies together couldn't even be imagined without this fragmentation that the world of Western music went through. In addition, in the later half of the 16th century, **orchestration** came into common practice as a method of writing music for a variety of specific mechanical instruments. Composers started specifying the orchestration of their music, and instrument makers responded accordingly by increasing the range of expression and abilities these instruments had: **instruments took on other purposes than accompanying singing or dance**, and performers used them as solo instruments. Interestingly, our musical perception also became more and more mechanistic. Mechanical music **repertoire grew** and became more expressive and virtuosic. **Instruments**, which first strived to recreate the sound of the human voice, **became an inspiration to how the human voice could sound like**. Consequently, composers began writing more and more mechanical music for singing voices too.

To summarize:

- **Music was mimetic of the human voice**: instruments were there to imitate the sounds of nature, and melodies were not a prescribed and stable thing, but a flexible construct that changes with each performance. That is, it was an **analogue language** written in analogue means.

- As the **development of a digital language** for music - the Guidonian notation system - evolved, music changed:
    - Firstly, since each musical piece could be written and recorded, it became less flexible and **more static**.
    - Second, It was **no longer mimetic** - as it didn't refer to nature, but was more concerned with referring to itself and its own language - or means of writing itself. The human voice was asked to follow complex sets of notes.
    - Third, the writing of music itself, suddenly **became a visual practice** - composers could play with different forms of construct, repetition and symmetry.

Chapter 3

Art at the Turn of the Mechanical Age

3.1 The Mechanical Age

○ The meaning of images post WW2

With time, and as our understanding of photography as a communication medium grew, photography was used by artists in many ways, that in themselves will question the truth claim of photography, and prove, that **photographs as well, can only depict a subjective point of view** - that is - can land itself not only to representation, but to **subjective expression**.

It is the subjective and artistic use of photography which had opened up cultural imagination of what a photograph could do, what it could mean and how it could be used, outside of its framing as a document. As such, **in the postmodern, photography is many times a means of creating fiction**, rather than solidifying our relationship with an objective reality.

> **Masters of Photography** – **Diane Arbus** (24:50)[1] John Szarkowski on Diane Arbus: "*Much of photography has been concerned, perhaps especially in recent decades, with making the photograph look "good", almost with a kind of visual athletics, perhaps with formal games that can be played so well in so enchantingly and fascinatingly with photography, or with more peripheral problems such as how to make photography look like other fine arts. Edward Steichen said once that photography was born perfect, and Diane knew that. She knew that at its absolutely simplest, most primitive, most direct and unembellished way the problem for the photographer was simply to understand absolutely and with precision and with sensitivity and with complete clarity what it was that was out there that you were looking at and what were the secret meanings that exist forever wherever one looks, if one looks with enough intelligence, enough wit, with precise enough intuitions. The influence that she's had has been simply enormous. When all of us first worked to Diane's pictures it was almost as though as we were starting again, as we were back in the days of the daguerreotype, back in the days of Mathew Brady, and it was it was there was a new, fresh, unused medium again. All the fanciness had been stripped away and all that was left was the marvelous, clear, airless experience of life, absolutely without any interposition of concern for a factor, in a sense any concern for art – that's not really true, she was always an artist and she knew she was an artist, and her way of being an artist was to conceal that fact as fully as she could from us when we looked at the pictures.*"
>
> Diane Arbus: "*the thing that's important to know is that you never know, you're always sort of feeling your way. One thing that struck me very early is that you don't put into a photograph what's going to come out or, vice versa, what comes out is not what you put in. I never have taken a photograph I have intended, they're always better or worse. For me the subject of the picture is always more important than the picture, and more complicated. I do have a feeling*

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[1] https://mastersof.photography/diane-arbus/

for the print, but I don't have a holy feeling for it. I really think what it is is what it's about. I mean it has to be of something, and what itself is always more remarkable than what it is. I do feel I have some slight corner on something about the quality of things, I mean, it's very subtle and a little embarrassing to me, but I really believe there are things which nobody would see unless I photographed them."

○ The contemporary meaning of images w.r.t. technological development

We saw how technology can determine representation, and also, how artists may use technology to represent and re-build reality- if they are aware of the politics of the medium and what it enables. We will get back to this point when thinking about digital technologies, but for now, let's look at some of the most important writings on photography that set the tone for our understanding of the medium in the first place: **Roland Barthes' *Camera Lucida*** from 1981 and ***The Photographic message*** from 1961, and **Didi Hubberman's *Confronting Images*** from 1990.

→ Roland Barthes, *The Photographic Message* (1961)

(Source: studocu.com)

- Photograph is a channel of transmission and a point of reception
    - Source of emission: staff of a newspaper, technicians taking a photo
    - Reception: public reading the paper
    - Channel of transmission: the newspaper itself
- An image can change its meaning depending on the orientation of the receiver or audience
    - Defined by motives and attitudes
- Whatever the origin and destination of the message, the photograph is not simply a product or a channel but also and object endowed with a structural autonomy.
    - It is necessary to provide for a specific method prior to sociological analysis and which can only be the immanent analysis of the unique structure that a photograph constitutes

I. The Photographic Paradox

- What is the content of the photographic message?
    - By definition the scene itself, the literal reality
    → But to what extent has this reality been constructed? What does the frame include and disclude? What has the photographer allowed us to see and what are they keeping from the confines of the visual frame?
- From the object to its photographic image there is a reduction – *a transformation*
    - In order to move from the reality to its photograph it is in no way necessary to divided up this reality into units and constitute these units as signs, substantially different from the object they communicate
    - The image is not reality but is at least its perfect *analogon* (especiallya thing which is comparable with, resembles, or is equivalent to another) and it is this analogical perfection that defines the photograph
    - The photographic message is a continuous message
- Photographs don't have so much of a code or a style as other methods of reproduction (drawing, painting, cinema, theatre)
    - These all consist of 2 messages – the denoted message (the analogon its self) and connoted message (the manner in which society to a certain extent communicates what it thinks of it)
    - Connotation – to signify something different to what is shown
- Whereas a photograph has a purely denotive status – what is show is expected to be exact and reality, objective

– Yet there is a strong probability that the photographic messages is (at least in the press) connoted – one never just receives a photograph as an isolated image, there are always elements of inter/photo textuality

$\rightarrow$ A photo is read connected more or less consciously by the public that consumes it to a traditional stock of signs

- Thus the photographic paradox is one the coexistence of two messages. Can a photo be both natural and cultural? Objective and invested?

$\rightarrow$ One without a code – the photographic analogue where what you see is the totality of the article

$\rightarrow$ *Analogue to be the resistance against the investment of values. Aesthetic realism*

$\rightarrow$ *The other with a code* – the art, the treatment, the writing or rhetoric of the photograph, its meaning and alternative possible readings

– Status of all forms of mass communication is the collusion of both these messages

II. Connotation Procedures

Connotation: the imposition of second meaning

$\rightarrow$ Realised at different levels of the production of the photograph

$\rightarrow$ Yet not necessarily part of the photographic structure

- The photograph allows the photographer to *conceal elusively* the preparation to which he subjects the scene to be recorded

1. **Trick Effects**:

- Photographs that have been faked, edited, bringing together the artificially two faces
- Intervenes without warning in the place of denotation – utilizing the special credibility of the photograph (the photograph seen as truth since itis the identically documentation of events)
- Signification is only possible to the extent that there is a stock of signs the beginnings of a code – photo textuality

$\rightarrow$ Attitude becomes a sign for only a certain society – only given certain values

- Code for connotation is neither artificial nor natural but historical

2. **Pose**:

- It is the very pose of the subject which prepares the reading of the signified connotation
- The photograph clearly only signifies because of the existence of a store of stereotyped attitudes – which form ready-made elements of signification
- A 'historical grammar' of iconographic connotation ought thus to look for its material in painting, theatre, associations of ideas, precisely in 'culture'

3. **Objects**:

- Meaning comes from the objects photographed (either the objects have been arranged specifically by the photographer or because the person choosing layout chooses an photo of this or that object)
- The objects are accepted inducers of associations of ideas
- Veritable symbols: they are discontinuous and complete in themselves
- Connotation somehow emerges from all these signifying units which appear to be captured as though the scene were immediate and spontaneous – that is to say without signification
- Objects perhaps no longer possess a power but they do possess meaning

4. **Photogenia**:

- The connotated message is the image itself, 'embellished' by techniques of lighting, exposure and printing
- These techniques had a corresponding signified of connotation sufficiently constant to allow its incorporation in a cultural lexicon (vocabulary of a person, languages or branch of knowledge) of technical 'effects'

$\rightarrow$ As for instance the 'blurring of movement' or 'flowingness' launched by Dr Steinert and his team to signify space-time

- Such an inventory would be an excellent opportunity for distinguishing aesthetic effects from signifying effects

5. **Aestheticism**:

- Visual substance treated with deliberation in its very material 'texture', as either to signify itself art or to impose a generally more subtle and complex signified than would be possible with other connotation procedures
- The composition signifies in a declared manner a certain ecstatic spirituality translated precisely in terms of an objective spectacle
- Certainly there may be coded elements in some paintings, rhetorical figures, period symbols, but no signifying unit refers to spirituality, which is a mode of being and not the object of a structured message

6. **Syntax**:

- Discursive reading of object-signs with a single photograph – naturally several photographs can come together to form a sequence

III. Text and Image

- To photographs may be added (particularly when used in press) text
- Text contributes a parasitic message designed to connote the image, to 'quicken' it with one or more second -order signified
  - The image no longer **illustrates** the words; it is now the words which, structurally, are the parasitic (supporting) on the image
  - It is no the image which comes to elucidate (make clear) or 'realise' the text, but the latter which comes to sublimate, patheticize or rationalize the image
  - Text is only a kind of secondary vibration, almost without consequence
  - Formerly, the image illustrated the text (make it clearer); today the text loads the image, burdening it with culture, a moral, an imagination
  - Formerly a reduction; text to images; today there is an amplification from one to the other
- The effect of connotation probably differs according the way in which the text is presented
  - The closer the text to the image, the less it seems to connote it
  - Degrees of amalgamation of graphic and iconic substances – since the two can never fully merges as they are two separate structures
- The caption appears to duplicate the image
  - Yet it is impossible for the words to 'duplicate' the image in that it requires the movement from one structure to the next
- What is the relationship of these signifies of connotation to the image
  - To all appearances it is one of making explicit, of providing a stress
    $\rightarrow$ The text most often simply amplifying a set of connotations already given in a photograph
- Sometimes too the text can contradict the photograph as to produces a compensatory connotation

IV. Photographic Insignificance

- Its signs are gestures, attitudes, expressions, colours or effects, endowed with certain meanings by virtue of the practice of a certain society
- It is wrong to say the that the modern man projects into reading photographs feelings an values which are characterial or 'eternal'
  - Unless it be firmly specified that signification is always developed by a given society and history

- *Signification*: the dialectical movement which resolves the contradiction between cultural and natural man

- Thanks to its code of connotation the reading of the photograph is thus always historical; it depends on the reader' 'knowledge' just as though it were a matter of a real language, intelligible only if one has learned the signs

- To find this code of connotation would thus to be isolate, inventoriate and structure all the 'historical' elements of the photograph, all the parts of the photographic surface which derive their very discontinuity from a certain knowledge on the reader's part, or from their cultural situation

- Nothing tells us that the photograph contains 'neutral' parts, or at least it may be that the complete insignificance in the photograph is quite exceptional

- But, how do we read a photograph? In what order, according to what progression?

- Bruner and Piaget: there is no perception without immediate categorization

    – From this point of view. The image – grasped immediately by inner metalanguage – in actual fact has no denoted state, is immersed for its very social existence in at least an initial later of connotation, that of the categories of language

    – The photograph would thus coincide with the overall connotative planes of language

- Press photographs, when best, comprise the greatest possible quantity of information of this kind in such a way as to render the reading fully satisfying

    – Connotation drawn from knowledge is always a reassuring force – man likes signs and likes them clear

- Ideological/ethical connotation: introduces reasons or values in to the reading of the image

- A strong connotation requiring a highly elaborated signifier of a readily syntactical order: conjunction of people, development of attitudes, constellation of objects

- At the level of absolutely traumatic images: the trauma is a suspension oflanguage, a blocking of meaning

    – But these images are rare since they depend on the certainty that the photographer was there, that the scene really happened

    – Is assuming this the trauma photograph is about which there is nothing to say, the shock photo by structure is insignificant: no value, no knowledge

- The more trauma, the more difficult is connotation: the mythological effect of a photograph is inversely proportional to its traumatic effect

    – Because photographic connotation is an institutional activity

    → In relation to society overall, its function is to integrate man, to reassure him

The photograph as a form of paradox: that which makes of an inert object a language and which transforms the unculture of a 'mechanical' art in to the most social of institutions.

→ Roland Barthes, *Camera Lucida* (1981)

(...)

→ Georges Didi-Huberman, *Confronting Images* (1990)

(...)

○ Revising Walter Benjamin's and John Berger's Ways of Seeing

TV program *Ways of Seeing* made and presented by **John Berger** was broadcast on the BBC in 1972. Interestingly, Berger's essay itself is an audio visual take on a written text, **Walter Benjamin**'s seminal essay of the 1930s, *The Work of Art in the Age of Mechanical Reproduction*, which Berger explicitly acknowledges at the end of the first episode and at the end of the corresponding chapter in his book that was published following the TV series. Since it is already using very cleverly the reproduction capacity of

television, Berger's work here should not be seen as a mere commentary on Benjamin, nor as a variation on his themes, but already as a very **concrete and actual realization of Benjamin's programmatic essay**.

Now, there's a lot to be said about Berger's televised lecture and about Benjamin's essay. We will try to focus on what is key to making sense of them both. Following Benjamin, Berger seems to highlight the **advent of photography** as a **turning point** in the history of the visual world. Now, visual phenomena obviously existed before the invention of the camera, but the salient **predominance of vision**– and more importantly, of visual imagery– came about only as a result of this great technological invention and its future transmutations, including television in Berger's case and the computer and smartphone displays in our case. The invention of the camera, Berger says, has **changed** not only what we see, but **how we see** it. Somewhat paradoxically, the advent of photography has **also changed, in retrospect, the nature of images** such as paintings, created long before the invention of the camera.

The camera **transcends** both the **spatial and temporal limitations** of the human eye, reproducing images and disseminating them across space and time. This necessarily **diminishes** the uniqueness of the "original" image– its 'aura', in Benjamin's terms– which might seem to be a cause for concern. **But** in fact, **both** Benjamin and Berger embrace this new feature of modern technology and ask us to harness its **political and aesthetic potential**. But what exactly is this potential?

- For one, the proliferation of reproduced images allows our appreciation of works of art to be more direct and more casual. Art is stripped of its faux religiosity and mystification and made available and accessible to the common man, doing away with the contrived privilege of so-called experts over laymen. To use **Jacques Ranciere**'s terminology, the **spectator is now emancipated**: each and every one of us can have a say, each and every one of us can encounter a work of art on his or her singular terms and extract from that encounter his or her particular meaning.

- Moreover, the **meaning** of a work of art– in fact, the meaning of any image or human expression– **no longer resides behind** the image, so to speak, waiting to be revealed, **but rather, in front of it**, in the very specific and **personal encounter** with it. In that sense, when we look at images– when we look at reproductions of old paintings, for instance– we can discover– remember Berger's words: "*something about ourselves and the situation in which we are living*".

  $\rightarrow$ This is important. In viewing a reproduction of a work of art, we can learn substantial things about ourselves as viewers and about current structures of perception and beliefs and about the current conditions of spectatorship as a whole, no less and perhaps much more than we can learn about the meaning of the original work on display.

Regarding the last point made, take this image, for instance:

Michelangelo
—
The Creation of Adam, Fresco, 1511

It solicits us to ask ourselves why this particular image is so widely known, what historical and ideological trends have made it so familiar to us now in the 21st century, but it also asks us to question **what exactly we see** when we look at this image, and to **what extent** does that which we see **relate to the original** work by Michelangelo. We see it on our computer screen or in our hands, and thinking how far this experience is removed from experiencing the so-called original work in its proper place and proper time, way up on the high ceiling of the *Sistine Chapel* where we can hardly discern it, where it is part of a

much larger and much more elaborate image, which is contingent on the architecture, where we cannot crop it out or enlarge it to examine its very fine details, where we have to raise our heads in order to see it, or perhaps even not look at it at all, but just sense that it is there, hovering above our head. and what does all this tell us about ourselves and about our perception and belief in this day and age about **our need to simplify, to crop, to hold and manipulate**? What does it say about the role images and icons play in our contemporary world? These are the kinds of questions that Berger's visual essay begs us to ask. ✓

> ↪ It asks us to **stop seeking hidden meanings** in images, but to **reflect through the images** we are faced with **about our own human condition**. Berger asks us to do so not only with regard to reproductions of high art, but also with regard to more mundane images, such as the television image presented by Berger himself.

Now, because visual technology has advanced dramatically since Berger's television program was first aired, we should pay attention to the complex conditions in which we are viewing now both Berger and the images he presents, for example on a YouTube clip – *with the makeshift subtitles, not very accurate and not perfectly timed, and the poor image quality, and the progress bar, and the description, and comments, and the suggested further clips, and the possibilities of further searches on the tip of our fingers.* **This is the way we encounter Berger** and the works of art he discusses **today**, a fresh new encounter from which **we can learn both** about **historical** phenomena and, no less– and perhaps much more– about **ourselves** in the present.

Towards the end of the program, Berger acknowledges, with admirable perceptiveness and humility, that his mode of address through a television program is still very much aloof and one-sided. There is **no dialogue in television** yet, he says. Well, **now there is**– maybe not exactly a dialogue, but a much more vibrant discussion in which the means of production and reproduction of images, words, and ideas are no longer held by very few, but are open for a much wider public to use. The mere availability of Berger's lectures on YouTube affords us with the opportunity to watch attentively or to skim, to skip, or to extract. It also allows us to comment on YouTube or on other digital platforms, and thus to enter a conversation with other people.

In any case, you can now do with Berger's program whatever you like, just as other people did, and continue the chain of production of knowledge and construction of social relations.

In her 2006 book, *Death 24 Times a Second*, **Laura Mulvey** reminds us that following the advent of digital technology, we can now **return to old films**, and in our case, old television programs, and view them over and over again in ways that were not available for their contemporary viewers. In this reviewing, not only can we extract new meanings afforded by the new technology's availability and capacity to rearrange, to accelerate, to slow down, or to freeze the moving image, **we can linger in images** in the original work that were not available as such originally. In particular, Mulvey suggests, we can linger on the portraits of the people on screen who in many cases have already passed away, but whose frozen image can perpetuate their apparent presence. John Berger's ways of seeing is a case in point, while Berger has recently passed away, his reproduced image may still be encountered and effectively and productively used for many years to come.

○ The work of Culture in the age of Cybernetic Systems

> "**Instead of reproducing**, and altering, our relation to an original work, **cybernetic communication simulates, and alters**, our relation to our environment and mind. As **Jean Baudrillard** argues, 'Instead of facilitating communication, it (information, the message-in-circuit) **exhausts itself in the staging of communication**... this is the gigantic **simulation process** with which we are familiar.' Instead of a representation of social practices recoded into the conventions and signs of another language or signsystem, like the cinema, **we encounter simulacra that represent a new form of social practice in their own right and re-present nothing**. **The photographic image**, as Roland Barthes proposed, **suggests 'having been there'** of what it represents, of what is present-in-absentia. **The computer simulation suggests only a 'being here' and 'having come from nowhere'** of what it presents, drawing on those genetic-like algorithms that allow it to bring its simulation into existence..."
>
> – Nichols, Bill. *The work of culture in the age of cybernetic systems.* Screen 29.1 (1988): 30.

Following Benjamin's seminal essay, that had reshaped the way we think about the relationship between production technologies and the essence of our experience of art, and what art could be in society, other writers attempted to reflect and speculate on the work of art in the digital age, in an attempt of understanding how digital reproduction is changing our perception of art, images and their role in culture at large. **Bill Nichols** is a scholar that thought about the digital age in relationship to 'cybernetic systems'. We will learn more on the notion of 'system aesthetics' and their implications for art in the following chapters. But for now, let's stop for a moment to reflect and speculate about those things together. The current shift in photography, from the analogue to the digital, from a device that could be used only by few, and in special occasions, to a device that is used on a day to day basis as a means of communicating varies aspects of day-today life, certainly had affected the role of photography has in culture. **In our culture, saturated with images, how does the image penetrate our perception of reality? How does it reshape our memory? Our understanding of identity?**

3.2   The Moving Image

○ The evolution of the moving image

Images were not always so readily available for mass consumption, they took a long time to create and had an aura or uncertainty about them. The birth of photography was a meaningful event not only in relation to aspects of representation and the construction of reality as we have seen. Photography and its advances had also led to the invention of other technologies and had, in fact, paved the way for a completely new way of thinking about images, their cultural meaning, and as Walter Benjamin pointed out, their political meaning as well.

In **1872**, a little bit after the camera had become relatively popular, **Leland Stanford**, the former governor of California and horse racing enthusiast, hired photographer **Eadweard Muybridge** to help him win a bet. Stanford wanted to prove that while horse ran, all their four legs detached from the ground at some point. To make his point and help him, Muybridge installed 12 cameras along the racing track, each of them time to take a picture exactly as the horses pass. Only after developing the photographs, Muybridge realized his experiment did not only help Stanford win the bet, but that when looking at the photograph as a series, they depicted movement in such a manner that they could be churned using the optical devices of the time into an **illusion of a moving image**. It took a few years until Muybridge had perfected his method of capturing movement using photography. In **1878**, he managed to publish his work and presented for the first time a moving image of a horse galloping with all four legs in the air. Muybridge's work deeply influenced artists and scientists of the time. Both artists and scientists are interested in understanding reality, albeit from different perspectives, and these photographs pointed to ways in which reality can be **revealed beyond** the abilities of the **naked eye**:
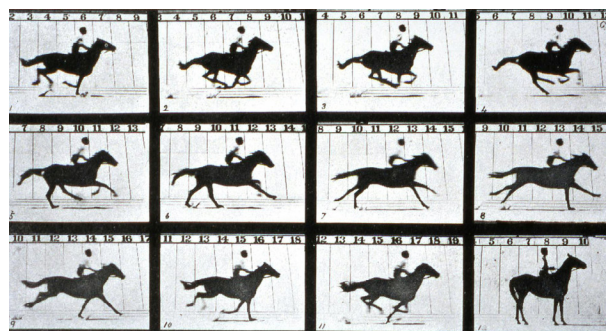
What's interesting about Muybridge's invention was not only the effect that it had, but the optical phenomenon that caused it, the persistence of vision. Turns out our visual mechanism **retains an image** we perceive for **up to a 15th of a second**. If a subsequent image replaces the first one within this period of time, our brain creates the illusion of continuity as if one image corresponds and continues the other end what seems to us as a flow or a movement. Going back to **Jonathan Crary**, one could see the devices is showing different types of moving images such as the zoetrope or the proximal scope already existed in Muybridge's time. These devices were part of scientific experimentations into the nature of vision and perception as were the first 3D imaging devices such as the stereoscope. If as **Roland Barthes** depicted, the **photograph** is a means of phrasing time into one representative moment, then

what can the **moving image** do to our perception of time and the very construct of our memory or our relationship with reality? These early experiments in art, design, and technology which contributes to a **paradigmatic shift**– one that would **change our understanding of reality and of truth** and it would be a **precursor** of what would later be termed **postmodernism**.

It is no coincidence that Muybridge published his new revelation not in a scientific journal dedicated to the study of optics, but exhibited the images at the San Francisco Art Association. It was the **artists of the time** that were most readily available to further **experiment and ask fundamental questions about** the nature of **this new medium**. And it were indeed artists who would first use such devices to create new perceptual worlds. The first ever colored moving image created by the **Lumiere brothers**, for example, the famous *Butterfly Dance*, was in fact inspired by the Impressionist movement in painting:

In the first two decades of the 20th century, **cinema was evolving rapidly** as a means of mass communication. Eventually, after the technology had evolved, moving images were projected in theaters for the entertainment of large audiences. The effect of the moving image was enormous. People who came out of those screenings often reported feeling deeply emotional turbulence, sometimes dizziness, and even fear of things jumping out of the screen and into the real world. **Those reports are incredibly similar to testimonies** that they are now collected about the experience and use of **virtual reality** headsets.

The projected moving image and the industry film, it was slowly evolving were heavily criticized. Film was seen as an empty form of entertainment which promoted illiteracy, ignorance, and the generating the imagination. But some sought to take advantage of the emotional and immersive quality of the moving image. The persistent vision had inspired artists to rethink vision and perception and new ideas about how mind itself is constructed encourage experimentation with the juxtaposition of different images on the continuum that do not necessarily create a flow of a movement. In the early **1920s**, artists and filmmaker **Sergei Eisenstein** explored exactly that. In his visual experiments, he juxtaposed sequences of moving images to attempt different types of relationships. Inspired by new philosophies of language would evolve at the same time, Eisenstein attempted **semantic approach to editing** where every image has a distinct meaning, and when mixing and matching such little units of meaning, the proximity of two images allows the range reputation of each image. His approach saw little fragments of moving images as **grammatical components** in the cinematic grammar. Indeed, Eisenstein's **Montage Theory** would create the cinematic experience as we know it today. His theory mentions **five different types of montage** or relationships where seemingly unrelated images can form and create an illusion of a linear narrative.

Montage Theory also known as soviet montage theory is an approach to understanding and creating cinema that relies heavily upon editing (montage is French for "assembly" or "editing"). Sergei Eisenstein, an important pioneer in the development of montage theory, marked a note of accord in ***A Dialectic Approach to Film Form*** when he noted that montage is "the nerve of cinema", and that "to determine the nature of montage is to solve the specific problem of cinema". Its influence is far reaching commercially, academically, and politically. Alfred Hitchcock cites editing (and montage indirectly) as the lynchpin of worthwhile filmmaking. In fact, montage is demonstrated in the majority of narrative fiction film available today. Post-Soviet film theories relied extensively on montage's redirection of film analysis toward language, a literal grammar of film. A semiotic understanding of film, for example, is indebted to and in contrast with Sergei Eisenstein's wanton transposition of language "in ways that are altogether new." While several Soviet filmmakers, such as Lev **Kuleshov**, Dziga **Vertov**, Esfir **Shub** and Vsevolod **Pudovkin** put forth explanations of what constitutes the montage effect, **Eisenstein's view** that "montage is an idea that arises from the collision of independent shots" wherein "each sequential element is perceived not next to the other, but on top of the other" has become **most widely accepted**.

Eisenstein developed methods in creating different types of montage for different purposes. The **five montage principles** that are regarded as the most important ones are:

1. **Metric** – where the editing follows a specific number of frames (based purely on the physical nature of time), cutting to the next shot no matter what is happening within the image. This montage is used to elicit the most basal and emotional of reactions in the audience.

2. **Rhythmic** – Rhythmic montage seeks an editorial and compositional relationship in which movements within frames are as important as lengths of shots. Rhythmic montage example from The Good The Bad and the Ugly where the protagonist and the two antagonists face off in a three-way duel.

3. **Tonal** – a tonal montage uses the emotional meaning of the shots—not just manipulating the temporal length of the cuts or its rhythmical characteristics.

4. **Overtonal/Associational** – is the cumulation of metric, rhythmic, and tonal montage to synthesize its effect on the audience for an even more abstract and complicated effect.

5. **Intellectual** – uses shots which, combined, elicit an intellectual meaning. Intellectual montage seeks to use few images, but images that are rich in cultural, symbolic, and political history. Their collision brings about complex concepts that traditional montage could not achieve.

Suspense of Disbelief or Willing suspension of disbelief has been defined as a "willingness to suspend one's critical faculties and believe something surreal; sacrifice of realism and logic for the sake of enjoyment ... It is a literary term of art referring to one of Aristotle's principles of theater in which the audience accepts fiction as reality so as to experience a catharsis, or a releasing of tensions to purify the soul (Safire, William (7 October 2007). "William Safire - On Language". The New York Times. Retrieved 28 October 2019.).

## ○ Avant Garde movements and the moving image

Deeply rooted in ideas of **modernism**, avant-garde art was at the forefront of human creation, experimenting with new philosophies, new technologies, and new emerging areas for society that saw itself being born. Art historian **Hal Foster** characterizes the main characteristics of the avant-garde in relation to their early use of photography and the moving image as the **exposure and exploration of cinematic tools as a topic in itself**. Within this research, the role of the spectator and the space within which the viewing takes place are important factors. **Antony McCall** looks at **two other approaches** to understanding early avant-garde art in relation to film. **One that emphasizes the physical material film**, looking closely at the medium in the reflexive and formalist manner, a little bit like a painter who would experiment with different consistencies of color and the visual effects that they create. This approach is notable in **structuralist films** of the '60s and the '70s. **The other** approach McCall mentions focuses on the **creation of meaning** and in this sense, corresponds more with **literary constructs** and the construction of time and narrative. Indeed, one can see a clear correlation between early avant-garde film and experimental literary movements, such as stream of consciousness, evolving in the exact same time.

Between these three approaches, the moving image became a much more general title under which three different mass media evolved. **Film, television**, and lastly **video**– avant-garde artists sought to explore and understand the differences between these three mediums, which on the face of it may not seem very different from each other hence in exploring new media art that is art that experiments with new media, we will see artists approaching exactly those three mediums.

Regarding **avant-garde cinema**, we have experimentation with the materiality of film (like in the case of the Lumiere brothers) and experimentation with narrative constructs (as in the case of Eisenstein). Other seminal and important examples that would change the history of cinematic language and stretch its boundaries are the first **surrealist and dadaist experimentations** with film. *An Andalusian Dog*, for example, is a full feature silence realist film created by artist Salvador Dali and director Luis Bunuel. The film does not explore a story, but explores the language and dynamic of dreams and the symbolic value of images and objects as inspired by emerging theories by Sigmund Freud.

Avant-garde television didn't have a very long life as television went through a **quake standardization**. The political power of this medium, especially in relation to the ability to record and transmit live events, meant that the content was soon to be selected and curated in relation to political interests. Further down the history of television, its privatization limited those who had access to the production of television content. But artist **Nam June Paik** took specific interest in television as a medium. Paik

explored in decades of work **all three perspectives** of television as offered by Foster and McCall starting from his magnet TV project and his TV set sculptures, exploring the very materiality of the medium, all the way through to experimental broadcasting of a first kind of electronic opera in his seminal work carrying the same name.
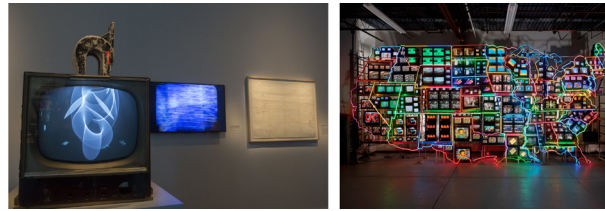
Similarly, when the **mobile cam recorders** was introduced to the market, artists were fascinated by its specific conditions of production and its immediate relationship to the routine of everyday life.

To conclude, **avant-garde art uses the moving image to explore the construction of time and narrative, the construction of the psychic theater, and the reconstruction of memory as a material and malleable thing**. Generally speaking, early experiments with moving images and editing techniques looked into a possible abstraction of images beyond their immediate meaning to express immaterial and metaphysical experiences rather than concrete ones and was interested into the conceptual value of the image as more than a direct representation of reality.

○ Old cinema and new media art: video installations and new media technologies in the gallery space

One of the most notable technological inventions to influence human perception, media, and art is the **proliferation of the moving image**, meaning film video and animation that massively dominate Western visual culture today. When speaking about a moving image within an art context, it is mostly referred to as **video art**. Artists started experimenting with video at the **beginning of the 1960s** as home **camera recorders** became accessible to private ownership. The camcorder did not demand a meticulous planning and staging, thus allowing a spontaneous subjective and immediate approach to filming. This resulted in a **unique aesthetic language quite different from that of cinema at the time**, freed from narrative constructs, linear storytelling, and strict formalized conventions. Early video artworks resembled **experimental** films in their critical approach towards the medium's format, devices, and language. These can be seen in the works of some video arts pioneers:

- **Nam June Paik**, for example, used televisions and recording devices as sculptural objects through which he addressed not only the screen image, but also the conditions set for the consumption of these images.

- **Andy Warhol**, on the other hand, created lengthy, narrative-less, one-shot films depicting everyday actions, such as sleeping. These redefined the term screen time while aligning it with real time.

- Lastly, **Joan Jonas** was one of the first to document her performances using the camera while multiplying her bodily presence as it was seen live in the gallery space and in the virtual space of the screen simultaneously.

Video did not only serve as a new artistic medium, but also contributed greatly to the **dematerialization of the art object** and shifted art's conditions of display. It had widely revolutionized conventional art spaces and in parallel the relationship between viewer and artwork. In the mid 1970s, **Brian O'Doherty** coined the term *The White Cube* to describe the ultimate modernist space for art display. Clean, white, artificially illuminated, and secluded from the outside world– a space **combining** the sanctity of a **church** with the sterilization of a **lab**. As opposed to the White Cube, **moving image** works, especially those making use of projections, **demand instead** something closer to a movie theater's **black box**.

Art historian and theoretician **Boris Groys** argues that video installations brought about changes in the way light, time, and the spectator's movement are orchestrated within art spaces. In the White Cube, the light source is exterior to the work and is usually controlled by the curator. **Moving image works**

embody their own light source, which is manipulated by the artist as one of his or her artistic means.

However, one of the most important changes video art and its conditions of display brought about relates to the **viewer's spatiotemporal perception**. For the first time, artists could use **time itself as their medium**, hence the term time-based medium. In this sense, video art takes hold of the viewer. Indeed, when you stand in front of a painting or a sculpture, you decide how much time to dedicate to it. According to recent research, this time moves between 15 to 30 seconds. However, when standing in front of a video work, you are denied this privilege of controlling your time. If you wish to fully experience the work, you must watch it entirely, be it three minutes or five hours long. And in our daily, fast-paced, image-saturated realities, time is the most precious commodity an artwork may ask of its viewer. This issue takes an interesting turn in the work of American artist **Christian Marclay, _The Clock_**. It is an epic 24 hours long video montage combining experts from film and television featuring clocks. When exhibited, the time shown on the screen is synchronized with real time, resulting in the work itself functioning as a clock. As opposed to cinematic time, The Clock collapses real time with the work's duration and the viewer's temporal perception. It also demonstrates the power of editing and the minimum conditions needed for constructing a narrative. Although the different experts have no direct relationship between them, the viewer set in space is hypnotized by an illusion of narrative that is endlessly unfolding without ever allowing the development of an actual event. Marclay himself sees this space as a **postmodern _memento mori_**, constantly reminding its viewers the passage of time and the fact of their mortality. With the evolution of video as an artistic medium, the temporal and spatial aspects of the artwork had been combined in various ways to create an immersive, multi-sensory aesthetic experience.

In this regard, we should **distinguish** between one-channel video works which make use of a **single screen** and demand viewing conditions similar to cinema and multi-channel video works or **video installations**. These can be comprised of multiple screens scattered through a space and may also combine other media, such as sculpture, painting, and recently also reactive and interactive elements. **Philipe Parreno and Douglas Gordon's** famous video installation, **_Zidane, A 21st Century Portrait_**, demonstrate this merging of the viewer's temporal and spatial perception. In this work, the spectator is asked to move in space between screens showing different segments of French football player Zinédine Zidane over the course of a single match. The footage was shot by 17 synchronized cameras placed around the stadium, which they'd fix on Zidane throughout the game. The viewer encounters a spatiotemporal portrait of Zidane while traveling through it as if placed within a virtual embodiment of the famous player's move. Indeed, the artists think of this work as a 21st century portrait using technological means to implement the portraiture tradition of old masters, such as Goya or Velázquez, who sought to provide context and depth to their portrayed figures. In these kind of video installations**, the viewer becomes part of the artwork's construction**. He decides not only how long to watch, but also where to look. As opposed to cinema and to the traditional art object, which usually invite one possible viewpoint, video installations break the geometrical single vanishing point and allow an **individualized active viewing experience**. This resonates the Cubist attempt in the early 20th century to use multiple points of view in their paintings as a true representation of reality. Moreover, while the **cinema viewer** is at once detached from other viewers and shares their exact same experience, the **viewers of video installations** participate in the spatial organization of the artwork, thus forming a shared social space of dynamic and diverse spectatorships. Contemporary artists and art theorist **Hito Steyerl** argues that while cinema addresses a mass, video installations address a multitude spread out in space, connected only by distraction, separation, and difference.

All of these characteristics position time-based art as a medium that lends itself to **postmodern aesthetics**. **Fredric Jameson**, a famous theoretician of postmodernism, argues that video installations demand the viewers to do the impossible, namely to see all the screens at once while acknowledging the postmodern understanding that there is **no single truth, narrative, or viewpoint**. For Jameson, this fosters a new and original mode of thinking and perceiving in which partial and fragmented understanding are inherent and necessary. Another way to think of video art is phrased by art historian **Rosalind Krauss**. She describes video installations as a versatile genre, making use of various materials and techniques. For her, **video is a post medium**, a medium so flexible that it **constantly breaks its formalist and physical qualities while defying any coherent and continuous logic**. Since the early 2000s, video had became the most prolific means for artistic expression. While the works of the 1960s and '70s had tried to define the limits of this medium and created a specific aesthetic of the moving image as a spontaneous capture of reality through the limits of the screen, video today adopts, diverts,

and uses the language of many other media as its own. In doing so, it provides a rich platform going well beyond the limits of the screen. In its flexibility and ability to fold time into space and space into time, **video demands a completely different division of attention**. It takes over the full volume of the art space as well as the viewer's psyche while setting the stage for the infiltration of other technologies to the exhibition space.

Chapter 4

After Photography

In the previous chapters we have seen the early evolution of the modern city during the Renaissance and discussed the inter-relations between the evolution of new technologies and the evolution of art and civilisation at large. We have already started to think about the invention of photography as a seminal point in art-history. We saw how art's role changes with the evolution of both society and technology as they move towards not only the mass reproduced image, but the age of the moving image and the beginning of, what some claim is the most successful medium for art: film.

As we approach the turn of the 19th century, we also need to take into account the first and second industrial revolutions that are at stake, within which, machines, would start to take a central place in the growing imaginaries of our modern life. With these revolutions, a further growing urbanisation characterises a time of rapid and condensed technological revolution, that would change the face of society as we know it, and will deeply influence art.

THE FOUR INDUSTRIAL REVOLUTIONS

1750   1800   1850   1900   1950   2000

FIRST [1784]
Mechanical production, railroads, and steam power

SECOND [1870]
Mass production, electrical power, and the advent of the assembly line

THIRD [1969]
Automated production, electronics, and computers

FOURTH [NOW]
Artificial intelligence, big data, robotics, and more to come
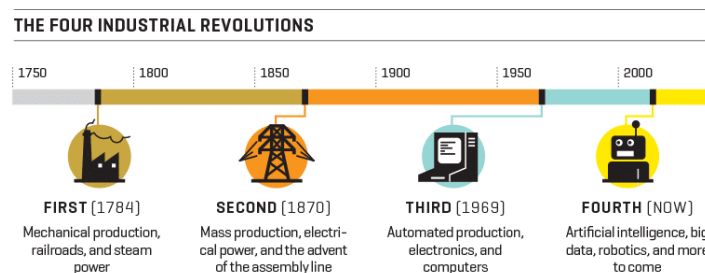
4.1   Machines and Chance

○ Mechanical Creativity: Art, Machines and Chance

The end of the 19th century and the **beginning of the 20th century** saw the rapid evolution of industry and, consequently, the development of an urban and mostly secular life. As time moved forward, a constant flow of migrants entered the **extending cities**, leaving rural areas and small agricultural endeavors behind. Between the 1800s and 1900s, a staggering number of over 40% of Western world population would move into cities. The integration of rural migrants into the city was not an easy task or one that bureaucratic institutions of society knew how to deal with. Cities became exceptionally crowded. Infrastructure was far from suitable for their accommodation. Homelessness, poverty, and disease were spreading, and social stresses such as crime were on the rise. The urban life of this time period was highly tense. People who migrated into cities were actually expecting to find a new life after they have lost their chances of working in their traditional familial businesses. Generally speaking, the **Industrial Revolution** had completely **changed human social structures**.

This change is epitomized in the moving image of the **mechanical clock**, a new agent that would dominate every aspect of our life ever since. The mechanical clock would institute a **unified social perception of time** that would also invent time divisions, very similar to divisions within urban spaces–work time, leisure time, family time, etcetera. This perception of time became increasingly removed from

the relationship it traditionally had with the movement of the planets and the changing seasons and, in a way, underline the **growing divide between nature and civilization**.

The mechanical revolution invented the image of the **city as** we know it today, a well oiled **machine** whose moving parts are human. This is beautifully depicted in the famous Charlie Chaplin movie *Modern Life* and the epic *Metropolis* by Fritz Lang. Already, then, **fears arose about** the way in which **machines** will end up controlling human lives, and speculations were made about a fully mechanical and automated universe in which machines will replace humans altogether. Besides the dystopian representation of urban life after the mechanical revolution, **others saw** this technological progress as **an opportunity** for humans to jump onto their next evolutionary stage. Several art movements of the very early years of the 20th century would seek to assist in imagining the future of humanity and the birth of a **new social order**. We already mentioned Impressionism and Cubism in relation to experimenting with new modes of perception. **Suprematism**, **social idealism**, **constructivism** are just some of the art movements that engaged in the mission of constructing a new ideological horizon for humanity, one that is based on science and progressive ideas rather than religious myths.
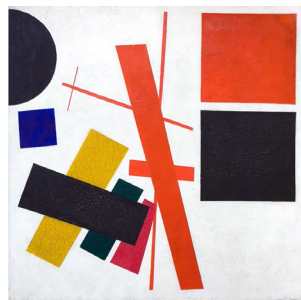
Kazimir Malevich
Suprematism-Abstract Composition,Oil on Canvas, 1916

Jean-François Millet
The Sower, oil on canvas, 1850

Unknown
Tatlin's Tower maket, photograph 1919

Futurism, however, would become a most significant example in the context of our course because the future depicted saw technological progress and the accelerating universe of efficient and productive conduct as the pillars of civilization. *The Futurist Manifesto*, published in 1909 by artist and poet Filippo Tommaso Marinetti, vividly describes a society that functions like a well oiled efficient machine, where humans are functioning as one unit, working towards a mutual vision or goal. At the same time, artists of the futurist movement depicted men as a heroic combination of biology and steel (notice hot it **sounds familiar** to a current cyborg, and the images of futuristic movements of our time may pop into mind– *The Matrix*, *I Robot*, maybe an episode in *Black Mirror*). Indeed, one of the reasons we keep returning to the turn of the 20th century in our attempt to understand digital art and culture is that we can see **many parallels** between the **turn of the 20th century and** the turn of the **21st** century. In fact, many of the ideas we have today about technology in relation to human evolution, growth, civilization, progress were born at the turn of the 20th century, if not a little bit before.

Like today, besides movement that imagined a fully mechanical and automated world either from a technological, idealistic, or dystopian perspective, some artists and scholars looked to **understand the human role within such systems**. Art, seen as a uniquely human activity, was identified as the locus in which such investigations could take place. The main questions at the core of this inquiry were, **do machines make art?** And if so, **what kind of art?** And if machines could make art, **what would be the advantage or the uniqueness of human art in comparison to those?** And finally, **how can art and machines be integrated?**

Interestingly, it was notions like **failure, mistake, error, chance, and randomness** that resonated most with what it meant to be human in a perfectly automated world. **Creativity** was placed at the human ability to **turn a mistake into a lucky aesthetic coincidence**. It was the human ability to mistaken, to error, to fail, and to create this order which identified closely with human agency as well. Artist **Marcel Duchamp** was probably one of the first to define this relationship and experiment with mechanical means of producing art that would also **express the mechanical nature of humans themselves**. Most famous of his work is the *Big Glass* or, in its full name, the ***Bride Stripped Bare by her Bachelors, Even***:

The *Big Glass* is a large scale painting on glass depicting a strange inoperative mechanical procedure by which a bride, or what Duchamp identifies as such, is stripped by seven bachelors. The so-called figures do not really seem fully human. They have the general form of a human body constructed from fashion design patterns created for the mass production of clothes. The large glass is a well thought and extremely complicated piece of art, one that has seen dozens of books written just in an attempt to understand it. In this work, **Duchamp creates a set of instructions for himself** which he strictly follows, echoing measurement techniques implemented in science. Duchamp, however, didn't lack a sense of humor, as in his **criticism of the arbitrariness** in which fundamental scientific axioms are made and set as fact like the measure of a meter, for example. The instructions were simple. Hold a one meter string one meter above a surface. Let go of its hold, and watch it fall spontaneously on the surface. As the string has fallen, trace the shape that it made, and that would be one measure, one **stoppage**. Duchamp used the three stoppages **as rulers** for the creation of all his work since. In the *Big Glass*, the large glass' relationship between the bride and the bachelors as well as the carousel upon which the bachelors hang are all done using the three stoppages. This formed a **new logic in art making**, the use of a mechanical procedure expressed as a **set of instructions and a bit of chance** that would define the creative and spontaneous elements of the work. He termed this procedure "canned chance" or, in later lingo, "**chance operations**."
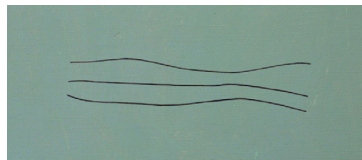
Duchamp, *Three Standard Stoppages*, 1913–14.

Duchamp's chance operations will gain full appreciation **only after the Second World War** as artists would confine in **randomness and chance as means of exploring creativity and the element of surprise** where the tension between natural and artificial systems exist. Composer **John Cage**, for example, would compose many of his musical oeuvres using chance operations, reimagining what music could mean when chance and randomness are seen as collaborative elements in its production. The echoes of Duchamp's pioneering understanding of creativity within mechanical systems resonates throughout the history of art since. We can recognize his influence in surrealist attempts to use automation procedures in order to foster spontaneous results with the surrealist so relating to the subconscious. **Jean Arp**'s series of paintings, according to the law of chance, where he randomly dropped pieces of paper onto a surface to create several random compositions using the same structural elements is one example. Another example is **Max Ernst**'s frottage, a tracing technique from the 18th century, which he revived in order to create random forms and textures in his paintings.

Nowadays, chance is used as an **elementary aspect of art production**. And the number of examples is vast. In the contemporary incarnation of mechanical automatic systems, computer **generated art and design work** illustrate how the insertion of chance, error, and randomness allow the generation of the unique within modes of mass production and dissemination. Designers use the term mass customization to refer to the way in which inserting random aspects within a mass production technique can create uniquely designed objects. From spritzing paint onto fabric to create random prints in textile designs

through the use of leftover materials in creative ways, like in the case of **Willy Mizrahi**'s *Succulent Object*, a series that looks at the surplus material in the factory and how it can be taken advantage of in the process of designing unique bowls:

Glitch art, another example, is a whole genre of art based on the idea that change with every interaction and are based on a massively produced and disseminated content. Within the subtitle of digital aesthetics, the idea of errors, glitches, and lags becomes important characteristic of the digital look and aesthetic that exposes the means of producing digital interactions and tells us about the imperfection of machines. In a way, such a critical inquiry into digital aesthetics demystifies technology and the fantastic ideas we have about it and reminds us that machines are not objective, are not out of our control, and are not exterior to the human kingdom. However, looking at such a statics from the tradition of chance operations, we can also understand that such aesthetic components are signaling gaps in the automatic systems within which the human can still be recognized and expressed.
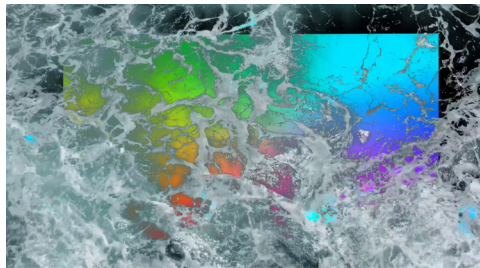
Thomas Cheneseau, Natural Glitch (Video)

○ Chance in Art

The notion of chance is still an important topic in art today. Though important to the **evolution of chance operations**, Duchamp was not the only to think about and play with randomness and chance. In fact, we can note a general intellectual movement at the end of the 19th and the beginning of the 20th century, that looked to define and understand this relationship between chance, reality and the artificial universes created by humans.

One of the most influential writers at the time was psychologist, **Sigmund Freud**. His book *The Psychology of Everyday Life* from 1901, as well as his theory about the interpretation of dreams (published in a book under the same title in 1889) vastly influenced artists who were working at the dawn of the 20th century. In the *Psychology of Everyday Life* Freud speak of mistakes and errors that are uttered without one's consciousness or awareness, as the moments in which the subconscious level of the soul, is revealed. To this day, we tend to call these slips of the tongue a **Freudian Slip**.

Artists were fascinated by giving expression to those internal layers of the psyche, actively touching upon what it means to be human. The **Surrealist movement** in art, as well as the **Dada**, were fascinated by **creating exercises in which such utterances of the subconscious are exposed**. They termed one of their techniques **automation** - the automatic repetition of movement without direct consciousness. They believed that in the errors and the moments that go beyond this process of automation something which is raw, uneducated and real is being let loose and out. This mode of automation as a means of creating images that flow with expression beyond the logic of physical reality, would be used by artists ever since. One such example is the renowned abstract expressionist painter **Jackson Pollock**.

But chance took different forms and different modes. Following Freud, **Jacques Lacan**, was another psychoanalyst and philosopher, who dedicated much time to the definition of chance in relation to social norms and the evolution of the ego and the 'subject'. Lacan looked to **define chance** from a different perspective, one that is **related to trauma and the encounter with the real**. Lacan defines the real in relation to language and expression as that which is beyond representation. That which is beyond direct control or expectation. One could also think about the real as that **which is outside of the world of *techne*** - that is, that which transcends the human aspiration to control and order the natural world.

Many artists since, look at chance in relation to the trauma of being in an uncontrollable and unpredictable reality. This tension between control, chance and trauma are beautifully expressed in the works of artists such as Sophie Cal, Francis Alys, Bas Jan Ader, Allan Kaprow, as well as Bertolt Brecht in theatre and Brian Eno and David Bowie in music.

> $\rightarrow$ to learn more about chance and the way artists and scholars are working with it as a theoretical tool, please see: **Iverson, Margaret. "*Chance (Whitechapel: documents of contemporary art).*" (2010)**

One of the prevalent uses of chance in art, looks at the creation of an artwork from a completely new and different perspective. We already saw about the **wish to include the spectator** or the viewer within the creation of the artwork, talking about John Berger's *Ways of Seeing* and Jacques Ranceire's *The emnicipated spectator*. Now, let's look closely at **one case study** in order to learn more about the way in which artists think and work through and with chance, not only as a means of digesting the inclusion of machines in the human social order and imagination, but also as a means to **re-establish the relationship between the artist and the artwork, and between the viewer and art**:

$\rightarrow$ Klara Kemp-Welch on Jiri Kovanda's *Collisions* (1977)

On 3 September 1977, Jiri Kovanda walked around Prague and casually bumped into passers-by. These **seemingly unintentional collisions** were observed and **photographed** by his friend Pavel Tue, standing a little way off. For those whom Kovanda 'contacted', the incident was soon brushed off as an insignificant chance occurrence, perhaps momentarily annoying. For the artist, however, such **minor acts of aggression formed part of a systematic investigation of interpersonal relationships** under what was known as '**normalization**'. The **1970s** saw an extended **period of repression in Czechoslovakia**, intended to secure political conformity and passivity. Forced emigrations and political purges across society had followed the Warsaw pact troops' invasion in August 1968. When dissident intellectuals signed Charter '77, in January 1977, they referred to the Helsinki Accord and to the United Nations' Conventions on Human Rights and expressed their regret that in Czechoslovakia these existed only on paper. The state's response was a media campaign, police harassment, and persecution of the Chartists, designed to force them to withdraw their signatures.[1] In such conditions. it was **impossible for unofficial artists to make contact with an audience**, beyond a close circle of acquaintants. Instead, the abnormal conditions of 'normalization' provided Kovanda with a highly charged framework for exploring what 'normal' relationships might be like. He called his collisions piece '*Contact*', in inverted commas.

Kovanda's actions were orchestrated for participants who did not realize that they were participating, and would probably have had not desire to do so had they been informed. This denial of the random pedestrians' agency was significant for two reasons: firstly, because it reduced the chances of anyone realizing that the artist was carrying out an unauthorised public action: secondly, because it can be seen as a metaphor of broader social dispossession of agency. Kovanda engineered a situation regarded as accidental by the passers-by,and recorded without their knowledge. The passers-by whom Kovanda chose to 'contact' were not so much participants as targets or victims. But their faces do not register any response to these instances of environmental aggression, nor do they respond to the cameraman that observes them. On the contrary, the photo-documentation records the process of people going on their way as normal, ignoring the incident and the camera. **The unwitting participants instinctively dismiss the possibility of a disguised motive, despite living in a political situation which might have afforded them good reason to be paranoid**. An archive containing almost one million photographs taken by secret police was recently 'discovered' amidst the Czech Ministry of the Interior's seventeen kilometres of box files. Tens of thousands were kept under surveillance by the *Statni bezpecnost*, who are estimated to have employed around 75,000 informers in the 1980s.

Reflecting later on how people had responded to the other action that he had carried out on 3 September 1977 (xxx. *On an escalator turning around, I look in to the eyes of the person standing behind me ...*) **Kovanda recalled that they 'responded sheepishly** ... they didn't want to have anything to do with it at any cost, be it in a positive or a negative sense'.[2] Moreover, Kovanda was himself ambivalent about

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[1]Vladimir V. Kusin, *From Dubcek to Charter 77. A Study of 'Normalisation' in Czechoslovakia 1968-1978* (Edinburgh: Q Press. 1978) 381.

[2]Barbara Klimova. *Replaced 2006* (Brno: Moravska Galerie Brno 2006) 32.

whether or not he wanted to engage with people in a public space. These actions involved pushing himself to the limits of his timidity. He said that they 'arose in a state of tension or a sort of trance, because I'm a timid person ... they **involved behaviour that was unnatural to me'**.[3] Like the escalator piece, '*Contact*' was designed, in the first instance, as an **opportunity for the artist to work on himself**. Small repeated transgressions of interpersonal boundaries served as exercises intended to develop his own self-knowledge. He insisted that the problem of contact was 'more of a personal matter for each individual and not a social matter'.[4]

KONTAKT

3. září 1977
Praha, Spálená a Vodičkova ulice

x x x

3. září 1977
Praha, Václavské náměstí

Na eskalátoru... otočen, hledím do očí člověku,
který stojí za mnou...

Kovanda's commitment to the personal (to personal dialogue, to a personal relationship to reality, to a personal mythology) **is symptomatic of the general discrediting of ideas of the 'social'**. After all, the 'personal' had remained a category under siege since its official abolition within socialist ideology. Thus, if **Kovanda's collisions interrupted, for a moment, the totalising experience of Czech normalization**, then it was just when Kovanda claimed to be least interested in society that he showed himself to be acting most clearly in response to his political experience.

Buddhist practices were gaining currency among unofficial artists in Prague in this period, filtered through publications such as D.T. Suzuki's *Essays in Zen Buddhism*. The opening of Suzuki's anthology reads: 'Zen in its essence is the art of seeing into the nature of one's own being, and it points the way from bondage to freedom'.[5] **In the late-socialist** context, the **practice of Zen**, however watered down, offered a way to approach the world internally and to **regain a level of control on a micro-level that remained indiscernible from outside**. Over on the other side of the Berlin Wall, **Roland Barthes** had also been reading Suzuki in the summer of 1977.

In his lectures on *The Neutral* at the College de France that year, **Barthes drew on Zen and Tao wisdom to propose ways to 'baffle' or 'outplay' the (capitalist) paradigm**. One of the paths he advocated consisted 'in **not being systematic** ... a series of temporary retreats not even cyclically organized. But this non-organization, the lack of foreseeable rhythm that would, that indeed will ensue, **will deliver an incomprehensible, "scandalous" image of the subject to the world surround-**

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[3] Jiri Kovanda, '*Conversation 1: I always felt that I didn't need a studio. Hans-Ulrich Obrist talks with Jiri Kovanda*', in Vit Havranek, ed. liri Kovanda. 2005-1976 Actions and Installations (Zurich: Tranzit. 2006) 107.

[4] *Ibid.*

[5] Daisetz Teitaro Suzuki, *Essays in Zen Buddhism* (New York: Grove Press, 1949) 13.

ing him'.[6] **Kovanda's actions were certainly scandalous**. On January 23, 1978, he vanished from his actions. The caption of the photograph documenting his flight reads: *xxx I arranged to meet a few friends ... we were standing in a small group on the square, talking ... suddenly, I started running; I raced across the square and disappeared into Melantrich Street...* His escape from contact marked a further twist in Kovanda's *detournement* of the technique of the chance encounter. This time, the victims were his friends.
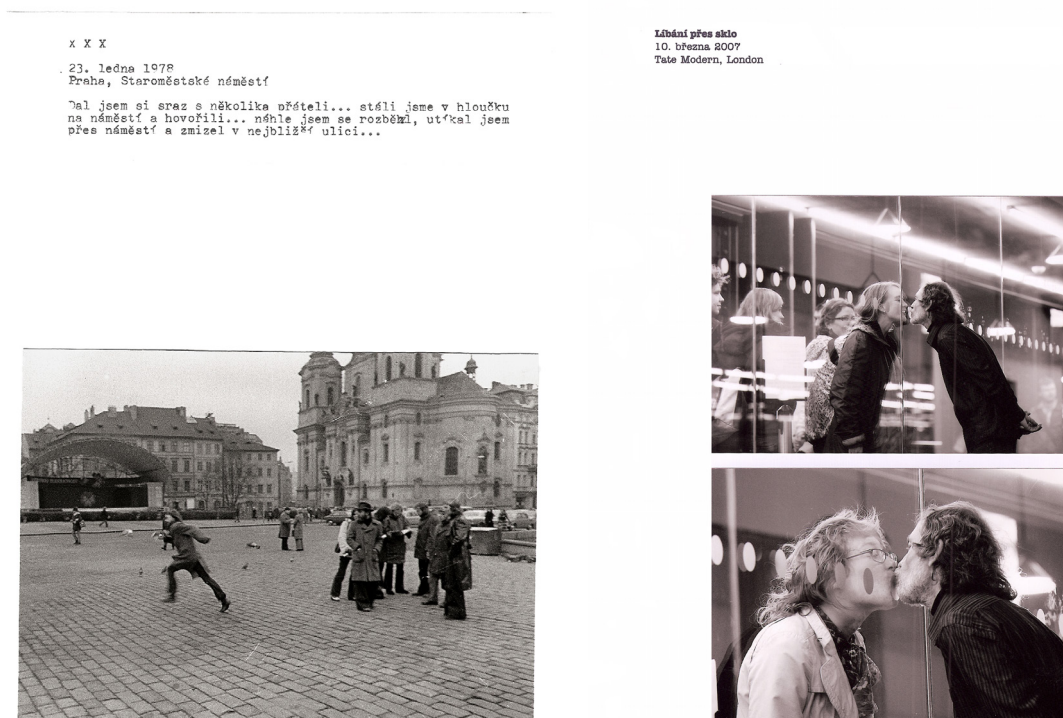
○ Glitch Art

Glitch, is also an art movement and a general approach to the digital visual world. Artists of the glitch movement, like those of the Avant Garde, before, had produced several manifestos, that underline the point and meaning of working with glitch as a means of exploiting, torturing and extracting the digital medium and its seeming fluidity.

Glitch artists are not only concerned with the image itself, but also with the technology that produces them, as well as the platforms upon which they are endlessly reproduced. Think about it - where do we consume most of our images today? Some would argue that social media platforms such as Facebook and Instagram. Within those platforms we live in a constant flow of images that never stops - HD images, images that have been touched and edit by various editing technologies to remove flaws, errors and all that is human - from the image of the human. **In this endless flow of information and images, glitch artists work to interrupt and to highlight the logic behind digital technology and digital imagery. With this disruption, some would argue, they connect viewers back with a version of Lacan's real. Viewers are asked to disconnect from the constant flow, and reconnect with the visceral and unpleasant experience of a glitch**.

Other artists and designers, like **Studio Laviani**, for example, use the aesthetic of glitch and new technologies available such as 3D printing, in designing their furniture, giving the glitch a place of honour in the plethora of styles and aesthetic choices available in the history of aesthetics and beauty.

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[6] Roland Barthes, T*he Neutral. Lecture Course at the College de France (1977-1978).* trans. Rosalind E. Krauss and Denis Hollier, text established by Thomas Oerc under the direction of Eric Marty (New York: Columbia University Press. 2005) 148.

$\rightarrow$ Rosa Menkman, *Glitch Studies Manifesto* (2010)

(...)

4.2   Anti Matter - Anti Form

In this section, we will progress toward an alternative art-historical understanding of the art that evolved, mainly in the **United States** after the second world war, and towards the **1960's** and the **1970's.** We will explore the different aspects of art's tendency towards **abstraction** in those years, first from a **formalist perspective**, then from the perspectives of other traditions, such as the **Dada**, leading to **Conceptual Art**. It will also explore the tendency to abstraction from the point of view of an **iconoclast tendency** in the history of art, a point of view offered by **Boris Groys**, in *Art Power* (2008).

All these theoretical analyses of art history are put forward to explore the way in which **art**, re-considering its traditional roles (mimesis and expression), also **re-considered itself as a communication medium**.

○ The Dematerialization of the Art Object: Against Representation

In the aftermath of the Second World War, influential art critics such as **Clement Greenberg** and **Michael Fried** tilted towards a concept of **art that is detached from political contexts**, as it attempts to find the very fundamental aspect of art form. Hence the different movements of **late modernism**, and more specifically those that flourished in **New York** in the **1940s and '50s**, are generally put under the title of **formalism**. Such movements include **abstract expressionism** (the most famous artist of this group is of course **Jackson Pollock**) and **color field**, a group associated with painters such as **Barnett Newman** and **Mark Rothko**.

Mark Rothko
Untitled (Red, Blue, Orange), 1955

Barnett Newman
Abstract
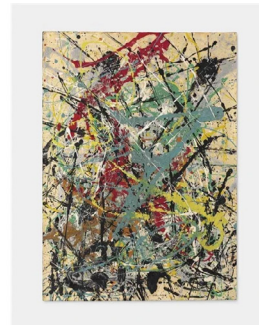
Jackson Pollock
Number 16, 1949

Such art movements in general saw processes of **abstraction** in art not as means of investigating perception or vision, but as the **close investigation of art's language**; in painting, the exploration of color, line, and pure individual expression; in sculpture, the basic shapes and their transmutations, etcetera. Generally speaking, with formalism art was redefined as the project of **purifying art's own language**, the epitome of making art for art's sake. This consequently meant **denying art's historical role** in its relationship with *mimesis* and representation. Such works did **not refer** to any exterior or interior realities. The motivation was to **avoid** at any cost the **instrumentalization** of art by political agents and for political goals, and to allow art a **total autonomy** in exploring itself as an independent discipline that has meaning in itself.

A clear **divide between conceptual and formalized art** movements in the **1960s** will set the change we shall also see in the relationship between art and technology. **At that time**, the **formalist ideology** governed the art world. And while each reigned for a relatively short time, it had a strong impression on art's contemporary understandings. From the point of view of art being a communication medium, what happened in the 1940s and '50s is a very odd case of attempting to understand the language of a **medium without its message**. Obviously, while deeply influential, this is a movement that took art further away from the general public. Until today, many audiences that find abstract art strange and estranging, a practice reserved for elite audiences, many times accused of empty pretension, and it is no wonder: imagine all television presenters would suddenly stop reporting the news and started to talk

about the limits of the screen, the electromagnetic fields building around it, or exposing the camera as a limited tool, and post-production editing as a means of creating fiction.

The **1960s and '70s** did mark an exceptional period of time in art history. On the one hand, further steps were made towards obstruction and the purification of art as an autonomous non-figurative language. However, in many cases motivation seems to change, and artists were becoming **gradually more interested**, not only in the form itself, but also in **how such forms engage with the spaces** within which they were placed **and** with their **audiences**. The pioneering art movement that would lead this change is known as **minimalism**, and key artists within it are **Robert Morris** and **Dan Flavin** who, in their articles, will redefine what it means to explore art's form.

MONUMENTAL MINIMAL   GALERIE THADDAEUS ROPAC
CARL ANDRE, DAN FLAVIN, DONALD JUDD, SOL LEWITT, ROBERT MANGOLD, ROBERT MORRIS

On the other hand, painters such as **Robert Rauschenberg** and **Jasper Jones**, and generally speaking the **Neo-Dada** movement, started to explore the **symbolic value of forms, images, and language** using ready-made objects and images cut from newspapers and magazines, contrasting the pure abstract tradition of formalism that looked at abstraction from a purely visual perspective.

Not only did **art** go all the way with this self-investigation in destabilized mediums like painting and sculpture, it **also explored** the naked language of **other communication media** such as screens, lenses, cinema, video, and forms of their dissemination. It seems that the research of media itself became a strong concern of art practice ever since, although art institutions would not fully accept art that used non-traditional media. It would take photography and video at least another 30 years to truly be seen as legitimate mainstream media for art. It would take even longer for art using computers to be considered rigorously.

However, we could see this movement into **abstraction as political** in itself if related to the notion of **iconoclasm**. While iconoclasm is usually considered in the religious context depicting historical movements that opposed the direct representation of God, art historian and theoretician, **Boris Groys** uses this term to refer to a reemerging tendency for obstruction that can be noted throughout the history of art. This tendency is fascinated with **obstruction, simplification**, and refutes representation is being art's main role. According to Groys, the **evolution of art's history** could be seen as an interchange or **struggle between iconoclast and iconophilic movements**. This may assist us in understanding the movement towards obstruction in art, not as a periodical interest of the early decades of the 20th century, but as a fundamental concern in art, and understand such movements from slightly different perspectives. For Groys, the art and statements of **Marcel Duchamp** and the **Dada movement**, which evolved between the two world wars and strongly influenced the avant garde of the 1960s and 1970s, were fundamentally **iconoclast** in that they **rejected the image as the prime goal of art**, and sought to emphasize the ephemeral and **more conceptual aspects** of art. The notion of **self-expression is also eroded** with the evolution of such movements, as expression becomes something embedded in the wider context, one that might not directly refer to the psychological or emotional inner world of the artist as an individual. For **Duchamp**, the problem with art was not its attempt to mimic nature and create figures. The problem was it did an excessive interest in the visual aesthetic satisfaction of an artwork. He referred to this pleasure as **the retinal**, one that is related to satisfying the retina rather than satisfying an intellectual and active engagement with an idea or a concept. As he himself said:

> "Since Courbet, it's been believed that painting is addressed to the retina. That was everyone's error. The retinal shudder! Before, painting had other functions. It could be religious, philosophical, moral."
> – in *The Duchamp Dictionary* by Thomas Girst

It seems, then, that art had started to **divorce from the purely visual** on the one hand. On the other hand, expression shifted its focus from the emotional, romantic aspects of art, and diverted **attention to the conceptual**, that is to the intangible realm of ideas and concepts. **Lucy Lippard** would frame this change as the **dematerialization of the art object**, while **Rosalind Krauss** would point to this tendency as a **post-medium condition**, whereby the purification of a medium's language is replaced by an awareness to a medium's cultural and historical aspects. It could be quite interesting to note that the same period of time also included the publication of **Marshall McLuhan**'s most influential work named *The Medium is the Message*.

∘ Agency, Interaction and the Artist's Body

Performance can be considered one of the new media that evolved during the 1960's and 1970's that on the one hand, expresses art's wish to **include the viewer**, to encounter the viewer, and **awaken her agency**, or in Ranciere's words, to emancipate her.

The term **encounter** needs to be explained here, because theories that deeply influenced art at the time, would define the encounter as a moment where indeed, agency is awakened. **Simon O'Sullivan**, in his book, *Art Encounters Deleuze and Guattari: Thought Beyond Representation* (2006), looks to explore and analyse the relationship between philosophers Gilles **Deleuze** and Félix **Guattari**'s notion of the **encounter**, and such art, that asks the viewer to take an active part in its creation.

In Amanda Dennis' review of the book she explains:

> "... In the first pages of his book, quoting from *Difference and Repetition*, O'Sullivan defines the encounter as 'something in the world [that] forces us to think' (p. 1). As an alternative to representation, which reinforces comfortable habits of thought and confirms our existing belief systems, **the encounter, by means of its affective force and not without certain violence, stimulates in us the need to comprehend the confusion that follows its disruption of habit**. As a break or **rupture**, an encounter **forces us to reconfigure our way of interacting with the world**."

But how to create this kind of encounter? how to emancipate the viewer?

Performance sought to **destabilise the relationship between the artist and the artwork**, looking at the artist's body, and the artist's subject, as an integral part of the artwork. Such an act, could not answer to the traditional definitions that saw art as an object, rather, it complicated the relationship between subject and object within the spectator's encounter with it.

→ Marina Abramovich on performing *Rhythm 0* (1974)

"My most extreme pieces are when I really push my body to the limits. I didn't ever want to die, I'm not interested in dying, but it is interesting how far you can push the energy of the human body, how far you can go and then see that that actually her energy is almost limitless, it's not about the body, it is about mind who push you to extremes that you never could imagine. Some of the work which really got lots of tension with the public was *Rythm 0*. Till that time, artists of performance art were seen as totally ridiculous, sick, exhibitionists, masochists, craving for attention. So, I was really tired of this kind of critics and I said 'okay, I'm going to make this piece to see how far public can go if the artist himself doesn't do anything'. Very simply, I put on a table 72 objects with the instructions 'I'm an object, you can do whatever you want to do with me, and I will take all responsibility for six hours'."

"On the table was a rose, a perfume, a piece of bread, grapes, wine and then objects like scissors, a metal bar and finally also pistol with one bullet. So, basically the audience was able to put a bullet in the gun and kill me, and I really wanted to take that risk: **I wanted to know what is the public about and how are they going to do in this kind of situation**. It was really difficult staying there in the front of that table for six hours. At the beginning nothing really happened, the public was calm and played with me. They gave me the rose, they kissed me, looked at me. Then, **public became more and more wild**, they cut my neck and drink my blood, they carry me around, they put me on a table open my legs and put a knife between them. At one point one person took the pistol, put the bullet, and see if I would have really push the trigger with my own hand. Then the gallerist came and got completely crazy, took the gun out of his hands and threw it out of the window. They took a scissor and cut my clothes, they put rose pins into my body..."

"After 6 hours – it was like a 2:00 in the morning – the gallerist came and said that the performance was over. Then, I started to move, I started being myself again, because before I was there like a puppet just for them. In that moment **everybody run away**, people could not actually confront with me as as a person. I remember when I went back to the hotel that I looked in the mirror and I found a big piece of white hair."

→ VALIE EXPORT

VALIE EXPORT has always refused conventions. Rejecting the role of housewife, she turns to art with a sense of urgency. Her first and seminal gesture is when she dubs herself VALIE EXPORT—in all capital letters—to match the strength of an other self who may bear a masculine name. Defining your name instead of enduring your father's.

In 1967 she invents her artist's name in order to export her ideas and works. Later she appropriates a cigarette pack of the Austrian brand Smart Export and names it after her new artistic self (→ *VALIE EXPORT-SMART EXPORT-Selbstporträt* (1970))

In 1972, VALIE EXPORT invents the concept of the first international woman exhibition *MAGNA. Feminism: Art and Creativity* (Vienna, 1975), which becomes a reference for the feminists of her time and those who follow in their footsteps.

She questions in a nearly phenomenological way the image and role of the female with her series entitled: *Identitätstransfer 1, 2, 3* (1968), where she presents herself "in disguise" to demonstrate the importance of the staging of the female body. This action also stresses the expectations in terms of appearances and the place of seduction in relationships. It is then followed by a tattoo: *BODY SIGN B* (1970) representing a garter on the thigh. This action and its photographic representation speak for themselves. She continues her revolution of the fate of women with: *Identitätstransfer B* (1972), which evokes the question of rape, a subject that still resonates today. In this series she underlines the necessity of appropriating one's own

body and taking out the social effects of patriarchal culture. She looks closely into the consequences of these effects on her own body. With these actions, she takes a stance.

 Works from the *Body Configurations* (1972-76) series are on view in the ground floor and upstairs rooms. They constitute another type of action taking place in the city, inside an apartment or in nature, where she uses her body in a nearly sculptural way to underline the lines, the spaces, and the powerful constraints of her surroundings. With this, she proposes—ahead of other practices—to appropriate the exterior as a museum, to act outside.
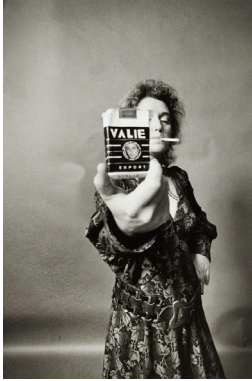
VALIE EXPORT - SMART EXPORT - Selbstporträt (1970)
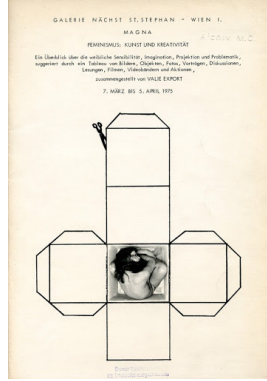
MAGNA. Feminism: Art and Creativity (Vienna, 1975)
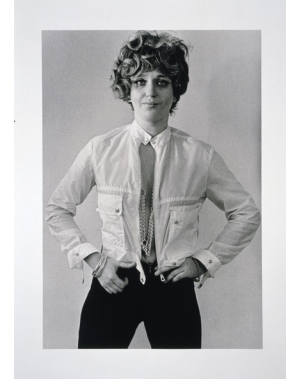
Identitätstransfer 1 (1968)

BODY SIGN B (1970)

Identitätstransfer B (1972)
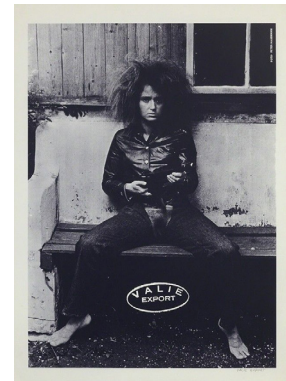
Aktionshose: Genitalpanik (1969)

Körperkonfiguration (Body Configuration)

Körperkonfiguration (Body Configuration)

Encirclement from the series *Body Configurations* (1976)

 By playing with her body in public spaces, she reveals how power relations inhabit the actual structure of the street and its buildings. She adds a conceptual dimension, where the body becomes like a pencil drawing lines. The insertion of lines and colors on the photograph emphasizes this dimension. This almost pictorial approach to photography is even more present in the works set in nature, which references her conceptual photographs.

 VALIE EXPORT also experimented with video, a medium which, at the time, offered a larger space for freedom, and shows how the artist elaborates on and conceptualizes her own work (to quote two videos of

hers: *BODY TAPE* (1970) and *Remote..., Remote...* (1973)). In addition, to recognize the importance of the symbolic inversion of gender codes, posters of *Aktionshose: Genitalpanik* (1969) are displayed on the gallery walls as they once were in the street.

VALIE EXPORT seeks in a phenomenological manner something on her body, her place, the question of the artist. She have a process which can be seen close to Bruce Nauman's, where everything must be questioned in order to then exist. Like she says, her nerves spoke and her rebellion became the motor which pushed boundaries, including her own. It could even go further than a psychological dimension, as it touches on artistic questions both structural and conceptual. She transcends the political with her photographic work, which stuns with its atemporal pertinence.

More than ever before, her work seems relevant. Unfortunately – or fortunately – we must now and always remain in high alert around the question of the place of women in our societies. It's far from being won. I think it's precisely because of work like VALIE EXPORT's that women today are more able to take on different roles for themselves and others. Like every great artist, she opens doors, widens the field, and transforms the territory. The work of VALIE EXPORT offers us an example of how to invent your own life, while still questioning oneself constantly in order to act on oneself and the exterior.

○ The Dematerialization of the Art Object: Computer Art

To continually purge logic, art as an object per se had given way to artists process as an idea, as an ephemeral trace that is not easily bound to the walls of a gallery space or to the shelves of a collection. Within this movement towards a new horizon of **art as concept** (**instead of art as a process**), many art movements were included. The **1960s and 70s** saw the rise of

– pop art,
– Neo Dada,
– minimalism,
– institutional critique, [7]
– art and language,
– performance art,
– environmental art,
– happening art,
among many others.

All those movements indeed had one thing in common. They were more **concerned with the ideas that they convey to audiences**. Many of those art movements were concerned with **critiquing and analyzing art institutions' role** in the definition of what art is and what is culturally relevant to revere it. Directly or indirectly, it sought to defy some of the ideological motivations that were pulling the strings and fueling the wheels of the art world.

However, these movements cannot be seen in a vacuum. The 1960s and 70s were **intensive years** that say many political and social transformations. It is difficult to briefly speak of all the political and ideological changes that mark these decades. But we could list a few:

– the race to space,
– nuclear weapons and the Cold War,
– the Vietnam war and the consequential political turmoil that followed,
– the Cuban Missile Crisis,
– the assassination of JF Kennedy,
– the protests of radical feminist movements,
– the Detroit riots,
– the first man on the moon,
and that's just some of the biggest events in the U.S.

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[7]**Institutional Critique** is an art movement that sought to critique art institutions, such as museums, galleries, private collections, or publications, through artworks. The term "institutional critique," has come to designate a strand of conceptual art beginning in the 1960s and associated with **Michael Asher, Marcel Broodthaers, Daniel Buren**, and **Hans Haacke**. These artists sought to expose the ideologies and power structures underlying the circulation, display, and discussion of art. Institutional critique regards the production of art by such institutions as apolitical aspects of constructing history, and highlight the ways in which such histories are serving certain ideologies

On an international stage, we have to remember the tensions between the Eastern and Western blocs of Europe, the final dismantling of colonialist traditions symbolized by the freeing of Congo and students protests in France. Add to that the proliferation of television, advertisement, and the evolution of computing and you get a pretty revolutionary period of time to quote Lippard:

> "the general ignorance of the visual arts, especially their theoretical bases, deplorable even in the so-called intellectual world, the artist's well-founded despair of ever reaching the mythical 'masses' with advanced art, the resulting ghetto mentality predominant in the narrow and incestuous art world itself, with its resentful reliance on a very small group of dealers, curators, critics, editors, and collectors who are all too frequently and often unknowingly bound by invisible apron strings to the real world's power structure,"
> → Lucy Lippard (see later in *Preface*)

Indeed, **artists** of the time looked to take an **active part in** what seemed to be a **paradigmatic shift** from a modern **to a postmodern world**. But what does it mean that the myth of growth, progress, and ideological-social constructs that look to imagine a new social order the answers to one historical narrative of human evolution or to one ultimate truth as suggested by the multiple movements of early modern art has now been revoked, deconstructed whilst a more affluent flexible understanding of history, society, and the human arose? In the shadow of the atrocities of the Second World War, these had to take into consideration diversity, multiplicity, and variations as the main generative agents of cultural production. The dematerialization of the art object meant that art looked to **resist the hierarchies** of traditional art worlds **where there was a rigid segregation** between those that do art and those that are allowed to write about it and judge it. The dematerialization of the art object also meant an attempt to **resist the power structures behind the construction of historical narratives and social imaginaries**. Consider, for example, **Marcel Broodthaers**' infamous piece *Musee d'Art Moderne, des Department des Aigles* from 1968. This piece is part of a series of works produced between 1968 and 75 that sought to mimic the rhetoric and representational language of museums. For its exhibition in Brussels, Broodthaers produced different representations of eagles, which he placed in glass cases. And these were accompanied by signs that asserted "this is not an artwork," implying that museums obscure the ideological functioning of logical functioning of illegitimate classifications of value.

At the same time, conceptual tendencies in art incorporated and were followed by a deep **concern to its audiences agency**. It has become one of art's prime goals to succeed in actively engaging the art viewer in self-reflection and in co-constructing the artworks meaning and sometimes even the artwork itself. Participatory performances such as **Yoko Ono**'s *One*, **Marina Abramovic & Ulay**'s *Imponderabilia*, as well as later works like *Touch Cinema* by **VALIE EXPORT** observed, exposed, and transgressed social and ethical boundaries and look to transcend mediation by directly touching the audience. This had open the floor for art based around **events and happenings**, as Allan Capra would term it. On the same note, artists such as **Sol LeWitt**, **Yoko Ono**, and **Robert Barry** would reduce their works to a set of **instructions given** to a potential audience while the responsibility to perform the artwork was given to the user of such works.
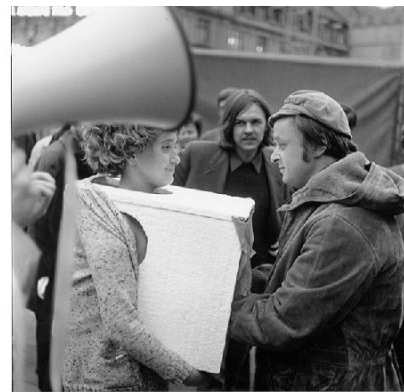
**Marina Abramovic & Ulay**'s *Imponderabilia*   **VALIE EXPORT**'s *Touch Cinema*

To conclude, **the art object** as a closed, defined, dead things to be admired from afar **had gradually disappeared**, leaving behind the **gallery space** that was **now seen as a laboratory**, a relationship

artists craved for the participation and creative impulse of its **audiences, no longer referred to as mere spectators**.

Into this vivid arena of art in the 1960s and 70s, a new agent has arrived which would become a real game changer, **the computer**. Whilst computer based art was not seen at the time as an integral part of art history, art historians and authorities such as **Oliver Grau**, **Edward Shanken** and **Christiane Paul** would attempt to retrospectively assist in constructing art historical narrative to show the inherent **connections between conceptual art and computer generated art**. Not only did artists such as **Robert Rauschenberg** and **Robert Whiteman** ($\rightarrow$ **E.A.T**)participate in establishing the foundations of new collaborations between artists and engineers, but artistic experiments with computational systems at the time would deeply resonate with the aforementioned movement towards an artwork which is no longer an object but a system for interacting with a user.
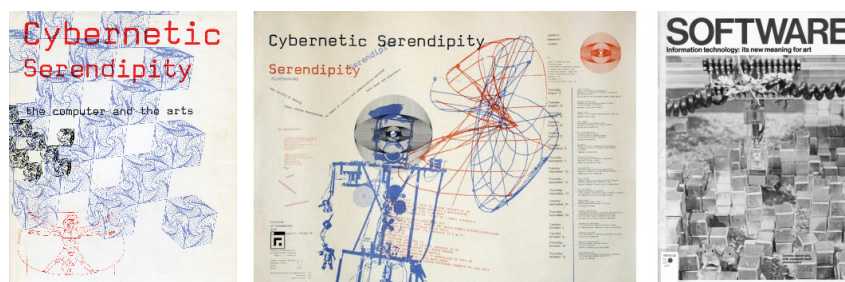
The first exhibition that marks the starting point of computer generated art would be *Cybernetics Serendipity* which opened in the Institute of Contemporary Art (ICA) in London in **1968**. Almost at the same time, in **1970**, art theoretician and curator **Jack Burnham** would curate *Software* at the Jewish Museum in New York. While both events mark a historical and contextual relationship between conceptual and computer art, it would be **Burnham's seminal article** in the exhibition's catalog that would take first steps towards constructing a vocabulary to speak of art in computational terms. He looked at words like *software* and *hardware*, *real time systems*, and *ideal time*, and in one of his visionary analyses would point to the **transition of art from object into system**. Burnham would start to negotiate the term *system aesthetics* to point to the new aesthetic concerns of computer art, and this definition of his would be one that is being fully appreciated only today.

$\rightarrow$ Lucy Lippard & John Chandler, *The Dematerialization of Art* (1967)

During the 1960's, the **anti-intellectual**, emotional/intuitive processes of art-making characteristic of the last two decades have begun to give way **to an ultra-conceptual art** that emphasizes the thinking process almost exclusively. As more and more work is designed in the studio but executed elsewhere by professional craftsmen, as the object becomes merely the end product, a number of artists are losing interest in the physical evolution of the work of art. The studio is again becoming a study. Such a trend appears to be provoking a profound dematerialization of art, especially of art as object, and if it continues to prevail, it may result in the object's becoming wholly obsolete. (. . .)

A **highly conceptual art**, like an extremely rejective art or an apparently random art, **upsets** detractors because there is "not enough to look at," or rather not enough of what they are accustomed to looking *for*. Monotonal or extremely simple-looking painting and totally "dumb" objects exist in time as well as in space because of two aspects of the viewing experience. First, they **demand more participation** by the viewer, despite their apparent hostility (which is not hostility so much as aloofness and self-containment). More time must be spent in experience of a detail-less work, for the viewer is used to focusing on details and absorbing an impression of the piece with the help of these details. Secondly, the **time spent** looking at an "empty" work, or one with a minimum of action, seems infinitely longer than action-and-detail filled time. This time element is, of course, psychological, but it allows the artist an alternative to or extension of the serial method. Painter-sculptor **Michael Snow**'s film *Wavelength,* for instance, is tortuously extended within its 45–minute span. By the time the camera, zeroing in very slowly from the back of a large loft, reaches a series of windows and finally a photograph of water surface, or waves, between two of them, and by the

time that photograph gradually fills the screen, the viewer is aware of an almost unbearable anticipation that seems the result of an equally unbearable length of time stretched out at a less than normal rate of looking; the intensity is reinforced by the sound, which during most of the film is monotonal, moving up in pitch and up in volume until at the end it is a shrill hum, both exciting and painful.

Joseph Schillinger, a minor American Cubist who wrote, over a twenty-five year period, an often extraordinary book called *The Mathematical Basis of the Arts,* divided the **historical evolution** of art into five "zones," which replace each other with increasing acceleration:

1. preaesthetic, a biological stage of mimicry;
2. traditional-aesthetic, a magic, ritual-religious art;
3. emotional-aesthetic, artistic expressions of emotions, self-expression, art for art's sake;
4. rational-aesthetic, characterized by empiricism, experimental art, novel art;
5. scientific, post-aesthetic, which will make possible the manufacture, distribution and consumption of a perfect art product and will be characterized by a fusion of the art forms and materials,
6. and, finally, a "disintegration of art," the "abstraction and liberation of the idea".[1]

Given this framework, we could now be in a transitional period between the last two phases, though one can hardly conceive of them as literally the last phases the visual arts will go through. After the intuitive process of recreating aesthetic realities through man's own body, the process of reproduction or imitation, mathematical logic enters into art. (The Bauhaus dictum "Less is More" was anticipated by William of Occam when he wrote: "What can be explained by fewer 2 principles is explained needlessly by more"; Nominalism and Minimalism have more in common than alliteration.) From then on, man became increasingly conscious of the course of his evolution, beginning to create directly from principles without the intercession of reproductive reality. This clearly corresponds to the Greenbergian interpretation of Modernism (a word used long before Greenberg, though his disciples insist on attributing it to him). The final "**postaesthetic**" **phase** supersedes this self-conscious, self-critical art that answers other art according to a determinist schedule. Involved with opening up rather than narrowing down, the newer work offers a curious kind of Utopianism which should not be confused with Nihilism except in that, like all Utopias, it indirectly advocates a *tabula rasa;* like most Utopias, it has no concrete expression.

Dematerialized art is post-aesthetic only in its increasingly non-visual emphases. The aesthetic of principle is still an aesthetic, as implied by frequent statements by mathematicians and scientists about the *beauty* of an equation, formula or solution: "Why should an aesthetic criterion be so successful so often? Is it just that it satisfies physicists? I think there is only one answer—nature is inherently beautiful" (physicist Murray Gell-Mann); "In this case, there was a moment when I knew how nature worked. It had elegance and beauty. The goddam thing was gleaming" (Nobel prize winner Richard Feynman).[2] The more one reads these statements, the more apparent it becomes that the **scientist**'s attempt to discover, perhaps even to **impose order and structure** on the universe, rests on assumptions that are essentially aesthetic. Order itself, and its implied simplicity and unity, are aesthetic criteria.

The disintegration Schillinger predicted is obviously implicit in the break-up since **1958** or so of traditional media, and in the introduction of electronics, light, sound, and, more important, performance attitudes into painting and sculpture—the so far unrealized intermedia revolution whose prophet is John Cage. It is also implied by the **current international obsession with entropy**. According to Wylie Sypher, for example: "The future is that in which time becomes effective, and the mark of time is the increasing disorder toward which our system tends. . . . During the course of time, entropy increases. Time can be measured by the loss of structure in our system, its tendency to sink back into that original chaos from which it may have emerged. . . . One meaning of time is a drift toward inertia."[3]

Today many **artists** are interested in an order that incorporates implications of **disorder and chance**, in a negation of actively ordering parts in favor of the presentation of a whole.[4] **Earlier** in the 20th century the announcement of an element of indeterminacy and relativity in the scientific system was a factor in the rise of an irrational abstraction. Plato's anti-art statements, his opposition to imitative and representational art, and his contempt for the products of artists, whom he considered insane, are too familiar to review here, but they are interesting to note again in view of the current **trend back to** "**normalcy**," as evidenced by the provocative opening show of the East Village cooperative Lannis Museum of Normal Art, where several of

the works discussed here were seen. Actually, the "museum" would be better called the Museum of Adnormal Art, since it pays unobtrusive homage to the late Ad Reinhardt and to his insistence that only "art-as-art" is normal for art. (The painter-director, Joseph Kosuth, admits his pedantic tendency, also relatable to Reinhardt's dogmas, in the pun on normal schools.) However, **"no idea" was one of Reinhardt's Rules** and his ideal did not include the ultra-conceptual. When works of art, like words, are signs that convey ideas, they are not things in themselves but 3 symbols or representatives of things. Such a work is a medium rather than an end in itself or "art-as- art." **The medium need not be the message**, and some **ultraconceptual art** seems to declare that the conventional art media are no longer adequate as media to be messages in themselves. (. . .)

Idea art has been seen as art about criticism rather than art-as-art or even art about art. On the contrary, the dematerialization of the object might eventually lead to the **disintegration of criticism** as it is known today. The pedantic or didactic or dogmatic basis insisted on by many of these artists is incorporated in the art. It bypasses criticism as such. **Judgment of ideas is less interesting than following the ideas through**. In the process, one might discover that something is either a good idea, that is, fertile and open enough to suggest infinite possibilities, or a mediocre idea, that is, exhaustible, or a bad idea, that is, already exhausted or with so little substance that it can be taken no further. (The same can be applied to style in the formal sense, and style except as an individual trademark tends to disappear in the path of novelty.) If the object becomes obsolete, objective distance becomes obsolete. Sometime in the near future **it may be necessary for the writer to be an artist as well as for the artist to be a writer**. There will still be scholars and historians of art, but the contemporary critic may have to choose between a creative originality and explanatory historicism.

Ultra-conceptual art will be thought of by some as "formalist" because of the spareness and austerity it shares with the best of painting and sculpture at the moment. Actually, it is as **antiformal** as the most amorphous or journalistic expressionism. It represents a suspension of realism, even formal realism, color realism, and all the other "new realisms." However, the idea that art can be experienced in order to extract an idea or underlying intellectual scheme as well as to perceive its formal essence *continues from* the opposing formalist premise that painting and sculpture should be looked at as objects *per se* rather than as references to other images and representation. As visual art, a highly conceptual work still stands or falls by what it looks like, but the primary, rejective trends in their emphasis on singleness and autonomy have limited the amount of information given, and therefore the amount of formal analysis possible. They have set critic and viewer **thinking about what they see rather than simply weighing the formal or emotive impact**. **Intellectual and aesthetic pleasure can merge** in this experience when the work is both visually strong and theoretically complex.

Some thirty years ago, **Ortega** wrote about the "**new art**": "The task it sets itself is enormous; it wants to create from nought. Later, I expect, it will be content **with less** and **achieve more**."[5] Fully aware of the difficulty of the new art, he would probably not have been surprised to find that a generation or more later the artist has achieved more with less, has continued to **make something of "nought" fifty years after Malevich**'s *White on White* seemed to have defined nought for once and for all. **We still do not know how much less "nothing" can be**. Has an ultimate zero point been arrived at with black paintings, white paintings, light beams, transparent film, silent concerts, invisible sculpture, or any of the other projects mentioned above? It hardly seems likely.

Notes:

[1]. Joseph Schillinger, *The Mathematical Basis of the Arts* (New York: Philosophical Library, 1948), p. 17. 4
[2]. Quoted in Lee Edson, "Two Men in Search of the Quark," *New York Times Magazine* (8 October 1967).
[3]. Wylie Sypher, *Loss of Self in Modern Literature and Art* (New York: Vintage, 1962), pp. 73– 74. The word has also been applied to differing areas of recent art by Robert Smithson and Piero Gilardi; it appears as the title of short stories as well, for instance, by Thomas Pynchon.
[4]. In the New York art world, the idea seems to have originated with Don Judd.
[5]. José´ Ortega y Gasset, *The Dehumanization of Art* (New York: Doubleday Anchor, 1956), p. 50. This essay was written in late 1967 and first published in *Art International,* 12:2 (February 1968), pp. 31– 36.

$\rightarrow$ **Lucy Lippard, *Postface*, in *Six Years: the Dematerialization of the Art Object, 1966 to 1972***

Hopes that "conceptual art" would be able to **avoid the general commercialization**, the destructively "progressive" approach of modernism **were for the most part unfounded**. It seemed in **1969** that no one, not even a public greedy for novelty, would actually pay money, or much of it, for a xerox sheet referring to an event past or never directly perceived, a group of photographs documenting an ephemeral situation or condition, a project for work never to be completed, words spoken but not recorded; it seemed that these artists would therefore be forcibly freed from the tyranny of a commodity status and market-orientation. **Three years later**, the major conceptualists are selling work for substantial sums here and in Europe; they are represented by (and still more unexpected—showing in) the world's most prestigious galleries. Clearly, whatever minor revolutions in communication have been achieved by the process of dematerializing the object (easily mailed work, catalogues and magazine pieces, primarily art that can be shown inexpensively and unobtrusively in infinite locations at one time), art and artist in a capitalist society **remain luxuries**.

On the other hand, the **aesthetic contributions** of an "idea art" have been **considerable**. An informational, documentary idiom has provided a vehicle for art ideas that were encumbered and obscured by formal considerations. It has become obvious that there is a place for an art which parallels (rather than replaces or is succeeded by) the decorative object, or, perhaps still more important, sets up new critical criteria by which to view and vitalize itself (the function of the Art & Language group and its growing number of adherents). Such a strategy, if it continues to develop, can only have a salutary effect on the way all art is examined and developed in the future.

Conceptual art has not, however, as yet **broken down the real barriers** between the art context and those external disciplines—social, scientific, and academic—from which it draws sustenance. While it has become feasible for artists to deal with technical concepts in their own imaginations, rather than having to struggle with constructive techniques beyond their capacities and their 5 financial means, **interactions** between mathematics and art, philosophy and art, literature and art, politics and art, are **still at a very primitive level**. There are **some exceptions**, among them certain works by Haacke, Buren, Piper, the Rosario group, Huebler. But, for the most part, the artists have been confined to art quarters, usually by choice. As yet the "behavioral artists" have not held particularly rewarding dialogues with their psychologist counterparts, and we have had no feedback on the Art & Language group from the linguistic philosophers they emulate. "Art use" of elementary knowledge, already accepted and exhausted, oversimplification, and unsophistication in regard to work accomplished in other fields are obvious barriers to such interdisciplinary communication.

The general ignorance of the visual arts, especially their theoretical bases, deplorable even in the so-called intellectual world; the artist's well-founded despair of ever reaching the mythical "masses" with "advanced art"; the resulting **ghetto mentality** predominant in the narrow and incestuous art world itself, with its resentful reliance on a very small group of dealers, curators, critics, editors, and collectors who are all too frequently and often unknowingly bound by invisible apron strings to the "real world's" power structure—all of these factors **may make it unlikely that conceptual art will be any better equipped to affect the world any differently** than, or even as much as, its less ephemeral counterparts. Certainly, few of the artists are directly concerned with this aspect of their art, nor can they be, since art that begins with other than an internal, aesthetic goal rarely produces anything more than illustration or polemic. The fact remains that the **mere survival of something still called Art in a world so intolerant of the useless and uningratiating indicates that there is some hope** for the kind of awareness of that world which is uniquely imposed by aesthetic criteria, no matter how bizarre the "visual" manifestations may initially appear to those unacquainted with the art context.

○ **Focus on Postmodernism**

■ Brian Duignan on *Encyclopaedia Britannica* (https://www.britannica.com/topic/postmodernism-philosophy)

Postmodernism, also spelled **post-modernism**, in Western philosophy, a late 20th-century movement characterized by broad skepticism, subjectivism, or relativism; a general suspicion of reason; and an acute sensitivity to the role of ideology in asserting and maintaining political and economic power.

— **Postmodernism and modern philosophy**

Postmodernism is largely a reaction against the intellectual assumptions and values of the modern period in the history of Western philosophy (roughly, the 17th through the 19th century). Indeed, many of the doctrines characteristically associated with postmodernism can fairly be described as the straightforward denial of general philosophical viewpoints that were taken for granted during the 18th-century Enlightenment, though they were not unique to that period. The most important of these viewpoints are the following.

1. There is an objective natural reality, a reality whose existence and properties are logically independent of human beings—of their minds, their societies, their social practices, or their investigative techniques. Postmodernists **dismiss** this idea as a kind of **naive realism**. Such reality as there is, according to postmodernists, is a conceptual construct, an artifact of scientific practice and language. This point also applies to the investigation of past events by historians and to the description of social institutions, structures, or practices by social scientists.

2. The descriptive and explanatory statements of scientists and historians can, in principle, be objectively true or false. The postmodern denial of this viewpoint—which follows from the rejection of an objective natural reality—is sometimes expressed by saying that **there is no such thing as Truth**.

3. Through the use of reason and logic, and with the more specialized tools provided by science and technology, human beings are likely to change themselves and their societies for the better. It is reasonable to expect that future societies will be more humane, more just, more enlightened, and more prosperous than they are now. Postmodernists **deny** this Enlightenment faith in **science and technology as instruments of human progress**. Indeed, many postmodernists hold that the misguided (or unguided) pursuit of scientific and technological knowledge led to the development of technologies for killing on a massive scale in World War II. Some go so far as to say that science and technology—and even reason and logic—are inherently destructive and oppressive, because they have been used by evil people, especially during the 20th century, to destroy and oppress others.

4. Reason and logic are universally valid—i.e., their laws are the same for, or apply equally to, any thinker and any domain of knowledge. For postmodernists, **reason and logic** too are merely conceptual constructs and are therefore **valid only within the established intellectual traditions** in which they are used.

5. There is such a thing as human nature; it consists of faculties, aptitudes, or dispositions that are in some sense present in human beings at birth rather than learned or instilled through social forces. Postmodernists insist that all, or nearly all, aspects of **human psychology** are completely **socially determined**.

6. Language refers to and represents a reality outside itself. According to postmodernists, **language is not such a "mirror of nature,"** as the American pragmatist philosopher **Richard Rorty** characterized the Enlightenment view. Inspired by the work of the Swiss linguist **Ferdinand de Saussure**, postmodernists claim that **language is semantically self-contained, or self-referential**: the meaning of a word is not a static thing in the world or even an idea in the mind but rather a range of contrasts and differences with the meanings of other words. Because **meanings** are in this sense functions of other meanings—which themselves are functions of other meanings, and so on—they are never fully "present" to the speaker or hearer but are **endlessly "deferred."** Self-reference characterizes not only natural languages but also the more specialized "discourses" of particular communities or traditions; such discourses are embedded in social practices and reflect the conceptual schemes and moral and intellectual values of the community or tradition in which they are used. The postmodern view of language and discourse is due largely to the French philosopher and literary theorist **Jacques Derrida** (1930–2004), the originator and leading practitioner of deconstruction.

7. Human beings can acquire knowledge about natural reality, and this knowledge can be justified ultimately on the basis of evidence or principles that are, or can be, known immediately, intuitively, or otherwise with certainty. Postmodernists **reject philosophical foundationalism**—the attempt, perhaps best exemplified by the 17th-century French philosopher René Descartes's dictum cogito, ergo sum ("I think, therefore I am"), to identify a foundation of certainty on which to build the edifice of empirical (including scientific) knowledge.

8. It is possible, at least in principle, to construct general theories that explain many aspects of the natural or social world within a given domain of knowledge—e.g., a general theory of human history, such as dialectical materialism. Furthermore, it should be a goal of scientific and historical research to construct such theories, even if they are never perfectly attainable in practice. Postmodernists dismiss this notion as a pipe dream and indeed as symptomatic of an unhealthy tendency within Enlightenment discourses to adopt "totalizing" systems of thought (as the French philosopher **Emmanuel Lévinas** called them) or grand "metanarratives" of human biological, historical, and social development (as the French philosopher **Jean-François Lyotard** claimed). These theories are pernicious not merely because they are false but because they effectively impose conformity on other perspectives or discourses, thereby oppressing, marginalizing, or silencing them. **Derrida** himself equated the **theoretical tendency toward totality** with **totalitarianism**.

— Postmodernism and relativism

As indicated in the preceding section, many of the characteristic doctrines of postmodernism constitute or imply some form of metaphysical, epistemological, or ethical relativism. (It should be noted, however, that some postmodernists vehemently reject the relativist label.) Postmodernists deny that there are aspects of reality that are objective; that there are statements about reality that are objectively true or false; that it is possible to have knowledge of such statements (objective knowledge); that it is possible for human beings to know some things with certainty; and that there are objective, or absolute, moral values. **Reality, knowledge, and value are constructed by discourses**; hence they can vary with them. This means that the discourse of **modern science**, when considered apart from the evidential standards internal to it, has no greater purchase on the truth than do alternative perspectives, including (for example) astrology and witchcraft. Postmodernists sometimes characterize the evidential standards of science, including the use of reason and logic, as "**Enlightenment rationality**."

The broad relativism apparently so characteristic of postmodernism invites a certain line of thinking regarding the nature and function of discourses of different kinds. **If postmodernists are correct** that reality, knowledge, and value are relative to discourse, **then the established discourses of the Enlightenment are no more necessary or justified** than alternative discourses. **But** this raises the question of **how they came to be established in the first place**. If it is never possible to evaluate a discourse according to whether it leads to objective Truth, how did the established discourses become part of the prevailing worldview of the modern era? Why were these discourses adopted or developed, whereas others were not?

Part of the postmodern answer is that the prevailing discourses in any society reflect the interests and values, broadly speaking, of dominant or elite groups. Postmodernists disagree about the nature of this connection; whereas some apparently endorse the dictum of the German philosopher and economist **Karl Marx** that "the ruling ideas of each age have ever been the ideas of its ruling class," others are more circumspect. Inspired by the historical research of the French philosopher **Michel Foucault**, some postmodernists defend the comparatively nuanced view that what counts as knowledge in a given era is always influenced, in complex and subtle ways, by considerations of power. There are others, however, who are willing to go even further than Marx. The French philosopher and literary theorist **Luce Irigaray**, for example, has argued that the science of solid mechanics is better developed than the science of fluid mechanics because the male-dominated institution of physics associates solidity and fluidity with the male and female sex organs, respectively.

Because the established **discourses of the Enlightenment** are more or less arbitrary and unjustified, they can be changed; and because they more or less reflect the interests and values of the powerful, **they *should* be changed**. Thus postmodernists regard their theoretical position as uniquely inclusive and democratic, because it allows them to recognize the unjust hegemony of Enlightenment discourses over the equally valid perspectives of nonelite groups. In the 1980s and '90s, academic advocates on behalf of various ethnic, cultural, racial, and religious groups embraced postmodern critiques of contemporary Western society, and postmodernism became the unofficial philosophy of the new movement of "identity politics."

In art, Postmodernism was a reaction against modernism. **Modernist art** was generally based on idealism and a utopian vision of human life and society and a belief in progress. It assumed that certain ultimate universal principles or truths such as those formulated by religion or science could be used to understand or explain reality. Modernist artists experimented with form, technique and processes rather than focusing on subjects, believing they could find a way of purely reflecting the modern world. Postmodernism was born of scepticism and a suspicion of reason. It challenged the notion that there are universal certainties or truths. **Postmodern art** drew on philosophy of the mid to late 20th century, and advocated that individual experience and interpretation of our experience was more concrete than abstract principles. While the **modernists** championed **clarity and simplicity**; **postmodernism** embraced **complex and often contradictory layers of meaning**.

Anti-authoritarian by nature, postmodernism refused to recognise the authority of any single style or definition of what art should be. It collapsed the distinction between high culture and mass or popular culture, between art and everyday life. Because postmodernism broke the established rules about style, it introduced a new era of freedom and a sense that 'anything goes'. Often funny, tongue-in-cheek or ludicrous; it can be confrontational and controversial, challenging the boundaries of taste; but most crucially, it reflects a self-awareness of style itself. Often mixing different artistic and popular styles and media, postmodernist art can also consciously and self-consciously borrow from or ironically comment on a range of styles from the past.

→ E.A.T, or *Experiments in Art and Technology*

Experiments in Art and Technology (E.A.T.) was launched in 1967 by the engineers **Billy Klüver** and **Fred Waldhauer** and the artists **Robert Rauschenberg** and **Robert Whitman**. These men had previously collaborated in 1966 when they together organised *9 Evenings: Theatre and Engineering*, a series of performance art presentations that united artists and engineers. 10 New York artists worked with 30 engineers and scientists from the world-renowned Bell Telephone Laboratories to create groundbreaking performances that incorporated new technology.

Artists involved with *9 Evenings: Theatre and Engineering* include: John Cage, Lucinda Childs, Öyvind Fahlström, Alex Hay, Deborah Hay, Steve Paxton, Yvonne Rainer, Robert Rauschenberg, David Tudor and Robert Whitman. Notable engineers involved include: Bela Julesz, Billy Klüver, Max Mathews, John Pierce, Manfred Schroeder and Fred Waldhauer.

E.A.T. was an organisation established to develop **collaborations between artists and engineers**. The group operated by facilitating person-to-person contacts between artists and engineers, rather than defining a formal process for cooperation. E.A.T. initiated and carried out projects that expanded the role of the artist in contemporary society and helped eliminate the separation of the individual from technological change.

Mirror Dome Room at the Pepsi Pavilion, at Expo '70, Osaka Japan, Photo Shunk-Kender

→ Fred Turner, *The Corporation and the Counterculture* (2014)

Fred Turner, *The Corporation and the Counterculture: Revisiting the Pepsi Pavilion and the Politics of Cold War Multimedia*. The Velvet Light Trap, Number 73, Spring 2014, pp. 66-78 (Article). Published by University of Texas Press

(...)

○ **The Computer Revaluation**

The first question that needed to be answered at the time was: is it even possible to create art using computers? and if so, how such art can be understood in the context of art's history? How does it relate to questions of expression and representation? Remember that even the camera was not seen as a valid medium for art at the beginning, simply because it was viewed as a mechanical, quite objective and un-interested mechanical device. If we think about how computers, machines that are designed for the calculation of mathematical equations, were thought of in the context of the **1960's** and the **1970's** – a period of time that saw specific importance in the **bodily presence of the artist**, in the meaning of materials for themselves, in the **agency and independent thinking of the viewer** – we can easily grasp why it was not easy for **computer artists** at the time: they were **seen as mere engineers**, their experiments irrelevant to the history of art.

However the presence of the computer in social life could no longer be ignored in the **1980's** and the **1990's**, and art-historians, specialising in the interaction between art and technology sought to **retrospectively** understand where computer art sits amids the evolution of art during the 1960's and 1970's. **Edward Shanken** and **Oliver Grau** were two seminal voices in reconstructing the history of art, blurring the boundaries between traditional art and art made with digital media.
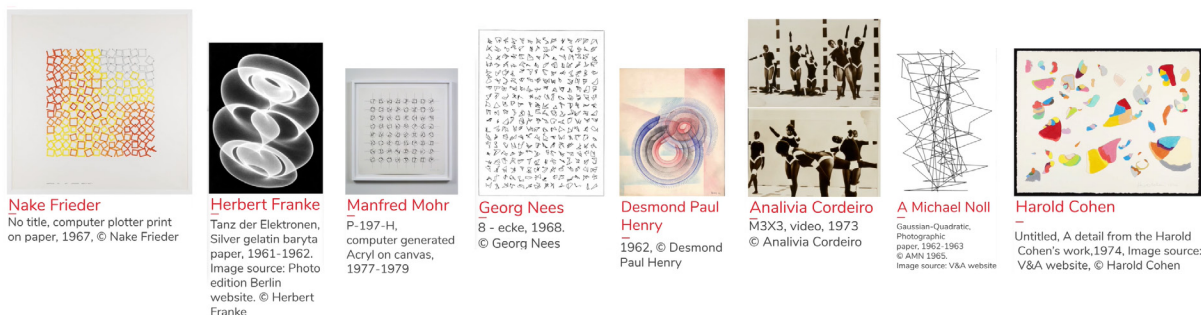
→ **Edward Shanken, *Art in the information age* (2002)**

> Edward Shanken, *Art in the information age: Technology and conceptual art.* Leonardo 35.4 (2002): 433-438.

In his article, Shanken re-writes the history of art, to position computer based art that was developed during the 1960's and 1970's, as part of the same movement that sought the dematerialisation of the art object and the engagement of the viewer in an artwork that is not an object but a system of interrelations.

(...)

○ **Critical Encounters: Art & Technology (Melanie Lenz)**

> *In reference on how the computer takes part in this system, reflecting back on the use of chance, as a means of generating a creative approach to machines, in this section Melanie Lenz (curator of digital art and digital learning program manager at the **Victoria and Albert Museum**) will speak about the first encounters between art and technology, while showing us the works of some of the pioneering artists, that experimented with computers at the time.*

Nake Frieder
No title, computer plotter print on paper, 1967, © Nake Frieder

Herbert Franke
Tanz der Elektronen, Silver gelatin baryta paper, 1961-1962. Image source: Photo edition Berlin website. © Herbert Franke

Manfred Mohr
P-197-H, computer generated Acryl on canvas, 1977-1979

Georg Nees
8 - ecke, 1968. © Georg Nees

Desmond Paul Henry
1962, © Desmond Paul Henry

Analivia Cordeiro
M3X3, video, 1973 © Analivia Cordeiro

A Michael Noll
Gaussian-Quadratic, Photographic paper, 1962-1963 © AMN 1965. Image source: V&A website

Harold Cohen
Untitled, A detail from the Harold Cohen's work,1974, Image source: V&A website, © Harold Cohen

Digital art is a nebulous term, including a multitude of disparate forms and types of art. It encompasses

– manipulated photographic images,
– video games,
– interactive installations that utilize creative technologies,
– generative and software art,
   to name just a few.

Computer art is a term, which both rejected and embraced by artists, holds different meanings to multiple people at various points in time. It is understood as a historical term that relates to artists who have used the computer as a medium or a tool from the 1960s until the early 1980s. I'll be drawing on some of the artworks in the museum's collection to illustrate a history of digital art. The title of this

talk, *Critical Encounters*, refers to the critical perception and reception of computer art which since its inception, has occupied a precarious place. The art practice was **stigmatized** for its mechanistic and militaristic associations during the **1960s**, while simultaneously viewed with **skepticism** by the mainstream art world. Records in the Victoria and Albert Museum (**V&A**) archive illustrate the objections and unwillingness of curators to initially engage with the new medium. Despite this hesitancy, a few artworks were first acquired in **1969**. These early acquisitions were part of a collector set published in conjunction with the exhibition, *Cybernetic Serendipity*:

Cybernetic Serendipity Exhibition
—
ICA London, 1968
Image Source: Cybernetic Serendipity Archive

Cybernetic Serendipity Exhibition
—
ICA London, 1968
Image Source: Cybernetic Serendipity Archive
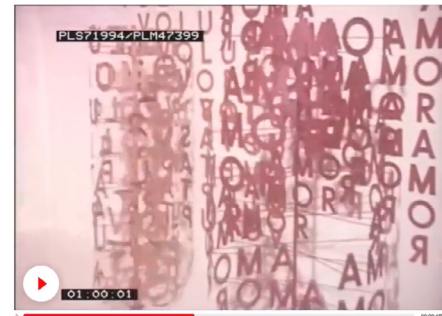
Jasia Reichardt
—
Image Source: Middlesex University London

The photographs show the installation of this groundbreaking exhibition organized by the Institute of Contemporary Arts in London in 1968, curated by **Jasia Reichardt**. The exhibition feature computer-generated and technologically-influenced works across a variety of art forms, including music, film, graphics, and interactivity. The show generated a lot of publicity, and raised the profile of computing in the arts.

In the decades that preceded *Cybernetic Serendipity*, only a small number of computer artworks were acquired by the V&A. Today, however, the collection consists of over 1,500 objects, ranging from early experiments with analog computers, to mechanical devices, to contemporary software-based practices that produce digital prints and computer-generated drawings. So in the **1950s and early 1960s**, practitioners **began experimenting with analog devices** or continuous signals to produce graphic images and effects. Machines that were designed to be used by the military or by medical practitioners were adapted to produce startling results. These pioneering works anticipated the experimental approach of future digital artists. **Herbert Franke** is regarded as a forefather of computer-generated art. He produced electronic graphics, which were experimental photographs created by moving a camera across a small screen of an oscilloscope, a device used to display and analyse the wave form of electronic signals. He could alter the curves by using a mixing console that gave some degree of control over the appearance of the image:
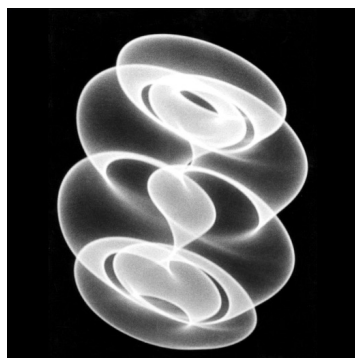
Herbert Franke
—
Tanz der Elektronen, Silver gelatin baryta paper, 1961 - 1962
Image source: Photo Edition Berlin Website
© Herbert Franke
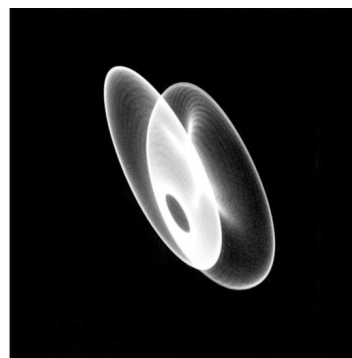
Herbert Franke
—
Tanz der Elektronen, Silver gelatin baryta paper, 1961 - 1962
Image source: Photo Edition Berlin Website
© Herbert Franke

In the 1960s, **Desmond Paul Henry** constructed various drawing machines from the components of analog bombsight computers. Henry was fascinated by the swinging motion of the machines, and adapted them to hold pen and paper. His drawing machines were operated electronically, but could not be programmed:
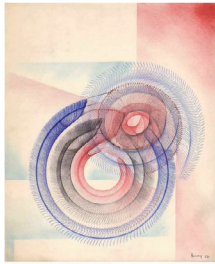
Henry Drawing Machine
—
Image source: Wikipedia

Desmond Paul Henry

1962
Image source: Desmond Paul Henry Website
© Desmond Paul Henry

Desmond Paul Henry

1962
Image source: Desmond Paul Henry Website
© Desmond Paul Henry

In the 1960s, the pioneers of digital art **emerged largely from the worlds of science and mathematics**. They were able to make use of the expensive mainframe computing facilities that were becoming common in the laboratories where they worked. Many of the earliest computer-generated artworks began life as scientific or mathematical visualizations, and have tended to be geometrical or of linear appearance. Later, artists began to collaborate with scientists in order to explore the wider possibilities of the new technology. **Bell Telephone Labs** is an example of a laboratory where artists worked. It was hugely influential in influencing and supporting the early American computer art scene. This is where Dr. **A. Michael Noll** worked and created his first digital images in the early 1960s. Noll is one of the three founding fathers of digital art known as the ***Three Ns***. His work explores the use of algorithmic simulations combining mathematical order and programmed randomness. In **1965**, his images were exhibited in computer-generated pictures, a show at the Howard Wise gallery in New York. The exhibition is thought to be one of the first public displays of computer art in North America.

A Michael Noll
—
Gaussian-Quadratic,
Photographic
paper, 1962-1963
© AMN 1965.
Image source: V&A website
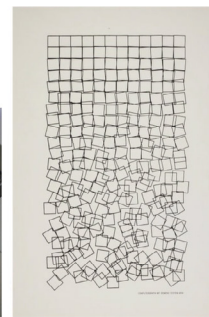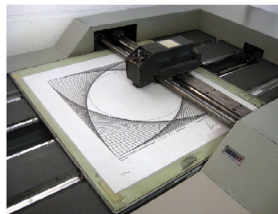
Georg Nees

Schotter, Lithograph on paper, 1968-1970
Image source: V&A Website
© Georg Nees
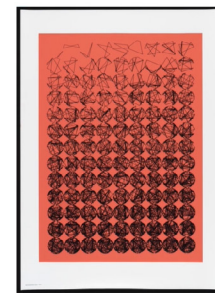
Georg Nees

Werkstatt Edition Kroll, 1970
© Georg Nees. Image source V&A website

Georg Nees is generally recognized as the first person to exhibit computer-generated images as artwork **in Europe**. He studied mathematics and physics before working for Siemens as a software engineer. He was instrumental in their purchasing of a ***Zuse-Graphomat***, a drawing machine operated by computer-generated punch tape. The machine was capable of creating geometrical patterns. And although the programming language that Nees used was designed specifically for scientific computers, Nees used it to create aesthetic images.

Like Nees, **Frieder Nake** displayed some of his outputs at the Wendelin Niedlich Gallery in Stuttgart in **1965**. Nake was a student at the technical university in Stuttgart, and it was here that he developed a program that enabled him to **control the** newly invented ***Zuse-Graphomat*** drawing machine.

Frieder Nake

Nr. 2 (also known as Hommage
to Paul Klee), computer plotter
print on paper, 1965

Frieder Nake

Computer plotter print on paper,
1967. © Frieder Nake .

Both Nees and Nake were influenced by **Max Bense**, a German philosopher and writer, who developed a theory known as **information aesthetics**.[8] This theory attempted to establish a **mathematically rigorous aesthetic theory** without subjective elements, i.e., it was developed to measure the amount and quality of information in aesthetic objects by investigating their numerical value. It was based on information theory, semiotics, and communication theory, and it bridged philosophy, psychology, aesthetics, social sciences, and art theory.

By the **1970s**, a generation of artists and designers were keen to engage with the emerging technology. For some, the **systematic approach** that the computer afforded had been anticipated in their own earlier methods. Others used the computer to carry out **visual trials**. Exploring the machine's strengths, some artists chose to produce whole series of works that demonstrated the relationship between chance and control. Such artists included **Vera Molnár**. She is one of the earliest artists, and certainly one of the first women to use computer algorithms to produce her artworks. In **1959**, she developed the concept of *machine imaginaire*, which identified a series of hypothetical steps by which an image would be created. She subsequently swapped the imaginary computer for a real one. Molnár is fascinated by the relationship between order and structure. In her series, *Disorder*, she changes the parameters of her algorithm to randomly alter the regularity of the concentric squares. This has the effect of creating the impression of movement.
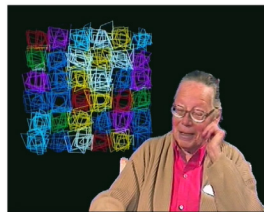
Vera Molner
–
Vera Molnar in front of one of her works from 1959
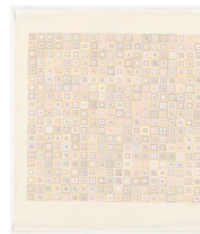
Vera Molnar
–
(Des)Ordres, Plotter drawing, 1974
Image source: V&A Website
© Vera Molnar

Manfred Mohr is another artist who explores a systematic way of working that anticipated his use of the computer. Mohr began life as an expressionist painter and a jazz musician, but in the 1960s, began to focus on geometric form and the use of the computer. He underpins his algorithm with precise mathematical logic. The photograph below shows a poster made by the artist, in which he asked the audience "*what do you think of aesthetic research done with the aid of a computer?*". The written comments are very telling, with many responses lamenting the cold, hard logic of computer arts. In **1972**, Mohr recalled that a student accused him of using a capitalist instrument to make corrupt art. This resistance to digital art was also expressed when someone threw an egg at him.

Manfred Mohr
–
b. 1938.
Manfred Mohr Image source: Being Human with Algorithms Website

Manfred Mohr
–
P-049, 1970 - 1975
Image source: V&A Website
© Manfred Mohr

Manfred Mohr
–
Manfred Mohr - Computer Graphics, from: Une Esthétique Programmée, Arc, Musée d'Art.
Moderne de la Ville de Paris, 1971. ©Manfred Mohr. All rights reserved.

Early practitioners explored many of the same ideas contemporary digital artists address today, such as

- innovation and experimentation,
- language and code,
- electronic music and visualization,
- computer algorithms and systematic methodologies,
- machine intelligence,

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[8]Max Bense, *Aesthetica*, Edited by Deutsche Verlags-Anstalt, Stuttgart, **1954**

- morphogenesis,
- the biological process that causes organisms to grow in a particular shape,

    to name just a few areas.

American artist **Roman Verostko**, born in 1929, is a member of the *algorists*, a term coined in **1995** to describe a set of artists, who since the '60s and '70s, have been working with a shared interest in the use of bespoke software for generating art using the computer.

Roman Verostko
—
Hildegarde (Flowers of Learning), plotter drawing
2006. © Roman Verostko

Harold Cohen
—
Computer-generated drawing with hand colouring, 1974
Image source: V&A website
© Harold Cohen

Harold Cohen's work explores the use of artificial intelligence which he trained as a painter, and represented Britain in the **1966** Venice Biennale. In 1968, he became a visiting professor at the University of California in San Diego, where he was introduced to computer programming. In **1971**, Cohen took up a post as visiting scholar in the Artificial Intelligence Laboratory at Stanford University, where he developed **AARON**, a computer program designed to produce art autonomously.

Analívia Cordeiro was born in 1954 in Sao Paolo. She is a dancer, choreographer, and pioneer of computer dance, video art, and multimedia performance in Brazil. **M3X3**, made in **1973**, is believed to be one of the first Brazilian computer-inspired dance pieces. Cordeiro used the computer program to choreograph the dance, in which the geometric movements of the performance are informed by the program's instructions. This piece explores the automation of gesture.

Analivia Cordeiro
—
b. 1954

Analivia Cordeiro
—
M3X3 ,Video, 1973
© Analivia Cordeiro

Analivia Cordeiro
—
M3X3 ,Video, 1973
© Analivia Cordeiro
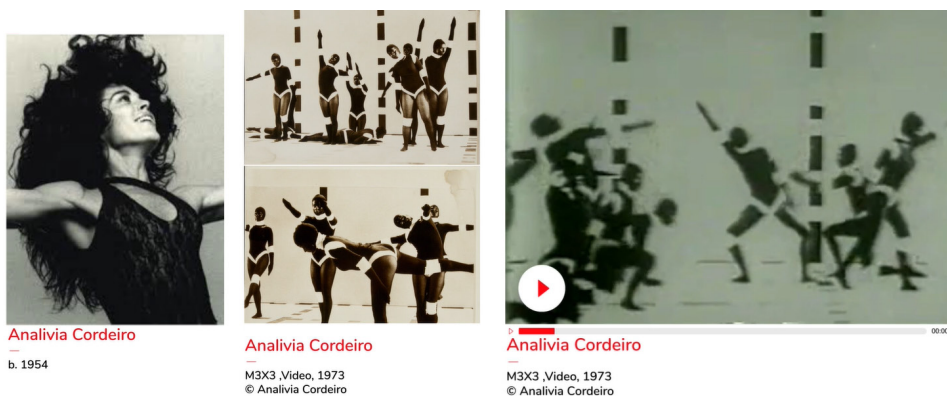
The V&A also holds more recent digital artworks, such pieces by **Casey Reas**. Reas, together with **Ben Fry**, invented the programming language, `Processing`. For Reas, software is not a tool used to rework existing data like photographs, but the writing of the concept and the software itself are at the center of the art piece. **Inspired by Sol LeWitt**, who gave written instructions for his famous wall paintings, Reas carries on this conceptual approach. In doing so, the process is the most important part. His practice also resonates with early algorithmic work, for Reas's processes pieces are a set of instructions that can be used to generate a kaleidoscopic artwork with an infinite number of potential variations.

Casey Reas
—
Process 18, Software, 2010
Variable dimensions
Video Source: Casey REAS Vimeo channel
© Casey Reas

Casey Reas
—
Casey Reas, Process 10, 2005-2010,
Software Video source: Casey REAS YouTube channel
Courtesy Casey Reas and collection JC Heinrichs.
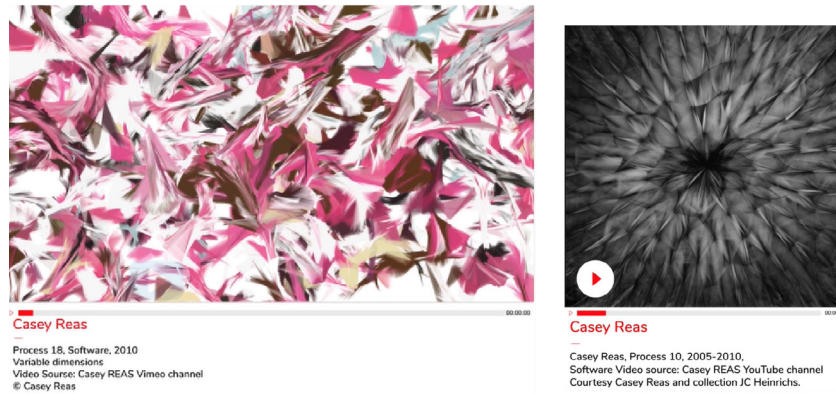
Regarding **generative art**, we can analyse the series by **Andy Lomas**. To create the image, Lomas wrote a program that simulates growth in nature. His complex forms evolve from a small cluster of cells that grow according to a set of rules imposed by the program. This gives rise to a multitude of different structures emerging from small variations, reminiscent of organic forms. Lomas's art resonates with earlier computer-generated works that explored the aesthetics of biology.

Andy Lomas
—
Aggeration, **2005**, image source: Andy Lomas website. (c) Andy Lomas
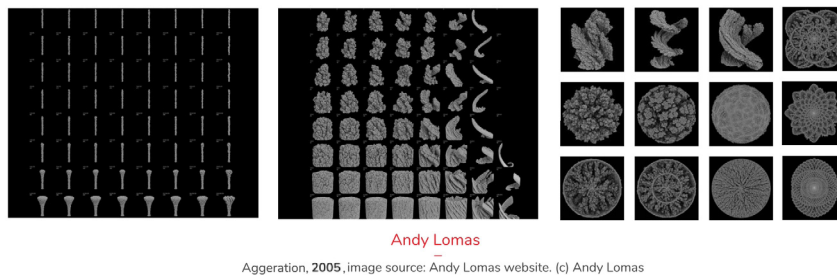
Working in the digital realm has presented artists with both opportunities and challenges. Some of the **criticism** faced by early digital artists included the perception that if their art **wasn't done by hand**, then it **wasn't real**, and the assertion that computer art was **cold and impersonal**. Early computers were technically limited in what they could achieve, compared to today's computer power. Other challenges included the **limited art market** and issues of preservation. Early artists had to grapple with how to capture their work, as it couldn't be saved on a screen. Artists **today** face some of the same challenges, such as contemplating obstacles like **how to preserve, value, store, document, and fund** experimental and ambitious work. In contrast to 50 years ago, digital art designed today has much greater visibility in the art world, and audience engage with it in many different ways.

Here at the Victoria and Albert Museum, there's currently on display a major exhibition entitled *Video Games – Design, Play, Disrupt*, and I'm currently standing in a display about *Chance and Control – Art in the Age of Computers*. Visitors also engage through the museum's digital art design learning program. This talk has highlighted some of the work drawn from the museum's collection to illustrate **a history of digital art**. I use the term "**a**", rather than "the", because histories should be acknowledged as plural. I've briefly outlined the context and some of the concepts that have shaped computer-generated art, touching on how some artists have aligned their practices. I've identified some of the challenges and the opportunities faced by artists past and present, and alluded to the resurgence of interest in the subject with, for example, the increased visibility of digital art here in the museum. You can learn more about the V&A's collection by searching the online catalog. I'll end by contemplating a quote by pioneer, Dr. A Michael Noll, who stated that

> "Computers are an intellectual and active partner, that when fully exploited, could be used
> to produce wholly new art forms, and possibly new aesthetic experiences."
> – Dr. A Michael Noll

→ **Jack Burnham, *Systems Esthetics* (1968)**

(...)

Mid Course Self-Assessment

Chapter 1 & 2

Questions

1. The main argument in Mick Wilson's article "How to Speak about Art and Technology" is?
2. Flusser contends that art, design and technology, as words, stem from the same root, techne, and that the fundamental meaning embedded in those is?
3. David Lewis Williams, Karl Schmidt and other contemporary archaeologist believe that?
4. The greatest technological revolution of all times is considered the agricultural revolutions because?
5. Nelson Goodman defines digital languages in that they are?

Answers

1. The main argument in Mick Wilson's article "How to Speak about Art and Technology" is *that the words art and technology are used interchangeably until the Enlightenment, and therefore the linguistic separation we make between the two is a relatively modern invention.*

   $\rightarrow$ Wilson contends that the words art and technology were used interchangeably until the 18th Century, and therefore the linguistic separation we make between the two is a relatively modern invention

2. Flusser contends that art, design and technology, as words, stem from the same root, techne, and that the fundamental meaning embedded in those is *deception.*

   $\rightarrow$ The root of all these words in the Indo-European languages is deception

3. David Lewis Williams, Karl Schmidt and other contemporary archaeologist believe that *there is a close link between the creative burst of the Upper Palaeolithic Revolution and the technological advances of the Neolithic Revolution and the Agricultural Revolution.*

   $\rightarrow$ These scholar agree that there is a close link between the creative burst of the Upper Palaeolithic Revolution and the technological advances of the Agricultural Revolution

4. The greatest technological revolution of all times is considered the agricultural revolutions because *it is the cultivation of wheat and the preservation of food that will allow humans to delve in permanent habitats, form bigger communities and develop what we now think as civilisation correct*

   $\rightarrow$ It is the cultivation of wheat and the preservation of food that allowed humans to delve in permanent habitats, form bigger communities, develop commerce and evolve as what we now think as civilisation

5. Nelson Goodman defines digital languages in that they are *syntactically and semantically articulate correct*

   $\rightarrow$ Goodman defines digital language in that they are syntactically and semantically articulate. Analogue languages are defined as 'dense' because of the different meanings each sign can have in every appearance

Chapter 3

Questions

1. Who was Sergei Eisentsein?

2. What is the persistence of vision?

3. What is the suspense of disbelief?

4. What is the Avant Garde in Art?

5. What are a 'white cube' and a 'black box'?

Answers

1. Who was Sergei Eisentsein? *A renowned film maker, one of the pioneers in experimenting with film and inventing a theory around the language of cinema, through the use of different montage techniques.*

   → Sergei Eisenstein was renowned film maker, one of the pioneers in experimenting with film and inventing a theory around the language of cinema, through the use of different montage techniques

2. What is the persistence of vision? *A term that explains the visual phenomena through which a sequence of still images form an illusion of movement in the spectators brain. correct*

   → The persistence of vision is a term that explains the visual phenomena through which a sequence of still images form an illusion of movement in the spectators brain,

3. What is the suspense of disbelief? *A term that explains how, as consumers of stories, we immerse ourselves in the reality of the story, and suspense our disbelief in the story as a fiction correct*

   → Originating from philosophy, and in relation to human interaction with metaphysical ideas, and super-natural phenomenon, this term had been adopted in film theory to explains how, as consumers of stories, we immerse ourselves in the reality of the story, and suspense our disbelief in the story as a fiction

4. What is the Avant Garde in Art? *Originally meaning the first line of soldiers sent to battle, this term had been adopted to art to describe artists that led revolutions in the conception of art*

   → Originally meaning the first line of soldiers sent to battle, Avant Garde is a terms adopted by art theoreticians to describe artists that led revolutions in the conception of art

5. What are a 'white cube' and a 'black box'? *Both refer to standard modes of art representations in art galleries*

   → Both refer to standard modes of art representations in art galleries. A 'White Cube', would be a description of he design of modern galleries: empty white spaces, isolated from the world, to create an atmosphere of authority and reflection. Video art, required a change in the ideology of art's display, and the term describing such spaces, is 'black box'.

Chapter 4

Questions

1. What are 'Chance Operations'?

2. What is 'Mass Customisation'?

3. What is Formalism?

4. What is Iconoclasm?

5. What is 'Institutional Critique'?

Answers

1. What are 'Chance Operations'? *A set of instructions an artist gives herself, within which the artwork is produced correct*

   → Chance Operations are set of instructions an artist gives herself, within which the artwork is produced. The use of chance operations allows the artist to involve themselves in the artwork from a completely new and different perspective - as it allows chance to be one of the major components of the piece

2. What is 'Mass Customisation'? *An important aspect of contemporary mass production techniques, that looks to explore how different, customised, products can be produced in mass correct*

   → Mass Customisation is an important aspect of contemporary mass production techniques, that looks to explore how different, customised, products can be produced in mass. Designers often use chance operations within factory, to answer such market needs.

3. What is Formalism? *A term to describe a tendency in the art of the 1940's and 1950's, to explore art's language: forms correct*

   → Formalism is term, widely used by art historians Clement Greenberg and Michael Fried, to describe a tendency in the art of the 1940's and 1950's, to explore art's language: forms. At its core was a firm belief that art should be autonomous, that is that art should be created only for art's sake.

4. What is Iconoclasm? *A term that describes historical movements that sought to contend 'representation' as a valid role of art correct*

   → Iconoclasm is a term that describes historical movements that sought to contend 'representation' as a valid role of art. For most of history, these were religious movements, that were also engaged with the destruction of images. Boris Groys uses this term to describe a tendency in avant garde art, to destruct the image of art itself.

5. What is 'Institutional Critique'? *A postmodern art movement that was preoccupied with the politics and ideologies of art institutions, and the way that they produce history correct*

   → Institutional critique is a postmodern art movement that was preoccupied with the politics and ideologies of art institutions, and the way that they produce history

○ Introduction to the Second Part of the Course

In previous chapters, we looked at historical art movements and their relationship to technological innovation. We saw how art flirts with technology, criticises it and approaches it from various sceptical and ideological perspectives. We also started to understand some fundamental processes, related to communication media evolution, that changed the way we think about art and define it. We reflected on those, and by the end of Chapter 3 we started to venture into the world of digital art, through the lectures surrounding the first artworks made with computers. We explored how art's history denied those at first, and then incorporated them as part of this essential move towards art's definition as a system of interrelations.

The next few weeks, will be more concerned with varies discourses around digital art, and offer ways of engaging and reading digital artworks.

As a first step, in the next section we will see how media theory, specifically, may assist us in better understanding, engaging and criticising technology.

5. How to think about Technology

- 6 approaches towards the critique of media and technology in the digital age

- Generative Art & AI

6. Art and the Internet

- Net.Art

- Tactical Media and subversion

- Google: technological and informational biases

- The conundrum of privacy in the digital age: We live in Public

- Strategies to cope with surveillance capitalism: how not to be seen and obfuscation

7. Digital Aesthetics

- The Cut & Paste aesthetics and the remix culture

- Time and space in the digital age: how to re-read spatio-temporal perceptions. After Paul Virillio and Katherine Hayles

- The selfie and the narcissistic and exhibtitionary complexes of social media

8. Digital Futures

- Truth, Fiction and Virtual Realities

- The Internet of Things

- Object/subject relationship in virtual realities

- Performance and virtual reality

- Posthumanism and the anteoposcene

- The myth of immateriality

- Ability, disability, super ability

Chapter 5

Rethinking Technology

5.1 How to Think about Media & Technology

What we're going to do is explore how academics think, criticize, and do research on technology in different ways. This will give you is a sense on how the way that you think about technology changes how you engage and criticize it. We will explore which tools and which kind of question have to be considered while doing something with technology. What is technology? How does it affect society? Does society affect technology? And what kind of politics are involved in it? We are going to focus on **six approaches** to media technologies:

1. Technological determinism (= technology determines society)
2. Social construction (= society drives technology)
3. Science and Technology Studies, STS (= the complex network of influence beytween society, science and technology)
4. Actor Network Theory, ANT (= both humans and non-humans have agency and power)
5. Cyber feminism (= technology as a way to dissolve genders)
6. Software studies (= philosophers should explore and research software as a cultural product)

1. Technological determinism Technological determinism, the first approach, is a theory that assumes that a technology determines the development of society's social, cultural, and economical structures and their values. This theory gives a lot of power to technology. It does not leave a lot of room for people's agency. It argues that **technology is the main player in societal changes**. A technological determinist thinks that the uses made of technology are largely determined by the structure of the technology itself, that is that its functions follow from its form.

 Media determinism is a form of technological determinism. The two foundational media theorists are Canadian scholars **Harold Innis** and Marshall McLuhan. **Marshall McLuhan** said the famous argument from his book from **1964**, *Understanding Media*, that **the medium is the message**. And what he was basically trying to say with that is that it's **not really only the content** of media, for example, television shows, that are important **but the role** of television **in society**. McLuhan pointed to the **light bulb** as a media that does not have content. Yet, the medium still has social effects, right? A light bulb enables people to create spaces during nighttime that would otherwise be surrounded by darkness.

> *An example* that we can think about when we think about technological determinism is social media. So when we're thinking about events such as the Arab Spring, a lot of people say that social media had a positive effect on society. Because with the Arab Spring, social media enabled the protesters to change the countries where they were at. A negative effect of social media, we can think about with the 2016 election and with the UK Brexit referendum, where a company called Cambridge Analytica basically manipulated and exploited social media to affect the way that these elections and referendum were going. So what we see here is that we have the media, which is social media, and the way that people usually think and sort of give them power, whether it's positive power or whether it's a negative power.

2. Social construction Social construction came as a response to technological determinism. It started from **Raymond Williams**, who is McLuhan's biggest opponents. Because for him, it is actually

the social, cultural, historical, political, and economical factors that influence technology and not the other way around. What basically Raymond Williams wanted to do is to **bring back the intention** to the debate. He argued in his book in **1974** about the television that the technology would be seen, that is being looked for, and developed with certain purposes and practices already in mind. So together with British scholars, such as **Stuart Hall** and **Angela McRobbie**, they opened in **1964** what was called the *Birmingham Center For Contemporary Cultural Studies*.

> *Let's think about some examples for social construction.* For example, we see different kinds of technologies developed today, such as drones, self-driving cars, and automatic checkouts that you can usually see in supermarkets and in the airports. A lot of these technologies take people's jobs. But what they also do is hide the fact that, actually, many times, they are not operated in full automation but actually need humans to assist them to work. This is what the technological critic **Astra Taylor** calls **fauxtomation**, which basically she says, this is a marketing strategy to make technologies seem as if they are smart but, importantly, that they act with no human intervention. The purpose behind fauxtomation, as Taylor rightfully points, is that it reinforces ideas that if specific work is unpaid or underpaid, then we don't really need it. So here, we see that social and cultural perspectives of what our jobs and which jobs are valued are baked into the design of technologies where usually programmers are valued higher up and people like click workers who work for Amazon Mechanical Turk or social media's content moderators are not valued so high. These jobs are usually conducted by people in Asia through third party companies. And they're getting paid pennies.

3. Science and Technology Studies, STS   STS is an approach that examines how social, political, and cultural values affect scientific research and technological innovation and how these in turn affect society. So if we think about that before, we thought that technology affects society in a direct way. And social constructivism said that society affects technology in a direct way. What we see here is this kind of **intermingling of the previous** approaches. So it's a more **circular approach**. One of the most influential scholars in this field is **Langdon Winner** with his famous article, *Do Artifacts Have Politics?*. As he argues in the article, by politics, he means arrangements of power and authority in human association as well as the activities that take place within those arrangements. So STS scholars tend to examine the power of **influences** of humans, non-humans, artifacts, objects, documents, and more. And they try to reveal the **politics behind** categories, standards, measurements, order, arrangements, and also **infrastructure**, as **Susan Leigh Star** says, the boring things that we take for granted. STS scholars reveal how technologies can be used in one way over another and the politics and the power and authority that are standing behind that.

> A sociology that shows the politics of object is **Zeynep Tufekci** in her post where she was talking about cell phones. So Tufekci went to Istanbul in Turkey to document the protests that were happening in Gezi Park. But when she was trying to take pictures with her phone, she couldn't do it with one hand because her phone was too big. Zeynep Tufekci is a small woman, a bit like me. And what she points is that most mobile phones are designed for male hands. Phones, like other technologies, rely on standards of use where there is a standard user imagined and the technology is designed according to them. This is where STS comes into the picture as it questions and challenges the standards and the use of technology and what are the implications of phones being too big, for example.

4. Actor Network Theory, ANT   ANT is a theoretical approach that **stems from STS**. And it argues that **both humans and non-human**s can have a **similar ability to influence for power**. They proposed to examine a **specific network**, rather than its history or other factors like we saw with social constructions. This is because they argue that everything in the social and natural worlds exists in constantly shifting networks of relationships. The main scholars that have developed this approach are **Bruno Latour** and **Michel Callon**. They call both humans and non-humans as **actants**, who are equal participants within an equal agency in one network. So, for example, ideas, objects, documents have just as much influence and power with a specific network as humans do. One of their main analytical tool is description. **They describe things, instead of explaining them**, because they argue that the social forces do not exist in themselves and, therefore, cannot be used to explain social phenomena.

> *As an example*, think about an electronic dance music event. Imagine that you're going into a club. And so the club and the event of the club will be the event that you're examining. That would mean that the actants which are involved in the network could be both human and non-human. That means that the DJ could be one, the people who go to the party. But also the sound system, which are the speakers, the lights, the time. The kind of promotion that you do to the event. The kind of alcohol people are having. The kind of guards that are in the entrance. All of these will affect the network and influence each other in different kind of ways.

5. Cyber Feminism   Cyber feminists or **techno Utopian**, which means that they saw technology as a way to dissolve sex and gender divisions. It started with a prominent scholar, such as **Donna**

Haraway, with their famous article from **1983**, which turned into a book in '91, which is called the ***Cyborg Manifesto***. The term cyber feminist was a critic towards the sexist approach of science fiction, cyberpunk culture in the 1980s. They tried to imagine and be playful with the kind of opportunity that the **internet** has to offer. As they saw it **as a tool**, a sort of **feminist revolution**.

Cyber feminist scholars, such as **Catherine Hills** – for example – came from literature. And what she promoted was this non-linear thinking and writing, which is manifested in different kind of technological features such as the hypertext. She also argued that science fiction and popular culture are legitimate sources for investigating media. Cyber feminism started a wave of feminist and queer net art, which criticized common belief about gender, media, and technology. The main voices were the British cultural theorist **Sadie Plant** and the Australian art collective **VNS Matrix** in **1991**.
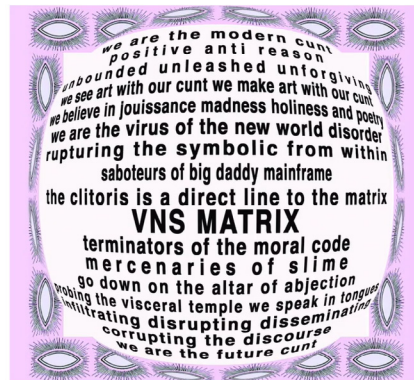
VNS Matrix
—
'A Cyberfeminist Manifesto for the 21st Century', Australia, 1991. Image reproduced with consent of the artists

6. Software Studies So software studies is the latest approach that started to emerge around the beginning of **2000**. And argued that social scientists and the humanities should start examining research objects which were previously only examined by computer scientists. So they argued that things like algorithms, code, software, interface, and computer viruses need to be critically examined and not taken for granted. They basically reveal the politics behind the way that they were created, adopted, and used. And they think that it should be told and retold in different kind of ways. In a way, some argue that this is another branch of STS, which previously was not really **focused on computational objects**. So, for example, one of the key thinkers in this field is the scholar Taina Bucher who recently published her book about algorithmic power and politics. **Unlike** some of the **earlier wave** of software studies, which included scholars such as **Lev Manovich and Matthew Fuller**, what **Taina Bucher** argues, basically, is that **people and algorithms shape each other together**.

> *To make an example*, Bucher shows in her book what she calls the **popularity game**. So that means that when artists go on Facebook, they check how many likes they get right after they post something. If they do not receive a certain amount of likes, then that means that they will have to erase the post and post it, again, with maybe different kind of words and in different timings. This is because the artist realized that the timing and the kind of things that you write matters. They changed their expression and timing so as to better be recognized and distributed by Facebook news feed algorithm. She calls this the algorithmic imaginary, which is the way in which people imagine, perceive, and experience algorithm. And what these imagination make possible. Another example comes from the scholar who is also a new media artist called **Benjamin Grosser**. He basically wanted to show the way that metrics affect us. He was asking, does it make us interact differently? Does it make us feel differently? Does it make us think differently on people? He developed a web browser extension called the **Facebook Demetricator**, which basically removes all of the numbers from the platform. That means that you can really see all the amount of likes or friends people had. But you also didn't see how long ago people were posting something. As he said, "with this work, I aim to disrupt the prescribed sociality these metrics produce, enabling a network society that isn't depended on quantification."

→ Annabel Frearson on Language Games and New Media

"I'm Annabel Frearson. I'm an artist based at **Cubitt Studios** in London, UK, and also a lecturer here at the *Reading School of Art*. As an artist, I generally make works that involve **reworking, reproducing, or reconfiguring** existing texts, and sometimes films, into new artworks that are both poetic and political. These take many forms, from print to performance, sound, and film. I often collaborate with other people, such as actors and musicians, to produce and perform the work. In general terms, I'm

interested in questions around **value and power**. I'm going to discuss a range of artworks from some early projects that I made using internet chat rooms in the late 1990s, to more recent rewritings of Frankenstein and Mein Kampf, in relation to some of the ideas in this course.

BaudriR

You have just entered room "Town Square - Pool Party"	
SEANCHRISTOPHER:	NUTTS ON YOUR JAW......
Sawd Off Thugsta:	DAMN
Larryleeh3:	he'll swing wit his and i'll knock u out wit my left
Sawd Off Thugsta:	ILLITERATE MUTHA FUCKA
BaudriR:	The victory lies not at all in the fact of imposing a negotation
Allthat4140:	WHY IS EVERYBODY FIGHTING
Sawd Off Thugsta:	CUZ SOME BITCH STEEPED UP IN DA ROOM TRYIN TO TALK SHIT
HIROSHI56:	http://209.1.224.13/anals3x/d.html">*ygp* Click HERE for HOT XXX PICS & VIDEOS!!
Shawn0077:	THATS RIGHT CAUSE WHERE U FROM AINT SHIT COPMARE TO MY SHIT
Larryleeh3:	thugsta im on ur side 4 this 1
SEANCHRISTOPHER:	YOU GOT MILK IN DEM TITS YOU CRAZY BITCH?
BaudriR:	Besides, the objective
Sawd Off Thugsta:	WATTS MUTHA FUCKA
BaudriR:	- most of the time to liberate imprisoned comrades -

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When online chat rooms became popularized through platforms such as AOL in the 1990s, I was fascinated by how this advanced technological phenomenon that enabled simultaneous global live communication was being used to discuss everything from sex, politics, religion, and more sex, to Eminem, knitting, or pretty much nothing. I decided to intervene into this chat world by reproducing live the entirety of a text from the late 1970s by French philosopher **Jean Baudrillard** called *In the Shadow of the Silent Majorities Or, the End of the Social*. I created the avatar name `BaudriR`, and retyped the whole book from cover to cover, one line at a time, in the midst of various conversations, moving from chat room to chat room.
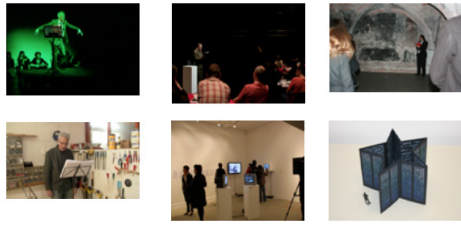
Baudrillard's message in this work is essentially that in a media society, **meaning has no meaning anymore**. Communication merely communicates itself, and politics, even acts of terrorism, becomes mere spectacle. In my reproduction of his text in AOL chat rooms, **the meaning of his text is both embodied or enacted, and yet, simultaneously destroyed by being fragmented and spectacularized** within a field of mindless opinion and entertainment.

Frankenstein2

ANNABEL FREARSON

FRANKENSTEIN2: MY MISERY (2010-12)

Frankenstein2; or, the Monster of Main Stream is an ongoing project which involves rewriting, or rearranging, Mary Shelley's 1831 edition of *Frankenstein; or, The Modern Prometheus*, using all and only the words from the original to create a new novel and associated works. *My Misery* is an extract from *Frankenstein2...* that has been narrated by a variety of actors for exhibitions and events.

AFFECTION CORRESPONDENCE

'Affection Correspondence' is a short science-fiction story written using only words contained within 'Frankenstein' (Shelley, 1831), in dialogue with images by publishing commissioner Gareth Proskourine-Barnett.

During the process of producing `BaudriR`, I came to **question ideas of ownership and authorship**, as well as newness, and basically, how much it was necessary to alter a given text for it to be considered new, or basically, beyond copyright. This led me to my next major writing project, which is the rewriting or reconfiguration of the entirety of Mary Shelley's 1831 novel *Frankenstein*, using all and only the words from the original in the same quantities as used by Shelley. This started as a relatively straightforward writing of a new contemporary novel, and has expanded over the years, largely through the opportunity

for public exhibition, into a variety of expanded formats, such as an album of pop songs, a corporate PowerPoint sales presentation for a life sciences business park, a 35-millimeter black and white film of movie titles, the rewriting of a description of Max MSP software language by Wikipedia, a pornographic short story, a review of the film, I, Frankenstein, placed on Rotten Tomatoes website, and many other printed works and performed readings, all using only words from Frankenstein. So my *Frankenstein2* works perform a kind of **time traveling with language**. I'm caught between the things I want to say, and the words available to say them. I often have to really **push the original language into contorted phonetic configurations** that only start to make sense when heard, making them essentially **performative**.

As I spent a lot of my time in the early stages of this project counting words, I commissioned a piece of JavaScript software called `FrankenWriter` programmed by robotics artist **Patrick Tresset**, that assists in this process by cross checking my new text with the original, and flagging up any misuse or overuse of words.

My most recent Frankenstein2 work is a short science fiction story called *Affectation Correspondence*, produced in collaboration with the publisher of Tombstone Press, **Gareth Barnett**, who created the **data-moshed images**.[1] *Affectation Correspondence* tells the story of a feelings trader, who can recreate and sell on-demand, rarefied feelings. There are sections in the book which very much point to the mechanics of production as being passed through a **database**. For example, in the center is a long, concrete-style poem that can be read horizontally and vertically, hence extracting double value from the words. And incidentally, I used an Excel spreadsheet to write it. Interestingly the media theorist **Lev Manovich** suggests in his book *The Language of New Media* that the **database and narrative are natural enemies**. But that was 20 years ago so, perhaps, we've since become **more acclimatized now** to generating meaning from fragments of text, and the rehashing of existing media has become a given of the internet.

(Theoretical analysis)

So thinking about my work in relation to some of the theoretical concerns of this course, **in terms of representation**, if representation can be taken to infer a depiction of reality, then my methodology of quite literally representing existing texts in new contexts or reconfigurations, sometimes mashed up with other texts, could be said to question the very nature of representation. By literally rewriting original truths or realities, I generate what might be considered **second order or simulated realities** – as French theorist Jean **Baudrillard** would have it – and these reconstruct realities then take on a **life and autonomy of their own**, independent of their origins, rather like Frankenstein's monster, perhaps.

So my work seeks to **reveal the apparatuses**, or *dispositif* to use the French term popularized by the likes of philosopher **Michel Foucault**, **by which given realities**, including ideologies, are **constructed**. The term apparatus, or *dispositif*, can also be used to refer to a form of machine or technology and, in relation to this, I'm largely interested in the **use and abuse or subversion of everyday mainstream technologies and platforms**, and how these intersect with ideas of ownership, newness, democracy, agency or control, and narrative.

It could be argued that **everyday technologies** become the **ground for our representation of reality**. They become the givens in our life, and they **produce certain behaviors**, ways of thinking and working methods, as well as **systems of representation and expression**. In other words, they become the **structures of formats for the narratives of our lives**. This is also how the term **post-internet** can be understood.

Sic

To conclude, I'll briefly point to my latest published project, which arose in response to the recent resurgence of fascism and the alt right around the world. Called *Sic*, it presents a paragramic rewriting of the *Mein Kampf* by **global microworkers** using online anagram generators and other textual randomizers. A paragram is a verbal play that reorders the letters of existing words and phrases. So *Sic* intends to undermine Hitler's text by rendering it deviant, and to liberate the language by quite literally rewriting history. With Sic, I've **pushed the rewriting of a text to the limit to try and literally break the spirit of the original toxic work, so as to render the antisemitic as antisemantic**. So in

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[1]Data-moshed images will be treated later in the course in the discussion on digital aesthetics.

an **extended allegory of the current politics of disorientation**, the concepts of freedom and truth are now radically scrambled.

In terms of the means of production, by using websites such as `fiverr.com` or `PeoplePerHour` the **distribution of authorship** through a **posthuman intermingling of dispersed bodies and machines**, on the one hand, disrupts the original singular locus of narrative power, and yet, further reproduces the atomization of humans and labor under the absolutist regime of global neoliberalism that's come in its wake, aided and abetted, of course, by technology. Perhaps to explain what I mean by this with the visual analogy, it's as though the atom bomb that concluded World War II actually fragmented the world. Its materials and energies and all of its subjects, our skills, our attributes, our labor and our feelings, into minute particles that can now be individually detached, valued, and traded, thanks to the combination of advanced capitalism with technology.

5.2 Generative Art & AI

We may think about **artificial intelligence** as a completely new idea, but this can't be further away from the truth. Ideas around artificial intelligence are floating in humanity's common consciousness for thousands of years, mainly in the realms of fiction and mythology. In this famous painting by Jean-Léon Gérôme, for example, he depicts the story of *Pygmalion and Galatea*. This mythological story, reflects on a very basic motivation on art's creation, the idea that through *mimesis* one could penetrate the essence of things and bring them to life. But the difference between the image, or the representation of this ideal, does not necessarily correspond with its reality as, **once it gained life, and the artist's wish had been accomplished, it can no longer can be controlled like the ideal object of affection**.

○ Contemporary Relations Between AI and Art

The discourse around artificial intelligence and its relationship to art creation is contagious. So many speculative examples are set to replace human intelligence, human seeing, human learning, and human interaction with intelligent computational systems. These are said to be able to learn different aspects of human activity to the extent that we would hardly be able to recognize any significant difference between man-made and machine-made artifacts, literature, poetry, and speech. In fact, there are a few prominent examples already available that demonstrate this state of affairs in relationship to art.
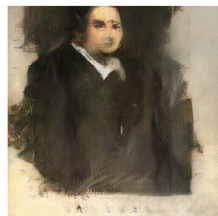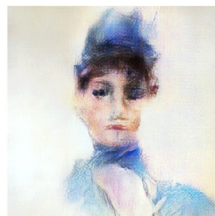
Edmond De Belamy   Madame De Belamy   Le Duc De Belamy
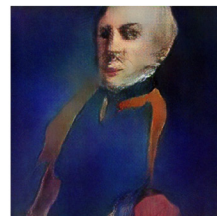
Artists and engineers group **Obvious**, for example, recently sold an original painting produced by the application of artificial intelligence after a machine learning algorithm processed thousands of examples of historical paintings of portraits. The painting, which was sold for no less than $432,000 at the official art auction institution, ***Christie's***, indeed seemed to have imitated human expression in an **uncanny way**.
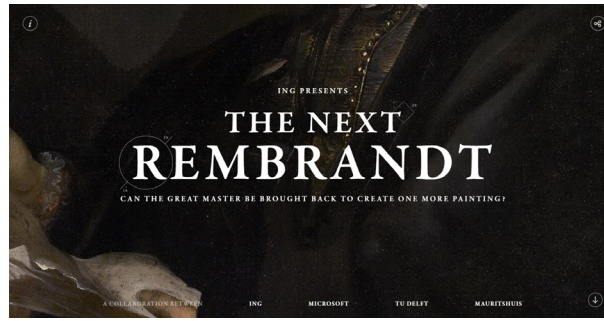
Similarly, the art project **The Next Rembrandt** managed to create a completely new and original Rembrandt portrait using an algorithm that studied Rembrandt's portraits to learn his style, his brush strokes, maneuvers, his colour palette, and typical contrast between light and dark, a distinctive aspect of his work that was deeply influenced by Baroque art.

Both these groups claimed to have contributed to a revolution in art and its definition, whereby art is no longer marked as a strictly human activity, alluding to the fact that creativity, as well, is something that can be taught, even to machines. To analyse this phenomenon, we would need to attempt at answering three questions in parallel:

- *How can we refer to such art from within its traditional definitions?*

  → We need to **look at the origins of artificially intelligent art**, if such origins indeed exist in art's history, to understand whether there is a real innovation here that requires us to change the way we think about art.

- *What means do we have to analyse it?*

  → We may want to examine how artificially intelligent art answers the **definition of art** that we have sought throughout this course. To remind you, it was the **masterful use of media in order to express abstract ideas**, usually in response to existing social imaginaries or the construction of new ones

- W*hat truly is the meaning of such a creation in the context of art's evolution and relationship with technology?*

  → In answering this third aspect, we need to ask ourselves three questions:

  1. What are the media such artwork looks to master, and whether indeed we can think of this act as an act of **mastery**.
  2. What are the **social imaginaries** that are tackled and represented through this action, and what position does the artwork express in relation to those?
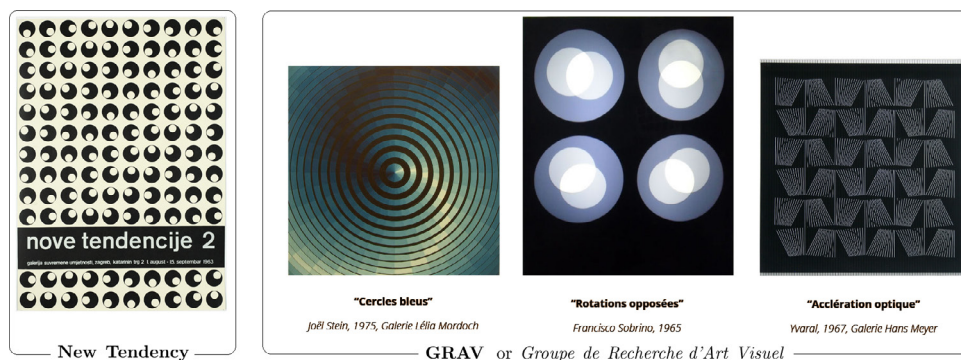 3. If indeed the media this work tries to tackle is AI, then we need to understand **what AI is**, what algorithms are, and how they operate, so that we can critically look into the process of making such artworks, judging for ourselves what is the value you can gain from it?

From a **historical perspective**, artificially intelligent art can be traced and connected to its origin in **generative art**. Generative art is simply an art **production process based on instructions given by an artist and executed by a different agent, either human or mechanical**. Of course, in its current reincarnation, we refer to algorithms fed to a computer– that is, instructions given in code, which is based on mathematical equations. The **roots** of such ideas can take us to the very dawn of our civilization. But to bring one poignant historical example, we may point to **Islamic art**. Islamic art is a good example, because it is fully relying on the mathematical order. In the process of its creation, the artist complies a set of mathematical equations based on complex symmetries and harmonizing patterns, and extracts from them algorithms that translate these numerical concepts into geometric shapes. These instructions are then followed by craftsmen who execute most extraordinary abstract pattern based artworks and designs, as one can observe in mosques, manuscripts, and miniature paintings identified with a unique contribution of the Islamic empire to the world of art. These magnificent, complex patterns are meant to inspire within us a contemplation on the sublime order within the seeming chaos of creation and resonate with intelligence that is invested in every single cell of the magnificent creation of Allah, from which we are a part. Take one example from our own Western tradition of art, we can go back

all the way to the ancient world, or to the Renaissance, where personas, such as **Leonardo Da Vinci** and Leon Battista Alberti were in charge of developing **sets of instructions** based on geometric and mathematical equations to assist artists, architects, and designers to depict depth in drawing and painting using the calculation of the geometric perspective. Both these examples can be seen as simple examples of generative art.

While this can, indeed, be seen as the roots of AI and art, they are not quite yet comparable to our current examples. **In our current age the generative art originated as part of the tradition of conceptual art**, and as it is manifested in relation to **digital technologies**. As you can imagine, generative art can **also** be traced to the turn of the mechanical era and **Duchamp**'s chance operation. One could say that with his series of Ready-mades, Duchamp pointed to an entanglement of the individual artist in his or her genius in mechanical repetition. In his actions, he proved, so to speak, that meaning and authorship are created within a certain context, and that art's agency is not in the object, but in the process of its production. **Chance operations** which evolved from his many experiments with art and automation, as well as his unique approach to art as a concept, or as a process of production, would resonate in the later works of artists who look to create increasingly **complex systems** of instructions to allow others to generate artworks on their behalf.

————— **New Tendency** —————

"Cercles bleus"
Joël Stein, 1975, Galerie Léla Mordoch

"Rotations opposées"
Francisco Sobrino, 1965

"Acclération optique"
Waral, 1967, Galerie Hans Meyer

————— **GRAV** or *Groupe de Recherche d'Art Visuel* —————

Besides instruction based conceptual art, we can look at **early experiments with art and computing** to enable us a glimpse into the theoretical aspects of **art that generates itself**. As early as the **1960s and 70s**, many traditionally trained artists were also affected by new computer technologies and began challenging their concepts of creativity. Artists who established these groups were busy conducting visual research on computers in order to create artistic objects, and contributed extensively to image processing technologies and the visual aspects of our digital world as we know it today. Examples include the **New Tendency** movement in Zagreb, formed by science-oriented artists, **GRAV**, or *Groupe de Recherche d'Art Visuel*, co-founded by **Vera Molnár**, and in Germany, the **Stuttgart School** founded around **Max Bense**. Bense was the philosopher and semiotician we saw in the previous sections. As we saw, he attempted at developing a scientific approach in the realm of aesthetics. His main purpose was to construct a theoretical platform that would enable a rational evaluation and creation of artworks as opposed to traditional theories oriented to subjective and emotional expression. The most influential areas of Bense's theories is the concept of **generative aesthetics**, which Bense formulated as follows:

> "Generative aesthetics implies a combination of all **operations, rules and theorems** which can be used deliberately to **produce aesthetic states when applied to a set of material elements**. Generative aesthetics is an '**aesthetic of production**, which makes possible the methodological production of aesthetic states, by **dividing this process into a finite number of distinct and separate states which are capable of formulation**."
>
> – Bense, M. (1971) – *The Projects of Generative Aesthetics*, in J. Reichard (Ed.), *Cybernetics, Art and Ideas*, pp. 57-60. New York, Greenwich: Graphic Society Ltd. Studio Vista Limited, p.57-58

Generative art hence had **become a general title** to depict art that uses **computers as a means of producing forms following algorithms**. **Mitchell Whitelaw**, a theoretician specializing in generative art and its types, notes that under the umbrella of generative art exists **two main approaches**:

- one approach that looks at software as a means of creating forms,
  → which he terms **software formalism**;
- and one that looks at algorithms and software as a cultural text,
  → which he terms **software culturalism**.

 If we look at art as a system, as a process, and its use of media, we may recall that some of the main concerns of the avant-garde, and critical art movements in general, is to go beyond formalist considerations. **Art research in a post-formalist era looks to find the grounds of creation that is found in the concept, or the process, through which art is made. This approach empties 'software formalism' from its meaning in the context of art history**, at least in relation to contemporary criteria, which defines a great artwork as such. This is because it only addresses the aesthetic pleasure of generating forms. **On the other** hand, Whitelaw contends **software culturalism analyses algorithms as text and disengages with the form** such system produce. **But the form** is very much part of the system and its purpose. And it **cannot be so readily ignored**. He therefore suggests '**critical generativity**' as a way of combining these two approaches and maximizing the potential of generative art:

software formalism ⎯⎯⎯⎯⎯⏉⎯⎯⎯⎯ software culturalism
critical generativity
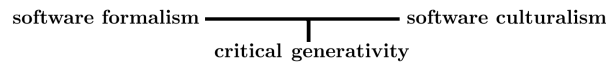
 The **main key** in such systems of artificial intelligence, for Whitelaw, as for most art historians and theoretician, is the **interactive aspect** of the system, where the **viewer becomes an integral part** of the generative process, whilst the highest form of this interaction is one that allows the user to change different and changing elements within the process that the artwork is, again, **putting the agency of the viewer in relation to the system generated and its reading in first priority**.

 To conclude, we can say that in order to evaluate such attempts at creating artificially intelligent art, we should be careful of **not falling into our enchantment with technology**, and **examine** different aspects of the work **critically through the criteria we have set in advance**.

Chapter 6

Art and the Internet

6.1   Internet Art, Tactical Media & Beyond

The Internet wasn't really invented *per se*, instead it was formed using a culmination of different types of computer communication technology developed by several scientific groups. Various different internets began to connect up over time, forming the Internet we know today.

Email was invented in **1971** by **Ray Tomlinson** as a method of communicating over **ARPANET**. However, it wasn't until the early **1990s** that email began to be used by **ordinary people**, becoming one of the driving forces behind the rising popularity of the Internet.

British computer scientist **Tim Berners-Lee** was the creator of another vitally important invention – the **World Wide Web**. It was invented in **1991** as a method of sharing research between CERN scientists more easily. Berners-Lee invented the **first web browser, server, and website** – his idea was based on the concept of embedding links to other pages (**hyperlinks**) in the HTML of the webpage itself. His Hypertext Transfer Protocol (**HTTP**) and the web address (**URL**) are concepts still used today.

For many years, the Internet was predominantly used by government groups and scientists, but in **1995**, commercial Internet access started to be sold to consumers.

○ **Art and the Internet: Web 1.0**

Like many communication media– radio, television, video, and satellite– the internet, too, was first based on scientific and engineering experimentation rigorously developed by military industries for various purposes. After facilitating the functional development of each device, they went through a **process of commercialization** and were introduced for private use. But like many of those inventions, as they hit the market for the first time, they were met with suspicion and wonderment. Their military and scientific roots influenced the formalities around their use and the politics around the aesthetics that were considered acceptable for their design. And so, certain **rituals and behaviors were introduced to facilitate communication** through these devices.

> *For example, Phone calls* always start and end with certain greetings. Phones' early use was set for short messages that were meant to deliver accurate information in short amounts of time. While gradually phone usage had changed and phones were hijacked and used for long and endless conversations about mundane, everyday topics that had no form of urgency whatsoever, we still keep certain formalities around the phone's use and we feel certain things are still not appropriate for a phone conversation. The formalities around communication devices is often kept by those who own the operating systems of such media. The 'Hello' we say almost all over the world, no matter what our mother tongue is, as well as the courtesies we make when asking to speak with someone may be the remains of a once-constricted set of instructions on how to communicate with the human operators that were responsible for passing our conversation to a desired addressee. These were stipulated by Telefonica companies as part of their user manuals introducing the technological device.

As for phones, in the **first days of the internet**, the type of content and design that was facilitated by operating systems, was directed at the **retrieval of information** and was intended for **formal communication only**. The internet was initially designed by engineers and scientists for professional exchange and was **based on textual aesthetics**. That is why the internet in its earlier days **only facilitated text**, and it took another 20 years until images were part of the digital aesthetic vocabulary.

The great premise of the internet at that time revolved around the introduction of **hyper-text**, a way of linking bits of information in a long, nonlinear way, allowing **new meanings to emerge from the alternative organization of ideas** and the immediate access to different sorts of information in parallel. The **first artwork**s to participate in the construction of the worldwide web indeed **engaged mainly with text and how text can be turned into an interactive, flexible, and non-linear construct using** the notion of connectivity and the hypertext. One strategy looked at text as the means of collaborating and exploring **collective creativity and collective intelligence**, like in the works of **Douglas Davis**, *the world's first collaborative sentence*, and **Mark Amerika**'s *GRAMMATRON*. Both are platforms that sought to represent text as a network of interconnected ideas rather than a formal means of delivering linearly structured ideas and information.

DOUGLAS DAVIS:
THE WORLD'S FIRST COLLABORATIVE SENTENCE
LAUNCHED 1994, RESTORED 2013

The World's First Collaborative Sentence, created by Douglas Davis for a survey exhibition of his work in 1994 and donated to the Whitney in 1995, is a "classic" of Internet art. Allowing users to contribute to a never-ending sentence, it anticipated today's blog environments and ongoing posts. In early 2012 the Whitney Museum undertook a preservation effort spearheaded by Carol Mancusi-Ungaro, Associate Director of Conservation and Research and Christiane Paul, Adjunct Curator of New Media, in concert with Farris Wahbeh, Manager, Cataloguing and Documentation, and implemented by Ben Fino-Radin, digital conservator at Rhizome, and the Museum's Digital Media department. The result of the initiative are the two versions of the *Sentence* accessible here.

View the live *Sentence*, or **contribute** by adding your own words.

"The Sentence has no end. Sometimes I think it had no beginning. Now I salute its authors, which means all of us. You have made a wild, precious, awful, delicious, lovable, tragic, vulgar, fearsome, divine thing."
—Douglas Davis, 2000

Davis designed this logo to commemorate the Whitney's 1995 acquisition of the *Sentence*. Titled "W-M Music" (for Whitney Museum and Wrap Music), the logo refers to a series of audio files, including sounds users contributed.

GRAMMATRON is perhaps Mark Amerika's most famous work of art. Exploding on to the digital art scene via the Web in early 1997, GRAMMATRON experiments with what were then emerging forms of art such as online hypertext narrative, Internet (or Net) art, and digitally expanded forms of cinema. GRAMMATRON invites the visitor to navigate through the narrative by clicking on the highlighted words while viewing the accompanying gallery of digitally animated and collage images that complement the text. The work also comes with its own WWW soundtrack featuring the vocals of Mark Amerika.


GRAMMATRON was the first part of Amerika's major Internet art trilogy (followed by PHON:E:ME and FILMTEXT). GRAMMATRON experiments with what were then the new Graphical User Interfaces (GUIs) of the Web to create a unique work of art firmly rooted in the rival or avant-garde tradition of experimental literature.

Further experiments looked at the way **hypertext** could **inspire new literary forms** and **new means of interacting with narratives**, such as **Olia Lialina**'s famous artwork, *My Boyfriend Came Back From the War*. It is based on the short novella by South American author, **Jorge Luis Borges**, who's identified as one of the first to think of a text or story as a labyrinth, or a network of choices made by the reader.

Olia Lialina's *My Boyfriend Came Back from the War* uses basic elements of HTML to relay an evocative, cinematic narrative.

The work tells the story of a young woman reuniting with her sweetheart after his return from a faraway conflict. With its use of browser frames, hypertext, and images (both animated and still), the artwork highlights the parallels and divergences between cinema and the web as artistic and mass mediums, and explores the then-emerging language of the net.
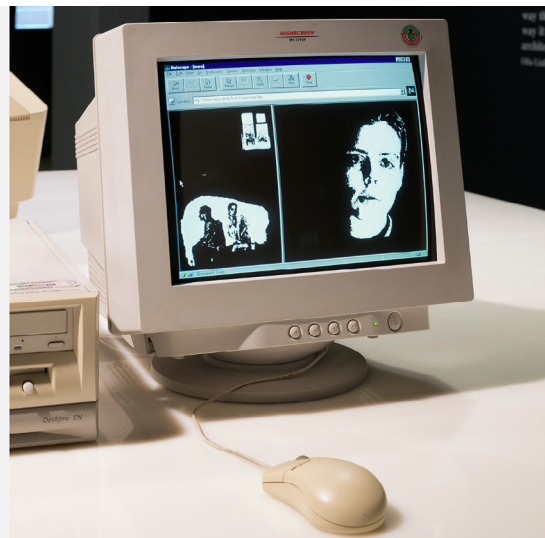
Olia Lialina, *My Boyfriend Came Back from the War*, 1996. Photo: Franz Wamhof.

Lialina aptly uses the web to interrogate our understandings of the production and organization of memory, a question that structures her practice to this day. In keeping with this, she considers the numerous artistic remakes and remixes of the piece an extension of her initial investigation.

→ Rhizome Net Art Anthology

Besides experiments with the construct of information and language, early net art artists also experimented with the ways in which text could be turned into images. **Vuk Cosic** will be one of the first to experiment with **ASCII** art. ASCII is an abbreviation of *American Standard Code for Information Interchange* and is a character and coding standard for electronic communication. Before images could be rendered online, Cosic used the ASCII characters to create complex images and even to recreate certain famous moving images, such as *Hitchcock's Birds*. His work would contribute to image and video processing techniques online.
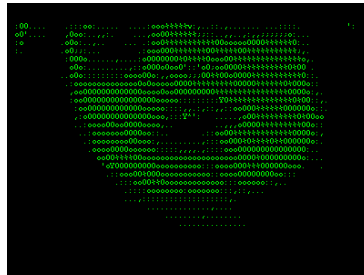
On the other hand, artists such as **Heath Bunting** looked to take advantage of the **internet**'s potential **as a communication device and a social network** even before the advent of social media apps. The platform he created, **Cyber Cafe**, was a means of disseminating messages among a growing community of activists. One of his most renowned projects is the *King's Cross Phone-In*. A description of the project still exists on the Cyber Cafe website, and reads as follows:

> "During the day of Friday, 5th August, 1994, the telephone booth area behind the destination board at King's Cross British Rail station will be borrowed and used for a temporary cybercafe. It would be good to concentrate activity around 6:00 GMT, but play as you will."

Bunting then published the telephone numbers of all public telephones around the King's Cross Station, and indeed, around 6 PM, they all started ringing and the whole station was metaphorically occupied by random conversations held by cyber cafe attendants. Bunting's work highlights the potential of the **internet as a device for political organization** and the power of the shift it suggested **from centralized models of communication**, typical to communication devices such as radio and television, whereby one content producer disseminates one unified message to a large audience, **to a distributed model of communication**, where each content receiver is also potentially a content producer. This **was seen** as a vast **potential for the democratization** and civil occupation of communication networks and the possibility of free global communication that crosses through cultural, religious, and geographic divides, allowing an ever-growing number of voices to be heard. If we think about this potential through the lens of **McLuhan**'s theory, the image of distributed communication network is one that allows the dismantling of traditional hierarchical social orders. Indeed, the **internet** became quite a dangerous weapon that had **threatened existing power constructs**.

The atmosphere around those first experiments with the internet were filled with the zest of a new era for humanity and the hopes for a better and more equal society. There were some incredibly exciting opportunities in this odd, pixelated world of the internet, where anonymity was the mode of convenience and telepresence was already manifested in many artistic projects that explored the potential of mass collaboration and digital technologies.

→ The net.art movement

"net.art", a term widely attributed to Belgrade-born artist **Vuk Cosic**, refers to a group of artists active during the second half of the 1990s that used the Internet as both a tool and a subject, the medium and the message.

During the second half of the 1990s, Vuk Cosic was at the vanguard of the net.art movement. His early work utilized ACSII and a system for coding letters of the English alphabet as numbers. An active participant in and early enthusiast of all things Net (BBS, hacking, etc), Cosic created his own software to convert the pixels from still and moving images into ASCII. Cosic used this process to reinterpret famous pop cultural works like Warhol's Campbell's Soup, as well as whole scenes from movies like Hitchcock's Psycho and the iconic 1972 porn film Deep Throat.

As Cosic explained it, "The net. . . was an **opportunity to emigrate** from the realities I didn't agree with. One of them was the art world." As such, `net.art` was intended to exist **online and outside of the gallery**, with the square-edged personal computer monitor as its frame.

→ www.jodi.org

Jodi, or `www.jodi.org`, is a collective of two internet artists: **Joan Heemskerk** (born 1968 in Kaatsheuvel, the Netherlands) and **Dirk Paesmans** (born 1965 in Brussels, Belgium). Their background is in photography and video art; since the mid-1990s they started to create original artworks for the World Wide Web. A few years later, they also turned to software art and artistic computer game modification. Their most well-known art piece is their website, which is a landscape of intricate designs made in basic HTML.

Jodi's works oftentimes **explore the origin of the internet and its use for preliminary military purpose**s. It looks into the **aesthetic of coding and decoding information, censorship and restricted access**. Their **enigmatic works** are intentionally blocking the viewer or participant to directly understand what they're about, and in some cases, also imitate the aesthetic of digital glitches, caused by viruses, to prompt the viewer away from their work. In that they comment on the mystification of technology and politics and bring to awareness the way in which systems of power and control function rhetorically, not only in direct means, such as speech or laws, but also by using **inapproachable aesthetics and systems of idiosyncrasy that intentionally do not communicate with the wider public**. In this sense, a platform for communication, such as the internet, is used to **disturb communication and allow the user to ponder on the lack of interactivity and meaning**. In some of Jodi's work, the actual image or message hides not in the forefront of the work, but in its code. They consider **code itself a literary form**.

→ Goldberg & Santarromana's *Telegarden*

The Telegarden, by Ken Goldberg and Joseph Santarromana is an art installation that allows web users to **view and interact with a remote garden** filled with living plants. Members are invited to log in to the system via the internet and plant, water, and monitor the progress of seedlings via the tender movements of an industrial robot arm. The garden, which existed from 1995 to 2004, was only maintained by users who logged in and took care of it on a daily basis.

It was one of the first project to experiment with the possibility of using the internet for **mass collaboration**. As such it looked at the potentialities of **telepresence** - that is the ability to be present in two places at the same time, one of which you only access remotely. For us today, telepresence is a day-to-day experience, however in 1994, when Telegarden was first launched, it was a miracle that many

were fascinated with. Also, the project looks at the way telepresence can be used not only for verbal communication, but for the operation of machinery and the cultivation of a common goal. It exemplified the way in which different agents from different parts of the world can contribute to one movement and examplifies what **McLuhan** thought of as "**the global village**".

Telepresence, was also a theme deeply explored by artist and philosopher, **Roy Ascott**. He dedicated much of his life and work to exploring the ways in which our consciousness changes and expands with the use of digital technologies. See his book *Telematic Embrace* to learn more.

In looking at telepresence, the absence and presence of the body, and the **relationship between mind, body and social relations** are recurring topics in internet art.

→ Štromajer & Zorman's *Balletika Internetika*

Igor Štromajer & Brane Zorman, Balletika Internetika, is a work that explores the limits of bodily presence and expression, as well as issues of surveillance embedded in the potential of telepresence. In this piece, the **artists controlled a robot online**, that would infiltrate into a balet performance in Moscow National Ballet theatre, and join in with the dance.
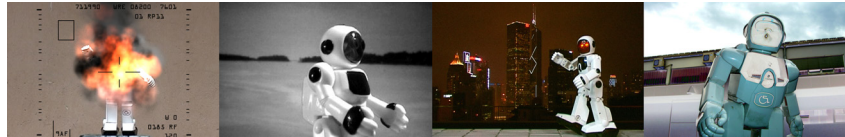
→ Eva & Franco Mattes a.k.a `0100101110101101.org`

Issues of bodily presence, absence and performance were later on developed further with the opportunities of web 2.0. One artists duo worth mentioning in this context is Eva and Franco Mattes, who in the early 2000's, used the mass online game **Second Life**, to **re-enact performances** from the 1960's and 1970's, that specifically explored the proximity between the artist's body and the viewer's body as a means of subverting the hierarchies of the artworld, as well as explore the limits of consent.

Here, for example, they reenacted Marina Abramovich's and Ullay's work *Imponderabilia*, from the 1970s, and Vito Acconci's *Seedbed* from 1972:

In these online performances, the question of the absence of the body rise, and allows the viewer to re-consider whether their **immersion** into online virtual realities are indeed complete as they imagine, or **whether there is a suspense of disbelief** that governs online experiences, just like in cinemas. In that they also question the nature of **intimate relationships online**, **online socialisation** processes and the **dichotomous separation of mind and body**. They call these **synthetic performances**.

→ Mark Napier's *Shredder*

Mark Napier's *Shredder*, is a work of art that explores the way in which information is presented to the user of the internet and looks to **deconstruct** the common and accepted notions of how the internet should look like. The browser created by Napier, **presents information as a form of abstract painting**, as a mesh of different portions of texts and images. It looks to offer new ways of approaching information that destabilises our accepted notions of what information is, and our attachment to language as a means of understanding the world. He also points to **the way in which our browsers**, Explorer,

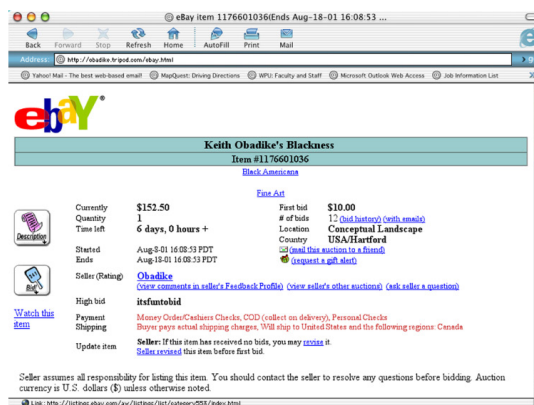Chrome, Mozilla, **influence the way in which we may experience the net**. We tend to take those for granted and trust that they show us all the information that is positioned in the right order, however Shredder shows that with just a few lines of coding that can be interrupted - lines of coding we normally have no access to.
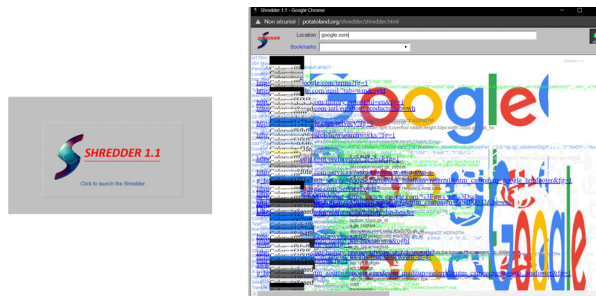
 Many internet artworks are in fact alternative browsers that look to highlight the way in which the presentation of information changes and deeply affects that type of impression we get about reality. In a sense, **representation in these forms of art is no longer a visual representation of reality** as we saw throughout art's history, but rather, in the information age, representation was **all about what information is accessible and in which form**. As such, the **internet** very much **reflected**, and still does, **social biases and issues in the representation** of race, gender, religion and nation.

→ Mendi+Keith Obadike's *Black Net.Art Actions*

Artist duo Mendi+Keith Obadike, looked throughout their decades long online artistic practice at issues of identity and the representation of race. In their series of works *Black Net.Art Actions*, they provoke internet users to think about the **representation of black people through various media** and the **vulnerability** of their representation online, given the way the internet is distributed, and the way in which the world wide web is accessed. In one of their most provocative works "*Artist and composer Keith Townsend Obadike is auctioning his blackness online at eBay.com*".

→ mouchette.org

Feminism, and the representation of women online is also an important and central topic when looking into issues of representation. One of the iconic artworks from the early days of the net, is the enigmatic **Mouchette**. Mouchette.org is an interactive website created in **1996** by a pseudonymous character, an Amsterdam-based artist who calls herself "Mouchette". With her innocent salutation and claims to be "nearly thirteen, greeting the visitor from the introduction page, what initially appears as a personal website of an underage female artist evolves into darker themes in the subsequent pages. Mouchette is loosely based on a **1937** book by **Georges Bernanos** and the **1967 Robert Bresson** movie, *Mouchette*. The storyline is about a French teenager who commits suicide after she is raped. An online quiz comparing the "Neo-Mouchette" to the movie angered Bresson's widow, so she threatened a lawsuit against the artist behind the project. The quiz was taken down after that incident.
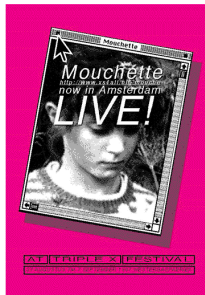
MOUCHETTE

MARTINE NEDDAM

1996 - ONGOING

Mouchette set up her first home page in 1996 and has maintained a constantly expanding web presence ever since.

A fictional adolescent girl, fascinated by suicide and strangers, Mouchette is the long-running work of Amsterdam-based artist Martine Neddam. Her labyrinthine, ever-growing site makes use of expressive HTML elements to involve the viewer in the turbulent emotional world of an adolescent girl. Participation is central, and visitors are encouraged to talk about suicide, contribute fan art, and even adopt Mouchette's identity.
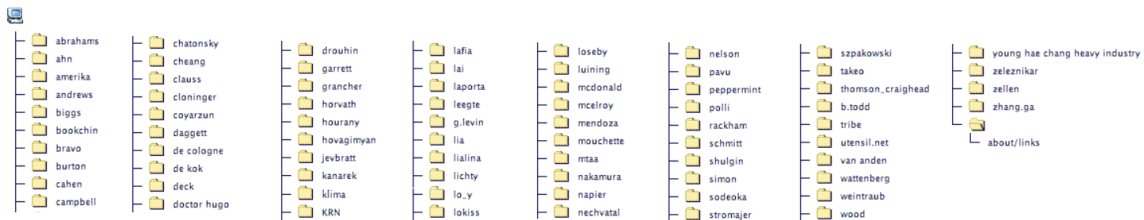
As a character who doubles as a platform for exchange, Mouchette has for two decades provoked her visitors into contributing in their own ways to a site that now stands as a singular and important archive of online culture—humorous, dark, and often surprisingly touching.

The work is alluding to the **exploitation of teenagers and young women online**, and gives a glimpse into the inner world of a young girl who seems confused, bewildered and trapped in the screen. The artwork functions as an interactive memorial to this virtual character.

→ Doron Golan's *Computers Fine Art Collection*

One of the greatest repositories for online art that was created before the evolution of social networks, is the Computers Fine Art Collection, by `net.art` artist and collector Doron Golan (`computerfinearts.com/`).

abrahams	chatonsky	drouhin	lafia	loseby	nelson	szpakowski	young hae chang heavy industry
ahn	cheang	garrett	lai	luining	pavu	takeo	zeleznikar
amerika	clauss	grancher	laporta	mcdonald	peppermint	thomson_craighead	zellen
andrews	cloninger	horvath	leegte	mcelroy	polli	b.todd	zhang.ga
biggs	coyarzun	hourany	g.levin	mendoza	rackham	tribe	
bookchin	daggett	hovagimyan	lia	mouchette	schmitt	utensil.net	about/links
bravo	de cologne	jevbratt	lialina	mtaa	shulgin	van anden	
burton	de kok	kanarek	lichty	nakamura	simon	wattenberg	
cahen	deck	klima	lo_y	napier	sodeoka	weintraub	
campbell	doctor hugo	KRN	lokiss	nechvatal	stromajer	wood	

○ Tactical Media

Tactical media is a term coined in **1996** to denote a form of **media activism that privileges temporary, hit-and-run interventions** in the media sphere over the creation of permanent and alternative media outlets. Tactical media describes **interventionist media art practices** that engage and critique the dominant political and economic order. They were first popularized in Europe and the United States by media theorists and practitioners such as **David Garcia, Geert Lovink, Joanne Richardson**, and the ***Critical Art Ensemble***. This remains one of the prime, and most urgent concerns , of artists that work within, with and around digital technologies. In the *Introduction* to their book ***Digital Resistance*** (2001) the Critical Art Ensemble introduced the history and emergence of the term "**Tactical Media**":

> "For many decades, a **cultural practice** has existed that has avoided being named or fully categorized. Its **roots are in the modern avant-garde**, to the extent that participants place a high value on experimentation and on engaging the unbreakable link between representation and politics. Perhaps this is a clue as to why this practice has **remained unnamed** for so long. Since **the avant-garde was declared dead, its progeny** must be dead too. Perhaps this brood is simply unrecognizable because so many of the avant-garde's methods and narratives have been reconstructed and reconfigured to such an extent that any family resemblance has disappeared along with its public face. To intensify matters, participants are neither fish nor fowl. They **aren't artists in any traditional sense** and don't want to be caught in the web of metaphysical, historical, and romantic signage that accompanies that designation. **Nor are they political activists** in any traditional sense, because they refuse to solely take the reactive position of *anti-logos*, and are just as willing to flow through fields of *nomos* in defiance of efficiency and necessity. In either case, such role designations are too restrictive in that the role boundaries exclude access to social and knowledge systems that are the materials for their work. Here may be a final link to invisibility: these participants **value access over expertise**, and who really cares about the work of an amateur?
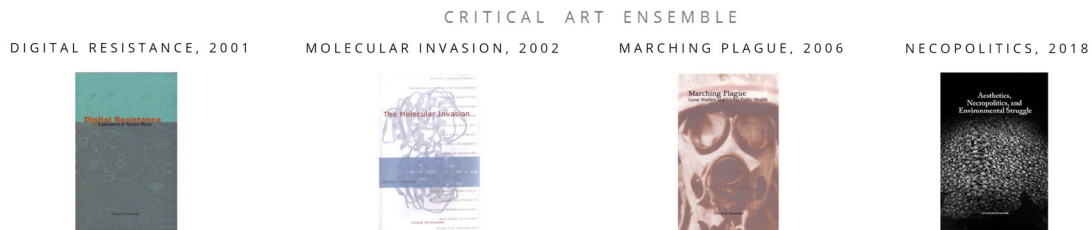
The process began in **1993** when a coalition of Dutch cultural groups produced an event/scene in Amsterdam called the **Next 5 Minutes (N5M)**. The topic of the event was "***Tactical Television***" ... The event drew all kinds of people from Europe and North America who were concerned with issues of intervening in television, theorizing the structure and dynamics of video culture, modeling representations of political causes that further social justice, creating alternative models of distribution, and so on.

... Event organizers quickly realized that tactical television was too limited in its scope, because there were people with a similar sensibility who were doing tactical work in all types of media, and that they should all come together. The event's next manifestation in **1996** addressed the topic "**Tactical Media**" (as it did again in 1999).

A name that would stick had emerged, along with a basic definition that was provided by the organizers of the N5M:

> *The term "tactical media" refers to a critical usage and theorization of media practices that draw on all forms of old and new, both lucid and sophisticated media, for achieving a variety of specific noncommercial goals and pushing all kinds of potentially subversive political issues.*

– Ensemble, Critical Art. *Digital resistance: Explorations in tactical media.* Autonomedia, 2001. (p.4-6)

CRITICAL ART ENSEMBLE

| DIGITAL RESISTANCE, 2001 | MOLECULAR INVASION, 2002 | MARCHING PLAGUE, 2006 | NECOPOLITICS, 2018 |

The term 'Tactical Media' was deeply inspired by a critical text, published in **1998** by philosopher **Michel De Certeau**: ***The Practice of Everyday Life***. Much of the critical writing of the second half of the 20th century was influence by **philosophies of resistance** that evolved in its first half, and pointed to a growing concern with regards to the way social life is being manipulated by invisible forces, contemplating spaces of freedom that one could have in those strong streams of politics and economics. We saw already how urbanisation, mechanisation had changed the face of society, in terms of its perception of time, space, family constructs etc. Critical thinkers sought to highlight the way these are changing our psychologies, behaviours - and were mainly worried about the **erosion of democracy in such large systems of mind control**.

In his book, Certeau offers **ways of resistance** that are **embedded with** the knowledges of the **practical aspects of everyday life**. It was an optimistic book, to some extent, as it looked to point to those gaps, in the everyday, where one, not only has a freedom of choice, but acts against constructs of power. Certeau coined those little acts of resistance '**tactics**' and they were positioned in relations to '**strategies**' - referring to institutions' bureaucratic and structural power. Hence, 'tactics' was later adopted, within this movement, to point to those swift acts of resistance , within media constructs.

———————

In the next pages we report a direct interpretation of De Certeau's text, in relation to tactical media, to understand the undercurrent or the urge of the Tactical Media Ensemble.

Re-reading de Certeau: Invisible Tactics

May 20, 2013 by David Garcia

> *"In an expanding universe, time is on the side of the outcast. Those who once inhabited the suburbs of human contempt find that without changing their address they eventually live in the metropolis."*
>
> Quentin Crisp –The Naked Civil Servant

The art and activist movements that arose in the wake of the internet revolution, have come closer than any of the avant-garde groups of the last two centuries to realizing the modernist utopian dream of universal collective participation in cultural production and the rise of a "mass intelligentsia", attaining what romantic modernists from Novalis to Joseph Beuys aspired to when they declared "every one an artist". The rise of social media and other so called "walled gardens" may be domesticating the internet but the drive to expand and intensify the ideal of democracy remains the "true north" of the internet revolution.

Although this drive for mass participation has been at the core of the utopian avant garde art for generations it was generally believed that this possibility of mass dis-alienation existed only as potential, a potential that the masses simply did not have the power to actualize. However an alternative view emerged with the publication in 1980 of "The Practice of Everyday Life", in which the Jesuit scholar, Michel de Certeau proposed that an invisible world of mass cultural participation far from being a distant utopia already existed albeit surreptitiously in a twilight realm of what he called 'the tactical'.
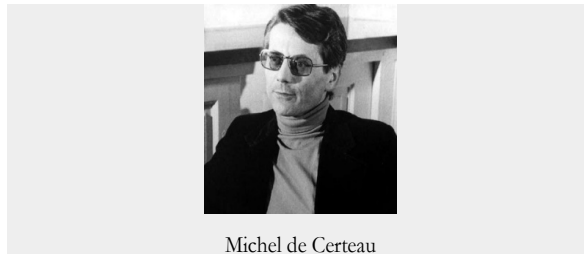
Michel de Certeau

Although technology and communications were not a primary concern to de Certeau, it was he who substituted the term "user" for the less active "consumer" describing the purpose his work as bringing to light *".. the models of action characteristic of users whose status as the dominated element in society (a status that does not mean they are either passive or docile) is concealed by the euphemistic term "consumers".* [1] This substitution was influential in creating an alternative to academic cultural studies based on the politics of representation and shifting the emphasis instead towards a more active, practice orientated "user language". This prescient inflection towards user participation contributed to the emergence of a new perspective in which the consumer came to be recognized as equally important as the worker and in which the primary power relations were analyzed in terms of a key dichotomy he introduced based on the relative positions of the strategic vis – a – vis the tactical.

o **The User Language of Every Day Life**

"Every day life invents itself by poaching in countless ways on the property of others" [2]. So wrote de Certeau "The Practice of Everyday Life", a book which arrived at a much richer and more supple picture of the realities of cultural politics than were available as the staple diet of the Cultural Studies movement of the period. In place of an identity politics based on critiques of media representations, de Certeau introduced a less deterministic emphasis on the uses to which audiences put media representations, the multiple ways in which these forms are tactically appropriated and repurposed by consumers.

For de Certeau cultural production could only be fully understood as multiple acts of co-creation in which the consumer was never merely a passive recipient but rather an active though unequal, participant in the creation of meaning. Above all he saw the act of consumption as a form of production. *"To a rationalized, expansionist and at the same time centralized, clamorous, and spectacular production corresponds another production, called "consumption."* [3] by convening a new discussion in these terms de Certeau provides a language appropriate to profound changes in social, economic, and power relations taking place *"where the figure of the consumer takes center stage alongside (or even instead of) the worker, or better where these two figures are merged. Hardt and Negri thus speak of "affective labor,"* [4].

At the core of "The Practice of Every Day Life" is the distinction between tactics and strategies. Although consumers are full participants in the creation of meaning it is nevertheless a highly unequal relationship. He defines strategy "a*s a calculus of force relationships when a subject of will and power (a proprietor, an enterprise, a city, a scientific institution) can be isolated from an environmen*t." [5].… a place where it can *"capitalize on its advantages, prepare its expansions, and secure independence with respect to circumstances."* [6] In contrast he describes the tactical in more labile, and poetic terms that suggest a distinctive style *" in which the weak are seeking to turn the tables on the strong. Tactics must depend on "clever tricks, knowing how to get away with things, the hunter's cunning, maneuvers, polymorphic simulations, joyful discoveries poetic as well as warlike they go back to the immemorial .. "intelligence displayed in the tricks and imitations of plants and fishes. From the depths of the ocean to the streets of the modern megalopolises, there is a continuity and permanence of these tactics".* [7]

When de Certeau began to write of tactics in the late 1970s he was describing a largely speculative and barely visible twilight realm. Invisibility and subterfuge was part of the point, to a degree he was making a virtue out of a necessity. As he put it *"The making" in question is a production, a poesis – but a hidden one, because it is scattered over areas defined and occupied by systems of "production" (television, urban development, commerce, etc)"….."it is dispersed, but it insinuates itself everywhere, silently and almost invisibly, because it does not manifest itself through its own products, but rather through its ways of using the products imposed by a dominant economic order."* [8]

o **From Invisible Tactics to Tactical Media**

Although de Certeau's ideas became influential among cultural studies theorists of the 1980s it was not until the early 1990's that mass access to cheap and easy to use media put these powerful expressive tools in the hands of users. It was this fact that propelled de Certeau's twilight world of barely visible tactics into the light of day. With visibility came the reflexivity that enabled a new and increasingly self-conscious form of cultural practice to emerge. A constellation of distinctive but overlapping practices: artists, hackers, political activists, independent media makers coalesced into a previously un-named movement which a network of artists and activists associated with the Amsterdam based festival The Next 5 Minutes, dubbed *tactical media*. [9], which successfully exploited the cracks that had already started to appear in the edifice of traditional broadcast media as the internet began to take hold.

Tactical media gave a home to a growing number of artists who whilst repudiating the politics of the contemporary "art world" were unwilling to relinquish the utopian legacy of the avant garde which (in contrast to the disciplinary regimes of party politics) placed a high value on the liberating power of expression in politics. This "Expressivism" can be traced back to the eighteenth-century Romantic rebellion against the rationalist utilitarianism of the Enlightenment and was the first major social movement in which artists played a central role. In part this was because of the inspiration drawn from the movement's founding philosophers particularly Herder and Novalis whose writings gave a new significance to the power of language (or expression), proposing that *"in a world of contingent horizons, our sense of meaning depends, critically, on our powers of expression…"* and *"that discovering a framework of meaning is interwoven with invention"* [10]. . The centrality of the expressive dimension in Romanticism accounts for the important role played by artists, but with the important caveat that the expressive freedom and possibilities of self-creation enjoyed by artists were also the rightful legacy of all human subjects. Connecting these deeply rooted historical aspirations of universal expressive participation to new media is a key factor in understanding how the ideal of democracy has been transformed ever since its fate became linked to the internet.

de Certeau would have been initially gratified by the degree to which the tactical 'user' he championed has emerged as the 'prime mover' of the social web era. He would however have noted that not only is his dichotomy between the tactical and the strategic positions still intact, it also continues to be accompanied by the familiar asymmetrical balance of power. But he would also have encountered a world in which the Internet's distributed architecture has changed the rules of engagement, creating new spaces for both a vastly increased level of tactical user agency along with instruments providing unparalleled levels of command and control.

The network theorist and free culture activist, Felix Stalder's recent work helps us to revise an re-locate the position tactical and the strategic domains for the era of the social web in what he calls the *front end* and the *back-end*. The front end where the actions may be *"decentralized, ad-hoc, cheap, easy-to-use, community-oriented, and transparent"* and the back end, which are *"centralized, based on long-term planning, very expensive, difficult-to-run, corporate, and opaque. If the personal blog symbolizes one side, the data-center represents the other."…" there is a growing tension between the dynamics on the front-end (where users interact) and on the back-end (to which the owners have access)."* [11]

We see this in many conflicts taking place between Stalder's strategic back end and the tactical front end. An illuminating skirmish took place during the media coverage of the 2012 London Olympics. In which the Los Angeles based journalist Guy Adams, reporting for the Independent, an important UK national daily, tweeted about the poor coverage given to the opening ceremony by NBC. Adams concluded his tweet by transmitting the corporate address of the boss of NBC urging people to send tweets and e-mails. Twitter immediately suspended his account. It later emerged that Twitter had alerted NBC in order to trigger the complaint that legitimized the suspension. Behind this apparently trivial conflict was the fact that Twitter and NBC had established a commercial partnership to transmit the Olympics. It was the first content partnership Twitter had ever established with a broadcaster of this size. The kinds of tensions on display are clear enough, the avowed commitment of Twitter to being an open platform committed to free speech trumped by the need to keep an important commercial partner happy. The immediate consequence of the suspended account was an uprising from the Twitter user community with hash tag, "NBC fail" or "fail NBC". As a result three weeks later the account was reinstated along with an apology in a Twitter blog post saying "we apologize we did alert NBC officials and that was wrong".

The continued tactical resistance of users, whether as temporary ad hoc interventions or more sustained organized networks such as wikileaks or Avaaz require an approach founded on perpetual experiment *"Install, update, crash, restart, de-install,"* a digital version of Becket's dictum *"Fail, fail again, fail better"*.

○ **References:**

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   L'invention du quotidien. Vol. 1, Arts de faire' (1980). P. xii. (Originally published in French as L'invention du quotidian in 1980 it was perhaps not until its translation by Steven Rendall in 1984 that his ideas started to gain wider influence.)

2. ibid P. xii

3. ibid P. xii

4. Steven Shavero's Blog – The Pinnocchio Theory – Blog entry title: A Mcluhanite Marxism? Posted April 17th5.

5. Michel de Certeau. The Practice of Every Day Life, P.xix

6. ibid P. xi .

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10. Charles Taylor – Sources of the Self, The Making of the Modern Identity, Cambridge University Press, P.22

11. Felix Stalder, Between Democracy and Spectacle: Front-End and the Back-End of the Social Web, The Social Media Reader, 2012, New York University Press. P.248

→ **RTmark**

RTMark (derived from "Registered Trademark") is an activist collective that subverts the "Corporate Shield" protecting US corporations. RTMark is itself a registered corporation which brings together activists who plan projects with donors who fund them. It thus operates outside the laws governing human individuals, and benefits from the much looser laws governing corporations. RTMark claimed as its first prank (perhaps fictionally) the Barbie Liberation Organization, in which the voiceboxes of talking Barbie and GI Joe toys were swapped, and the toys then returned to the store (1993). The first prank documentable as being truly RTMark-sponsored was the SimCopter "hack" (1996). Other RTMark stunts were gwbush.com (a faked campaign Website for George W. Bush), and voteauction. They were also involved in the toywar (http://toywar.etoy.com/).

→ **The Yes Men (from RTmark)**

The Yes Men are a culture jamming activist duo and network of supporters created by Jacques Servin and Igor Vamos, **among the founders of** the activist and artistic collective **RTMark**, which became known in 1993 for exchanging the voice mailboxes of 300 Barbie and G.I. Joe dolls before putting them back in stores (see previous section). In 1996, they succeeded in adding men kissing, under the nose and beard of the creative company Maxis to the simulation game SimCopter (80,000 copies sold).

Under the name Yes Men, they made a name for themselves with `gwbush.com`, which was a slightly modified version of the site of then presidential candidate George W. Bush Jr. Bush Jr. had commented on the case by saying that freedom of expression on the Internet should be limited. Continuing the deception, they used the former name of the WTO and created the `gatt.org` site, which was close enough to the official site to get them proposals for speaking at conferences.

NET ART ANTHOLOGY

GATT.ORG

THE YES MEN

1999 - 2002

In the run-up the heavily protested 1999 World Trade Organization (WTO) conference in Seattle, the RTMark collective created *Gatt.org*. Named after the General Agreement on Trade and Tariffs, the treaty that birthed the WTO, *Gatt.org* had the look and feel of a legitimate government website, but featured strangely blunt policy positions denouncing human rights and democracy, and celebrating corporate profit.

This satire earned RTMark condemnation from the WTO and numerous emails from credulous correspondents, including an invitation to speak at a conference on international trade. The artists responded affirmatively, and began calling themselves The Yes Men, also known as Mike Bonanno and Andy Bichlbaum.

Now with numerous campaigns and three feature films under their belts, The Yes Men's practice continues to highlight the performative dimension of corporate power, and to make visible the ideology that underpins it.

Through various actions, the Yes Men primarily aim to **raise awareness about problematic social and political issues**. To date, the duo have produced three films: *The Yes Men* (2003), *The Yes Men Fix the World* (2009) and *The Yes Men Are Revolting* (2014). In these films, they impersonate entities

that they dislike, a practice that they call "identity correction". The Yes Men operate under the **mission statement that lies can expose truth**. They create and maintain fake websites similar to ones they intend to spoof, which have led to numerous interview, conference, and TV talk show invitations. They espouse the belief that **corporations and governmental organizations** often act in **dehumanizing ways toward the public**. Elaborate props are sometimes part of the ruse (e.g. *Survivaball*), as shown in their 2003 DVD release *The Yes Men*. The Yes Men have collaborated with other groups of similar interest, including Improv Everywhere, Andrew Boyd and Steve Lambert.

→ Electronic Disturbance Theatre

The Electronic Disturbance Theater (EDT) is a small group of cyber activists and artists engaged in developing the theory and practice of **Electronic Civil Disobedience** (ECD). Until now the group has focused its electronic actions against the Mexican and U.S. governments to draw attention to the war being waged against the Zapatistas and others in Mexico. But ECD tactics have potential application by a range of political and artistic movements.

Through its ***Floodnet*** device the EDT apply the tactics of trespass and blockade from earlier social movements to a form of electronic hacktivism that creates virtual blockades and virtual sit-ins to attack oppressors' websites including the Pentagon, the White House, Mexican Stock Exchange and the office of Mexico's president.

NET ART ANTHOLOGY

FLOODNET
ELECTRONIC DISTURBANCE THEATER
1998

FloodNet was a conceptual artwork and a tool for online collective action.

Developed by the collective Electronic Disturbance Theater (EDT), it took the form of a Java applet that allowed users to send useless requests or personalized messages to a remote web server in a coordinated fashion, thereby slowing it down and filling its error logs with words of protest and gibberish—a kind of virtual sit-in.

Initially developed in support of the Mexican insurgent group the Zapatistas by the collective Electronic Disturbance Theater, *FloodNet* combined political tactics with poetics. It aimed not to cause destruction, but to create a context for people to gather together online to "bear witness to injustice."

EDT's latest invention is the ***Transborder Immigrant Tool*** that hacks cheap GPS mobile-phones to install a device that helps Mexican immigrants crossing the U.S.-Mexico border. Using a simple compass like device system the phone provides spoken poetry, images and other information, leading immigrants to water left by Border Angels, know distances from highways, find help centers or locate border patrols.

→ Tsila Hassine & Ziv Neeman on Google and Tactical Media

missdata is a media designer / net artist. She grew up in Tel aviv, where she earned degrees in Mathematics and computer science. After working several years in the High Tech industry she moved on to pursue her artistic and cultural interests. She studied in the Zurich HdK New Media dept, and in the Media Design dept. of the Piet Zwart institute, Rotterdam where she earned her MA in Media Design. She is currently a researcher in residence at the Jan van Eyck Academie in Maastricht, and teaches a Net.Art course at the Bet Berl academic college in Israel.

CV

contact: tsila . hassine - attttt - gmail . com

Tsila Hassine   I am Tsila Hassine (`missdata.org`). I am an artist and a researcher. And prior to being an artist, I was a mathematician and computer programmer, which affects my artistic creation. And I'm also a researcher at the Sorbonne University in Paris.

Ziv Neeman   My name is Ziv Neeman. I'm an STS researcher studying the ways technology and culture mutually interact with each other. And I'm very interested in new media art. With Tsila, we're going to discuss some critical new media art works. I wanted to point out that these critical art works, to some degree, share some of the characteristics of a lot of online culture. First, these works appropriate existing images, texts, rhetoric, and software found online. And secondly, they change or reorient the appropriate material in a way that makes us perceive, use, or think about digital media in new ways.

 Today, I wanted to discuss with you three works which present different **critical perspectives on Google**. Google has evolved well beyond its modest beginning as a search engine company. It is hard to fathom the breadth and depths of Google's power and dominance today. It's one of the most powerful companies around. Many people quite rightly fear the concentration of information– power information– in Google. Google has become such a pervasive part of our everyday life that we can feel we can judge it as an entity that has a personal relationship to our well-being. The first work I'd like to discuss dates from 2001 by artist **Miri Segal** and **Or Even Tov**. It continues a tradition of **institutional critique**, enlarging it by focusing on Google rather than on art institutions. In their work, *Don't be evil*, they take Google's well-known corporate motto and design and recreate it on a gallery wall for the viewers' contemplation.

Miri Segal & Or Even Tov
Don't be Evil, 2011
Aluminum letters

Tsila Hassine   This particular work by Miri and Or is quite powerful. It is very interesting the way they address important issues in new media, in technology, through a non-technological work. By this installation, which is actually a sculpture– a wall sculpture– they crystallize one of the main questions of the search engine. It is very interesting, this **mixture between new media and non-new media**. It's quite interesting. And it does not disturb each other. Actually, it is very interesting to address new media issues using, let's say, more traditional artistic media, because it also takes out that technological hype out of it and focuses on the implication of it. So yeah, this is a very good example of a use of traditional medium. So in your opinion, conceivably, one can create a new media work that uses traditional media, such as this wall sculpture. Absolutely. And this work is an excellent example for it. **Does the displaced representation of Google's motto on the gallery wall changes our perception or how we think about Google and this motto?** Very much so. Actually, I think most of us have seen this motto a countless number of time every time we visited Google site. But I think we usually ignore it, because it is always there. It is part of the search engine. We don't look at it anymore. And we definitely don't think– don't reflect on it when we see it. But standing there in its big presence on the gallery walls, it crystallizes this issue. Is Google doing evil, or is it not doing evil? This displacement makes the user, the spectator, reflect on this question, which is something we do not usually do when we encounter it on our everyday searches. What do you think are some of the issues with this motto when– there's quite a few issues, I would imagine. Oh, yes. Quite a few issues, indeed. First, **who does this motto address?** Does it address the users, Google employees, Google founders, Google shareholders, the regulators themselves? Who does it address? And second, once you see this motto, you immediately become suspicious: **why do they need to declare they don't do evil?** Maybe they acknowledge they have a very powerful tool which could incite them to do evil. And another question is, **where has it disappeared?** A while ago, Google took it off. It's not there anymore. So **what does it imply?** Is it imply that once they did not do evil, but now they do evil? So the appearance and the disappearance of this motto is very strange. Yes, it's quite troubling and strange. But is it artwork. It is still going to be there.

Ziv Neeman The second work I'd like to discuss with you today is a work titled *Google Will Eat Itself*, or *GWEI*, by the artist collective **Ubermorgen**, featuring **Alessandro Ludovico** and **Paolo Cirio** from 2005. This work engages an institutional critique of Google's revenue model to the practice of culture jamming. They undermine Google's advertising platform in unforeseen ways and in unauthorized ways, according to Google.
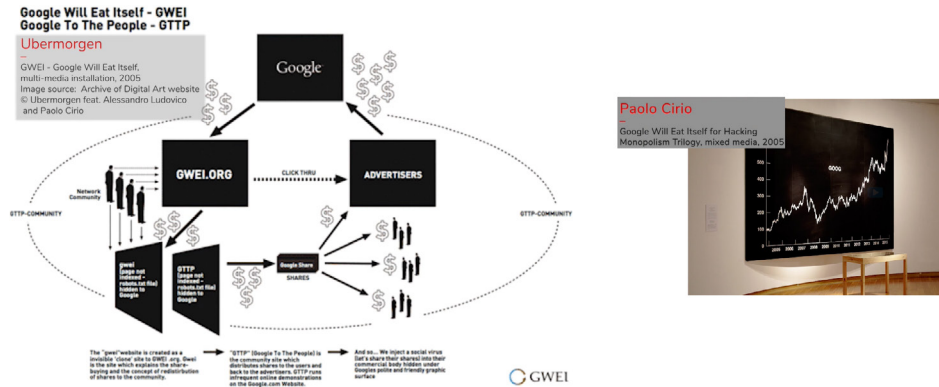
Tsila Hassine Yes. Ubermorgen, together with Alessandro Ludovico and Paolo Cirio, did a brilliant work in hacking the Google advertising platform. So a few words about the AdSense, about this platform. Google's main revenue source comes from online text advertisements. So what happens is that Google places the little text ads, which we all see on many, many, many, many sites. And once a user clicks on one of these sites, a micro payment is generated both for Google and the owner of the websites. What they did, Ubermorgen, they created a hidden network of 50 sites. And in this hidden network, they placed Google ad texts, and they created, also, a small army of robots which clicked on these texts, thus generating these micro payments for Google and for Ubermorgen. And here comes the interesting part. What did Ubermorgen do with this money? They actually true a company, which they called **Google to the People**, *GTTP*. They bought Google shares, which they gave to the public. So I think by 2006 they bought something like 819 shares out of all the Google shares in the stock market. And they calculated that it will take them something like 200 million years for the public to fully own Google.

Ziv Neeman And that was, if you think about it, Google's worth in 2005. Now it's so much larger. And also, the 819 shares that GWEI managed to buy, the shares were then worth about $400,000

Tsila Hassine Yeah. That's such a small amount. Yeah, They manage to generate this amount, yes. But when you look at the bigger picture, it will take a long time before we get back– before we acquire all of Google.

Ziv Neeman If ever, unfortunately. And what issues do you think *Google Will Eat Itself* engages critically? What do you think are the main points it's trying to make?

Tsila Hassine The main point it is making is the **imbalance of power between Google and the users of Google**. Because actually, Google's powers and revenue relies upon us, its users. The more we use it, the more we pay attention, the more they gain power and profit. Actually, Google commodifies our attention. And you could say that it will be only just for us, its users– the people who brought it to power– to share a bit more of all this wealth they have accumulated through us. And this is what this work is all about, to gain back something of what we helped to create.

Ziv Neeman I agree with that. That's a very important and interesting topic. And also, what I like is it's **a form of culture jamming**, where they basically sort of hacked into Google's AdSense advertising platform and turned it against Google, they managed to find a loophole. Also, I wanted to ask, how did Google react to such a project as *Google Will Eat Itself*?

Tsila Hassine   As one a bit familiar with corporate culture, might expect Google reacted with a **cease and desist letter**. They sent them a letter requesting them to stop immediately everything that GWEI was doing, otherwise they would get a lawsuit and request for compensation– request for damages. And of course, unfortunately, GWEI were forced to shut down their activity. And I think some online security experts even called them blood sucking mosquitoes. Not a very nice term. But hacker community hailed them as some sort of internet critical heroes bringing back a bit of critique and a bit of fun into the internet, something which is maybe a bit lost these days as the internet becomes more and more monitored and supervised.

Ziv Neeman   Yes. And I think it's important to add that *Google Will Eat Itself* was awarded several new media art prizes. The third work we're going to discuss is *Shmoogle* by Tsila, who we're fortunate enough to have her sitting with us here. I wanted to ask you, first of all, why did you create *Shmoogle*, and what inspired you to create it?

How Does it Work?

Simple. Once you type in your query, Shmoogle fetches the first 100 results and presents them in random order.

Shmoogle

Search different. Think different.

The Shmoogle Story

Shmoogle was initially conceived in 2005 as an artwork of algorithmic culture jamming. It was inspired by artists such as Hans Haacke and Andrea Fraser, AdBusters and the Yes Men. As an artwork, Shmoogle made its way into quite a few venues, and was also covered by several high tech news sites. However, by 2015, Shmoogle's constant technical maintenance made it hard to sustain, not to mention its monitoring by Google which was growing extremely strict and was becoming impossible to overcome. Shmoogle needed to reinvent itself …or die.

And so, in October 2018, together with a team of artists, designers, and programmers, Shmoogle started its transformation into a product, aimed at the global information market. In other words, we became an ArtUp: an artist-run startup, looking to provide a viable alternative to today's tech giants.

Tsila Hassine   I created it first– the way one creates an artwork– to have fun, to enjoy it. *Shmoogle* being a random search engine, something which **generates caos in a very ordered space**, organized space. I wanted to experiment. It was back in 2005 when Google was starting to rise. And I was very busy these days with questions of chaos and order. And I was examining online reality to see, who are the makers of order online? Who are the, let's say, the "police" of the internet? And naturally, Google was the answer to that. And I wondered, what would happen if I would deregulate this, or if I would shake it up a bit? *Shmoogle* is actually a random search engine, which means that every time the user types in a query, *Shmoogle* brings back all of Google's results for that query– not only the 10 first results– in random order. Plain, random order. And if you repeat that query, then it would be, again, in another random order. So it means all results have the same chance of being first place.

Ziv Neeman   Basically, this work **challenges Google's page rank hierarchy** and the way they order information for us.

Tsila Hassine   Yeah, I actually took their hierarchy and abolished it completely. Who needs hierarchy when you can have fun? The issue was here that since we are experiencing the world through reality– through Google goggles, we seldom go beyond the third result. What we get, actually, is the world by Google. And there's no need to restrict ourselves to the first three results when we have all the vast riches of the internet. The internet was created as a place of expression for everybody to participate, not to see only the first three results, which Google, in their goodness, are willing to present us. And *Shmoogle* is **putting us back exactly into that spot. It's bringing exactly this richness, this serendipity, this unlimited access, to this wealth of information**.

Ziv Neeman   What is the significance of shuffling randomly Google search results?

Tsila Hassine   Well, this may seem very simple. It is quite a powerful little trick. By shuffling the results, **the user actually gains agency** over the information the user chooses to use. When using Google, what we get is what Google thinks is important for us. **When using *Shmoogle*, we don't know what is important for us. We have to go and discover it for ourselves**. We have to become human agents again. We have to use our brains to make a distinction, make our own hierarchy, and not rely on some algorithmic hierarchy. So by shuffling the results, I give back the user, in a sense, his brain. You have to think what you want to use. You cannot rely on the algorithm. You do not

consume information. You have to think about the information. So in that sense, I also call Google a research engine. It is not a search engine. It is a research engine.

Ziv Neeman   I really like defining *Shmoogle* as a **research engine** rather than a search engine. And I think the question of human agency versus algorithms telling us what to do is a very important issue in this day and age.

Tsila Hassine   Yes. It is maybe taking us a step backwards. Because in the name of progress, we always want to go forward and forward with progress. But we don't always ask ourselves the question of, what is the price of this progress? And sometimes, such as in this case, progress takes away our agency. And if we go back a little bit– I'm not saying we should not use Google at all, but we should have the possibility to go back and give ourselves the place as human, which we should have.

Ziv Neeman   It's not monitored. You don't collect information about the queries and so on. I am not interested in the user.

Tsila Hassine   I'm interested in the internet, actually. So in that sense, I do not pertain the users' information. The logs are flushed periodically. I do not even go to check out the logs. I don't care about the users. I don't really care what the users are really looking for as long as they use it for their own purposes. I don't serve ads. It is not a money making machine. It can even undergo censorship, since *Shmoogle* is not a very published project. If anybody from a country which does not allow free access to Google wants to get all Google's results, it can go to *Shmoogle* and get everything, since *Shmoogle* is, so far, not censored.

Ziv Neeman   Have you heard from Google? Have they come after you?

Tsila Hassine   I was lucky enough not to have been shut down by Google. *Shmoogle* has been up and running for several years already. What they do is automatic blocking– automatic denial of service– so which means that every time there are too many users on *Shmoogle*, then Google does not give results anymore. It blocks results for a period of about 12 hours or so. And then as traffic slows down, then I get Google's results again, and *Shmoogle* is operational. This is completely automatic.

→ **Tsila Hassine & Ziv Neeman, *The Zombification of Art History* (2019)**

Hassine, Tsila, and Ziv Neeman. "The Zombification of Art History." *Journal of Science and Technology of the Arts* 11.2 (2019): 28-35.

Abstract: In the past few years deep-learning Artificial Intelligence (AI) neural networks have achieved major milestones in artistic image analysis and generation, producing what some refer to as art. We reflect critically on some of the artistic shortcomings of a few projects that occupied the spotlight in recent years. We introduce the term **Zombie Art** to describe the **generation of new images of dead masters**, as well as The AI Reproducibility Test. We designate the problems inherent in AI and in its application to art history and suggest further art-related implementations for these new tools."

(...)

6.2   Identity, Visibility, Anonymity: Art & Web 2.0

○ From Anonymity to Identity

When thinking of **identity and representation online** during the **early decades** of the internet, the end of the 1990s and the beginning of the 21st century, the atmosphere around the internet was rather different than what it is today. The fact that the internet was not such an obvious device for everyday life commercial activities and communication **allowed** for spaces of moving within social contexts in **total**

anonymity. Internet users of that time had various online personas each with a different Pseudonym. These different avatars allowed the **expression of different identities** and, indeed, the term 'avatar' was more than adequate in describing the role of those ghost characters behind which operated individuals quite different from what they may have portrayed. It was a mysterious world free of censorship and rules of conduct, and as such, many saw real danger in engaging with communication online.

Although problematic, anonymity allowed exploring spaces you would not have the courage to be recognized as part of and join activities you would not want to be identified with. This meant a great **freedom to explore repressed desires and inner concerns** of one's soul and peer into worlds one would normally be afraid or nervous about. Theoreticians of the times, such as psychologists and anthropologists **Sherry Turkle**, envisioned that from the excessive use of the internet an open, flexible, and adjustable individual would emerge, an individual that would embrace the different aspects of herself and the different aspects and faces of society. **Cyberspace was seen as a means of exploring with self reflexivity where the notion of self could actually be and how it is constructed**.
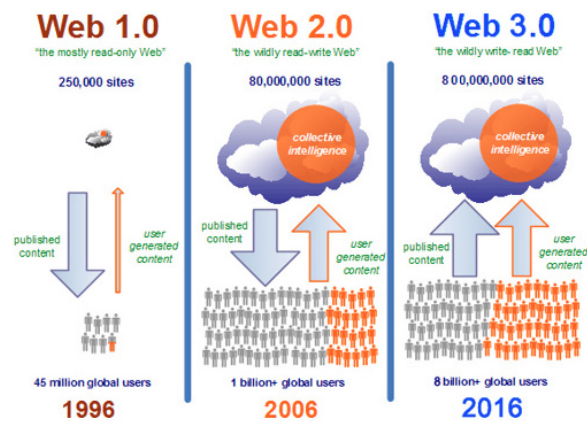
The late 1990s saw the rapid development of commercial websites, and one of the great changes the dot-com bubble brought to the internet was its **relationship with real world of economic exchange** and service provision, which **required personal identification** in order to be safe and work properly. Gradually, the notion of anonymity disappeared from the face of the net. Personas, avatars, and characters, and multiple personalities were also completely extinct. With them also disappeared the form of information that they exchanged and the networks they inspired, and the internet became what it is today. With the introduction of **Web 2.0** at the end of the first decade of the 21st century, **social networks**, such as Facebook and **commercial services** and **retail giants** like Amazon, already took over the appearance and use of the internet and created their own formalities around conduct and communication.

4chan and to a certain extent Reddit and other **social networks based on anonymity are indeed still** the nest of social and political counter activities, and it is these networks that allow the organization operation of activist groups, such as Anonymous, and the flourishing of projects, such as Wikileaks. These are the networks that take upon themselves the responsibility of maintaining at least part of the internet as a totally free unregulated space that allows alternative communication models.

The internet **today is regulated** and watched by our network and service providers and as such does not hold the promise it once had, **identity online had become stabilized**, and the punishment for those who refuse to play by the rules and identifies themselves is simple and swift, denial of service. And as the internet becomes our main means of communication, this dynamic has overarching consequences. In addition to the lack of anonymity, identity is **further stabilized by filter bubbles and recommendation mechanisms** that remember what choices we have made and only allow us to access what we have explored before and what other people from circles similar to us find interest in. However, **such limitations** on the knowledge accessible to us **are not immediately visible** and are represented in the context of a global all encompassing repository which we can seemingly draw information from whenever we want. But this, of course, is only an illusion. Our self-reflection on the screen today is controlled by a set of automated procedures composed and run by groups of individuals that have no clue who we are and what we want, rather they are in service of the same commercial and governmental powers that have an interest in our attention and its direction towards specific content. The internet may seem today to foster a network model of communication, but, in fact, it **became centralized by such restrictive**

practices. Although they help us navigate through an exceeding amount of data some of which is not necessarily interesting to us and at times even offensive. Those filters function on the expense of our agency and the right to choose what we would like to access. The gap between the image of ourselves as global citizens, literates that are able to access everything at the tip of a finger, and the actual lack of choice we have leads to a **deeper attachment to our existing identities and the reinforcement of the social biases with which we were born**, turning us, some would argue to fundamentalists. **Robert Jay Lifton**, a psychologist that wrote extensively on the emerging identity constructs, speaks about those **two models of identity**, the **fluid identity** or what he terms the protein itself, and the **fundamentalist self**. He contends that our current state of social and political affairs where we see a general global tendency to separationist agendas like racism, xenophobia, and the rise of alt-right parties in the Western world are directly connected to the way the internet sees us. And if that is the case, where do we look and **how do we reconstitute the internet as a democratic space?** One approach to tackle those critics of technology comes from **cyber feminist perspectives**, but not only. Tactical media and social activities aims to expose the different biases embedded within such automated mechanisms, algorithms, and protocols that limit our understanding of the world and the information accessible to us.

→ Josh Harris' *We Live in Public* (1990s)

Josh Harris (born c. 1960) is an American Internet entrepreneur. He was the founder of `pseudo.com`, a live audio and video webcasting website founded in 1993, which filed for bankruptcy following the end of the **dot-com bubble** in 2000.[1] He "may have been the first internet millionaire in New York," where "he rode the web 1.0 dotcom boom to a fortune of $85 million," and then lost all his money.

Harris' art project **Quiet: We Live in Public**, an Orwellian, Big Brother concept with "a neo-fascistic element," developed in the late '90s, placed more than 100 volunteers in a three story loft on Broadway in New York City. There were 110 surveillance cameras capturing every move, and every "resident" had their own channel through which to watch each other. Harris proclaimed, "Everything is free, except your image. That we own." Alanna Heiss, then the director of the P.S. 1 Contemporary Art Center in Queens, was among those who moved in, calling it "one of the most extraordinary activities I've ever attended anywhere in the world." The project was forced to shut down on January 1, 2000 by order of the New York Police Department.

A few months later, Harris started `weliveinpublic.com`, a project that entailed himself and his then girlfriend, Tanya Corrin, living at home under 24-hour internet surveillance viewable by anyone. After a few months Corrin left Harris and the project citing mental and emotional stress. Harris continued "living in public" for a few more weeks, finally ending the site due to the mental, personal, and financial losses the project caused him.

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[1]The **dot-com bubble** (also known as the dot-com boom, the tech bubble, and the Internet bubble) was a stock market bubble caused by excessive speculation in Internet-related companies in the late 1990s, a period of massive growth in the use and adoption of the Internet. Between 1995 and its peak in March 2000, the Nasdaq Composite stock market index rose 400%, only to fall 78% from its peak by October 2002, giving up all its gains during the bubble. During the crash, many online shopping companies, such as Pets.com, Webvan, and Boo.com, as well as several communication companies, such as Worldcom, NorthPoint Communications and Global Crossing, failed and shut down. Some companies, such as Cisco, whose stock declined by 86%, and Qualcomm, lost a large portion of their market capitalization but survived, and others, such as eBay and Amazon.com, also lost value but recovered quickly.

→ Hito Steyerl's *How Not to Be Seen* (2013)

Hito Steyerl
How Not to Be Seen: A Fucking Didactic Educational .MOV File
2013

Both drawing from and subverting the conventions of documentary film, Steyerl's essayistic videos explore how images are produced, circulated, and interpreted. In her writings, she has referred to images as a "condensation of social forces": in a world so heavily reliant on the exchange of digital information, digital images—due to their widespread proliferation and vulnerability to manipulation—serve as artifacts of social and political systems and their biases.

For this work, whose basic premise is borrowed from a 1970 Monty Python sketch also titled "How Not to Be Seen," the artist has satirically adopted the format of an instructional video to demonstrate strategies for remaining "unseen" in an age of "total over-visibility." These tactics are narrated by a robotic voice and presented through real and virtual imagery that merge and interact. The work continually returns to the site of now-decommissioned US Air Force aerial-photography calibration targets in the California desert, for example, and to an animated rendering of a luxury residential housing complex.

The video reflects on the tension between the unprecedented capabilities of technology to surveil humans and encroach on physical experience, and the social and political invisibility of marginalized populations. In searing commentary, both poignant and absurd, the disembodied speaker enumerates strategies for becoming invisible, including "being female and over fifty," "being a disappeared person as an enemy of the state," "being a Wi-Fi signal moving through human bodies," and "being spam caught by a filter."

Publication excerpt from *MoMA Highlights: 375 Works from The Museum of Modern Art, New York* (New York: The Museum of Modern Art, 2019)

○ **Mushon Zer-Aviv on "Obfuscation"**

Mushon Zer-Aviv is a designer, an educator and a media activist based in Tel Aviv. His work and writing explore the boundaries of interface and the biases of techno-culture as they are redrawn through politics, design and networks. Among Mushon's collaborations:

- *he is the VP of UX and Design at `Localize.city` – an insight platform merging Urbanism and algorithms;*
- *he's the CO-founder of `Shual.com` – a foxy design studio;*
- *`YouAreNotHere.org` – a tour of Gaza through the streets of Tel Aviv;*
- *Kriegspiel – a computer game version of the Situationist Game of War;*
- *the Normalizing Machine – exploring algorithmic prejudice;*
- *the AdNauseam extension – clicking ads so you don't have to;*
- *and multiple government transparency and civic participation initiatives with the* **Public Knowledge Workshop***;*
- *Mushon also designed the maps for `Waze.com`.*

Mushon is an alumni of **Eyebeam** *– an art and technology center in New York. He teaches digital media as a senior faculty member at Shenkar School of Engineering and Design. Previously he taught new media research at NYU and Open Source design at Parsons the New School of Design and in Bezalel Academy of Art & Design.*

The *white cyclosa trashline* spider has just finished weaving its web. But the spider doesn't rest. It collects the remains of its prey, some rubble and debris, and uses its wide web to stitch it all together. The white cyclosa spider is sculpting a life-sized self-portrait to be exhibited on its web. It is not a very anatomically correct portrait. But the audience of that piece is not picky. And that's exactly the point. The spider's main predators are wasps. And their self-portrait is set as a decoy. If the wasps attack, every sculpture would help reduce the spider's vulnerability. A wrong identification leads to a failed targeted killing attempt. This might be all the spider needs to escape. Not a perfect protection– an obfuscation.

Obfuscation is defined by **Finn Brunton** and **Helen Nissenbaum** as **the protection, inclusion, addition, or communication of misleading, ambiguous, or false data in an effort to evade, distract, or confuse data gatherers, or diminish the reliability and value of data aggregations**. While a chameleon camouflages by changing itself to blend with its surrounding, the *white cyclosa* spider obfuscates by changing its surroundings to blend with itself. The unique creative resistance of the *white cyclosa* spider sets the stage for discussing obfuscation in terms of conflict in information.

While it is not common in nature, **human** culture and history provide many **examples** of obfuscation:

- In a famous scene in Stanley Kubrick's *Spartacus* when the Romans demand to identify the slave leader, every slave in the crowd shouts "I'm Spartacus".

- In World War II, coalition forces planes threw tons of aluminum chaff to jam German raiders and make it harder for them to identify allied attack planes.

- In 2008, Anthony Curcio used obfuscation to rob a Brink's armored car in front of a Bank of America branch. He posted an ad on Craigslist inviting cleanup workers to meet outside the bank wearing identical suits, the same one he was wearing, as he escaped with two bags worth of $400,000.

From my own perspective and training in graphic interaction and information design and as a media activist working with the Israeli NGO The Public Knowledge Workshop, **obfuscation is somewhat counterintuitive**. After all, I'm investing a lot of energy trying to make sense of messy government data to find signals in the noise to use clear evidence to hold the government accountable. So what led me to work against all of this and take up obfuscation as my weapon of choice? **The celebration of**

data and its big promises to inform our lives have been met with a **mixed response**. The popularity of social media and mobile technology have also increased the invasiveness of commercial and government surveillance. This **growing data anxiety** is, however, **mostly impotent**, as people find it hard to exercise their political agency online and, often, are not even sure whether such an agency can even exist. The power imbalance feeds the common techno determinist sentiment that claims this is what technology wants. And therefore, there is nothing we can do about it.

Crypto culture evolved around the technological **response to surveillance**. It is centered around the use of encryption technologies in an attempt to hide and protect data and communication from being tracked by third parties. Yet, I'm afraid these solutions are **not** gaining enough traction to become **viable alternatives to the big data surveillance** status quo. At the end of the day, people don't go online to hide. They go online to express themselves and to communicate with others. My concern is that by **focusing on individual encryption, we put the responsibility on those who simply don't get it, rather than challenge the systematic vulnerabilities of the web in working** together to hold those who exploit them accountable.

Data obfuscation emerged in recent years as **a different countermeasure**. While encryption and opting out are based on restrictive measures and individual protection, data obfuscation takes expression to a whole new level. In **2006**, in an attempt to fight against search engine profiling, my colleagues, **Daniel Howe** and **Helen Nissenbaum**, developed the ***TrackMeNot* browser extension**. *TrackMeNot* continuously performs random search queries, obfuscating the genuine searches performed by the individual. Similarly, the ***AdNauseum* browser extension** that we launched in **2014** not only blocks ads, but also simultaneously clicks on all of them. Its ad vault shows all of these ads at once. This colorful visual overdose exposes the targeting failure of surveillance advertising when the ads are doomed to fight for attention all at once. This functions as an illustration of the data glut generated by the extension's automatic clicking function.
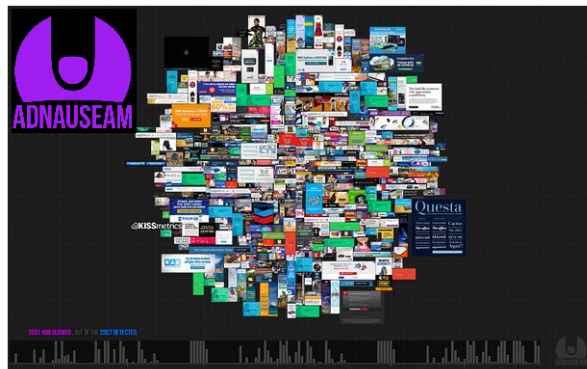
Both of these browser **extensions surround the genuine data with automated noise, fighting big data surveillance** by making it bigger than it can successfully analyze. **Brunton and Nissenbaum** categorized the **different functions of obfuscation**. While it is far from being a silver bullet solution to privacy and data protection, in many cases, it could provide the right means depending on the end:

- The white cyclosa and Anthony Curcio were not using obfuscation as a permanent protection, but simply as a way to **postpone identification and buy time**, enough to escape from their captors.
- The rebel slaves were shouting "I'm Spartacus" to **provide cover and express protest**.
- The TOR network is used to **prevent individual exposure**.
- *TrustMeNot* and *AdNauseum* are used to **interfere with profiling and provide plausible deniability**.

  Many other examples show different uses and different goals for the use of obfuscation. Therefore, we should always analyze obfuscation means in the context of the obfuscation's end.

Data is mostly used as a proxy towards a more scientific and possibly reliable knowledge gathering process. If obfuscation is set to tamper with that, **is it ethical?** Some ethicists would answer with a flat no. Kant, for example, held truth to be the highest value, claiming you shouldn't even lie to a murderer asking you for the location of his victim. Many other ethicists criticized Kant's uncompromising position, arguing for a more nuanced approach to the ethics of knowledge exchange. There are definitely

questionable uses of obfuscation, be it Curcio's bank robbery or governments deliberately obfuscating open government data to make it adequately transparent, yet practically unintelligible. In fact, **obfuscation is always questionable. And that question is the key to understanding the informational power structures it addresses**. So am I trying to argue that the ends justify the means? They might, but the means cannot be justified out of context. As **any use of data should not be outright justified or vilified, whether it claims to be truthful, or not**. While obfuscation could potentially promote healthy data skepticism, it may also contribute to further the mistrust in the scientific process and in fact-based public discourse (→ post-**truth**).

To conclude, I would argue **data obfuscation should not be read outside of the wider cultural and political context of today's big data controversies**. In this context, tech giants develop clandestine corporate surveillance mechanisms to spy and manipulate our perception of the world to further serve their business interests. Governments both cooperate with these tech giants and use their own tech might and outreach to do the same. Some bad actors use this crisis of trust to throw the baby out with the bathwater and dismiss any notion of truth as the product of lies and manipulations, serving narrow interests. I argue that **obfuscation allows us the much needed benefit of the doubt, for it exposes the seams within these opaque algorithmic control mechanisms**. Rather than go down the nihilistic trajectory of post-truth, a **constructive use of these technologies** and **countermeasures** could challenge the balance of powers between tech giants and the wider public and lead us back to define the ethics of big data, to re-evaluate the terms of its collection, analysis, storage, accessibility, and use. Finally, when considering obfuscation's impact on our technological, cultural, and ethical landscape, we may apply **Melvin Kranzberg's** first law of technology ("technology is neither good nor bad; nor is it neutral") and realize that obfuscation is neither good nor bad, nor is it neutral.

Chapter 7

Digital Aesthetics

7.1 Introduction to Digital Aesthetics

◦ Bringing Back Together Phenomenology and Aesthetics

As we have learned earlier in this course, every communication technology or media has set some conditions for what it can communicate and how it communicates.

Cameras, for example use light emission. Therefore, photography was traditionally believed to have a direct relationship with reality or truth, so to speak. So the language of photography is one that uses reality as an index for its own expression. This is what philosophers of art and media would refer to as the **indexical nature of photography**. While the truth claim of photography would be dramatically **contested** in **postmodernism** and in the digital age, the indexicality of photography can **still express the way it communicates with us**. It is a communication based on recognition and comparison between reality and its image.

On the other hand, **written languages**, which use a set of digits or letters, **do not have such an indexical nature**. It does not direct us to recognition of a specific object, but asks us to construct an image of the object based on our internal worlds, our conditioning, thoughts, imagination, and memory.

Therefore, the **experience of reading is fundamentally different** from the experience of **watching a film**, for example. I'm quite sure many of us would have experienced the gap between reading a book and watching a film based on it. Say, Harry Potter. We can ponder **what details would we remember** in the first case? What details would we remember in the second? And while both works made the pick the same narrative, do they actually tell the same story?

In the same way, we can assume that **art of the digital age would have some particularity stipulated by the technologies it uses**, the gestures that are inherent to the use of these technologies, the way we read it their input or understanding of technology itself, and how such technologies make us think of reality. Beyond the philosophy of media and language, which we have touched upon, **how can we characterize digital art aesthetically?** After all, when we see a digital image or a 3D animation, despite the amazingly realistic results, we can achieve today, we still feel it is digital, don't we? The theme of this chapter is digital aesthetics and it looks to explore exactly that. **What is the language of our digital age? How can we define it? What is the feel or look of our digital era and how art reflects on it and plays with it?**

First, let's stop to **define the terms** at stake. What is, in fact, digital aesthetics? Let us do so by taking this term and define each of its parts. In our day to day talk, we use the term **aesthetics** to imply an object's pleasing visual aspects. Hence, the term "aesthetic medicine," for example, is used to describe a branch of medicine that deals with improving appearances. However, aesthetics, it's much broader than that. Deriving **from Greek**, it is a general term that is similar to what we now think of as **perception**. **With time** this branch of philosophy became increasingly fascinated with the **definition of beauty** and what makes us think of certain things that's attractive, not withstanding that at the same time one defines beauty, ugliness and abject also need to be defined. As we've seen and quite naturally, this branch of philosophy had become preoccupied with a **definition and evaluation of art** while **phenomenology** became the branch of philosophy that deals purely with **consciousness and perception**. However, **can we truly make such a distinction between perception and aesthetics?**

Actually, when ancient philosophers, such as **Plato and Aristotle**, laid the theoretical grounds for aesthetics, they looked to define it as an **overall sensual experience**, not necessarily one which is pleasing or visual. Aristotle, for example, uses the term *catharsis* to speak of theater, rather than the visual arts. However, **in Western culture**, somehow, **vision gains supremacy** over other senses. Indeed, we tend to give what we see more credibility and importance than what we perceive through our other senses. As part of the **postmodern turn**, the primacy of vision would be thoroughly criticized by many, and the aesthetic as a term would become once more wide enough to **include much more**. Feminist theoreticians, such as **Susan Stryker** and **Julia Kristeva**, for example, underline the **importance of touch** and visual sensibility related to it. Media theorists, such as **Marshall McLuhan** and **Jonathan Crary**, seek to contextualize the **supremacy of vision as a result of a complex set of power politics**. And continental philosophers, such as **Deleuze and Guattari**, looked to redefine art through the idea of an encounter or an **aesthetic experience**. Such theoreticians shifts take a **more situated and embodied approach to aesthetics**.

One of the first philosophers to extend such a definition of aesthetics is **John Dewey**, in his book *Art Is Experience* from **1934**. For Dewey, an **aesthetic experience** is not necessarily visual. But it's **an embodied encounter embedded in life**. Dewey argued for the consideration of aesthetics as an encounter **with which our consciousness can expand**. For him, and **aesthetic experiences** characterized in that it involves the **activation of all the levels** of our being, physical, emotional, and intellectual. Following such experiences, Dewey contends, we feel as if **our whole perception** of ourselves and the world changes instantly: our ideology changes, and the way we understand even our own memories and experiences. The aesthetic experience for Dewey is a **formative experience**: we are simply not the same before and after an aesthetic experience.

∘ From Dewey to the Immersion in the Hyper-real

The idea of Dewey of an all encompassing experience that may deeply touch and change us can also be seen as the unspoken, yet underlining, aspiration of art, in general. At the end of the day, what do we really expect from a really great work of art, if not that **feeling of transcending ourselves and gaining a new perspective over the world, as it is represented to us**? Now think about **our day and age** and about the technologies available to us in relation to our abilities to create such experiences. Virtual and augmented reality, interactive installation, **immersive experiences**. If we think about art's role in the traditional trajectories, in its definition through *mimesis* and representation, digital technologies hold the key to the ultimate culmination of art's means, doesn't it? For art historian in new media art theorist, **David Jay Bolter**, this is indeed the **greatest potential of digital technologies** in relation to art: **the creation of the ultimate illusion**. In his book, *Remediation*, Bolter argues that in order to allow an aesthetic experience, all means of mediation – the **technology itself – need to become transparent** or invisible. In this way, our suspense of disbelief becomes complete, and we are allowed to **immerse in an alternative universe**. For Bolter, it is art's eternal and primal aspiration to create a representation so accurate that it allows the viewer's total immersion in the new world created by the artist.

This notion of **immersion** will become an important aspect of the theorization and critic of virtual reality technologies and the way in which artists use them in order to engulf the viewer in an all encompassing experience. But to remind you, for the aesthetic experience to be complete, it **needs to shake the ground of our lives**, so that we are allowed to reorganize ourselves and what we know about the world in a completely new way. But is immersion the only condition needed to create a work of art with a full impact, truthful to Dewey's theory? **Immersion is not the only condition, not it is necessary for the production of an aesthetic experience**. Virtual and augmented reality projects, such as the mesmerizing projects of art collective **teamLab**, are often **criticized for being empty immersive experiences**. They hypnotize the viewers in their pleasing aesthetics, but are lacking the grain which makes an art work a really great one, as **it doesn't encourage the viewers to rethink or reorganize their experience of reality**.

Nonetheless, as we've seen, artists tend to take full advantage of the interactive faces of digital media and indeed, stimulate more than one sense, whether their artwork is critically acclaimed or not. Therefore, we could **refer to the digital realm as an embodied multi-sensual experience that defers itself from former a purely visual aesthetic experience**, like a silent painting or a photograph hung on the wall. **It is not indexical**, like photography: it is not really set in relation to a natural world, so to speak. However, **it is not fully textual** and communicates in ways which are more than digital, strictly

speaking. **Digital aesthetics hovers somewhere in between**, very much based on a **hyper-real world**, as **Baudrillard** would put it– **a world made of images that have no source or reference in nature** or **representations that are not based on direct *mimesis*.**

However, it is **also true** to admit that we are speaking about a culture that is managing itself in front of screens, whether it is TV, species, or through the lens of VR headsets, and screens as thin, as sharp, and as flexible that they may be, are **still just a flat visual representation of reality that focuses on visual perception**. In fact, virtual reality devices isolate the visual aspect of our experience from other senses, and **the potentialities of augmented realities**, where our own body and the object around us are an integral part of the illusion we experience, **are not fully developed yet**. So we could conclude by saying that, even though we may think of VR as a multi-sensual experience, **vision, indeed, still has primacy** over other senses in the digital realm. And this is important.

But there is much more to it than what meets the eye. In fact, digital technologies may allow us to **think of our sensual world in a completely new way**. How? Think about it. Digital technology offers us an **enhancement of our visual experience** to an extent that is far **beyond our natural capacities**. In this sense, those experiences can no longer be traced to vision alone: they hold something more, something of excess, so that when we look at one of those sharp close-ups of Heisenberg's face in *Breaking Bad*, we can not only see, but feel his skin's texture, temperature, humidity, we glide our eyes through his pores, and we can almost smell his sweat. This type of experience is often regarded **in relation to the haptic**, a term that describes a **visual experience that also triggers other senses**. Hence **digital technologies** and the aesthetics that they produce **not only alter and broaden our essential spectrum**, they may even have the power to **change also our essential paradigms**, as they ask us to question the definite separation that we make between our different senses: is it really possible to isolate the visual from other aspects of our bodily perception? **Or are all senses connected**, eventually, to form one aesthetic experience?

In this regard, **digital aesthetics** is very deeply **connected to the multimedia revolution**. Just **as our devices** are asked to translate all inputs to one code and then translate them back a sound or light wave, **so are we asked to translate all our senses** as one and immerse ourselves in an ever broadening experience of visuality– one that indeed takes into account other senses, directly or indirectly.

But immersion and sensory experiences are not the only thing to consider when thinking of digital aesthetics, or by their seductive nature. Our **digital aesthetic experience** has a lot to do with what we saw regarding music's aesthetic expression, which **changed with the tools** that it used for its transcription. **As music, the digital** – based on this translation of everything into digital code – **is a way of referring to reality defined by quantification and rearranging quantified data into preset grids**. As detailed as these grids may be, they are still **grid made of pixels**, and movement within this flattened digital world has certain traces. **Pixelization** is the most obvious that comes to mind. However, as we shall see in the following pages, the digital aesthetic is also characterized by the collapse of space into time, where space and movement are afflicted with phenomena such as **glitches** and **lags** that we can easily recognize, even in the most advanced images created by digital media.

This characteristic of digital aesthetics is also very much **related** to processes of **creating digital music, images, and text**. Take for example the way we compose digital music and the tools we have to create percussion series. They are all based not on a linear and progressive evolution of expression, but on the repetition of sequences. **The loop, the sample, and the cut and paste commands** govern the world of our digital perception. How does this translate into art? And what kind of reality do such tools create?

→ teamLab's *Planets*

teamLab Planets in Tokyo is a museum where you walk through water. It consists of 4 vast exhibition spaces with 7 distinct artworks. The artworks are based on art collective teamLab's concept of "Body Immersive". By immersing the entire body with other people in these massive "Body Immersive" artworks, the boundary between the body and the artwork dissolves, the boundaries between the self, others, and the world become something continuous, and we explore a new relationship without boundaries between ourselves and the world. Visitors enter the museum barefoot, and become completely immersed with other visitors in the vast artwork spaces.

→ Laurie Anderson & Hsin-chien Huang's *To the Moon*

TO THE MOON

Venice Virtual Reality

Director:	Laurie Anderson, Hsin-Chien Huang
Production:	Canal Street Communications (Laurie Anderson, Hsin-Chien Huang)
Running Time:	15'
Country:	Taiwan, USA
Screenplay:	Laurie Anderson
Music:	Laurie Anderson
Programmers:	Hsin-Chien Huang
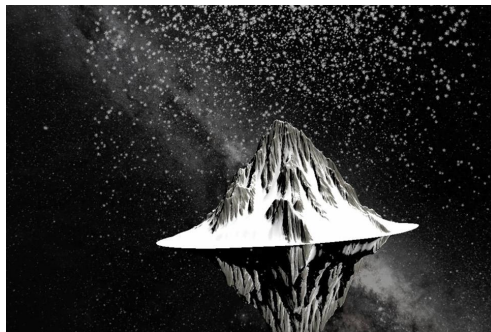
SYNOPSIS

To the Moon uses images and tropes from Greek mythology, literature, science, sci-fi space movies and politics to create an imaginary and dark new moon. During the 15-minute VR experience, the viewer is shot out from Earth, walks on the surface of the Moon, glides through space debris, flies through DNA skeletons and is lifted up the side and then tossed off of a lunar mountain.

DIRECTORS' STATEMENT

To the Moon is dedicated to the ancient Chinese painter who made a huge vertical landscape, a painting of a mountain with groves of pine trees, a steep road winding up to the top, waterfalls, tiny hikers with walking sticks, thatched bamboo huts, and fishermen casting their nets in the sea far below. The painting was very intricate and it took many years to make. When the painter finally finished the painting he walked into it. This is what we aim to do with *To The Moon*, allow the viewer to literally walk into a work of art.

PRODUCERS/DISTRIBUTORS

PRODUCTION:
Canal Street Communications (Laurie Anderson, Hsin-Chien Huang)

WORLD SALES:
Codex Management

→ MLF's *In the Eyes of the Animal*

In the Eyes of the Animal / Marshmallow Laser Feast

Virtual reality (VR) experience *In the Eyes of the Animal* (ITEOTA) was commissioned by AND for **AND Festival 2015**, since which it has continued to delight audiences and critics on a global tour. Experience *In the Eyes of the Animal* <u>online</u>.

The work, by creative collective <u>Marshmallow Laser Feast</u> (MLF), is an artistic interpretation of the sensory perspectives of three species which inhabit British forests. Created using Lidar scans, unmanned aerial vehicles (UAVs) / drones and bespoke 360° cameras, the film is accompanied by a binaural soundscape, using audio recordings sourced from Grizedale Forest (UK). The resulting 360°, immersive experience enables audiences to traverse the animated, real-world, landscape, and 'see' through the eyes of these different species, on a journey through the food chain.

Photo: L – Hamsterley Forest (credit: Sandra Ciampone) / R – AND Festival 2015 (credit: Chris Foster)

The original live installation of the work manifests as a series of sculptural VR (Oculus Rift) headsets installed amongst the trees within a secluded area of a forest. Since its launch in September 2015 the work has toured around the world – being presented in a similar format at events in the UK, such as Hamsterley Forest and the inaugural Bluedot Festival, and also at international festivals and art centres including, Sundance Film Festival (US), Sonar +D (ES), Yamaguchi Center for Arts and Media (J) and more. The work has been nominated for a number of industry awards, and in late 2016 won the Wired Innovation Award for 'Innovation in Experience Design'.
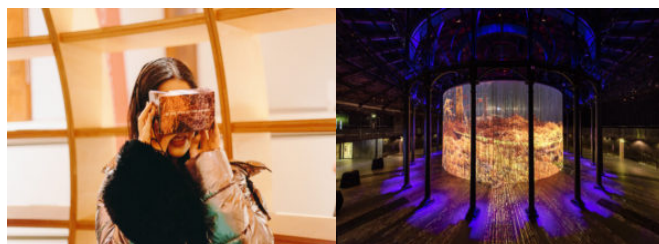
Photo: L – V&A Late (credit: Peanut Butter) / R – Curtain Call at the Roundhouse (credit: David Levene)

In addition to this live installation, a number of other, new presentations have developed throughout the 2016 tour, including as part of Ron Arad's *Curtain Call* at the Roundhouse in London (UK). The project has also been developed for online audiences – including for Google Cardboard, as presented in 2016 at the British Science Festival and as part of the V&A Late's programme. The project will become available through a bespoke website for browser experience in early 2016, <u>here</u>, enabling many more audiences to access this award-winning experience.

Artist bio:

Marshmallow Laser Feast (MLF) is a creative studio exploring the line between virtual and real-world experiences. Headed by Robin McNicholas and Barney Steel, their interests are routed in creating people-centred, live interactive work. They have flawlessly conceived, designed and delivered highly aesthetic and evocative showstoppers in collaboration with many brands, musicians, advertising agencies, event organisers and art institutions. Their work for U2's 'Invisible' Super Bowl promo and the Saatchi & Saatchi New Directors' Showcase has brought a plethora of digital art experiences to the live environment. MLF recently joined forces with Chris Milk's VRSE.works to explore the new world of virtual reality. They are currently developing a broad range of VR experiences.

Credits

Commissioned by Abandon Normal Devices and Forestry Commission England's Forest Art Works. Produced by Abandon Normal Devices and Marshmallow Laser Feast. Supported using public funding by Arts Council England and Forestry Commission England. Equipment Support by <u>Nvidia</u> and <u>Sub Pac.</u>

Official Selection 2016:

∘ Cut & Paste Montage

Throughout this course, we often referred to art as a language and as media. In thinking about art from this perspective, and from the perspective that the media art uses, changes its meaning and expression, and interesting and fertile discussion is formed around the characteristics of media technologies and how the stipulate forms of production and thinking. One of the first scholars to characterise the language of new media is **Lev Manovic**. Professor of Computer Science at the City University of New York, Graduate Center, U.S. and visiting professor at European Graduate School in Saas-Fee, Switzerland, Manovich's research and teaching focus on digital humanities, social computing, new media art and theory, and software studies. His work **The Language of New Media** was translated into thirteen languages, and have become one of the central tools in thinking about new media and new media art. His work will be useful for the analysis of the works reported here right after.

Ryan Trecartin   is an experimental video artist whose works combine performance with **digital collages**, resulting in **spontaneous** and often **non-linear narratives**. Like Cory Arcangel, Trecartin has cited the rapid technological changes in the late 20th century as an important factor in his work, which he explores through a variety of characters and visually chaotic imagery. For example, in the emblematic work **CENTER JENNY** (2013), a group of women identified all as Jenny strive to become homogenous in order to become a platonic ideal of Jenny, challenging the notion of individuality in an increasingly connected society. "I think about a vibe that I felt somewhere in culture that stimulated some aspect of creativity in my head," the artist remarked. "With media, I'm often much more interested in how it's translated by people sharing that media, rather than the media itself. I feel like that's where it exists, between the piece and the sharing of it."

Cory Arcangel   is a contemporary American multimedia artist. Best known for his **post-Internet video art that conflates digital schema and contemporary culture**, his work explores **nostalgia** and the **shifting boundaries of online space**. Born on May 25, 1978 in Buffalo, NY, Arcangel pursued **music** in his youth, studying classical guitar at Oberlin Conservatory before garnering interest in the technology used in music production. "I was a computer nerd growing up and always felt very comfortable in front of a computer and it's still true today," the artist has explained. "Although my works can end up on walls, and physical, like sculptures, it often comes from me sitting where I like to be—at my computer." Perhaps Arcangel's most celebrated works are his **modified Nintendo cartridges** resulting in aesthetically shifted visual presentations of the video games, as seen in his formative *Super Mario Clouds* (2002). His fame and critical acclaim have only grown over the course of his career, highlighted by exhibitions like 2011's "*Pro Tools*" exhibition at the Whitney Museum, and a solo show at the Migros Museum in Zurich. Arcangel currently lives and works in New York, NY, where he has exhibited with Team Gallery.

AES+F   is a group of Russian contemporary artists made up of Tatiana Arzamasova, Lev Evzovich, Evgeny Svyatsky, and Vladimir Fridkes. Their photographs, animations, and videos collage together disparate imagery in order to convey **social criticism and underlying narratives**. "We never make direct conclusions and we never comment on things [that] are obvious," Evzovich said of their work. Formed in 1987, the Moscow-based group was originally called AES when it did not yet include Vladimir Fridkes, the "+F" was added in 1995, when Fridkes became a member. Their surreal work *Last Riot* (2005–2007) – a computer generated animation presents a dystopian scene inhabited by dragons roosting on oil platforms and young people battling with swords – eventually grew into a trilogy that includes *Feast of Trimalchio* (2009) and *Allegoria Sacra* (2011).

→ Lev Manovich, *The Language of New Media* (2001)

In this book Lev Manovich offers the first systematic and rigorous theory of new media. He places new media within the histories of visual and media cultures of the last few centuries. He discusses new media's reliance on conventions of old media, such as the rectangular frame and mobile camera, and shows how new media works create the illusion of reality, address the viewer, and represent space. He also analyzes categories and forms unique to new media, such as interface and database. Manovich uses concepts from film theory, art history, literary theory, and computer science and also develops new theoretical constructs, such as cultural interface, spatial montage, and cinegratography. The theory and history of

cinema play a particularly important role in the book. Among other topics, Manovich discusses parallels between the histories of cinema and of new media, digital cinema, screen and montage in cinema and in new media, and historical ties between avant-garde film and new media.

→ Ryan Trecartin's *CENTER JENNY* (2013)

From http://www.vdrome.org/ryan-trecartin-center-jenny

> *Ryan Trecartin's movies unfold like futuristic fever dreams. Collaborating with his cast, Trecartin's layered aesthetic reveals* **high-definition uncanniness***, wherein digital life dynamics and gamesmanship merge with pop culture histrionics and banality. In CENTER JENNY, part of Trecartin's presentation at the 55th Venice Biennale, his characters continuously evolve towards a post-human realm through reality show hermeneutics, prosumer rhetoric, and collegiate rituals.*

CENTER JENNY is one of four movies completed in 2013 by Ryan Trecartin, first shown as part of an installation at the Arsenale during the 55th Venice Biennale. For this movie and its related works, Lizzie Fitch and Trecartin created a modular maze of sets on a soundstage with the help of commercial set builders. Designing with Google's open source 3D modeling program *SketchUP*, the artists along with these tradespeople built a functional system of environments. The space is rigged to radically adapt for different purposes, but shifting as a narrative one as well, guiding action much in the way that a written script does. No pun intended, the set in its various manifestations is a central feature of *CENTER JENNY*, where Trecartin fixates on notions of location and proximity but continually eschews any concrete grasp of them.

The cast ranges from collaborators familiar from previous works dating as far back as to *A Family Finds Entertainment* (2004) to professional actors from popular television sitcoms. Most belong to one of several groups of uniformed girls who are all named Jenny. One duo of Jennys wears earmuffs and pink hoodies branded "AUDITION"; another posse dons khaki shorts and tank tops covering up greenscreen-green bikinis; other, grittier girls are in sweats that read "W4$T3;" a more womanly group in neutral tones identify themselves as nameless proto-Jennys, held in limbo as they await matriculation into "The University."

The various Jennys belong to a caste system in which iterations of the same, basic, archetypal girl differentiate themselves from one another based on how powerfully they have evolved. The notion of being "basic", in fact, is a flattening condemnation the girls hurl back and forth at one another. There is a quantitative basis for self-actualization here, and, as if in a video game or any other kind of entertainment simulation, a level-based logic propels the Jennys as they graduate from nothing – "I don't have a name yet, we're not even on a level" – to level one, to level two, and beyond. This guides the plot as well, which shifts abruptly from one vignette to the next in an arc that escalates without concern for scenes that have been surpassed by more evolved ones.

The group dynamic recalls previous works like *K-CoreaINC.K*, in which a mass of characters in tan business attire arbitrarily compose a sort of model UN of delegates from around the world– USA Korea, Brazil Korea, Canada Korea, etc. However in *CENTER JENNY*, instead of a superficial heterogeneity spread across a group as a global microcosm, everyone is striving to be as similar as possible. Rather, everyone is mimicking an ideal, and the result among the successful ones is sameness.

This ideal has a name, "the source," and one group of Jennys regard its influence as a kind of Icarus drive, ominously cautioning one girl that if she continues in her ways she "might end up in touch with the source." Proximity to center is an absolute measure of potency. The possibility of being close enough to touch "the source" runs the risk of being consumed by the powers that that shape the world they live in. But any remove from the center connotes vulnerability. Gatekeeper Jennys brand underlings "left of center"—a designation that others wear proudly, seemingly for alternative positions along this otherwise oppressive, concentric continuum.

The movie's sound and camera crew are often captured onscreen as peripheral characters that frame the interior action of the Jennys as a contained production or kind of ethnographic study. Authoritarian presences like televisions hosts and teachers are other non-Jennys, who reinforce the rigid, competition-based ecosystem in which they exert their development.

One girl, then another, declares herself Sara Source — a direct descendent of the humanity all the other vessels idolize. Whether either is truly Sara Source is as unclear as whether any of the people in the

movie are people at all, or if they are post-human simulations emulating constructions of personality and community mythologized as a source code for social behavior.

This film was presented in collaboration with the **12th Biennale de Lyon**.

Credits: Written, Directed, FX'd & Edited by Ryan Trecartin.

This work was originally created for the 55th International Art Exhibition entitled: Il Palazzo Enciclopedico (The Encyclopedic Palace). Curated by Massimiliano Gioni. Organized by la Biennale di Venezia.

Courtesy the artist and Andrea Rosen Gallery, New York.

→ Cory Arcangel's *Super Mario Movie* (2005)

New media and internet artist Cory Arcangel often appropriates artifacts from earlier digital times for his artwork. In a series of videos, Arcangel hacks cartridges of the original Nintendo game Super Mario Bros., twisting the game's graphics into surreal reinterpretations.

In "*Super Mario Movie*" (2005), created in collaboration with artist collective **Paper Rad**, our protagonist is thrown into a world neither he nor we can comprehend. The rules of the game universe are turned upside down, colors shift, Mario floats on air. The game's text becomes nonsense and the screen is at times overtaken by vaguely familiar symbols and abstract patterns. Through this all, Mario wanders. A nostalgic throwback, an existentialist exercise or a good internet joke? It's up to the viewer's own interpretation.
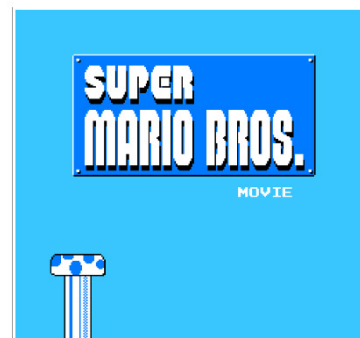
→ AES+F's *Inverso Mundus* (2015)

The engravings in genre "*The World Upside Down*", known since the 16th century, depict a pig gutting the butcher, a child punishing his teacher, a man carrying a donkey on his back, man and woman exchanging roles and costumes, and a beggar in rags majestically giving alms to a rich man. In these engravings there are demons, chimeras, fish flying through the sky, and death itself, depicted variously with a scythe, or behind the mask of Doctor Plague.

Mundus - the Latin "world" and Inverso - is both an Italian "reverse, the opposite" and the Old Italian "poetry," which alludes to the art processing. In our interpretation of traditional genre, absurd scenes from the historical carnival appear as episodes of contemporary life. Characters are acting out scenes of absurd social utopias, changing their masks, morphing from beggars to rich men, from policemen to thieves. Metrosexual cleaners shower the city with debris. Female inquisitors torture men on IKEA-style devices. Children and seniors are locked in a kick-boxing match. Inverso Mundus is a world where chimeras are pets and the Apocalypse is entertainment.

→ **AES+F's** *Inverso Mundus. Stillages* **(2017, digital collages)**

↪ **Self-assessment questions**

Ryan Trecartin Looking at his work, considering new modes of production and dissemination in the digital age, how does this artwork reflect or express the changes that we see in the aesthetics of representation? What is Trecartin referring to in is performances, and in what way the aesthetic of his video is digital? For guidance, you can think about Eisenstein's montage theory and the way in which videos are generally produced in the digital age - what is the difference? what are the similarities? How does it work?

Cory Arcangel like other artists of the digital age, explores the aesthetics of computer games, and the way that these had influenced the way we think about the world and socially interact with one another. After watching the Mario Brothers' Movie, could you phrase, in your own words, what you thought? what yo felt? which memories arose while you were watching the work? Can you reflect on the impact of such technologies on socialisation processes?

AES+F uses both live actors and digital animation to create a unique sense of surrealism in their work. Think about the terms 'Mimesis' and 'Expression' and the way in which these correlate to this work - what kind of representation is this? and how can you characterise the expression? Can you explain, what does the digital aesthetic in this work contributes to its meaning?

○ **Politics of Production**

Digital technologies, also means that certain things have been made possible that were not possible before. **New types of interactivity and relationships** that are set between viewers and artworks, also, a new set of relationships are possible **between the producers** of art **and content** at large. In the case reported after (the *Thru You* project by Kutiman) we can see how classical **copyright** politics and laws are not able to cope with it.

When we approach these kind of artworks, we have to ask ourselves what **parallels** can we draw between the **history of art**, and the current examples? In what way **technologies of production** change a set of **social relations** around the notion of art?

→ **Kutiman's** *Thru You Too* **Album (2009)**

Ophir Kutiel, professionally known as Kutiman, is an Israeli musician, composer, producer and animator. He is best known for creating the online music video project, *Thru You*, a self-titled album, and the viral on-going series "*Thru the City*" including his "*Mix Tel Aviv*" piece which went viral on YouTube.

In 2009, Kutiman released "*Thru You*", an online music video project, featuring a mixture of samples of YouTube videos, and the video project received more than 10 million views in around two weeks. Time Magazine named it one of the "50 Best Inventions of 2009". Due to the success of *Thru You*, in October 2010, Kutiman was invited by YouTube to perform at the "YouTube Play" grand opening at the Solomon R. Guggenheim Museum in New York City.

> "At first I took some drummers—before I had the idea about *Thru You*, I took some drummers from YouTube and I played on top of them—just for fun, you know. And then one day, just before I plugged my guitar to play on top of the drummer from YouTube, I thought to myself, you know—maybe I can find a bass and guitar and other players on YouTube to play with this drummer..."

Kutiman spent two months working on the *Thru You* project, and, as he described:

> "It took me two months, but it was really intense. I barely ate, I just worked on a computer and went to sleep...day and night, and night and day...didn't see any friends, no family...not even the sun."

After disclosing his work to only twenty friends, Kutiman's project spread virally across the web, racking up more than one million views in less than a week. After viewing *Thru You*, **open source advocate, Lawrence Lessig** praised the project for **pioneering a new, less-regulated form of media**, stating, "If you come to the Net armed with the idea that the old **system of copyright** is going to work just fine here, this more than anything is going to get you to recognize: **you need some new idea**"

A MUSIC ALBUM COMPOSED OF UNRELATED YOUTUBE VIDEOS
MADE BY KUTIMAN

○ **The Time and Space of Digital Technology**

We have already touched upon notions of **telepresence** in previous chapter. Telepresence can be simply defined: the use of virtual reality technology, especially for remote control of machinery or for apparent participation in distant event, or a sensation of being elsewhere, created by virtual reality technology.

Telepresence has certain **implications on our sense of space and place in the digital age**, or so many scholars believe. **This new sense** of relationship between time and space, mediated by digital technologies, is said to have a vast **influence on how we construct our sense of identity and our relationship to the world**.

One can see the discussions around time and space in the digital age as a **dialectic**: that is, a friction between different and often opposing perspectives. **Within this friction**, there may be an opportunity to arrive at a certain **synthesis**, or a refined perspective about the way in which telepresence operates on us.

While the discourse around these topics is vast, here we will consider at three authors and practitioners that represent different agendas and perspectives on the topic: Roy Ascott, Paul Virilio and Katherine Hayles.

→ Roy Ascott's *La Plissure Du Texte: A Planetary Fairy Tale* (1983)

Roy Ascott
«La plissure du texte»
1983—that was in 1980, I actually set it up —1983, Frank Popper invited me to do a project for a huge exhibition in Paris, called Electra, which was looking at the whole history of electricity right across the spectrum of the arts. And I got rather good funding. I set up this planetary fairytale. We had fourteen nodes across the world, Australia, Hawaii, Pittsburgh, various places, ... Vienna, Amsterdam, and so forth. And to each node I ascribed an archetypical fairytale character. [...] Over a period of three weeks started a narrative, that could be either in English or in French, it wasn't a matter of translation, had to be just English or French because it was IN Paris, and so forth. To start it off—I played the part of a magician in Paris, so I would naturally say, «Once upon a time...» and then others from their point of view-the Wicked Witch or whatsoever—would pick up the narrative, and develop it online. So that what was happening was you would go on line, and you would see the story so far, and then input.
Roy Ascott

Roy Ascott, «La plissure du texte», 1983
Text | © Roy Ascott

Roy Ascott is a British artist, who works with **cybernetics and telematics**, on an art which is **technoetic**, focusing on the impact of digital and telecommunications networks on consciousness.

Ascott exhibits internationally (including the Biennales of Venice and Shanghai), and is collected by Tate Britain and Arts Council England. He is recognised by *Ars Electronica* as the "visionary pioneer of media art". He is currently leading his **Technoetic Arts** studio in Shanghai, and directing the Planetary Collegium.

Since the **1960s**, Ascott has been working with **interactive computer art, telematic art and systems art**. Ascott built a theoretical framework for approaching interactive artworks, which **brought together certain characteristics of Dada, Surrealism, Fluxus, Happenings, and Pop Art with the science of cybernetics**.

One of the most influential terms that he coined was Telematic Art. **Telematic Art** is a descriptive of art projects using computer mediated telecommunications networks as their medium. Telematic art **challenges the traditional relationship between active viewing subjects and passive art objects** by creating interactive, **behavioural contexts** for remote aesthetic encounters. "Telematics" was first coined by Simon Nora and Alain Minc in *The Computerization of Society*. Roy Ascott sees the telematic art form as the **transformation of the viewer into an active participator** of creating the **artwork which remains in process throughout its duration**. Ascott has been at the forefront of the theory and practice of telematic art since **1978** when he went online for the first time, organizing different collaborative online projects.

Roy Ascott's **1980** telematic artwork, ***La Plissure du Texte*** (The Pleating of the Text) explored the potential of computer networking for the **interactive, remote, collaborative creation** of a work of art that challenged the conventional aesthetic categories of artist, artwork, and viewer, and the traditional opposition of subject and object. Eleven locations in the US, Canada, Europe, and Australia, each representing a character (magician, princess, beast, etc.), participated in the "distributed authorship" of a "planetary fairytale" by collectively creating and **sharing texts and ASCII-based images** that comprised the unfolding narrative.

photographs of some terminal locations ...

TORONTO	SAN FRANCISCO	VANCOUVER	VIENNA
Students of the Ontario College of Art at the Music Gallery / *Students of the Ontario College of Art at the Music Gallery*	*T. Klinkowstein & G. McKenna at La Mammelle* / *T. Klinkowstein & R. Adrian at La Mammelle*	*Hank Bull at Western Front*	*Zelko Wiener & colleagues at the Kulturservice Studio*

As its title suggests, **the work riffs on Roland Barthes'** *Le Plaisir du Texte* (**1973**), in which the literary theorist proposed "the generative idea that the text is made, is worked out in a **perpetual interweaving** . . . [such that] . . . **the subject unmakes himself**, like a spider dissolving in the constructive secretions of its web." (Ascott, 1984). *La Plissure du Texte* similarly emphasized the "generative idea" of "perpetual interweaving," but in a way that **contests conventional subject-object relationships even more profoundly because** the work is not the product of a single author but is pleated together through the process of **distributed authorship**. For Ascott, moreover, there is **no finished work**, no final outcome, per se; rather, **the work consists of the process of distributed authorship**, which provides a working model for experimenting with and potentially experiencing forms of **telematically-enhanced, collective consciousness**.

→ Roy Ascott's *LPDT2: The Second Life of La Plissure du Texte* (2010)

In 2010, *The Plissure du Texte was* revised and redeveloped in Second Life by the author in collaboration with Max Moswitzer, Selavy Oh and Elif Ayiter. It is from here that the two new versions LPDT2 LPDT3 and take off: structured with the architecture and textual geography placed between worlds and dimensions – where autonomous robots intervene as communicative junctions among narrators and where visitors in physical space can interact by (among other things) sending text messages and tweeting. The undisputed figure of Ascott today has brought researchers and curators to reconsider his group of groundbreaking analogical works in which he prefigures his theories on the network and telematic interaction. A series of projects like those carried out between 1963 and 1970 was presented by Plug In ICA, with Video Pool Media during the summer of 2013 .

LPDT2 was projected to Real Life throughout September 2010 in Incheon, South Korea during the Incheon International Digital Art Festival (INDAF) 2010 in Tomorrow City, Songdo. In *LPDT2*, the participant is asked to interact with questions of distance, touch and embodiment within virtual realities.

The metaphor of a semantic sea
endlessly ebbing and flowing,
of meaning constantly in flux,
of all words, utterances, gestures, and images
in a state of undecidability,
tossed to and fro
into new collusions and conjunctions
within a field of human interaction and negotiation,
is found as much in new science–
in quantum physics, second-order cybernetics, or chaology,
for example–
as in art employing telematic concepts ...

-- Roy Ascott 'Telematic Embrace' 1990
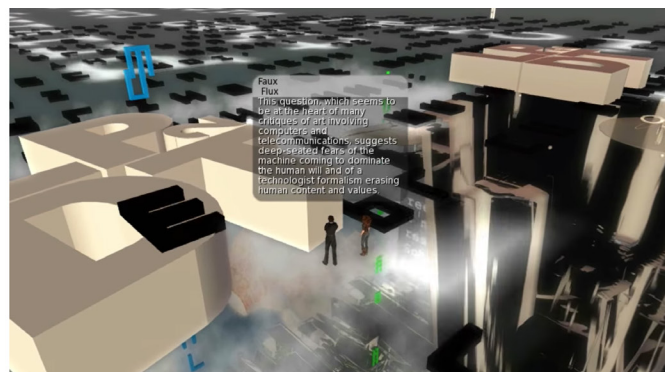
→ Paul Virilio and the telematic extensions of power

Paul Virilio has shown in *Open Sky* (1999), and other books, that the primacy of physical presence is being undermined with each telematic extension of power. The finite self's effective action in the immediate environment is diminished and there is a resulting crisis of kinetic potentiality. As distance is collapsed by technology, then the near seems to lose out in a battle with the far.

→ read the article **Blinded by the (speed of) light** by **Scott McQuire**, edited in John Armitage's *Paul Virilio: From Modernism to Hypermodernism and Beyond* (2000, SAGE Publications).

(...)

→ N. Katherine Hayles, *The Condition of Virtuality* (2000)

Chapter 4 of *The Digital Dialectic: New Essays on New Media*, edited by Peter Lunenfeld. MIT Press, 2000.

Abstract of the full book: Computers linked to networks have created the first broadly used systems that allow individuals to create, distribute, and receive audiovisual content with the same box. They challenge theorists of digital culture to develop interaction-based models to replace the more primitive models that allow only passive use.

The Digital Dialectic is an interdisciplinary jam session about our visual and intellectual cultures as the computer recodes technologies, media, and art forms. Unlike purely academic texts on new media, the book includes contributions by scholars, artists, and entrepreneurs, who combine theoretical investigations with hands-on analysis of the possibilities (and limitations) of new technology. The key concept is the digital dialectic: a method to ground the insights of theory in the constraints of practice. The essays move beyond journalistic reportage and hype into serious but accessible discussion of new technologies, new media, and new cultural forms.

Contributors: Florian Brody, Carol Gigliotti, N. Katherine Hayles, Michael Heim, Erkki Huhtamo, George P. Landow, Brenda Laurel, Peter Lunenfeld, Lev Manovich, William J. Mitchell, Bob Stein.

(...)

7.2 Social Media & Narcissistic Complexes

○ The Selfie

The selfie is usually regarded as a trivial, even foolish, expression of self-indulgence. And maybe it is. But it is also a cultural phenomenon saturated with aesthetic, social, psychological, and even physical implications, some of which it would be better to analyse. From an art historical perspective, the selfie could be considered the descendant of a long **tradition of self-portraiture**. Indeed, in Western painting, there are innumerable manifestations of artists' desire to capture and preserve their own image. **Rembrandt** alone created dozens of paintings, etchings, and drawings in which he depicted his own visage and the passage of time.

But the advent of **photography** in the first half of the 19th century was a game-changer, a dramatic technological shift with significant social and ontological consequences. The ability to make a long-lasting image of the world and of oneself was no longer the exclusive privilege of maverick artists. The **indexical nature** of photography – the fact that it documents quite faithfully the emission of light from real and material objects and subjects – added to the fanciful and artistic rendering of the self and **more profound ontological significance**. The portrait of an individual and the self-portrait of that indicated an objective reality of **being there**: the fleeting presence of a self forever frozen in time.

The inception of **digital photography** marks another notable shift in the rendering of images. Since the intended picture is not seen any more through an eyepiece, but on a small screen, since the captured image is **displayed immediately**, and since the means needed to preserve the image and disseminate it are extremely cheap, we no longer think of a photo as a result of diligently setting up a scene and carefully arranging the light and composition, all the while paying close attention to details: **the practice has**

become one of mere selection. You take plenty of images offhandedly, and then choose from them the one that seems the best. **The aura of the singular image has eroded almost completely**. Some digital cameras solve this issue by placing a rotatable screen allowing photographers to take pictures of themselves, but the properly called **selfie** was born only after the insertion of cameras into mobile phones, and consequently the introduction of **front-facing cameras**. Those were originally made for the sole purpose of the video calling. But once people started using them to take pictures of themselves, cell phone companies rapidly caught up and developed new features to enhance front cameras' ability for the specific purpose of self-portraiture.

As we've already mentioned, the tradition of self-portraiture, both in painting and in photography, involved quite often the use of **mirrors**. But **in the selfie**, this act of mirroring becomes, on the one hand, more subtle, because you do not stand in front of an actual mirror, and on the other hand, much more dramatic, for in the very act of taking a selfie, you literally face yourself. This fact, that in taking a selfie with a smartphone front camera, **you simultaneously view your own reflection**, and that this seen reflection will in turn become the image captured and shared, has some interesting psychological, social, and physical effects. Let's start with some psychological insight into this self-reflecting gesture. Now, the taking of a selfie is commonly regarded as a narcissistic behavior. The term narcissism, which **Sigmund Freud** used in order to designate a particular psychic symptom, derives from the mythological figure of Narcissus, a beautiful youth who fell in love with his own reflection which appeared in a pool of water. Indeed, the making of multiple selfies **may attest to a narcissistic obsession** with your own image. But what might be the reason for this self-obsession? The theory of psychoanalyst **Jacques Lacan** on what he calls **the mirror stage** may add some important nuances to this rather crude first observation. According to Lacan, at a very young age, when the human baby is roughly 6 to 18 months old, he or she recognize for the first time their own image in the mirror. They then **identify with this image**, seeing themselves manifested in the reflection. According to Lacan, this is a **crucial moment in the very constitution of the ego**, or the "I," the subjective self that we will carry with us from that moment onwards. **Prior to this recognition and identification**, Lacan says, **the baby experiences itself as** a very **fragmented** being with uncoordinated movements, erratic impulses, and unruly desires. It feels, in other words, all over the place. **But the image that appears opposite the baby**, the image that the baby takes as its very own and identifies with, **has a sense of coherence and wholeness** that stands in stark contrast to this inner chaotic feeling. **Faced with this apparent I, this imaginary I, which seems to be a well-defined hole, the baby experiences tremendous joy**. The coherent image settles down the inner turmoil caused by the somatic feeling of fragmentation.

Now, assuming that **this original split** between the real inner confusion and turbulence and the imaginary exterior abstraction of a coherent and commanding "I" does not vanish in infancy, but rather **persists** throughout our lives, it is easy to see why **we have an impulse to observe**, at least occasionally, our own reflection. It is so **we can experience ourselves as whole and complete**, to fend off our contradicting feeling. And it is now easy to see why the selfie is a good excuse– an unconscious one– to do so. To reenact our primordial encounter with ourselves in front of the mirror and to dissipate, at least for a while, our real sense of confusion and unrest. This could also explain the sense of strange and sometimes **uncomfortable intimacy** that we might feel when we see **someone else's selfie**. It is as if we are standing with them in front of the mirror, joining them in one of the most private places where one is presumably alone with oneself. But this is another special attribute of the selfie. It is not a picture made in solitude and for yourself only, but it is usually a picture intended to be shared with others on one or more of the social media. This makes the selfie, perhaps surprisingly, a robust social activity, a means of communication. This should not be overlooked. While appearing to be a selfish and alienated activity, the selfie actually has a very important social aspect. It is charged, so to speak, with social energy. So when we see someone taking a selfie, we should bear in mind that **this apparently isolated and solitary action is actually embedded in a web of social activity**. We might even dare say that in this seemingly individual gesture, the whole logic of contemporary social media is encapsulated.

The **social aspect** of the selfie can be seen most clearly in **group selfies**. In such cases, the selfie is used not to depict oneself, but to **savor** a social occasion, a specific gathering of people, a vibrant **togetherness**. As such, the group selfie also has a unique aesthetic composition. When we take selfies with other people, and since selfies are usually taken from a very short distance, literally at arm's length, we tend to **squeeze** together so as **to fit** into the frame. In this view, the very taking of a group selfie brings people closer together physically and creates an intimacy that would probably not have come about otherwise.

This brings us to the last point– **the distinct physical attributes of the selfie**, the effect it has on our body. As the group selfie shows, some of these attributes can be seen in the end result, that is, in the actual picture. It is also quite common to see in a selfie the extended arm holding the cell phone. This is a visual feature that distinguishes the selfie from the tradition of self-portraiture in painting and in photography and reminds us of the ways in which our body participates in the making of an image. It is also not uncommon to see in selfies accentuated facial expressions and symbolic hand gestures, attesting to the various ways in which this new medium interpolates us, moving and molding our bodies. And while some of these effects of embodiment are less evident in the final picture, they are clearly visible from the outside when we observe the physical interaction of person and machine in the process of producing together a selfie. Indeed, the selfie has a very **peculiar performative aspect**, a special choreography appearing almost every time we see someone preparing to take a selfie and while doing so, making all the selfie moves.

Chapter 8

Digital Futures

8.1   Truth, Fiction, Virtualities

We already touched upon Virtual Reality technologies, and maybe we even thought the virtual reality, is in fact, very much related to fiction more than anything else. After all, every fiction creates an alternative reality- doesn't it? The charm of VR technologies is that they make us feel physically elsewhere by taking over our vision, and leaving us in a completely different world. However, **it is very clear to us, that the VR environment isn't real**. By wearing the headset, we are performing this shift from this world to another.

But what happens when artists use digital technologies, mainly the social networks and platforms we all use to share information, in order to **create virtual realities that** do not take over our senses- but **take over our perception of what is real and what is fiction**?

Para-fictional art is art that in one way or another blends reality with fiction, to create virtual worlds that have an existence outside of the technological realm, and leak into the field of politics.

○ Post-truth and Para-fiction

Today, terms such as **post-truth**, fake news, and **alternative facts** are usually considered in a negative context, as a means used by politicians to manipulate public opinion for their own needs. However, in recent years, **artists** have been employing such means for completely **different purposes** while using the space of the internet, its users, and advanced technologies **in subversive ways**.

The tension between representation and truth, or fiction and reality, and questions of illusion, delusion, and mimesis have always been central to our artistic creation. However, in the past two decades, a new kind of art has emerged, one that takes it a step further into the real. It was defined in **2009** as **parafiction art**– artistic fictions that exist in reality. And they're perceived by the spectators as true[1].

Most-known in this genre are the previously encountered American duo **Yes Men** working as artists and activists. Since 1999, they have been **faking websites** of various governmental organizations and multinational capitalist corporations, such as the World Trade Organization, George W. Bush's 2000 election campaign, the US Chamber of Commerce, and recently, the National Rifle Association. The fake website presents very extreme versions of these companies or agendas that are completely opposed to their true capitalist interests. In this way, the Yes Men set to fix the world through what they call identity correction, as they believe the **lies can expose truth**. These websites do not remain in the virtual space of the internet, but move outwards. Through them, the Yes Men have been contacted by the media and offered to speak as official representatives of these companies, while reaching a wide audience and attracting furious reactions.

Another example follows an opposite trajectory, as it first appeared not on the internet, but as a **real video work** in a conventional gallery. This is Israeli artist **Tamir Zadok's *Gaza Canal***, a short video telling the imaginary story of the digging of a canal that separated Gaza Strip from Israel in **2002**. In reality, Gaza Strip sits alongside the Mediterranean Sea on the west side of Israel and is part of the

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[1]See Carrie Lambert-Beatty *Make-Believe: Parafiction and Plausibility*, October, 129, 2009, p.54

occupied Palestinian territories. In recent years, it has been at the heart of the Israeli-Palestinian conflict. In Zadok's film, Gaza Strip, as an artificial island, is presented as a realized utopia, an ecological wonder island, while completely ignoring half a century of controversial wars and disastrous military operations.

Tamir Tzadok – "Gaza Canal"

The video work "GazaCanal" is a mockumentary that was made for the Gaza canal visitor's center. The film is constructed like a promotional or propaganda film for an invented project – the digging of the Gaza Canal – a project that allegedly started in the year 2000 and rendered Gaza into an island completely disconnected from Palestine / Israel.

This work can be read as offering a futuristic model of peace through global, economic and touristic projects. However, the work actually offers an extreme realization of the long-lasting Israeli fantasy -"to throw all the Arabs into the sea".

The work is a satire that ridicules Israel's long history of national projects that change the environment and shape it according to a half biblical and half modernist vision.
The GazaCanal project is based on 9 min video and installation of souvenirs (t-shirts, Beach Towel and cups), the project was first shown in a solo exhibition in Rosenfeld Gallery in Tel Aviv and since than was shown in different museums around the world (LA MEP Paris, Museum of Contemporary Art in Seoul, etc.)

Once Zadok uploaded the film to Vimeo, it became viral, but also very much real. It initiated Facebook discussions on whether such a solution is feasible or desirable. Only a **few months after** it was uploaded online, **Israeli minister of transportation introduced a real separation plan**, constructing an artificial island off the Gaza shore accompanied by an animated video which was suspiciously similar to Gaza Canal's aesthetics. Here we can see how life imitates art, rather than the other way around. But the most astonishing twist regarding this work came in **2015**, when she had a **Palestinian news agency share the video** on their Facebook page, **framing it as an official plan by the Israeli government**. Doing so, they were using a fictive work of art as a real propaganda for their own needs. Here we can see some of the **problematic ethical implications of these kind of works** as they cross the line between art and life. Gaza Canal's journey through the internet also demonstrates how these works take on a life of their own and how their meanings can be changed according to their framing and spectatorships, which became highly versatile within the space of the internet.

Another artistic duo who works within and around the internet are Italian net-artists **Franco and Eva Mattes** (0100101110101101.org). They had their own share of **fake websites**, among them, the **Vatican website**, which remained online for a year during which Mattes's pope absolved sinners via emails. They also created artworks based on internet memes that we're attributed to famous artists. The internet proves a fruitful playground for fictive personas. In **1998**, the Mattes invented **Darko Maver**, a fictive, radical Serbian artist who worked in the late 1990s in the Federal Republic of Yugoslavia. Maver allegedly created these very gruesome, realistic wax sculptures of dissected bodies based on Balkans wars victims. He planted them in hotels and hospitals across the region, so he was actually working as a parafictional artist himself. But of course, no such sculptures existed. And the terrible images you saw are actually photographs of real life atrocities the artists found online.

This is a **reverse aesthetic** representation in which a **documentary image of reality found online becomes a fictive sculpture that is itself allegedly based on reality**. What's interesting is that once **the Mattes planted Maver's existence online, it took on a life of its own, much like Gaza Canal**. As a radical persecuted political artist in the Federal Republic of Yugoslavia, he was embraced by the art scene. And his work appear in various art magazines and important shows. **Sage Elwell** has considered **Darko Maver as a generative work** of art instead of an interactive work of art, as he generates a **semi-autonomous process in which the internet users take part in realizing its completion**[2]. We saw different ways in which parafiction art tackles notions of fiction, belief, and truth within the internet. The **digital age enables these works a special kind of autonomy**, as they become freed not only from the golden cage of aesthetic representation, but also from the art world's restrictive mechanisms of distribution and spectatorship.

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[2]See J. Sage Elwell, *Crisis of Transcendence: A Theology of Digital Art and Culture*, Lexington Books, 2010, p.88

→ 0100101110101101.org + Luther Blisset's *Darko Maver* (1999) [Italian]

Uno dei protagonisti racconta l'ennesimo scherzo del gruppo bolognese ideato per mettere alla berlina il mondo dell'arte

L'ultima beffa di Luther Blisset

Vita e morte dell'inesistente artista serbo Darko Maver

ANTONIO CARONIA

La verità è stata dunque svelata. Darko Maver, l'artista serbo che aveva fatto parlare di sé l'anno scorso in Italia e in Europa per la cupezza, la radicalità, ma anche la stramberia delle sue operazioni artistiche, è un personaggio inesistente, frutto della fantasia fervida (secondo alcuni), malata (secondo altri) di un gruppo di giovani che operano a Bologna e che si fanno conoscere con l'ostico nome del sito Internet da essi creato (www. 0100101110101101.ORG) e che è uno dei centri delle loro attività. Nel 1998 circola in rete un periodico elettronico, *Entartete Kunst* («Arte degenerata»), redatto da alcuni giovani bolognesi vicino a Luther Blisset Project. È qui che iniziano a girare le prime notizie su un misterioso artista-performer che percorre i territori della ex Iugoslavia lasciando in camere d'albergo e vecchie case disabitate macabre messe in scena di assassini realizzate con manichini (ma che a prima vista appaiono reali agli occhi degli sconcertati vicini e della polizia accorsa sui luoghi). Vengono diffuse anche alcune scarse notizie biografiche (nascita nel 1962 vicino a Belgrado, studi interrotti all'Accademia di Belle Arti di quella città, trasferimento a Lubiana, viaggi in Italia, inizio nel 1990 del progetto itinerante «Tanz der Spinne», «Danza del ragno», e alcuni brevi testi, chiaramente deliranti, sulla «scomparsa del corpo» e una improbabile «anaforagenetica». Nell'agosto del 1998 la Kapelica Gallery di Lubiana organizza una prima mostra con materiali di «Tanz der Spinne», che nel febbraio dell'anno seguente verrà replicata al Livello 57 di Bologna.

Darko Maver intanto, in Serbia e nel Kosovo, viene più volte arrestato e rilasciato, con l'accusa di propaganda antipatriottica, ed è rinchiuso nel carcere di Podgorica dall'inizio del 1999. I sostenitori di Maver in Italia diffondono la notizia in comunicati firmati «Free Art Campaign». Due riviste italiane parlano di Maver nel marzo del 1999: *Tema celeste* riprendendo semplicemente il comunicato, e *Flesh Out* con un articolo più ampio a firma di chi scrive, corredato di immagini. In maggio viene diffusa la morte dell'artista in carcere, in circostanze misteriose. Un articolo su *Modus vivendi*, nel luglio dello stesso anno, mette in relazione la morte di Maver con la guerra della Nato contro la Serbia. E con la morte arriva la «consacrazione»: Maver ap-

proda alla 48esima Biennale di Venezia, nel settembre scorso, mentre al Forte Prenestino di Roma viene organizzata una retrospettiva dell'artista. Alla Biennale dei giovani artisti di Roma, in giugno, era stato presentato uno spettacolo teatrale dedicato a Maver. Adesso la rivendicazione della beffa.

Ma qual è il significato di questa operazione? Su questa stessa pagina rispondono alla domanda i principali responsabili, gli esponenti di 0100101110101101.ORG. Ma qualche parola è doverosa anche da parte dell'autore di questo articolo, che scrisse su Darko Maver, come abbiamo detto, sulla rivista *Flesh Out* nel marzo scorso. Io ero infatti a conoscenza dell'inesistenza del personaggio, e se decisi (insieme alla direzione della rivista) di non rivelare allora quello che sapevo, anzi all'apparenza l'iniziativa, fu perché credevo nella sua utilità: sapevo bene che, presto o tardi, la beffa sarebbe stata rivendicata, perché era stata concepita proprio a questo scopo. Operazioni del genere non sono nuove, nel mondo dell'arte. Basti ricordare il gigantesco fallo eruttante fuori d'artificio (*La Vittoria*), costruito da Jean Tinguely, che compare agli occhi attoniti delle migliaia di persone radunate in Piazza del Duomo, a Milano, il 28 novembre del 1970, in occasione di una manifestazione sul Nouveau Réalisme (una stampa imbarazzatissima, il giorno dopo, decise di glissare sul genere). O l'identità femminile di Rrose Sélavy con la quale Marcel Duchamp, negli anni Venti, firmò alcuni ready made, costruendo attorno all'inesistente personaggio tutta una rete di misteriose allusioni e di divertenti e arcani reperti, compresa una foto di Man Ray che in realtà ritraeva l'artista in abiti femminili. Queste, e molte altre operazioni del genere, sono stati dei veri e propri interventi critici, oltre che espressioni artistiche, da parte di figure ben radicate nel mondo dell'arte ma al con-

tempo consapevoli del carattere fittizio, in qualche modo «inautentico» delle opere. L'operazione Darko Maver, in buona parte, condivide questa tensione a ricongiungere (attraverso il paradosso) l'arte con la vita, ma ha un significato ancora più specifico. Che non è tanto quello, come può sembrare a prima vista, di ingannare critici e giornalisti (spesso complici, come abbiamo visto, dell'iniziativa), per gettare discredito sul mondo dell'arte. Nelle intenzioni degli autori della beffa c'era anche, naturalmente, la volontà di mettere in luce il carattere artificioso di questo mondo, il ruolo che hanno critici e galleristi nel determinare il successo e l'insuccesso degli artisti, ben più della misteriosa «ispirazione» di questi ultimi. E, sullo sfondo, come sempre, il ruolo fondamentale del mondo dei media, che contribuiscono sempre più a certificare, agli occhi del cittadino-consumatore, la «realtà». Ma tutto ciò, in qualche modo, è ben noto: anche al di fuori del confini dell'undergroud, anche se spesso non si riflette abbastanza. La cosa più interessante di tutta questa vicenda, per me, è che essa porta allo scoperto, con la forza dello sberleffo, il *carattere sociale della produzione artistica*. Se non ci sono specifiche

istituzioni sociali (i musei, le gallerie, le riviste specializzate, ma adesso anche i centri sociali, anche i gruppi di opposizione radicale) che «garantiscono» l'opera, l'arte non esiste. Se qualcuno di cui in qualche modo mi fido (il critico, il commentatore) non certifica l'esistenza e il valore dell'artista, l'artista non esiste. Ma il patto che delegava a queste istituzioni culturali specializzate il compito di «gestire» l'arte (e la cultura in genere) adesso scricchiola, sotto la spinta delle nuove tecnologie, di Internet, ma non solo, sotto la spinta della gigantesca scomposizione e ricomposizione sociale che scuote il capitalismo finalmente globalizzato. E allora, tra le pieghe di questi processi, chiunque può riprendere la parola, non per sbeffeggiare l'arte, non per decretarne la «morte», ma per mostrarne la possibile scomparsa, riassorbita nel flusso della creatività sociale. Darko Maver non esiste, ma tutto questo, s'intende, è solo un indizio che, se si vuole, questo può essere fatto.

Insieme, comunque, i quattro L.B. bolognesi hanno prodotto una notevole quantità di «materiale». Articoli, libri, riviste e beffe. In campo editoriale, oltre al romanzone storico «Q» (Einaudi), il collettivo ha prodotto anche i saggi, tra cui «Mind Invaders» (Castelvecchi), l'antologia «Totò, Peppino e la guerra psichica» (AAA edizioni, ora ristampato da Einaudi nella collana Stile libero), il pamphlet «Lasciate che i bimbi. Pedofilia: un pretesto

Totò e i nemici dello Stato

Luther Blisset può essere chiunque. Vero, certo. Ma ci sono veri e propri collettivi aggiornatisi intorno a un'idea, un progetto di guerriglia comunicativa, persone che hanno scelto di usare il nome collettivo Luther Blisset. In questa pagina si parla degli 001 e delle loro beffe. Ma esiste un altro «nucleo» Luther Blisset, il più famoso, perché portato alla ribalta (e allo svelamento) dal premio Strega: gli autori di «Q». Sarebbe meglio dire «esisteva», visto che dopo l'esperienza dello Strega e lo svelamento (seppur parziale) delle rispettive identità, i quattro «guerriglieri» hanno annunciato di aver sciolto il collettivo, ognuno procederà per la sua strada.

per la caccia alle streghe» (Castelvecchi), «Nemici dello Stato» (DeriveApprodi) e le riviste «Luther Blisset-Rivista mondiale di guerra psichica» e «Quaderni rossi di Luther Blisset». Il capitolo più divertente, naturalmente, è quello delle beffe. La più famosa è quella perpetuata alla Mondadori nel 1996: rifilarono a un Genna scritti di vecchi dibattiti controculturali e Genna li trasformò in un libro, «Net.generation», edito da Mondadori. L.B. rivelò di aver truffato Genna e pochi giorni dopo il libro scomparve dalle librerie. Ma c'è stata anche la beffa televisiva: il gruppo si prese gioco di «Chi l'ha visto?» facendo cercare l'inesistente illusionista Luther. E quella ai giornali: L.B. riuscì a far recensire dai giornali il libro beffa del pensatore telematico Loe Mortais (leggi Li Mortì), «Miseria del lettore».

Ora i quattro autori di «Q» sono impegnati in attività più «ufficiali»: il 3 marzo saranno al Teatro palinsesto occupato di Bologna insieme a Paco Ignacio Taibo II e Pino Cacucci per presentare il nuovo libro dello scrittore spagnolo «Te li dò io i Tropici» (il Saggiatore).

Stefania Scateni

«Abbiamo svelato i trucchi dei critici»

Gli 0100101110101101.ORG raccontano qui come «intervengono» nelle loro operazioni «beffarde».

In che cosa si differenziano le vostre operazioni dall'arte «iradizionale»?

«0100101110101101.ORG cerca di "mostrare il meccanismo". Invece che produrre un oggetto materiale (dipinto, scultura o video che sia) organizza le informazioni e decostruisce i processi, con lo scopo di sovvertire dall'interno - usando le sue stesse

armi - il sistema di produzione, distribuzione e fruizione dell'arte. Duchamp, tramite i *readymade*, ha dimostrato che, nel moderno sistema culturale, il contenitore è di gran lunga più importante del contenuto: nel momento in cui un orinatoio viene esposto in un museo diviene automaticamente un'opera d'arte, pur trattandosi dello stesso oggetto che nel resto del mondo viene usato quotidianamente. 0100101110101101.ORG non ha fatto altro che estremizzare questo assunto, al punto da rendere arte qualcosa di inesistente: nel momento in cui Darko Maver esiste come essere mediatico (articoli, mostre) manifestazioni ecc.), allora esiste *tout court*. Ma esiste solo nella finzione dei media, è in qualche modo «virtuale».

«L'universo dei media è sempre più indipendente dalla realtà. Per quanto distorta, la finzione televisiva dipende comunque dalla realtà. Nel sistema mediatico contemporaneo, e in particolare con l'evolversi di Internet, sta venendo meno questa condizione: l'esistenza virtuale è vincolata sempre meno all'esistenza reale, la "realtà mediatica" è

sempre più indipendente dalla "realtà reale". Se 0100101110101101.ORG non avesse svelato la beffa, Darko Maver avrebbe continuato ad esistere, a far parlare di sé attraverso mostre, documentari, cataloghi e via di-

cendo».

Cosa avete cercato di dimostrare con questa operazione?

«0100101110101101.ORG ha cercato di svelare i meccanismi che soggiacciono all'arte contemporanea, di mostrare palesemente che sono critici ed i galleristi che hanno il potere di creare un'artista, indipendentemente dal valore del suo lavoro; questo fenomeno è comunemente accettato o dato per scontato e ne viene sottovalutata la portata. Nel caso di Darko 0100101110101101.ORG ha semplicemente esaltato gli intermediari ottenendo il risultato di attirare l'attenzione sui processi piuttosto che sulle opere. Paradossalmente, nella sua dichiarata intenzione, è più autentico Darko Maver che decine di altri presunti artisti. L'arte è una formula alchimica che, invece che trasformare il metallo in pietra preziosa, trasforma la merda in oro (Piero Manzoni vendeva i suoi escrementi letteralmente "a peso d'oro"). Potenzialmente ogni cosa può divenire arte, si tratta solamente di conoscere le regole del gioco, i trucchi compresi».

Si trattava quindi di una provocazione contro l'arte condotta dall'interno del sistema stesso?

«Non un'azione contro determinate istituzioni o testate - la rivista Flesh Out, tanto per fare un esempio, ha collaborato attivamente fin dall'inizio - ma una pura azione dimostrativa. Le opere d'arte, anche le più radicali, finiscono per rafforzare lo status quo perché rafforzano la predisposizione del pubblico a ingerire passivamente codici rigidi e stereotipi visivi e comportamentali. È solo smontando tali meccanismi che si può comprendere e rifiutare; non abbiamo bisogno di altri "oggetti d'arte", quanto di opere in grado di rendere il pubblico più consapevole».

Come pensate di riuscire a risvegliare del pubblico un senso critico?

«Ad esempio insinuando il dubbio: come Darko Maver è stato creato a tavolino, allora anche tutti gli altri artisti potrebbero esserlo. Secondariamente smitizzando la figura dell'artista come genio creatore, isolato dal mondo e ispirato dalla musa, idee nefaste che si trascinano dal romanticismo».

E ritenete di aver raggiunto il vostro scopo?

«Da zero alla Biennale di Venezia in un anno, nemmeno Peggy Guggenheim avrebbe saputo fare di meglio. Un'ultima cosa: 0100101110101101.ORG dedica questa operazione a Piero Cannata, il più grande e sottovalutato artista contemporaneo che, nonostante l'avversione del mondo, continua la sua incredibile opera».

A.Ca.

mostra delle opere censurate dell'artista sloveno Darko Maver

arrestato dalla polizia militare il 13-1-'99 nell'area del Kosovo, attualmente è detenuto nel carcere di Podgorica (ex Titograd)

L'ultima esposizione di questi materiali risale all'agosto '91 alla galleria Kapelica di Ljubliana, dopo che l'artista era stato impedita la partecipazione alla mostra collettiva Body and the East tenuta nello stesso periodo nelle Moderni Galleriji sempre a Ljubljana

La locandina della mostra con le opere censurate di Darko Maver allestita a Livello 57 di Bologna nel febbraio '99
In alto il «falso» Maver

Darko Maver è morto..Darko Maver è vivo!
6 febbraio 2000 (fonte: lutherblissett.net)

La grande truffa dell'arte
Avete mai la sensazione di essere imbrogliati?
Una rivendicazione di `0100101110101101.ORG` *e Luther Blissett*

Dichiaro di aver inventato la vita e le opere dell'artista serbo Darko Maver, nato
a Krupanj nel 1962 e morto nel Carcere di Podgorica il 30 aprile 1999.
Darko Maver era nato e vissuto nell'area balcana, la stessa oggi spolpata viva
dagli interessi economici e geopolitici dei potenti, dalle milizie delle diverse
etnie e dalla macchina-avvoltoio dei media. Darko Maver era un artista politica-
mente scomodo, le sue performance difficili da digerire; ciononostante era ormai
pronto per essere assimilato dal sistema dell'arte. Debitamente omogeneizzata,
privata della sua forza espressiva la sua opera era già pronta al viatico canonico
che attraverso le gallerie, le mostre, il mercato porta alla pace eterna del mu-
seo, apice di un processo anestetico, sterilizzante, disarmante.
Il museo: vero e proprio tempio dove si cerimonia l'arte, è un luogo che falsi-
fica, avvilendola, l'arte che contiene, così come il carcere falsifica rendendola
irriconoscibile la vita che nega.
E il teorema, una volta ancora, si dimostra esatto: un artista (un'identità), una
poetica, le opere e il sistema è pronto a fagocitare tutto, a tradurre in merce
quanto era vita.
... tutto questo per Darko Maver non accadrà.
Perché Darko Maver non esiste! Perché le sue opere non esistono!

Parte I: Biografia/La creazione del personaggio

Darko Maver, vero nome di un noto criminologo sloveno, è una creatura mediatica.
Costruito nei dettagli per penetrare le difese immunitarie del sistema artistico,
novello cavallo di Troia, Darko Maver non ha fallito. Nel momento del suo recupe-
ro - inevitabile sorte di ogni pensiero/azione per quanto estremo e radicale - nel
momento in cui il cappio si serrava, è svanito, rivelando tutto il suo potenziale.

Parte II: Le opere/La mitopoiesi

La diffusione del nome e dell'opera di Darko Maver è una rivolta attiva ad ogni
forma artistica dominante. Dove i confini tra realtà e falsificazione, se esi-
stono, sono talmente sottili che spesso i ruoli si invertono ed è la realtà che si
trova a copiare l'imitazione, Darko Maver è un saggio di purissima mitopoiesi.
Le agghiaccianti foto, presunta testimonianza della sua attività all'accademia di
Belgrado, ritraevano autentici feti e aborti che sono stati creduti senza fatica
sculture in PVC e vetroresina di proporzioni giganti e persino indossabili! L'or-
mai famosa opera 'Tanz der Spinne' è composta di immagini reali di omicidi, stupri
e violenze di vario genere; nessun manichino è mai esistito e nessun giornale ser-
bo ha mai recensito le performance di Maver. Tutto questo repertorio di immagini
raccapriccianti è reperibile nel sito Internet http://www.rotten.com e in altri
simili, a disposizione di chiunque abbia lo stomaco per vederle.
Lo stesso volto di Darko Maver, riprodotto su diverse riviste e decine di siti
web, è in realtà quello di Roberto Capelli, storico membro del Luther Blissett
Project bolognese.
La verità delle immagini credute simulazioni compensa l'inesistenza di un artista
creduto reale
Ma un'artista, per essere tale, necessita di una poetica, di una teorizzazione
del suo lavoro. Ecco 'La Dimensione degli Extracorpi' e altri testi deliranti
e assolutamente illeggibili - parodia di tutta una serie di teorie nauseabonde
sulla mutazione/contaminazione - in cui è impossibile trovare un senso qualsiasi
ma di cui un grosso critico, durante l'ultima esposizione del 'caso Darko Maver'
il 9-9-'99 a Roma, ha attribuito indignato la paternità a niente meno che Francis
Bacon!

In principio erano due siti Internet, l'unica testimonianza dell'esistenza di Maver. Ma Internet come medium non fornisce alcuna garanzia anzi, la facilità di confondere le identità è parte della sua natura; l'essere presente in rete era per l'artista serbo decisamente troppo poco perché qualcuno si interessasse alla sua opera. Darko Maver, o almeno le sue opere, dovevano concretizzarsi materialmente per essere notate, e così è stato.

Parte III: Il carcere/Le mostre

Nell'agosto '98 una rinomata galleria di Lubiana, Kapelica Gallery, espone la documentazione di 'Tanz der Spinne', costituendo un prezioso precedente per le successive mostre dedicate al fantomatico artista. Presto segue infatti quella di Bologna, il 18-19-20 febbraio 1999, nel contesto di una manifestazione per la libertà d'espressione che espone opere di diversi disegnatori tra i quali Liberatore, Martin e Manara.
Centinaia di attenti visitatori si accalcano nello spazio dedicato a Maver. Scioccati dalle immagini delle performance, i cui originali sono stati censurati e distrutti, cercano spiegazione-conforto nei testi la cui irrazionalità li lascia letteralmente a bocca aperta, definitivamente disorientati. Risultato: dal febbraio di quest'anno, dopo pochi mesi di vita, Darko Maver è già un mito; perlomeno nel mondo underground.
L'opera di propaganda continua su più fronti: in rete gli sviluppi sulla vicenda: la censura delle opere, la distruzione delle stesse e l'arresto per propaganda anti-patriottica sono riportati a centinaia di iscritti dal periodico 'Entarte-teKunst' (http://www.EntarteteKunst.org) fruttando numerose citazioni e link da altri siti; contemporaneamente escono alcuni articoli: Flesh Art (no.3, aprile '99) dedica due pagine alla vita e alle opere di Maver mentre Tema Celeste (np.73, marzo '99) pubblica il comunicato stampa dell'incarcerazione, avvenuta il 13/1/1999 nell'area del Kosovo, e a questi ne seguiranno altri. Maver sarà più volte preso ad esempio per la censura subita, altrove semplicemente citato.
È in questo periodo che la situazione in Kosovo, già da tempo intollerabile, esplode con l'itervento delle truppe NATO nei balcani.

Parte IV: La morte/il mito

Al 30/4/1999 risale la notizia della morte di Darko Maver.
L'immagine del corpo, verosimilmente pervenuta via Internet, si diffonde rapidamente insieme all'interrogativo inquetante: omicidio o il suicidio come ultima tragica performance?
Quest'ultimo atto della 'vita' di Maver ha trovato eco in un lucido e pungente articolo, "Manichini di guerra", apparso su "Modus Vivendi" (n. 6, luglio/agosto '99) che illustra puntualmente come Darko Maver, le sue opere e la sua storia, potessero essere lette come una critica alla realtà mediatica e alla strumentalizzazione delle immagini delle vittime del conflitto bellico.
Dalla morte al mito il passo è breve. È il momento della celebrazione dell'artista serbo morto sotto i bombardamenti NATO. Il 12-6-99 alla Biennale dei Giovani Artisti, a Roma, il gruppo teatrale Sciattoproduzie dedica all'artista serbo il suo spettacolo-performance intitolato appunto 'Awakening, a tribute to Darko Maver' ed espone nuovamente il materiale documentario sulla sua opera.
Il 23 settembre, alla 48esima Esposizione Internazionale d'Arte a Venezia, viene presentato il documentario 'Darko Maver - L'arte della guerra'.
Il 25 dello stesso mese il Centro di Produzioni Multimediali Forte Prenestino di Roma ospita una reterospettiva dedicata all'opera di Maver. In mostra, oltre alla documentazione delle performance di 'Tanz der Spinne', le opere giovanili fino ad ora inedite, per lo più sculture e collage, realizzate nei primi anni '80.
La presenza di Maver alla biennale veneziana rappresenta senz'altro il massimo obbiettivo perseguibile nel lungo processo dimostrativo della permeabilità di un sistema come quello dell'arte.

→ Tsila Hassine & Ziv Neeman on Internet of Things

Ziv Neeman   In this session, we're going to talk about the **Internet of Things** (IoT). A European Union white paper in IoT defines it as *"things having identities and virtual personalities operating in smart spaces using intelligent interfaces to connect and communicate within social, environmental, and user contexts."* This definition endows the objects with identity, personality, maybe even a certain agency ,and I think it is important to textbfdifferentiate between connected objects and networked objects. A connected object would be, for example, a toaster connected to your smartphone informing you when your toast is ready. Admittedly, this is not what all the hype is about with IoT. It becomes interesting and, for me, also alarming, when the toaster is connected to the supermarket, your doctor, and your health insurer, informing them of the number of toasts you've had throughout the year. And also, this will affect our very notion of textbfownership: we will no longer own our smart appliances, rather, we will pay some form of rental fee for the constant maintenance, such as for software updates, antivirus protection, and so on. Why do you think **there is a surge now with IoT** even though the basic technologies have been around for some time?

Tsila Hassine   It's a very interesting question to ask. There has been a convergence of factors, or, as I just say in business speak, enablers. So first, we have **cheap bandwidth** . Back in the old days of the internet, you had to connect through a modem, it was 56k, it made all these ridiculous noises, and in terms of today, you cannot do anything with it. So yes, now we have available, cheap bandwidth. Because if the toaster is connected and the fridge is connected and the TV is connected and everything else around the home is connected, really need big, big bandwidth which is also cheap. And then we also have, of course, **Wi-Fi** . Because again, if you have 50 appliances connected to the internet, you cannot have them connected through wires. You will not have a home anymore. You'll just have a labyrinth of wires. And of course, there's the kind of prices of sensors. And you have the **IPv6** , which gives an address to every element, very important so you can address your own toaster directly, and the neighbor's toaster has a different address, so you don't send mixed messages to each other's toasters. But there's one factor which is the most important of them all, and that is us, the users, since we all carry some sort of central nervous system in our pockets – we have our smartphones – we are already used to being constantly online. We are already used to having an application for everything or a widget for everything. **We expect 24-hour connectivity** . So we are ready to communicate with our objects through some sort of **application** . So all these together contrive to bring us the IoT these days.

Ziv Neeman   How would you make a **connection between the IoT and artistic practices**?

Tsila Hassine   The IoT is still a very new technology, so it is still very hard to imagine the deeper and the transformative impact it will have. But artists are known for creating scenarios to reflect and examine new technologies. One of the most well-known examples is the **Sony Portapak** and, of course, **photography**. So artists are using artistic means to reflect on what kind of impact communicating objects can have on us.

Ziv Neeman   The first work I'd like to discuss is by designer **Simone Rebaudengo**, who imagined in **2012** an every day IoT scenario around the fictional character of ***Brad the toaster***. In this short **mockumentary**, Rebaudengo deals with issues of ownership, possible agency of home appliances, and a network of sensing objects.


Tsila Hassine   Simone did this project as part of his master's thesis graduation project, and he did create a network of communicating toasters. But what is more important in the short film, he **raised**

several issues that are very important for the IoT, and that is the question of **ownership**: are we going to own our objects, or are we going to rent them? Do they belong to us, or do they belong to maybe themselves? What happens when toasters communicate in a network? They develop **some kind of competition** between them. And what kind of owner – or I might even say **what kind of subject-object relationship** – develops when the object gains some sort of agency?

Ziv Neeman I'd like now to look at another work. This is a more humorous, tongue-in-cheek approach to IoT. Maybe you should introduce it, since your French is so much better than mine.

Tsila Hassine This work is *"Ma Data est une poule aux oeufs dor"* by **DataDada**, which means in English, "My data is a chicken which lays golden eggs", and the byline is a **completely useless data device**. In this work, there is a chicken which seems to randomly lay golden eggs. But it is not random. This chicken is actually **connected to the price of 100 eggs** in the Rungis Market, which is the biggest wholesale market in Paris, and once the rate drops below – I think it was 7 euros for 100 eggs – then this chicken lays a golden egg.
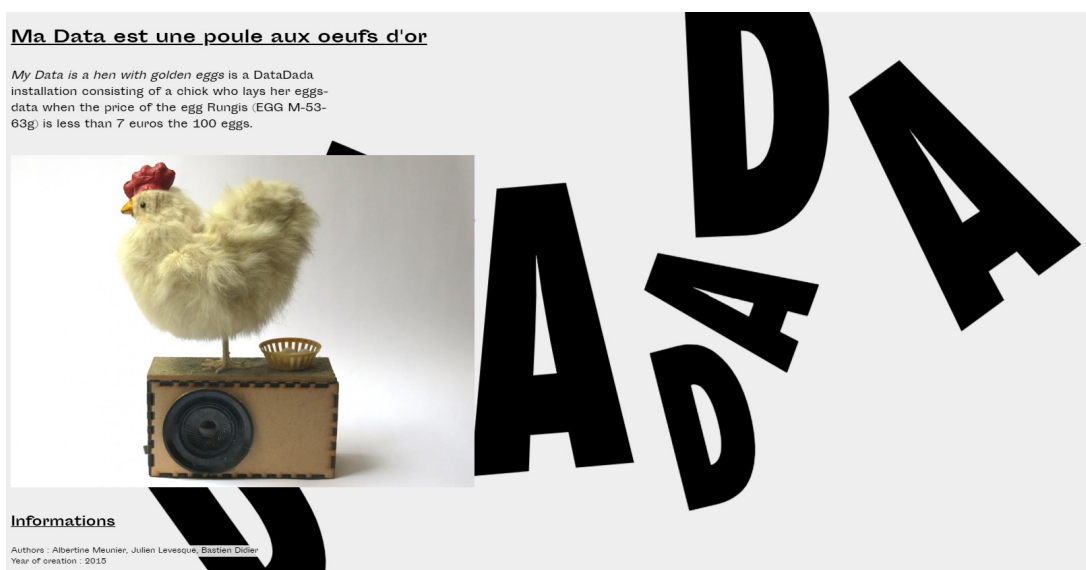
Ziv Neeman The French artist collective **DataDada**, which created this work include Albertine Meunier, Julien Levesque, and Bastien Didier. I can see how this work really draws from the spirit of Dada, **mixing socioeconomic critique with humor and also making fun of all the hype around IoT**.

Tsila Hassine Yes, it is definitely questioning all the hype around this technology and asking, **do we really need this technology?** What will it serve? Do we really need to be connected to data all the time?

Ziv Neeman Tsila, maybe you will introduce the last work we will discuss involving IoT.

Tsila Hassine So yes, I guess you're referring to my work from **2017, *Still Life, Live Data* **, a collaboration between artist **Olga Kisseleva and myself**. In this work, we connected 13 photographs, still-life photographs, to a network of art objects. So each object there was endowed with qualities based on the content the photograph, and **together, they formed a network** which had some kind of **group dynamics** going on between them. The works all had– of course, they had the whole apparatus going on around them: there was a video cam, there was a Raspberry Pi, a microcontroller, all connected to an online server which was, in turn, connected to a smart light, Wi-Fi controlled smart light. So what happened in the gallery space is when the user enters the gallery space and goes and watches one of the photographs, the computer counts the amount of time the spectator watches. And this affects, in turn, the light in the gallery. So a simple scenario would be that the, let's say, most popular artwork would get the most amount of light. But then, of course, since we are being artists and we want to do more

interesting than that, we created a whole group dynamics between the images– which images were more shy, which images were looking for more attention, et cetera. Not unlike the story of Brad the toaster, where the toasters were competing for attention from the owners. Here, **the photograph is sort of competing for attention from the viewers**, since an artwork's most precious resource is the attention it gets from the viewer. So in this sense, the **artworks came to life with some sort of their own agency**, which was materialized through this network apparatus.

Ziv Neeman   I understand that this project involved quite a lot of group work beyond Olga Kisseleva and yourself.

Tsila Hassine   Yes, this project was quite an **interdisciplinary project**, since it involved a team of **designers, artists**, and, of course, **programmers**. It was a very interesting experience to see, also, the curator's involvement in that. He discovered a whole new programmatical, technical side to himself, screwing up devices to the walls.

Tsila Hassine, detail from the show "Still Life, Live Data",
Artists Residence in Herzliya, 2017

→ Nimrod Vardi on Performing the Virtual

Nimrod Vardi is the director and founder of `arebyte` in London City Island. `arebyte`, at its current state, was founded in 2014, in Hackney Wick in East London. In this section, he will talk talk about performance art, early net.art and the absence of the body in VR and digital media

arebyte Gallery is a London-based art organisation which supports the development of artists working across digital and emerging artforms.

Following in the long tradition of artists experimentation with new technologies, arebyte Gallery has led a pioneering programme since 2013, to much acclaim. From web-based work to multimedia installations including Virtual and Augmented Reality, Artificial Intelligence, Computer Generated Images and 3D printing, the gallery commissions new works from emerging, as well as more established artists. The gallery supports multiple voices in digital cultures across the UK and internationally to bring innovative perspectives to art through new technologies.

Registered as a charity and operating as a studios provider throughout London, arebyte channels its rental income into its arts programme to deliver a series of exhibitions and online projects, with the support of additional private and public funders.

At the forefront of today's digital art scene, arebyte Gallery offers an inspiring place to explore emerging media art with an interdisciplinary approach at the intersection of art, new technologies, and social sciences.

Through a public engagement programme nurturing creative and digital skills, the gallery fosters a young and inclusive art community that reflects the diversity across Tower Hamlets, Newham and Greenwich.

Would you tell us a little bit about arebyte as a project that has been founded, what, six or seven years ago?

We actually founded arebyte, at its current state, in Hackney Wick in East London. It was set up as a continuation of a site that we had earlier in Central London. In **2014**, we made a decision to move **from cross-disciplinary space to specific new media– digital arts**, and there was part of a complex of studio spaces that we had on site. The space was located in Hackney Wick, which is an area known for– used to be known as the largest concentration of art studios in Europe. So everything around was art studios and artists and creatives and all sorts, and then the lease came to an end, and we moved here a year ago to a new place on the City Island, where we have this gallery space and studios and coworking space as well.

And could you please elaborate about your dedication to "new media" and "digital art"? How would you refer to those terms?

I think we made a decision last year to move **from the term "new media" to "emerging media"**, as you said, because of the **problems that the term "new" brings** with it. The focus is very much on digital technologies, on physical and virtual online. And we're trying not to really say that this is exactly what we're doing, we don't need to do that, we're willing to experiment and open ourselves to a wider discourse, the things that deals with **the way technology affects our experience and existence nowadays**. I mean, we try to always push the boundaries and re-evaluate with every show and with every program that we curate.

And I know that this project was initiated when you had in mind the sort of space for experimenting with new technologies and new media and their meaning for art practice. And I know that there are few residency projects that you are running in the space. Can you tell us a little bit about those?

We started with the **gallery residencies**, which meant that the artist was using the space as a studio space while being open to the public, looking at the artistic production and artistic process as something that should be also visible and should be exposed. We've done that, and **now we moved** from that to something slightly different, where we have residences, but they're confined within a single studio space, but the outputs are ongoing as an online research and onsite exhibitions or small projects. I think this **ongoing research** onto the artistic labor or practice and how digital technologies changes it or would change it more dramatically in the next years is very interesting, considering the fact that we have artist studios, as well as a business model. So **re-examining the tools that creatives use**, I think, is now becoming more and more apparent or more part of any discourse and conversation purely because technology is again to the point where they replace many things that have been existing for a while.

*And for example, **they have the tendency to replace**, let's say, the **closed art object as an object in space** that can be simply viewed and deciphered for what it is, and in a way emphasizes process over that end result.*

Yes, but also, in a more practical way, **the computer becomes the studio**, the four walls of the studio. The keyboard becomes the tool rather than the paintbrush. The headset becomes the space. The HTTP becomes the paint, and so forth. So all these are really exciting to see, more and more artists, whether young or even more established artists are assigned to look into how they can use these **new tools with more traditional art practices**.

*And one of the topics that we wanted to discuss and think about together today is this notion of **virtual reality** that has become extremely prolific in recent years because of new technologies that have been introduced to the market. And in the past two, three years, you've had really interesting projects to tackle this issue of virtual reality. And today, I would like to speak about two of those. The first one is **Lawrence Lek's** Project **NOTEL**. Do you want to tell us a little bit about this project?*

This project is part of our program. **We have yearly programs, so this year (2018) is *Islands*,** because we have moved to an island. The project was together with ***Kode9***, a Scottish electronic music

arebyte Gallery 2018 Programme

For this year's artistic programme, we will focus on and explore the theme of Islands

Reflecting on recent local and global socio-political changes, the programme – launched with a group show, followed by five solo exhibitions, an International residency, a series of online commissions and a professional development programme for emerging artists from outside of London – will be looking at the idea of dislocation and association of space, from both physical and theoretical aspects.

islands

Presenting a series of exhibitions which approach the theme in various interrelating and converging ways, the programme will examine notions of autonomy, ecology, occupation and colonisation shaped and contained by the nature of islands and will include works by local and international artists.

With a look to the more physical interpretations of the word island, the works in the first group exhibition of the programme, titled *on my island none of this would be true* curated by **Chris Rawcliffe**, showed work relating directly to London City Island, and the UK as a whole, as way to expand on historical and contemporary references to feelings of isolation, separation and escapism.

Continuing this relation to communities or inhabitants of islands, multimedia artist **Lawrence Lek** proposes an alternative future for housing with his installation Nøtel, which both criticises urban development schemes and the aesthetic advertorials they require, as well as questioning affordability and scarcity of space in the Capital with relation to rising rent prices and inflation.

Our young artist development programme *hotel generation '18* expands on the notions of networking communities and scarcity of space by looking outside of the Capital for emerging artists, and giving precedence to those who are located in smaller cities and areas of the UK.

With his exhibition *Fellowship of Citizens*, **Saemundur Thor Helgason** will develop on the notion of labour and how it is financially acknowledged. The project criticises the lack of economic value and precedence given to creative industries and to those with precariously salaried jobs, and seeks to demonstrate the feasibility of a financing scheme which operates as an economic island. The exhibition elements – comprised in part of a new short film and installation-based works acting as effigies to the process – demand a rethinking of the ways in which we consume commercial and capitalist ways of living.

The *Islands* programme is as follows:

Chris Rawcliffe – *on my island none of this would be true* February

The opening show of Islands was a group show, *on my island none of this would be true*, guest curated by Chris Rawcliffe (UK), featuring works by 10 UK and International artists, whose practices span across sculpture, installation, photography, poetry, video and performance. The show took its title from the last line of a poem called *Security*, written by Tom Chivers for his book *Dark Islands*.

Saemundur Thor Helgason – *Fellowship of Citizens* May

Fellowship of Citizens (or 'Félag Borgara') is London-based, artist Saemundur Thor Helgason's (IS) first solo exhibition in London. The exhibition will formally launch the interest group Félag Borgara, founded by Thor Helgason in Reykjavik in October 2017, which seeks to seeks to demonstrate the feasibility of a financing scheme which operates as an economic island, a microcosmic financial system, lobbying for basic income in Iceland. The work operates on a national scale due to legal restrictions, but financially supports BIEN (Basic Income Earth Network), an international organisation that advocates for basic income worldwide.

Lawrence Lek – *Nøtel* July

Nøtel is an immersive multimedia installation by London-based, artist Lawrence Lek (UK) presenting a fictional luxury hotel chain called *Nøtel*, comprising an architectural model, video and sound projections, and a virtual reality video game console. The project plays with the format of the marketing suites used by property developers to promote new buildings for sale.

Set in a future London, where society no longer requires permanent housing but rather stays in a range of temporary accommodation, *Nøtel* speculates on critical issues surrounding the newly-regenerated London City Island. The project continues Lek's exploration of architectural visualisation as a means to explore the critical and aesthetic issues surrounding urban development.

hotel generation '18 November

A UK young artist development programme exhibiting four artists from outside of London. From an open call we shortlisted four artists: Cassia Dodman (Orkney), Sulaïman Majali (Glasgow), Aaron McCarthy (Glasgow) and Karanjit Panesar (Bristol).

They will each receive a stipend to begin the research and development stage of their proposal. Working closely with the arebyte team, the shortlisted four will be provided with professional guidance, studio visits, critical feedback and general mentoring and assistance. One final artist will then be selected by a panel of judges and receive further funding to realise a solo exhibition at the gallery space.

artist and DJ (founder of the Hyperdub record label). They created basically a **speculative building a hotel** that will be built on site in the far future. It's a mile-long radius spherical hotel that is fully automated. And basically, as a visitor, you just walk inside and everything has been dealt with. There's no people. There's no other humans that you need to interact with. **Everything is computer run** and operated and kind of create– the installation itself was **two VR headsets**, virtuality headsets, and game pads where you can move around. And there was a video work as well of a tour within that site. And once you put the headset and you start walking and exploring the space, you realize that you're on your own there, and it gives it kind of this **eery feeling of loneliness**, of a **dystopian** future that everything has been dealt with. **Everything is taken care** of, where you just need to come and indulge in being a visitor or resident of the hotel. So that's kind of the– that was the premise of the project.

> *And what I find interesting about this project is that it sort of resonates with **both a fantasy and a nightmare**. On the one hand, it's marketed as the **space of ultimate privacy**, right? Like you're completely alone. There is no thinking being around you who can judge your movements or your actions in that space of void. **Apparently, you can be completely free**, and there is this kind of fantasy of the fully isolated island, so to speak. And on the other hand, there's a **promise of privacy**. I mean, we know how those things work, how those technologies that are offered to us now work, that on the one hand, if we take, for example, the Internet of Things, like things do things for us, objects in our household may do things for us, but we know that the price that we actually pay is in our privacy or access to our personal data. So I was wondering about this kind of **tension** that exists in this work **between the apparent privacy and the notion that we are actually giving up all privacy in spaces that are automated or run like this for us**.*

Well, I think in that specific work, the fact that, actually, if you look down and you realize that you're a drone or you've been hovering on a drone, and this fully encompassing experience of being served by technology, and everything, all agency has been taken away from the body and you become just this mash of maybe of tissues and DNAs and stuff like that, but it just sits there and nothing needs to be done. There's a book from the 1920s, a short story that says that basically in the future, we'll just sit on couches and we'll just have to produce thoughts and ideas and that's it. And everything will be served to us. And I think that gives that the same feeling, the same kind of, yeah, **dystopian future**. But maybe it **might as well be Utopian**, depending what is that you're looking from life. I think that, also, **the project in itself kind of reflected on the outside of where we are on the island**, this kind of very new development, almost kind of neoliberal in this idea that everything is designed, everything is controlled, everything is how it's supposed to be. And **once you come and start playing around and you move things around, things are quickly put back in place**. The signs I've done, walk on the grass sort of thing, where you have the path, but you just want to sit on something soft sometimes. **This project is very much about architecture of these controlled environments**. All these things are starting to become more and more apparent in our urban environment, specifically within new developments all over the world. So it's **this notion of freedom, a very controlled freedom**. It's almost like Plato's Cave sort of thing, of what you see is in front of you, and you don't anything else. I think slowly, slowly, as we get in deeper and deeper into this fully automated future, you wouldn't know anything else, and that's what is really scary is. We're born into a world that tracks everything we do, and we were born in the '80s. We know a slightly different analog world, but what happens once the new generation just accept these things for granted and don't know anything else? Kind of relating maybe to a different project of ours that we'll speak about afterwards. **Josh Harris**, in one of his projects, he said that **everything is free, but we own your image**. I think that kind of continues that line of thought.

> *We saw in the course Josh Harris's **We Live in Public** project.*

We actually have two works of his in our gallery. We also had an interesting conversation last year (2017) about the ideas of his work, and I think that now the world became actually faster, more and more likely to the future that him and many other people have predicted becoming reality. So Lawrence works very much on this, he does the same kind of projection into the future, or even the present in such enclosed enclaves like this one.

> *Another project that I wanted to speak to you about is **Mark Farid's Seeing I**, a very interesting project exploring **virtual reality**. Would you tell us a little bit more about it?*
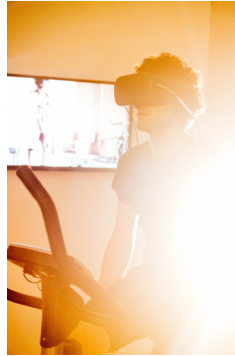
Seeing I
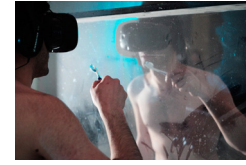# at Ars Electronica, Linz

Mark Farid

Opening to public view from 2 September
Exhibition runs until 9 September during the Ars Electronica Festival: Out of the Box - The Midlife Crisis of the Digital Revolution, 2019

Installation view of *Seeing I*, Mark Farid, 2019, Ars Electronica, Linz.
Image: Mila Lewis

Installation view of *Seeing I*, Mark Farid, 2019, Ars Electronica, Linz.
Image: Mila Lewis

Installation view of *Seeing I*, Mark Farid, 2019, Ars Electronica, Linz. Image: Mila Lewis

arebyte Gallery are pleased to announce *Seeing I*, taking place as a residency and trial run exhibition at Ars Electronica, 2019.

Seeing I is a psychological art experiment that examines the implications of surveillance technologies on our experience, and questions how much of the individual is an inherent personality and how large a portion of the individual is conditioned through a cultural identity.

For seven consecutive days, British artist Mark Farid is living in the exhibition space. In the morning he puts on on a virtual reality headset and watches the first person point-of-view perspective of seven different people (the 'Other'), from the moment they get out of bed in the morning, to the moment they go to sleep in the evening.

Each day, Farid will watch a different person's life; eating when they eat, and sleeping when they sleep. Otherwise, Farid is free to do as he pleases within the exhibition space, so long as the headset remains on.

Each night, after the Other goes to sleep, Farid will take off the VR headset and speak to the projects' clinical psychologist, Dr. Tamara Russell, through a microphone and speakers in the room. On the final night of the residency, a public conversation between Farid and Dr. Russell will take place in the exhibition space. This will be the first time Farid will have seen a real human being for seven days.

About Seeing I, 2020

Inspired by psychologist Philip Zimbardo's *Stanford Prison Experiment* (1971), philosopher Jean Baudrillard's *Simulacra and Simulation* (1981), and artist Josh Harris' *Quiet: We Live in Public* (1999), *Seeing I* uses new technologies to examine constructions of the self in the 21st Century.

For 24-hours a day, for 14 days, artist Mark Farid will wear a virtual
reality headset, seeing and hearing only what one person (the Other) sees and hears for two weeks. The Other is an individual who will record a continuous 220x165° HD panorama of all their immediate sights and sounds, facilitated by a headband fitted with miniature camera lenses and microphones. Farid will witness every waking moment of the Other's life; from brushing their teeth, to their commute, their work and social life, and their most intimate moments with their partner, family, and friends.

Seeing I will confine Farid to a gallery space, subject to the simulated life of the Other. With Farid unable to hear his own voice or see his own hands for two weeks, and with the only stimulation being what the Other sees and hears, how will the constant stream of artificial sights and sounds start to affect Farid's movement, mannerisms, and personality? How will his indirect relationship with the Other start to affect his own rationale? Without agency to determine all conversations, actions or any expression of self, will Farid start to see himself as the Other, or will his own sense of self be enough to deter significant change?

Seeing I has been conceived and produced by artist Mark Farid and is commissioned by arebyte Gallery in partnership with Sundance Institute, The Mindfulness Centre of Excellence, Ravensbourne University and Imagine Science Film Festival.

Credits:

Mark Farid, Artist, Producer, and Subject
Nimrod Vardi, Funder and Co-Producer
John Ingle, Film Director
Tadej Vindis, Development of the custom built recorder - System Design and Project Management Frank Davies , Development of the custom built recorder - System Design and Software Development Drew Richards - Development of the custom built recorder - Prototyping, Manufacture and 3D Design Dr. Tamara Russell, Clinical Psychologist
Petri Luukkainen, Film Director
Carl Smith, Live Biometric Research
Mark Ransley, Live Biometric Research
Nick Lambert, Live Biometric Research
Rebecca Edwards, Curator, arebyte Gallery

So *Seeing I* is a project that we launched about four years ago (2014). At the beginning, it was a speculative project, where **Mark Farid**, the artist, is going to **live for 28 days wearing a virtual reality headset, living someone else's life**. The other person will be recording his life from the first person point of view. That will be recorded and then streamed to Farid, situated in the gallery space for the entire duration. **It's not pure virtual reality** in the sense that it's not CGI or animated, but it's real, **real virtual reality**, so it's someone else's life. And then the question that we raise here and try to **explore** is this idea of **nature versus nurture**, as is **what defines and what makes one's identity?** And the world, as a whole, what he sees in front of him, whether it's his own reality or someone else's reality, and whether it matters whose reality it is. And that also goes back to Plato's Cave of how real the world around us is.

> *This reminds me the well-known text by cyberfeminist* **Katherine Hales**, *called* **The Condition of Virtuality**, *where she criticizes an accepted notion in scientific and technological circles that actually* **everything can be translated into digital data**. *And we know of many projects in robotics and artificial intelligence and other that actually try to* **translate people's consciousness or identity into virtual reality scenarios**. *And I feel that this project, he has some kind of correspondence with this kind of criticism. Maybe you can comment on that.*

I think that the sheer fact of being in an enclosed virtual reality space and also within a physical space would create **correlation between the virtual world** after a while where **the individual, Mark, wouldn't be able to distinguish what's coded and what's not**. Of course, the footage is real, but it's still translated into code. I mean, I think the consciousness, in a way, although it's not *The Lawnmower* or *Strange Days*, **the data is codified**, and **the experience can be controlled that way**. I think that the project does reference a lot of these 1990s films, like *The Matrix*, *The Lawnmower*, *Strange Days*, that are all trying to understand and to look into our identity within virtual and digitized worlds.

> *Like* **what constructs our identity**, *there's something about Farid's project that actually assumes that identity is constructed by what we do on a daily basis, by our behavior or habits, and that in a way, by adopting those behavioral habits, we may also* **adopt some traits of the consciousness of another person or be able to penetrate or invade into their inner world**.

I think it has so many aspects to be a specific project. For example, one of the things the other person want to have, for him or her, is to have a partner. And at one point, you get **emotionally attached to someone else without touching them**. And that tells a lot about online dating and similar. There was was *Catfish* and there was *Her*, for example, and both of them speak about the **fictional identity** and the **identity of virtual entities**, so to speak. So **what are the links and the emotional and physical connections** that would happen there? But also, this **relationship that is created between Mark and** himself, well, **the other**, which he has his own thoughts, but he has someone else's actions. And one of the biggest inspirations for the project is **We Live in Public** – Josh Harris's project – where you constantly record it, so that adds the other **layer of voyeurism**. So the layering in *Seeing I* is that **he's watching**. Someone else is probably watching someone else, **and then he's being watched**. So it's a layer of watched and being watched – It's **multilayered surveillance** systems of all kinds of forms. I think this leads to the last point of the performative aspect of it, when you're being **exposed in a gallery space** that is dominantly for art. And it would raise the question that relates to a lot of performance artists, such as Marina Abramovic, about **what is the role of the performance artist**, and the artist as a whole, whether just the fact of being in a gallery space is enough to be referred to as an art project. And I think that raises a very interesting question about he being as an artist and the fact that this project is ultimately an art project. It's not an endurance test. It's not a scientific research. It's an art project, and it's meant to critique things the same as any other.

> *And it's interesting that you mentioned the gallery space because much of the discourse around emerging media, new media, digital media, art, whatever you want to call it, speak about the* **gallery as a redundant space, almost**, *because if we have virtual realities and we have online platforms, then* **what is the actual meaning of an artist being situated in real space and performing** *those things while people can watch them? And I think that there*

> *is something about the **embodied and the situated experience** that sort of makes you **ponder about the actual relationship between the actual and the virtual** that is sort of highlighted in this project. And I wonder how you feel about curating emerging media art or the role of the gallery space nowadays, which is quite different, isn't it?*

`Awful English, confused, dull speech about nothing.  Not worth of a transcription.  I give up.`[3]

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[3] *Raw transcription left*: Yeah. The fact I think that the internet, and general media nowadays is bombarding us with images, videos, data and content all over, and this reduces our attention span. There's great work online. There's really incredible artworks, and that would take the attention, but the experience is very different to experience when you go to a gallery or museum. I think that digital/emerging/new media, or whatever term you want to use, can bring the audience one step further into a different type of understanding, and not dominant in an interactive way– when you move your hand, something moves on the screen– but once you wear a headset, you get into– you immerse yourself. Then you get into a different state of mind. And one thing that I have found the most magical about virtual reality is the moment where the real world penetrates the virtual world. For example, a project that I've seen a couple of years ago, I was just sat on a couch, on a sofa, wearing the headset, when we were on a boat just in the river. And all of a sudden, I started feeling water on my hand coming from the cave ceiling. And that's where you start understanding what the real potential of virtual reality is, where it plays with your mind to the extent that you don't know what's real, and it's scary. But it's powerful, yeah. It's a multisensual experience. Yeah. Yeah. Because the virtual as a philosophical concept can be actually looked at from this– I mean, for example, from a delusion perspective, it would be that we don't have any world that is not virtual. Everything that we experience is, in fact, virtual. And to some extent, those technologies only highlight our normal state of being, only that we believe this virtuality so much that we don't think about it as virtual. Yet, when you speak about technology in terms of virtual reality, there is a sense of creating alternative parallel worlds and not necessarily the world that is in our mind. And in what you are describing, there is this kind of mixture or maybe tension between the two that I also find very interesting in those projects. And in terms of Farid's Seeing Eye, if I may comment, I think that the presence in the gallery space or this tension that is created between how he views reality through the headset and how the spectators that are coming into the gallery looks at him, I mean, from the pilot that you've done and the video that is published online explaining the project, when you see how he's being fed, for example, or how his day-to-day acts are very much different than one you would expect from a normal living, there is this tension between what he has in his mind and what is happening in actual reality and the spectators signal, in fact, the gaps between the virtual and the actual. I think once we start talking about the curating of the show, that we had so many different options, but we need to finish the development phase. Then we get into this relationship between the spectator and the person who's trapped, let's say. And one of my personal issues with virtual reality artworks, and in general, is the moment that you wear the headset within an exhibition context, you become a performer. And I don't like being in the spotlight. I don't like being watched. I don't like being out of control. And I think that creates, for me and I guess for other people that I spoke with, some kind of paranoia, some kind of fear of what would happen once I can't see who is in front of me. But also, it leads to this question of the performer and perform activity or performance or, what is that and who is on the spotlight and who is the artist? What's the artwork? And I think that creates a lot of very interesting conversations about the nature of art nowadays and then how many things are moving away from the object and going towards the experience and the experiential and the spatial as well. So I enjoy thinking about how technology changes our behavior, changes art and our everyday– everything around us. And it's fascinating to think about the future and what can happen. And I think this is where we are situated at the moment is we were a project space before. We're now, I think, we can call it a gallery space. We have a program, although we always had yearly programs. But we're thinking about the future and what we should become. And it's exciting times to be working in London, I think. And in general, there's all sorts of technologies just coming out every day, week, month, year that just introduce them to artists, and then the possibilities become kind of endless, almost. Now just before we part from you, we're sitting here and in the background, there is this wonderful work. Would you tell us a little bit about this, what is currently presented in the gallery? The exhibition is called The Way Things Are. It's by a young artist called Karanjit Panesar, and he's the selected artist from our young artist development program called Hotel Generation. It's a yearly program that bring artists up to the age of 26 living specifically outside of London to work with a London-based gallery. The work is a critique on the way that the capitalistic system infiltrates almost our everyday, everything that we do, from the way we talk, to what we wear, to what we buy, to where we live. It kind of doesn't give a solution, but it suggests that this thing, this state that we are in, is permanent and it's unchangeable. And I guess, in a way, it's this thing that we keep telling ourselves or are being told that this is the world around us. We can't change it. Just live with it. And the way that it's built, the installation, it kind of uses a construction site language, something that it's been held and it shouldn't change. You'll do everything in your power to keep it the way it is. And on the other side, there's a chroma key, a green screen, that basically allows everyone to create their fantasy, to create the world that they want to create within that. During the project, the next six weeks, when it's on, the gallery is open for everyone to come and use it the way they want to use it. So they can actually use the other side of the scale of the installation as a green screen for– Yeah. But the space in general, so it kind of relates to the first project that we had in the new gallery, which was Concertina by Richard Wentworth and APPARATA. And it also was looking at what is the role of gallery spaces and the social elements or positions that cultural spaces needs to have as a place to meet, as a place to do things that are not always art related, as a place of culture, of politics, of discussion, of education, of just hanging together. Just the space of being together, as Levinas would put it. It's interesting, that that's the way things are, because it is also a little our relationship with technology, so to speak. We take that for granted as a new reality. And we think that these are givens, objective sort of facts that we need to deal with, and this is how things are. While at the end of the day, when you look in a critical point of view, both on technology and on capitalist ideology, there are a lot of subjective entities that are actually driving the wheels behind those seemingly objective systems. So I feel that it is a wonderful conclusion to [CHUCKLES] our conversation. Yeah, but on that note, maybe, is going back to the '80s, where in an analog world, we could have seen

8.2 Post Humanism & the Anthropocene

`Transcription still to be formatted and reviewed`

 Hello, and welcome back. Our last week together is dedicated to visions of our digital futures. And as such, it is revolving around speculations, lots and lots and lots of speculations. In fact, speculation had become one of the most popular modes of thinking in our day and age, as we see technologies advance in a pace much faster than what we are able to comprehend and technologies start to meet our most crazy science fiction fantasies. From traveling to outer space, looking for other lifeforms and planets that could replace our dying earth, through biologically engineered species that are the sole creation of humans, all the way through objects that speak to each other and computers that can converse, think, and even create, some would argue, even better than us. All those imaginations about the future of society stem from the different approaches we saw that look at the relationship between technology and society. Technological determinists, for example, contend that the proliferation of new technologies are bound to change our social structures, and therefore, look to imagine new futures for existing societies. Sinofuturism, for example, is not only the name of an artwork by Lawrence Lek, it is also a movement that explores how Chinese society will look like once it had fully adopted digital technologies as a growing economic and political power. Many predict China is the rising empire of our future. Hence, Sinofuturism looks to take the unique communist-capitalist structure of the Chinese current political state to its very edge. On the same note, Afrofuturism, as defined by Wikipedia, and I quote, "is a cultural aesthetic philosophy of science and philosophy of history that explores the developing intersection of the African diaspora culture with technology. It was coined by Mark Dery in 1993 and explored in the late 1990s through a series of conversations led by Alondra Nelson. Afrofuturism addresses themes and concerns of the African diaspora through technoculture and science fiction encompassing a range of media, and engages artists with a shared interest in envisioning black futures." End quote. On a less cultural specific note, historian Yuval Noah Harari, author of the renowned book Sapiens: A Brief History of Humankind, had already started to speculate in the series of recent interviews, and like many others, of a new dawn for the human race. In fact, many speak of the extinction of Homo sapiens as we know them and the proliferation of a new species, one that will be an amalgamation of biology and technology, flesh and steel, at creation of humans, which will evolve far beyond their capacity to control or understand it, a species that is much more resilient than us, much faster than us, with exceeding capacities of memory and intelligence than ours. While fantasies like these existed throughout the history of the human race, with examples like the Jewish Golem, Frankenstein, and Pygmalion, never were Homo sapiens as close to the realization of their fantasy in playing God then in the era where internal organs can be artificially grown in laboratories, extinct species can be resurrected, computer chips can be inserted into our veins, and telepathic communication, thought and dream reading, are already functioning technologies. While all these may be imagined futures, the ecological crisis we are facing today can no longer be viewed as a speculation. Our age, informally called by current environmental scientists 'The Anthropocene', is marked by the vast human influence on all levels of life on Earth and all ecological systems at stake. Human activities had changed the face of the earth beyond recognition. They had changed, for example, the place, times of activity, and migration habits of many animal species. And this, in turn, is causing the extinction of other species, because as it seems, all life forms on earth depend on one another. Remarkably, human activity has an effect on the very composition of our Earth, air, and water. As evidence has shown, the Industrial Revolution had polluted our air and earth with coal. Emissions of atom bombs and carbon emissions can be easily identified in different layers of glaciers. Those stand as silent witnesses of this newly discovered geological coal era. Global warming is pushing us to explore new ways of surviving the damage we have caused. And within such scenography, it is only natural that our imagination will be flooded with visions of a new tomorrow. What is common to all those futuristic ideas is not only the paradigmatic shift, thinking of the consequences of human activity on the global scale, from the point of view of a species, rather than a specific nation or culture, but also is that all look at redefining the relationship between the natural world and the human world. If humanism, as we have learned in one of the first lectures of this course, was the general approach that saw the human as the center of creation and the reason of all life, posthumanism looks at humans as only one part of a larger

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how things are operated, in a way. We saw the wheels of the machines going, and we could trace it. We could see, OK, that creates that moment, that motion that creates that to operate. And you can't do it with technology– With digital technology. –with digital. Everything is hidden. Everything is– The apparatus is, in fact, actually intentionally hidden– Exactly, yeah. –so to create this kind of false understanding of full automation as if there is no– And if you don't speak the language– –intervention. –you can't do anything about it. Yeah. Yeah. And this is why digital literacy and technological literacy are important things to promote nowadays. Yeah. So OK. Thank you very much. Pleasure. Thank you.

system, which has nonetheless a devastating influence on the system as a whole. Posthumanist views vary in their speculative ideas and approaches. Some will be considered posthuman simply because they call to a new relationship between humans and natural resources and look to redefine the role of humans in this world. Such an example, though not directly reflecting on the future, is an interesting work by ecologist James Lovelock. In his Gaia theory, he looks at the Earth as a self-contained unit of consciousness. Humans are an important aspect in Gaia's body for Lovelock, since humans are the means through which Gaia, the Earth, looks at itself. While written before the digital age, per se, it is a work that inspired a return to earlier human mythologies and storytelling techniques in forming a new relationship between humans and their environments, Others are considered posthumanist because they no longer believe in the survival of the human race as such. Whatever aspect of posthumanism or transhumanism one takes, artists have always been best at inventing new social imaginaries for uncertain and complicated futures. And today is no exception. Building on the experience art's history acquired, going through all the technological revolutions we have already explored, and considering different theories and approaches to the definition and interpretation of the relationship between technology and society, artists explore, experiment, criticize, research, and look to be part of the creation of a new world. This week's program is therefore quite different. While it builds on the materials we have explored together throughout the course, it does not offer any definite conclusion and does not aim to engage with you on the same terms as the last. After all, how can we give you a multiple-choice questionnaire about that which is beyond our knowledge and imagination? Rather, you will find that this week is constructed by a series of interviews and explorations that will lead to discussions and interactions across different topics. You will be given a repository of texts to dive into and explore with a gentle, guiding hand. We suggest that you use all the knowledge you have gained throughout this course to raise the issues that seem urgent to you in looking at the advent of new technologies and their implications for us, and that you remain self-reflexive as to what approach you actually follow in your thinking. Are you a technological determinist, who thinks the nature of our future society will be determined by the technologies we invent? Are you a social constructivist, thinking that we would not be able to socially contain the technological advances of our time, and therefore, may even resort to more primitive rituals while resolving our conflicts in the same means we always did, until we gradually adapt to a new world? Are you following the stream of thought led by cyberfeminism, imagining how those hybrid creatures that are an amalgamation of human cells and advanced technologies may feel, think, create, or act, and whether our society will be able to even digest this extreme new type of otherness? Or maybe you have your own agenda that you would like to share with us and with your coursemates. In any case, all speculations are welcome. We are living in a speculative time. And if there is anything that could characterize the current state of our digital age, it is that. Speculate on anything. The definite boundaries between truth and fiction between reality, imagination, and between nature and culture, are exceedingly blurred. And we are asked to carefully move within those blurred lines without falling into the trap , of losing our agency. Good luck.