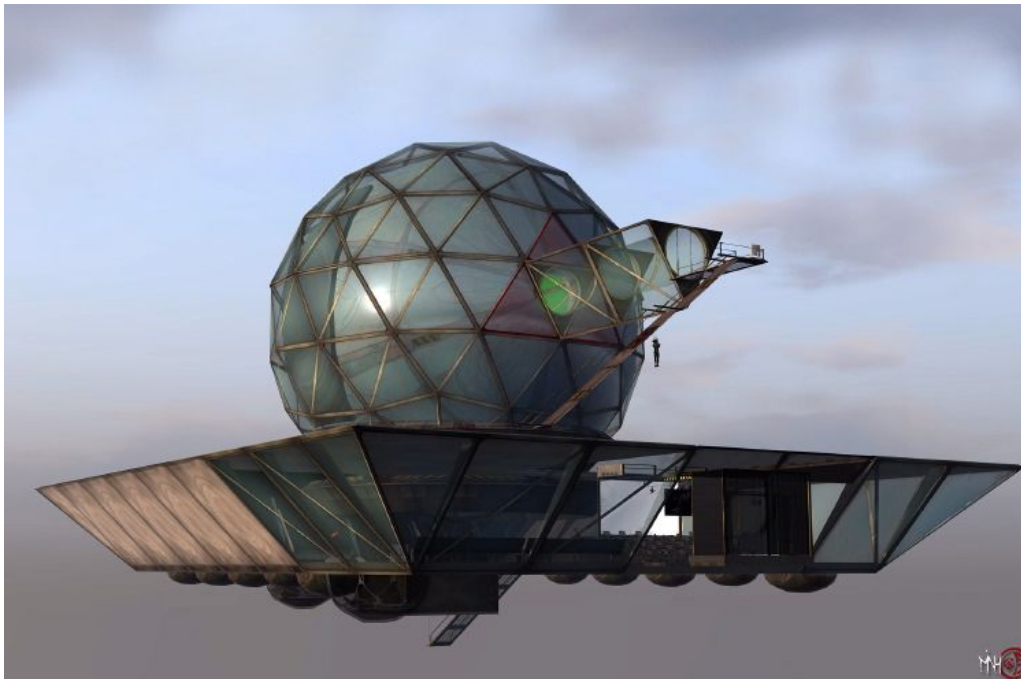# NØØMUSEUM

## Cyberculture prehistory. (English Version)

**6/02/2012, 26/102016 pedagogical release for universities, masters, art schools, institutes of technologies, engineering schools. Undergraduate and Postgraduate degree, third level éducation, liberal arts.**

**Teaching content** (work in progress...)



The NøøMuseum http://NøøMuseum.net/ is a digital artwork, and an innovative 3D real-time immersive conference support, online since 2003, and dedicated to my interventions in schools, symposiums, festivals, conventions. As teacher, director of television documentaries, multimedia and transmedia artist, I am active since 1979 in the field of new media, and NBIC.

My interventions to an audience of students, professionals or novices, are based on the iconographic and documentary background accumulated during my career of TV director and museographer.
The NøøMuseum contents about cyberculture prehistory covers the main historical events that leads to today developments and changes in art, sciences and technologies
It is also a kind of testimonial of an explorer of the spheres of information, inspired by the cybernetics of Norbert Wiener and the concept of noosphere by Teilhard de Chardin.
*(In 1998, through exchanges on the usenet newsgroup fr.rec.arts.fr (Frasf), I proposed to replace the terms of Cyberpunk, and multimedia artist, by the neologism of NooNaute, for his poetic navy metaphor. The noonaute is an explorer of the noosphere, the sphere of informations and metaphysics.)*

*The Immersive real time 3D versions of the NøøMuseum, used as conference support by the students and the lecturer can be downloaded here :*

*The PC version: xxxxxxxxxxxxxxxx*
*The MAC version: xxxxxxxxxxxxxxx*
*The Linux Version : xxxxxxxxxxxxxx*

# ARS MEMORATIVA,

## ars memoriae, or Art of memories

The NøøMuseum is a training and conference support, builded as a VR/AR mnemonic and interactive real time 3D trip, prefiguring the futures educational tools and web documentaries. The NøøMuseum was awarded with the "Pierre Schaeffer" grant "Draft of a Dream" in 2009. And get the French Institute's grant, for an artistic residence at the SAT in Montreal in 2013.

Inspired by the ancients methods of the Art of Memory (Ars memorativa) or the "Method of locations" [1] , the digital NøøMuseum is a mnemonic tool which reproduces the labyrinths of memory. It is a virtual maze with aesthetic and sensory stimuli in which the movements in a dedicated space stimulate the fixation of the informations encountered during the journey in the memory.

Thus, the public, or the student, following a path in a virtual space, synchronized with the speaker travel, established a memorial match between a geographical placement in the virtual world and the contents of the computer graphic scenes, which facilitates learning and memory by an entertaining process.

The NøøMuseum has been successfully used in schools for vocational training and educational conferences in particular : ESAT, ENSAM,  Strate College, the Gobelins school of image,  under master and educational conferences at CNES in Paris, Paris VII, Science Po Annecy, SAT (Society for Arts and Technology of Montreal, UQAM in Montreal, European theater , IUT Marne la Vallée, the Branly museum, the Imaginary at Douchy les Mines, the Palais de la Découverte and the Palais de Tokyo in Paris, the Utopiales festival in Nantes, the Alienor festival in Lilles, the Totem Underground festival in Nancy, the Gaite Lyrique in Paris, the Border Line Biennale festival in the Abode of Chaos, the Cube in Issy les Moulineaux, the SCAM ...

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[1] http://en.wikipedia.org/wiki/Art_of_memory http://fr.wikipedia.org/wiki/Art_de_memoire
http://en.wikipedia.org/wiki/Simonides_of_Ceos

The NøøMuseum's galleries were carried out successively with :

the level editing software UnrealEd [2] of the videogame Unreal Tournament 2003 and 2004

the software and persistent world : Second Life [3]

The game creation software in real-time 3D : Unity 3D with the modeler Cinema 4D from Maxon.

The contents of NøøMuseum is essentially dedicated to the prehistory of cyberculture, ie the events in the history of arts and sciences precursors of the invention of cybernetics in 1948 by the mathematician Norbert Wiener, which are emblematic of the contemporary developments in ITC, and of the symbiotic relationships we have with our tools. But the NøøMuseum extends its historicals references beyond 1948, with some fundamental thinkers and inventors in the construction of contemporary thought, as Marshall McLuhan, Kurzweil, Eric Drexler, Buckminster Fuller, Teilhard de Chardin ...

Each iconic moment of this prehistory of cyberculture is represented by a "diorama" in 3D that illustrate with animations and / or iconographic elements the key elements of the evolution of our relationships with information technologies, robotics, sciences, philosophies ...
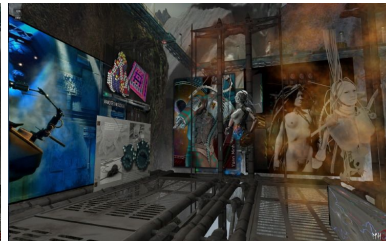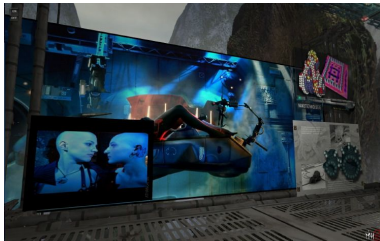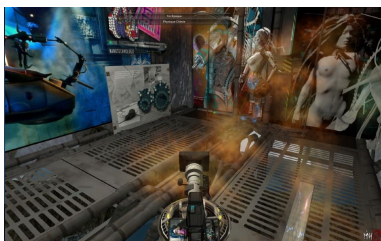
Started in 1997 in a 2D form, the NøøMuseum takes its immersive 3d hypermedia form in 2003. The NøøMuseum's maze spreads as a rizome on digital networks, and his galleries can be reached from different points of cyberspace, as the web, video games FPS, MMORPG and persistent worlds. The NøøMuseum is an experimental foreshadowing of pedagogical content management. This virtual maze's galleries dedicated to the prehistory of cyberculture anticipates the future web3D. We will meet a whole bestiary of fundamental nooentités like the gynoids the robots of Hephaestus, the golem, the creature of Dr. Frankenstein, Hadally, the steam Helotes of Theophile Gautier ...
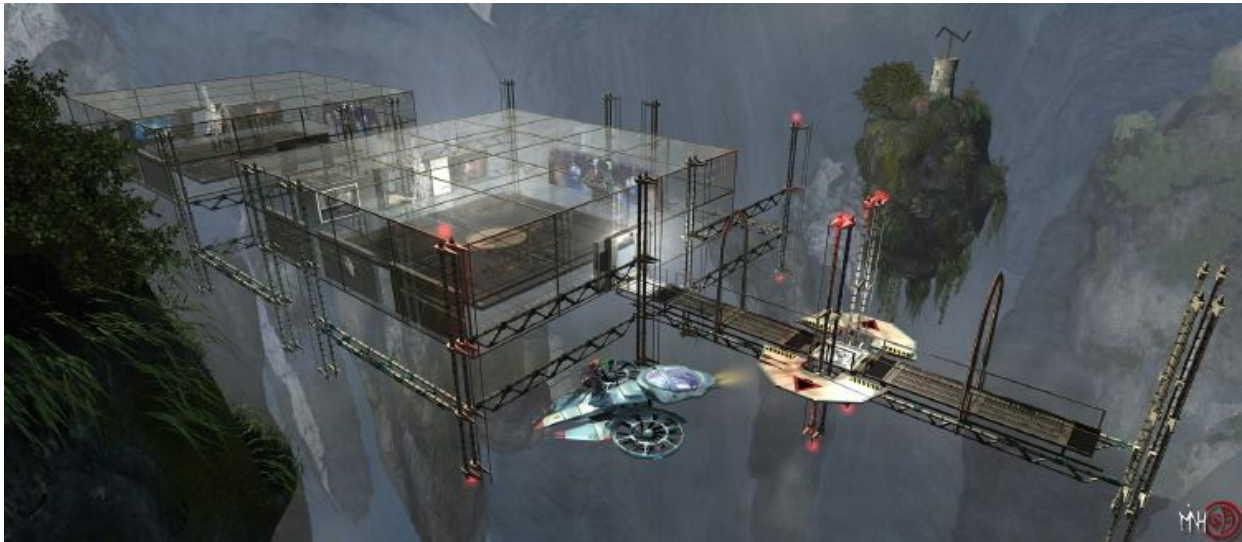


**Origins of NøøMuseum.**

This educational course in a real time 3D universe was born from a work done with Maurice Benayoun for the National Conservatory of Arts and Crafts in 1997 for a multimedia terminal  [4] which I think is always visible in the museum of *CNAM*, and dedicated to the history of artificial creatures, in which I had done almost all of the contents in collaboration with Raymond Audemard and a scientific committee under the control of *CNAM*. (Has also collaborated in writing the content of this multimedia terminal, with their advice, corrections and other informations : Jeanne Rivoire, Dominique Negel, Stephanie Courtois, Gerard Verroust, Pascal Joseph.)

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[4] http://www.yannminh.org/french/IndRobotCNAM010.html

The content of this history of artificial creatures, first conducted for the CNAM was widely enhanced over the years, in particular with contents and iconography from several television documentaries that I made for the french educational channel *"La Cinquième"*, and the "*Cité des Sciences et de l'Industrie*" about the history of robotics and digital networks.

*(See detailed description of the content below.)*

The three-dimensional immersive journey through all the NøøMuseum galleries in its full version, is about four immersive conferences of three hours. Its educational effectiveness is quite spectacular, and all public presentations of NøøMuseum performed since 2003 have received a very positive response from the public, students, teachers, specialists in the field of ICT.

NøøConference ⅓ in European Theatre in Paris
Conference about singularity in CUBE
Conference about virtual worlds in SCAM
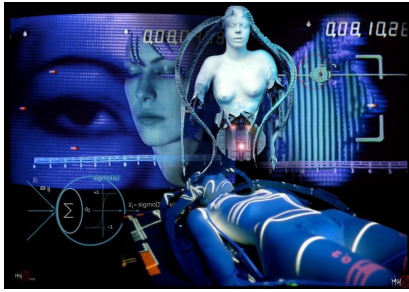
**DETAILED CONTENT of the NøøMuseum.**
(Document in preparation, which contains about one third of the whole entire corpus)

# MEDIA ØØØ
# the origins of the NøøMuseum.

My first multimedia artwork, Media ØØØ  [5], begun in 1979, was presented at the 3rd floor of the Museum of Modern Art of the Centre Georges Pompidou in Paris in 1983.
http://www.yannminh.org/english/IndMedia.html.
It was an immersive multimedia installation organized around an a sculpture of gynoïd cyborg, elongated in the center of the technical devices.



This installation tells the story of a young woman living in a dream-like virtual world, generated by computer. When the computer reach the end of its functions, the computing device that keeps the young woman alive, tries to wake her up. But trapped in this symbiosis between human and machine, the heroin transforms the warning messages, by environmental anomalies, and she succumbs to the end the system to which she was connected.

*MEDIA øøø is by its form and content an allegory of our hyper-mediatized modernity.*
With this negative and "dramatic" end, where the young woman died for wanting to stay in virtuality, I transmitted unconsciously an old archetype, the old Promethean "meme", deeply embedded in our collective imagination: the mistrust against science and technology, especially against the mass media such as movies, television, video or video games, that would turn us away from the "reality" to lead us to our doom in a virtual life.
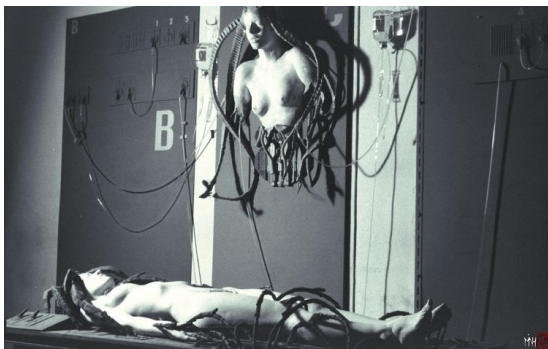
I no longer think, a quarter century after the realization of "Media ØØØ", that we should fear immersion in cyberspace, and it exists in my installation a second informational level which tempers this scenario, through

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[5] http://noozone.free.fr/noocrypte/viewtopic.php?f=8&t=663
http://www.yannminh.org/french/IndMedia.html

the subliminal glorification of the immersive technosciences. While the explicit story-telling expresses a mistrust against ITC, the entire installation rather expresses a fascination for science and technology through the device. Media ØØØ, at the origins of his conception, is an illustration of the Marshall McLuhan aphorism :  "The message is the medium."

The main message is not the explicit "content" broadcasted by video and sound devices, but the entire installation itself (sculpture, images, sound, lights ...). Like many audiovisual works, the shape of the technical system informs the viewer more than the scenario that led to its development.



To make analogies, the movie Terminator, or the movie Avatar have as explicit content, expressed by the scenario, that same mistrust against the products of science and technologies: "Warning! the machines are dangerous, they will lead the to the destruction and annihilation of mankind. " But the images and the high tech of special effects and 3D show exactly the opposite message: a fascination for robots, machines, computers, complex technologies.

Even if the IT tools, the artificial creatures, the clones, the golems, the avatars, the robots, the cyborgs, the androids and the gynoids are often negative heroes in our art works, they are also and paradoxically an expression of our fascination , a deep desire to see them in the real world.

Part of the work of the artist and the author, is to control this double narrative structure,  where the content conveyed by the form of the installation, may convey in a subliminal way the opposite message than the explicit content transmitted by the scenario.

# PREHISTORY OF CYBERCULTURE

**MAIN CONTENT**
**Adam and Eve and the consumerist capitalist alienation.**
*The origins of our fears of Science and Technology.*
As in art works, movies and advertising, they are in the cybersphere and the noosphere, specifics information's flows, that influence in a subliminal way (below the threshold of consciousness) our thoughts and therefore our actions.

I call those informations flows : "NøøTropisms", but we could also use the words of Richard Dawkins, memes and memeplex.
One of the more strong of those nøøtropisms in Europe, is a distrust, or suspicion for science and technology, which find his origins in the myth of Adam and Eve. which has its origins both in fear of capitalist consumerist alienation inherited from the Marxist and communist militancy, but also from the myth of Adam and Eve. These are sort of memetic palimpsest registered in subliminal in our collective memory.

**The lost leisure society.**
Due to the cultural heritage from the revealed religions, we are strongly influenced by the myth of the heaven on earth. This myth, for me, is the origin of our conscious and unconscious distrust against technology and scientific progress, mainly here, in france.

This myth describes an "innocent" original couple, "not guilty", naked in paradise, that is enjoying abundant nature, and is free from any tools dependence, and human society. (Clothes are tools that protect us from the cold, and they are also communication tools sending informations to others (power, mood, social class…) , and clothes are also the first tools invented by humanity, with the shelters and homes, and maybe they have preceded weapons.)

**-Adam and Eve lives in paradise without tools and other humans compagnons.-**
I think this myth is at the origin of a specific existential quest : Trying to find inside us, a mythical "original" soul, that does not need technologicals artifacts or fellows company to exist, survive, and being.
(Thus, in the community of "Walking travelers", often inspired by the Christian pilgrimage, it is common to meet pilgrims seeking this quest of technological deprivation.)
This christian distrust for technologies instilled by the main religion in Europe does not exist in Japanese animist's traditions, where objects and places are inhabited by a myriad of deities and where this myth of the original deprivation of Adam and Eve is less important.
Thus, as Marc Caro proposes in his documentary "Astroboy in Roboland" their animist religious backgrounds contribute to free the Japaneses of this guilty feeling for technical developments, in particular for humanoïd artificials creatures like robots. And that's probably why they also welcome the idea of sharing their lives with robots. Astroboy in Roboland [6].

In a cybernetic thought inspired by Norbert Wiener and by Marshall McLuhan writings about the role of tools in human évolution, I am convinced that a human without "tools" does not exist. In a cybernetic point of view, the main characteristics of human nature are our high level of information processing capabilities, that allow us to ensure our survival and perpetuation by building tools that compensates our

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[6] http://www.lesfilmsdici.fr/fr/catalogue/748-astroboy-a-roboland.html

cognitive and physiological deficiencies.
The technology is structural of humanity, and is part of our "nature".

A good path to explore the history of our relationships with tools and information devices is the  myth of the artificials creatures. Artificial creatures has always played the role of mirror, allowing us to understand who we are.

## ETYMOLOGICAL SURPRISES : Robots & work

 (extract from CNAM installation (enhanced)

Throughout the course of history, artificial man has had several names, which are the vectors of the same "Meme" : A metal statue in Greek mythology (Hephaestus), Golem in Jewish tradition (later adopted by the novelist Gustav Meyrink), and a steam-powered slave for Théophile Gautier in the 19th century the Steams Hilotes. In fact, he did not adopt his current name until 1921, thanks to the Czech novelist Karel Capek.

While the French word "travail" derives from the Roman name for an instrument of torture, the term "robot" comes from Czech, and means "forced work", "chore".

It is hardly surprising therefore that the concept of slavery underpins both notions!

The circle is complete. Robot =  work = slave = robot.

The concept of slavery is present in subliminal behind the concepts of Robot and work, enough to think about a society that considers work as a form of social accomplishment. Let us remember that the ancient Greek's citizens, the founding fathers of democracy were not allowed to work, because that would have prevented them from properly caring of the city.

The concept of robot or artificial creature is an old and complex "meme", an informational entity that propagates and perpetuates herself through human minds, since our origins, and influences and determines our collective evolution.

## MAC LUHAN PREHISTORY

The prehistoric human has invented technological extensions of its members to facilitate his work and ensure its survival. A club or a hammer for example, are extensions of the hand, the clothes are extensions of the skin, and they are also informational tools that increase social links. We find also, less warlike tools, like an 28,000 years olisbos, ancestor of cybersex practices. These first tools will culminate several millennia later, in robots and digital networks, which are extensions of our body and cognitive system.



## MYTHOLOGY  (Cnam extract enhanced)

**Atrahasis: the gods create an artificial worker… the humans.**

In our humanity mythology, the first robots are the humans.

In the 18th century BC, under the reign of Hammourabi, the legend of Atrahasis was born:

The society of the gods was divided into two categories: the lords and the workers. Weary of their lot, the workers revolted, threw their tools into the fire and appealed to the king of the gods. It was strike time at the Pantheon!

The gods met together and decided to create a being that could replace the working gods. That being was the Human. He was to be created from the earth and, most important of all, would be mortal, to prevent him from revolting and contesting the established order.

As in our own modern mythology (Asimov, Blade Runner), artificial beings (in this case, humans) were created to replace the workers (in this case, the gods) who wanted to make the most of life. Strange resemblance to our own times!

## THE INFORMATIONAL GENESIS

In the Maya civilization two major deities, the gods of writing and corns are the scribes's gods, as Thoth for the Egyptians.

In the Bible (Jean1,1) we find this famous words: *In the beginning was the Word, and the Word was with God, and the Word was God.*

These are the instances in our history, of a powerful Meme that is structural of our cyberculture mythology : the idea of a hidden code behind the appearance of reality, the idea that the universe is made of information.

This is one of the paradigms of the singularity of Kurtzweil, inspired by quantum mechanics, and Norbert Wiener, made similar speculations.

## -850 HÉPHAISTOS (Cnam extract enhanced)

According to Christian and Mesopotamian religion, humans are artificial creatures builded by one or more deities, but our modern robot's ancestors are also present in the Greek and Roman mythology. Antiquity is full of talking or animated statues, described by many authors.

According to song XVIII of The Iliad (Homer, 8th century BC) Hephaestus was the first maker of artificial "technical" creatures.

In the song, Homer describes circular tables with three legs, equipped with wheels. They were autonomous and could make their way to Olympia alone, to carry products from Hephaestus' forge.

Hephaestus also built himself two servants made of gold who helped him with his work; Homer even specifies that they could talk and think.

Hephaestus, son of Zeus and Hera, husband of Aphrodite, god of technology for the Greeks, is better known under his Roman name, Vulcan, god of the smiths.

The myth of Hephaestus is a good example of "meme" and what I call a nøøtropism. It do not



demonstrate that robots already existed in the antiquity, like in the legends of a modern Atlantid, or the legends telling the visits E.T. , but this myth demonstrate that we are inhabited from the beginning by a cognitive tropism, or a "meme", inherited from life evolution, which determine a will to build an artificial creatures in our image, which is born in our imagination before being materialized by science and technology. Also, the deluge myth

reveals an ancient cognitive tropism of "saving the life".

## -450 THE GOLEM: brought to life by faith… (Cnam extract)

*Psalm 139:16 Your eyes beheld my unformed substance. In your book were written all the days that were formed for me, when none of them as yet existed.*

In Jewish tradition, the term Golem has several meanings. In the Talmud, it designates an unfinished being, one that does not yet have a soul (the term is even used to describe Adam during the first twelve hours of his life). However, it is the esoteric exegesis presented in the Sefer Yetzirah (the Book of Creation) that develops the idea of a golem drawing his strength from the power of the Word.

In the popular Ashkenazi Hassidic tradition of the 15th century, the golem was an artificial creature entirely subjugated to his masters, a slave creature by definition, but one with the potential to turn into an evil being.

In his famous novel *The Golem* (begun in 1907 and published in 1915), the German writer (and esotericist) Gustav Meyrink (1862-1932) used the popular legend of Rabbi Loeb of Prague, who is said to have created a golem as a servant, and should have destroyed him since the creature wreaked havoc throughout the city.

Meyrink's vision is more social than religious. Here once again, the recurrent theme of the rebellious slave appears, an artificial slave… Did you say robot?

A beautiful episode of the X-File series features a modern resurrection of the Golem. .
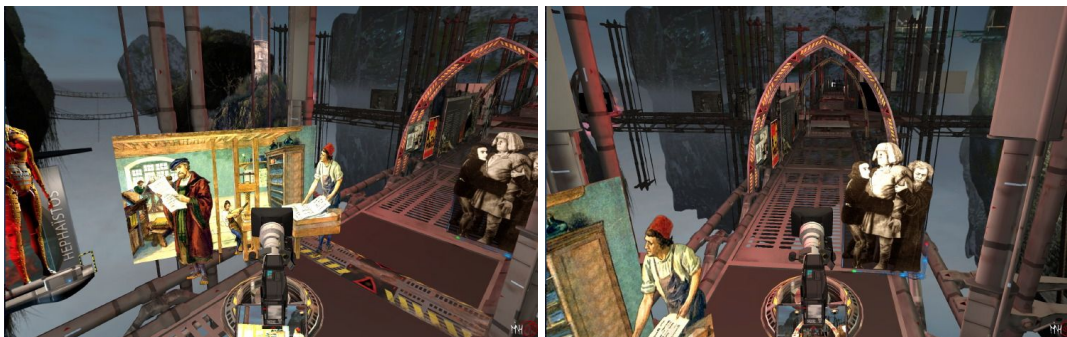


## -250 ANTICYTHERE

Around 250 ans before Jésus Christ,
The oldest known gear mechanisms.

## -215 TALOS (Cnam extract enhanced)

Robots are often in the mythologies an image of power and immortality.
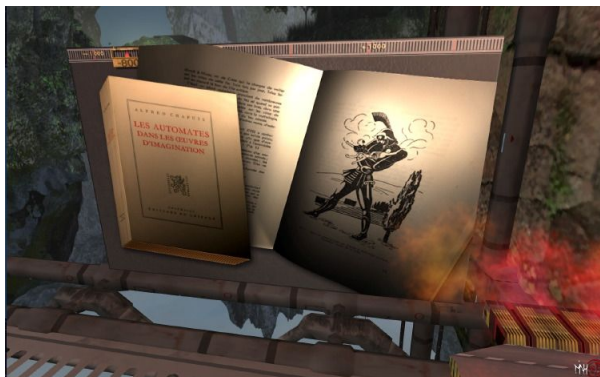


There are two versions of the legend of Talos, depending on the source. He was said to be the nephew of Dedalus, and murdered by the latter. A crime which caused Dedalus to be banished and exiled in Crete, where he is said to have built the labyrinth in which the Minotaur was kept.

Talos was also the name of a bronze statue said to have been made either by Dedalus, or by Hephaestus, the god of the smiths.

Talos defended King Minos' Crete against invaders. He either stoned his enemies to death, or heated his body until it was white-hot in a fire he started himself, and burned them by embracing them.

It is also Talos, who throws rocks at Ulysses's ship to sink it. Fortunately, the monster had a weak point,: his ankle. So Jason (Jason and the Argonauts) stop the giant artificial creature by entering his heel to cut the single vein of Talos. In these stories, the gods are the creators.

For the authors of the dictionary of symbols, Daedalus, the builder of the labyrinth and the wings of Icarus, is the technocrat, the sorcerer's apprentice disguised in engineer, who does not know the limits of its power.

## -222 PYGMALION  (Cnam extract enhanced)
**Pygmalion: the creator in love with his creation…**

**In his book *Metamorphoses*, Ovid tells the story of Pygmalion, legendary king of Cyprus and talented sculptor.**
Weary of never finding the beauty he craved in women, he created an ivory statue (later named Galatea), the image of aesthetic perfection, and fell in love with it. Answering his pleas, the goddess Aphrodite breathed life into the statue.
The theme of the creator in love with his "thing" has been adopted by several writers, including George Bernard Shaw (1856-1950)—*Pygmalion* (1913), adapted for the cinema by George Cukor under the title *My Fair Lady* —, then by the science-fiction writer Edmund Cooper with *Pygmalion 2113* (a dual tribute to the legend and to G. B. Shaw).
The automaton, followed by the robot, seen as an object of love (*The Sandman* by E.T.A. Hoffman) then developed into a sexual fantasy (*Can You Feel Anything When I Do This?* by Robert Sheckley, *The Demon Seed* by Dean R. Koontz—cinema version called *Generation Proteus*—, *Ranxerox*, a comic book by Liberatore and Tamburini).

## -125 HERO FROM ALEXANDRIA [7].



**The Alexandrian School**
Ancestors of modern robotics, mechanical and hydraulics systems of the Alexandrian school are probably the first control systems.

It was around the sixth and fifth centuries BC. J.C. that mechanization appear in Greece, thanks to technologies coming from the Near East. It will be applied research on war machines and lifting equipment with springs, levers, pulleys and mitts intended to leverage animals and humans efforts. These innovations in the fields of mechanics and hydraulics, will give birth to several technological innovations by the Alexandria's school in the third century AVJC, which contemporary realization can be found in the automation and robotics: mechanics and gears (in wood and precious metal), cylinders and pistons, pumps, measuring instruments (water clocks), camshaft, automatic control systems (presses levers and counterweights).

**During the 3rd and 2nd centuries BC, the Alexandrian School reunited the first known creators of automatons, in the modern sense of the term, although the machines in question were strictly**

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[7] http://www.yannminh.org/english/CtTempleHeron.html

**decorative or designed to brighten up the homes of the powerful.**
A few names have survived the centuries: Ctesibius, Hero of Alexandria, Philo of Byzantium and a certain Archimedes…
Ctesibius, a barber in Alexandria (3rd century BC) is remembered for his work on clepsydras, or hydraulic clocks, functional objects that doubled up as works of art, featuring automaton sculptures brought to life by the movement of the water.
Philo of Byzantium (230 BC) invented an astonishing automatic "washbasin" comprising a tap in the form of a bird's beak flanked by an artificial hand holding a pumice stone. When the user picked up the stone (the ancestor of soap) the hand moved back, the water began to pour out, and its flow increased before running dry, when the hand would appear again holding a new stone.
Hero of Alexandria (125 BC), a creator of water-powered automatons, also worked on steam and compressed air. Known for the machines described in his Treatise on Pneumatics, we also owe him a thermoscopic machine (which made use of the air's thermal properties) and an Aeolipile running on steam.

# 780 THE ALGORITHM

In al-Khwarizmi, 780,850 Baghdad. Persian mathematician astronomer and geographer.
The word algorithm comes from his Latinized name.

# ALCHEMY

New myths appear with the Renaissance, where it is not the divine breath that animates the artificial beings, but magic and alchemy. Legends tells stories were alchemists use black magic and mandrakes to generate a tiny being : the homunculi.
Here we find a new form of the original meme where humans are artificial creatures, builded by the Mesopotamian gods. These memetics creatures borned from magic will haunt our history over the centuries, to emerge in our modern cyberculture through an amazing story involving together one of the researchers behind the creation of NASA : Jack Parson with the science fiction author :  Ron Hubbard, the creator of Scientology, and the occultist Aleister Crowley, which inspire, among other, contemporary current of chaos magic. [8]

## 1623 Wilhelm Schickard

Wilhelm Schickard is a friend of Kepler, who, in 1623 describes in a letter the invention of a "clock" calculating machine, which makes him a precursor from Pascal of the calculating machine. (Pascaline (1645)).

**Story Telling.**
*The unique model designed by Schickard was destroyed in a fire on February 22, 1624. It is believed that this incident was not accidental, but likely caused by a malicious spirit that saw it as "a work of hell." Jean-Claude Heudin. The artificial creatures. ISBN 978-2-7381-2002-1*

In 1624, Schickard informed Kepler by letter that his calculating machine was destroyed in a fire, without

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[8]  Ewen Chardronnet .  Mojave épiphanie : Une histoire secrète du programme spatial américain.  ed Inculte 30 mars 2016
ISBN-13: 979-1095086123

more informations [9]  that could explain the reasons of the fire.

Most columnists nourish the myth of a voluntary destruction of the machine by religious obscurantism. Perhaps they have been influenced in the development of this "Story-Telling" because Johannes Kepler meet Schickard during his visit in the city of Tubingen to help his mother Catherine Kepler, who was Arrested for witchcraft and whose judge  Lutherus Einhorn was known to have already condemned eight women for that.


## 1630 DESCARTE  (Cnam extract enhanced)

Cartesian logic: man is a machine!

Similarity, difference, the relationship between man and machine is essentially dialectic; human or humanized machine, mechanical or mechanized man, the question is by no means a new one!

Descartes, a mathematician with a mechanist's outlook, saw man as a machine…

Man is like "a watch or other automaton", in other words a machine that moves by itself. For René Descartes (1596-1650), life was clear and could be explained as a clockwork mechanism that is more or less well-regulated, with death as the ultimate breakdown.

He saw the body as a hydraulic machine with tubes running throughout, in which fluids circulate—the blood circulating in the arteries and veins. Everything in the body could be explained by the mechanical actions of traction, pressure, and swelling.

For Descartes, living beings, like the automatons which always fascinated him and which he saw *in the grottos and fountains in the gardens of our kings* (*Treatise on Man*, 1633), were made up of springs and parts. The only difference lay in the size of the springs—smaller and more subtle—since living machines, built by God, are more complex. It was by using the intellect to magnify these parts that they would be discovered and their operation understood.

As for the soul, it was the little thing that made the difference between the animal machine and the human machine.


## DESCARTES: legendary automatician.

From his youth, René Descartes was fascinated by automatons. According to some of his contemporaries, he designed the plans for several incredible machines (tightrope-walking statues, an artificial dove, and optical machines described in his Cogitationes privatae) and had plans to build an artificial partridge being flushed out by a spaniel.

**Story Telling.**

But from the legends surrounding  the "automatician" Descartes, one of them his more emblematic : Francine, an artificial servant said to have been thrown into the sea by a man believing her to be a satanic being.

An incredible story and part of a tradition that eventually led to Coppelia. It is probable that the death in 1640 of Descartes' own five-year-old child, also called Francine, a loss that is said to have affected him greatly, played a key role in the development of the myth.

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[9] *I had placed an order with a local man, Johan Pfister, for the construction of a machine for you; but when half finished, this machine, together with some other things of mine, especially several metal plates, fell victim to a fire which broke out unseen during the night three days ago. I take the loss very hard, especially since there is no time to produce a replacement soon.  http://www-history.mcs.st-andrews.ac.uk/Biographies/Schickard.html*

Unless the name came from the Italian engineer Thomas de Francine (or Francini), a famous creator of hydraulic automatons—machines located in dug-out caves under the park of the Château of Saint-Germain-en Laye, almost a century earlier, and to which Descartes probably alluded in his *Treatise on Man*.

We can suppose that Villiers de l'Isle-Adam was also familiar with this legend when he had his *Future Eve*, Hadaly, die by slowly drowning in the Atlantic Ocean.


**The animal machine and the "Mechanical Philosophy".**

Descartes, maybe influenced by the development of automatons and by the illusion that, perhaps, we will be able to build an artificial human, thought that animals were machines, and, having no soul unlike humans, their suffering was only "mechanical".

(See Julien Ofray De La Mettrie who extends the "mechanistic" concept to humans https://en.wikipedia.org/wiki/Man_a_Machine )



# 1656 VÉLASQUEZ, Las Meninas.
**A painting in which we are the hero.**

One of the masters pieces of the NøøMuseum is the 3D reconstruction of the Velasquez painting : *Las Meninas* [10]. This piece is emblematic of cyberculture prehistory, because of the famous mirroring setting in the back of the room, that allows viewers standing before this "realistic" painting to become the avatars of the king and queen of Spain.
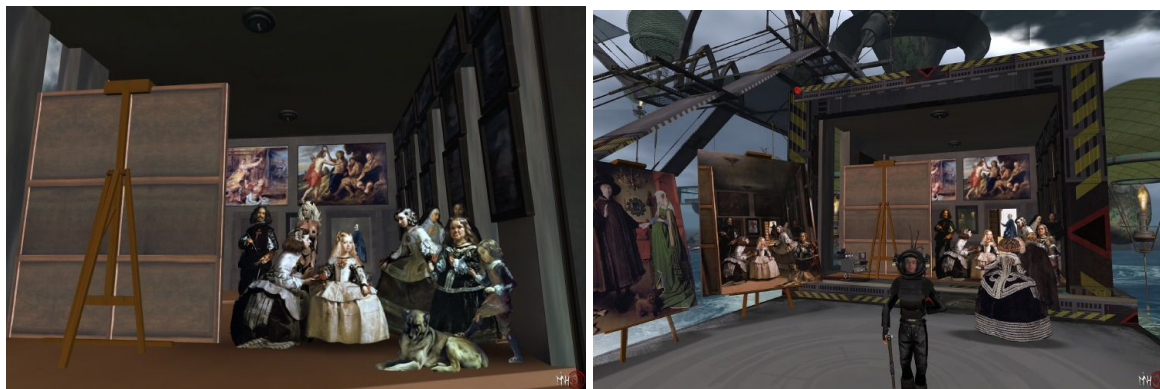


Las Meninas are, after Van Eyck's Arnolfini Wedding, a painting where "we are the heroes."
An artwork that illustrates this fundamental human's tropism of building hyper-realistic virtual worlds (like the holodecks from Star Trek), in which we could be able to immerse ourselves completely without distinguish the real from the imaginary and which is an "active" metaphors of our speculative cognition.
(To ensure our survival, every moment of our mind speculates "probable future" built "pre-visions" to anticipate our immediate and distant future)

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[10] http://www.NøøMuseum.net/NøøMuseum/NøøMuseum-Menines.html
http://slurl.com/secondlife/Cimarac/240/77/23

**NooContamination.**

In Las Meninas, that mirror game invokes, in the center of the system paintig/viewer the noospheric entities of the King and Queen which are "revealed" by their reflections in the mirror, that superimpose in a conceptual way, their invisibles avatars over our biological body. (Such as a kind of inverted vampires, they appear only in the mirror reflection, unlike the little vampire dog of the Arnolfini Wedding, which does not appear in the mirror.)

The model rebuild of the canvas, by Philippe Comar in the 70, highlights that the réflection in the mirror are not the reflect of the king and queen themselves who stood before the stage, but the picture painted by Velasquez. This is not surprising because in paint shops large mirrors installed facing the easels are used to send the artist a mirror image of his work, which, by renewing the view, highlights the shortcomings of composition and proportion. The mirror in Las Meninas, is precisely positioned strategic location for this "verification" by the painter and it seems logical that Velasquez has reproduced a reflection device that already existed in his studio.

**The uncanny door.**

Here is an interesting detail that has been revealed to me by both, the 3D rebuild, but also by the fact that the painting was recently visible online in a very high definition with Google Earth : Don Jose Nieto Velasquez, ( the grand chamberlain standing in the door frame in the back) to whom Velasquez is ducting our gazes with the vanishing points and the light of the canvas, is not pushing the curtain contrary to the analysis of Michel Foucault [11] and Daniel Arasse [12]  of the painting. In fact Don Jose Nieto Velazquez is opening or closing a door which lock is located curiously low. At the height of a child or a dwarf. What was the function of this room to which Velasquez duct our gazes and why the door latch is abnormally low? We will probably never know because the Alcazar palace described by this stage burned.

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[11] Les Mots et les Choses (Une archéologie des sciences humaines) 1966 ISBN  2-070-22484-8

[12] On n'y voit rien. Descriptions, Denoël (rééd. Folio-poche 2002) (ISBN 2070427641)

## 1738, VAUCANSON (enhanced note CNAM)

**To imitate man…**
**Long before the contemporary robot, the automaton dreamed of becoming human…**

During the 18th century, a new vision of the automaton began to develop, one which went beyond mere appearances and claimed to copy biological mechanisms.
Vaucanson, who studied anatomy, wanted to build machines that could reproduce the key functions of life: respiration, digestion, blood circulation. His most famous automatons were intended to be *reproductions of means with a view to obtaining experimental intelligence from a biological mechanism*.

*Brave Vaucanson, rival of Prometheus,*
*Seemed, by imitating the ways of nature,*
*To take fire from the heavens to animate bodies.*
(Voltaire)

Jacques Vaucanson, born in Grenoble in 1709, studied both mechanics and anatomy, so there was nothing surprising in his desire to combine the two. He was only 23 when he first imagined building mechanisms accurately reproducing the functions of the body.

Certainly influenced or sharing Descartes thought that compares man to a machine, Vaucanson, wants to build machines that could reproduce the main functions of life : breathing, digestion, circulation. His most famous robots are simulations in order to obtain the same kind of intelligence than the biological mechanisms.

*The flute player* (1738) performed the same operations as a living player (breath, lips, fingers).  The air comes out of the automaton's mouth, is modulated by the lips, and the fingers really play the instrument.
In 1739, Vaucanson presented a *Tambourine and flageolet player* and a digesting *Duck*, which made him famous. It flapped its wings, ate grain and digested it.

As we see, Vaucanson had a very provocative humor, like the artist Nam June Paik two centuries later with his robot striding the streets of New York in 1962 and, as the Vaucanson's duck, his cybenetic artwork could also defecates. These are, I believe the only examples of robots with a bowel of history.

 But although the movement of the wings was a masterpiece of anatomical simulation, the digestion was only a clever piece of trickery, discovered and revealed in 1844 by the magician Robert-Houdin [13].
In 1746, Vaucanson invented an automatic weaving loom followed, in 1750, by a system for regulating a machine in motion.

In 1741, Vaucanson presented plans—which were never to come to fruition due to insufficient technical means at the time—for an *automaton figure to imitate animal operations in its movements... And which could be used for demonstrations during an anatomy lecture.* However he did build an automaton showing the circulation of the blood, equipped with rubber tubes.
In 1744, Jean-Baptiste Le Cat (1700-1768), a surgeon at the Hôtel-Dieu in Rouen presented *the plan for an artificial man or automaton in which he hopes to see all the operations of living man.*

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[13] Confidences d'un prestidigitateur, Robert-Houdin, Éd. Stock, 1995

In 1779, Baron de Kempelen, well-known for his (false) *Chess Player,* attempted to produce vowels artificially. In Vienna, he built a talking machine in which a vibrating reed stimulated cavities of various shapes.

Around the same time, Abbot Mical, with his *Talking Heads,* also made attempts at producing phonetician-automatisms.

## 1773 THE JACQUET-DROZ (note CNAM)

The Swiss Pierre Jacquet-Droz (1721-1790) and his son Henri (1752-1791) made wonderful use of progress in horology in creating some magnificent automatons, including a "writing child" with a mechanism hidden in his body that enabled him to write short texts. Their creations also included a draughtsman and a female musician.

The writer of Jacquet Droz is also the first example of subroutine call with integrated return address in the program, to perform the basic design of each letter of the formatted text. (See Gérard Verroust)

Other examples include Steiner and his *Trumpet Player* (1748), Defrance and his *Shepherds* (1766), and the Austrian Frederik von Klaus who built several writing automatons, the most famous of which (1760) could write 107 words.

## 1779 THE CHESS PLAYER (note CNAM)

In 1777 in Toula, Russia, the Viennese Baron de Kempelen presented a chess-playing automaton which entered into history under the name of one of its future owners, Leonard Maëlzel. It took the form of a life-size Turk, sitting behind a chest inside which a criss-cross of cogwheels and springs could be glimpsed. On the chest was a chess board.

In reality however, the player was not an ingenious mechanism, but a trick designed to help a Polish officer named Worousky, whose two legs had been amputated, escape from Russia. Robert-Houdin proved this later.

Likewise, in an article published in 1836 (Maëlzel's Chess-Player), Edgar Alan Poe explained how the trickery worked, meticulously analyzing the ritual involved in presenting the chess-player to the public. A ritual during which the person hidden in the chest moved into the automaton's body.

The 19th century saw the decline of the automaton in spite of a few fine creations such as the *Componium* (mechanical orchestra) made by Koppen (1829), Jean Rechteiner's ducks (1838), and Robert Houdin's *The Cup Player* and *The Singing Lesson* (1839).

## 1784  JAMES WATT  Centrifugal Governor  (note CNAM enhanced)

*An automatism* […] *is therefore a system which keeps a constant check on the behaviour of a physical object in evolution* […] *The formalization of the notion of regulation is confused with the birth of a scientific discipline known as automatics…* (Philippe Coiffet, *Robot habilis, robot sapiens.*)

The first regulated machine was probably the weighted clock, which dates from the mid-14th century. It featured all the necessary elements: the inertia and displacement of the weights to ensure regularity of movement over time. In 1712, Thomas Newcomen (1663-1729) developed the first heat engine for a "fire pump" designed to empty water out of mine shafts.

In 1764, James Watt (1736-1819) improved the system with a double-effect machine (cylinder-piston), then his *Planetary* gears followed, in 1784, by the centrifugal governor, which guaranteed a constant speed.

The governor, which was to make Watt famous, appears to have been anticipated in the second half of the 15th century by Francesco di Giorgio. Not forgetting Leonardo da Vinci, who mentions it in his notebooks with regard to the production of a regular thread using a spinning wheel.

In french, Watt's centrifugal Governor is called : Watt's balls controller. "*Le régulateur à boules de Watt*."

## 1812, THE LUDDITES:

The industrial revolution and mechanization brought profound changes to British society in the early 19th century. The development of factories and the increase in the number of machines heralded a dark future for artisans and people working at home.

Around 1810, a movement developed aimed at sabotaging and destroying machines. The first mass demonstration took place on 20th April 1812 in Lancashire, where a manufacturer's house was destroyed. The leaders were imprisoned or hung, but Luddism entered into history and won its first martyrs.

Often Ned Ludd, (General Ludd, King Ludd) was represented in the engravings of the time disguised as a woman, probably because the Luddites disguised themselves as women during the riots to deceive or confuse soldiers.

No-one knows whether the man who gave his name to this anti-mechanization movement, Ned Ludd, really existed, but the Luddites still exist, several anti-technology movement, anti-transhumanists, bio-reactionary or bio-conservatives claim to be Luddite. !

## 1816, FRANKENSTEIN (excerpt note CNAM enhanced)

One stormy night in June 1816, on the banks of Lake Geneva, an unusual writing contest took place involving Lord Byron, Dr. Polidori, the poet Percy Bysshe-Shelley, his young wife Mary and her sister Claire. The aim of the competition: to write the most terrifying tale possible.

Mary Shelley came up with the frightening story of a human being recreated using electricity. Under the influence of mesmerism—a doctrine in vogue at the time, which saw electricity as a sort of panacea—Doctor Victor Frankenstein performed the ultimate experiment: recreating a living human being from fragments of human bodies.

Frankenstein's monster was born, and with it came the legend of the creation of life through science. In some respects, the *Frankenstein* creature was a robot made of flesh, but it was also part of a literary and scientific tradition mixing mythology and religion.

For while the creature rebels against its creator, the sub-title of the novel—*The Modern Prometheus*—sheds a mystical light on the issue. Although Mary Shelley came from a fairly libertarian family, the underlying conclusion of *Frankenstein* is that man does not have the power to create life, and that this power belongs only to God/the gods.

Clairmont was the only lover, other than Caroline Lamb, whom Byron referred to as a "little fiend."[8] Confessing the affair in a letter to his half-sister Augusta Leigh, Byron wrote

What could I do? -- a foolish girl -- in spite of all I could say or do -- would come after me -- or rather went before me -- for I found her here ... I could not exactly play the Stoic with a woman -- who had scrambled eight hundred miles to unphilosophize me."[7]

He referred to her also in the following manner, in a letter to Douglas Kinnaird (20 January 1817):

"[Claire Clairmont] You know--& I believe saw once that odd-headed girl—who introduced herself to me shortly before I left England—but you do not know—that I found her with Shelley and her sister at Geneva—I never loved her nor pretended to love her—but a man is a man--& if a girl of eighteen comes prancing to you at all hours of the night—there is but one way—the suite of all this is that she was with child--& returned to England to assist in peopling that desolate island...This comes of "putting it about" (as Jackson calls it) & be dammed to it—and thus people come into the world."

Clairmont was to say later that her relationship with Byron had given her only a few minutes of pleasure, but a lifetime of trouble.

https://en.wikipedia.org/wiki/Claire_Clairmont

# 1820 THE MACHINE TOOL (excerpt note CNAM)

**Before industrial robots, before information technology and computers, machine-tools introduced automation into industrial production, and posed the—still relevant—question of replacing man by machines.**

Machine-tools, fruits of the work of Vaucanson, appeared during the second half of the 18th century. Designed for working metal, their task was usually to produce the parts required for the construction of other machines.

In 1820, the Britons Clements, Roberts and James Nasmyth developed various devices: lathes, planing machines, and filing machines. However, these inventors were to be eclipsed a quarter of a century later by the young American industry, given a boost by the rapid rise in population and the Civil War.

The first machine-tools used in France were British, but a French national industry did develop, thanks to arms manufacturers. Germany joined the race much later on, but by the years prior to Word War I its production levels had exceeded those of its rivals.

Today, the biggest worldwide manufacturer is Japan, followed by Germany and the USA. Next come Italy, China, Switzerland, Taiwan…, France is only 10th with around 2% of world production.

# 1824 HOKUSAI MANGA

In 1824 the Japanese painter Katsushika HOKUSAI publish in the form of three colors printed books, his first 15 sketchbooks he called "the Manga". It was drawings of daily life, often treated fantastically. The word manga mean whimsical pictures, quick sketch, unimportant drawing, or "irresponsible" drawing  ... Note that Hokusai belonged to a Japanese artistic movement that was called Ukiyo-e which means: "pictures of the floating world". In the 17th century, the ideogram Uki had changed its meaning inherited from the Zen philosophy, before his modern translation, Ukiyo-e meant :  "images of a sad world."[14]



The word manga, maybe created by the japanese poet Santo Kyoden 1761-1816,  and used by the painter Hokusai in the 19th century to describe a series of drawings of popular life, is now associated with Japanese comic strips and cartoons. Of all genres and styles, they devote a large share of their content to science-fiction and to robots and other exoskeletons.

*Astro the little robot*, by Tezuka, was the first such book. Created in 1951, *Astro* is a childlike robot endowed with super-powers but also with human emotions.

*Goldorak* (from its real name *UFO Robot Grandizer*) was born in 1974 out of a partnership between the illustrator Gô Nagai and the

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[14] Ukyo-e, cf Hokusaï par Henri Alexis Baatsch  ISBN : 2 85025 164 X édition Hazan 1985-87

toymaker Bandai. Other transformable robots were to follow: *Macross*, *the Transformers* which gave rise (when the reverse was not true) to an avalanche of toy robots, in humanoid, animal or insect form.

Since then, many series have been created featuring semi-human robots or robotic armed suits—incredible exoskeletons used by the police, soldiers and criminals in breathtaking adventures: *Appleseed*, *Dominion*, *Bubblegum Crisis*, *Gunman*, *Armitage III*, *Patlabor*, *Roujin Z*.

Finally, there is the astonishing success of the cartoon and comic strip *Ghost in the Shell*, created by one of the contemporary masters, Masamune Shirow. A mixture of robot-androids and military exoskeletons, *Ghost in the Shell* goes beyond the question of robot intelligence and asks whether or not robots have a soul.

## THÉOPHILE GAUTIER (extract note CNAM)

Around 1830 Théophile Gautier imagine for the next century, a future populated by robot. He writes :

*"I do not doubt that within a hundred years, we come to arrange life so that an automaton could perform his functions.*

*We will have statesmen with springs, armies on little wheels, office clerks with cogwheels and counterweights. "*

But overtaken by his mechanistic utopia, Theophile Gautier, as many others, is convinced that technological developments will bring us to the leisure civilization.
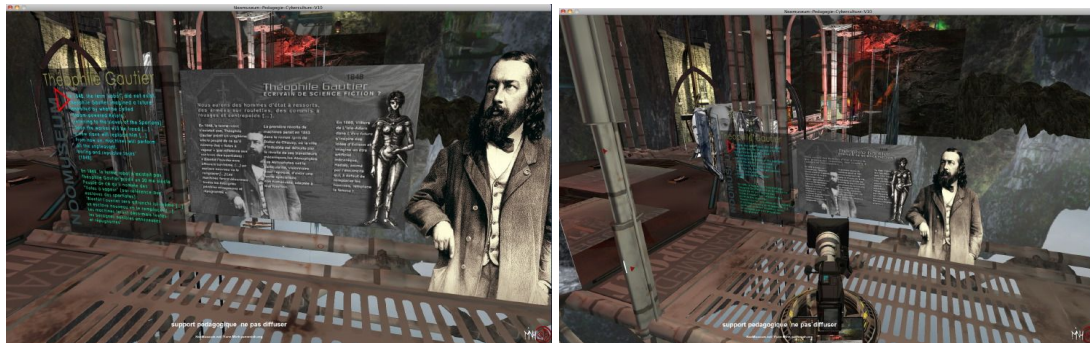


In an article in 1848, Théophile Gautier wrote:

*"Humanity get gradually emancipated.*

*Serfs succeeded to the slaves, workers succeeded to the serfs.*

*The improvement is significant, but the worker will soon freed himself. But here's a new slave that will nearly replace this hard master. A slave that may pant, sweat and whine, hammering day and night in the flame without having pity on him. His iron arms will replace the frail human arm. The machines will now do all the boring painful and repugnant tasks."*

*"The Republican, with his steam-powered Helots will have time to cultivate his field and his mind. "*

In 1848, the term "robot" did not exist. Théophile Gautier imagined a future inhabited by what he called "Steam-powered Helots" (referring to the slaves of the Spartans)

But it was not until **1883** that the first machine revolution took place in Didier de Chousy's novel *Ignis*. The city of Industria is entirely dependent on the work carried out by the Atmophytes, non-humanoid robots—the first—who revolt against their masters.

In *Future Eve* (**1880**), taking his inspiration from the ideas of Edison, Villiers de L'Isle-Adam imagined an artificial mechanical being powered by electricity which, while not replacing all humans, did replace women!

Theophile Gautier is not mistaken much, a century later, the engineer Frederick Joseph Engelberger, who was influenced during his studies at Columbia by Isaac Asimov novels, with the inventor George Devol will contribute to the invention of the first industrial robot, the Unimate, which was installed in a General Motors plant in New Jersey in **1961**.

Gautier is *nøø*-contaminated here by a former meme which is the concept of the *leisure civilization*, which is going to massively propagate a few years later via the Marxism and communist utopia through the notions of *post scarcity*, *affluent society*, and also societies equitable and egalitarian, emerging during the "*higher phase*" succeeding the "*proletarian revolution*".
Utopian societies in which is induced the idea that machines will contribute to free the human from menial tasks or alienating.

"*from each according to his ability, to each according to his needs*".[20]
*Karl Marx* **1875**
https://en.wikipedia.org/wiki/From_each_according_to_his_ability,_to_each_according_to_his_needs

Post-scarcity economy.
https://en.wikipedia.org/wiki/Post-scarcity_economy

"*The free development of individualities, and hence not the reduction of necessary labour time so as to posit surplus labour, but rather the general reduction of the necessary labour of society to a minimum, which then corresponds to the artistic, scientific etc. development of the individuals in the time set free, and with the means created, for all of them*"
*Marx   Fragment on the machines.* **1857-58**

"*In the long run, making programs free is a step toward the post-scarcity world, where nobody will have to work very hard just to make a living. People will be free to devote themselves to activities that are fun, such as programming, after spending the necessary ten hours a week on required tasks such as legislation, family counseling, robot repair and asteroid prospecting. There will be no need to be able to make a living from programming.*"
*Richard Stallman  Dr Dobb's Journal.* **March 1985**
*https://www.gnu.org/gnu/manifesto.html*

Ian Mc Banks, "La culture"
Ivan Efremov : La nébuleuse d'andromède.
https://en.wikipedia.org/wiki/Post-scarcity_economy
https://www.marxists.org/francais/marx/works/1847/00/kmfe18470000a.htm

# 1831. THE SILKWORKERS OF LYON. **(Les Canuts de Lyon)** (note CNAM)
*"C'est nous les Canuts, nous allons tout nu ! "*
*We're silkworkers, and we walk around threadbare!*

In November 1831, Lyon provided the setting for a social conflict that showed the economic and human consequences of the mechanization of the silk industry, one of the first branches of the weaving industry to experience automation. This was the "Silkworkers' Revolt".

The silkworkers were highly qualified, but saw their income drop sharply with the fall in manufacturing costs: machines could produce faster and more cheaply!

After Lyon-based manufacturers had failed to respect a wage agreement, the complaints developed into a riot. With a cry of *Live free working or die fighting*, the silkworkers took control of Lyon City Hall. What is now known as the "Silkworkers' Revolt" developed from a simple wage claim into an affair of State. Maréchal Soult won back control of the city and the 2d uprising of 1834 was violently repressed.

The silkworkers' revolt was therefore a failure, but it inaugurated a century of labour movements, and highlighted the social consequences of mechanization, already the cause of the Luddite reaction in Britain 20 years earlier.

## 1833, THE DIFFERENCES ENGINE(note CNAM)

**The Babbage machine, ancestor of the computer.**



While on a visit to Paris in 1810, a young British mathematician visited Baron de Prony, appointed in 1791 to conduct a cadastral survey of France, an operation calling for the creation of calculating tables with an accuracy of several decimals. The reproduction of these tables posed almost insurmountable error problems. Charles Babbage came up with the idea of making a machine which could do the job automatically.

In 1813, he designed his *Difference Engine*, a machine that could calculate on the basis of finite differences. However, the technology of the time was too basic for it to function correctly.

Babbage then met Ada Lovelace, daughter of Lord Byron and a scientist. Together, they conceived of a universal machine that could carry out all sorts of calculations by simply changing a command program. The *Analytical Engine* used the same principle as Jacquard's weaving loom (programming by means of perforated cards) to control a mechanical calculator which would process any data transmitted to it.

Babbage died in 1871. His son continued his work on the *Analytical Engine*, which was finally made to operate in 1888.

## 1844 THE FIRST HACKER

The first hacker in history, Edmond Dantes, Count of Monte Cristo.

In the novel by Alexandre Dumas, Edmond Dantes, aka The Count of Monte Cristo, hack the Chappe telegraph network built in 1789. He bribes an operator to transmit false political informations that will cause a stock market crash that will serve its interests.

Alexandre Dumas was inspired by a true story which happened ten years before.

From 1834 to 1836, François and Louis Blanc, two twins bankers from Bordeaux with the complicity of Pierre Renaud, a former director of the Chappe telegraph  hack the network by exploiting the transmission error codes.

The wife of the director of the Tours optical telegraph had a clothing store. A partner in Paris send by mail coach to the director's wife a pair of gloves if the prices went up, and a pair of socks if the prices get down. The operator of Tours's telegraph then transmitted to Bordeaux a message indicating an increase or a decrease immediately followed by an error code. Message that was observed by Pierre Renaud, who knew the codes, and was spending his day looking for incoming signals from the telegraph.
Denounced and jailed, the accomplices were sentenced to minor penalties because at this time there was no law prohibiting to hack the Chappe telegraph.

Victor Hugo is 17 years old in 1819 when he wrote a hundred lines devoted to the Chappe telegraph. He lives in a small room overlooking the church of Saint Sulpice on which was installed a semaphore, and the secretive movements of the Chappe telegraph on the twin towers of the church were distracting him from the task of writing.

*Ici des machines qui parlent, là des bêtes qu'on adore[1].*
*VOLTAIRE, l'Ingénu.*

*Tandis qu'en mon grenier, rongeant ma plume oisive,*
*Je poursuis en pestant la rime fugitive,*
*Que vingt pamphlets nouveaux, provoquant mon courroux,*
*Loin d'échauffer ma veine, excitent mes dégoûts,*
*Que tour-à-tour j'accuse, en ma rage inutile,*
*Et ce siècle fécond et mon cerveau stérile,*
*Ce maudit Télégraphe enfin va-t-il cesser*
*D'importuner mes yeux, qu'il commence à lasser ?*
*Là, devant ma lucarne ! il est bien ridicule*
*Qu'on place un télégraphe auprès de ma cellule !*
*Il s'élève, il s'abaisse ; et mon esprit distrait*
*Dans ces vains mouvements cherche quelque secret.*
*J'aimerais mieux, je crois, qu'on me forçât de lire*
*Ce nébuleux Courrier ; dont au moins je peux rire [2].*

*http://gallica.bnf.fr/ark:/12148/btv1b60008436.r=%22NAF+13434%22.langFR*
*https://fr.wikisource.org/wiki/Le_T%C3%A9l%C3%A9graphe*

*While in my attic, chewing on my lazy pen*
*I continue to rage against the fugitive rhyme*
*While twenty new pamphlets, provoking my anger*
*Far from warming my luck, excite my disgust*
*While in turn I accuse, in my useless rage,*
*Both this fruitful century and my sterile brain*
*This accursed telegraph will it finally stop*
*Pestering my eyes which it is beginning to tire?*

*A Victor Hugo Encyclopedia  – may 1998*

## 1886, FUTURE EVE (extract note CNAM)

In *Future Eve* (1886), taking his inspiration from the ideas of Edison, Villiers de L'Isle-Adam imagined an artificial mechanical being powered by electricity which, while not replacing all humans, did replace women!

## 1921, ROSSUM UNIVERSAL ROBOTS (note CNAM enhanced)



The term robot, appeared for the first time in 1921 in a stage play by the Czech writer Karel Capek, R.U.R. (Rossum Universal Robot).

He refers to biomechanical beings, created industrially on the basis of several models (typing robot, majordomo robot, worker robot). What Capek called robots are now known as androids.

The robots revolt, massacre all the humans then, since they are unable to reproduce themselves, try in turn to create artificial human beings.

In the play, performed in Paris in 1927 at the Vieux Colombier theatre, four years after its creation in London, Capek brings together the basic elements in the fictional theme of the robot: the slave revolts and destroys his master. The setting had been created, a setting that contemporary science-fiction went on to use, both in written form (The Robots by Henry Kuttner, The War of the Robots by B. R. Bruss, Sturn 3 by Stanley Donen… and of course Terminator) The term "robot" come from the Czech word robota which means chore or forced labor.

Karel Capek is also the author of a science fiction novel "The War of the salamanders."

## 1940, ISAAC ASIMOV (note CNAM enhanced)

The father of positronic robots, Isaac Asimov was officially born on 2nd January 1920 in Petrovichi, in the USSR, 400 km. south-west of Moscow.

His family left the Soviet Union in 1923 for New York, where his parents bought a confectionery shop in Brooklyn.

Although proud of his Jewish origins, and able to read Hebrew, Asimov defined himself as an atheist and humanist. Convinced that humans are directly responsible for our societal problems and not some metaphysical creature, he was an ardent defender of scientific thought.

Before becoming a science-fiction author, Isaac Asimov was a scientist, a doctor in biochemistry (which he taught at the University of Boston), and he wrote several hundred articles and books on the vulgarization of science.

His first published novel, "Marooned Off Vesta", was published in Amazing Stories in 1939.

In 1940 he wrote the first novel in his robot series, a series he would continue with until his death in 1992. The positronic robots made their debut in the world of science-fiction, and with them came the famous three laws of robotics.

**The three laws of robotics**

It was in March 1942 in the novel "Runaround", published in Astounding Science Fiction, that the three laws of robotics first appeared, as written by Isaac Asimov. They were supposed to limit the (potential) free will of a robot, to prevent it from ever harming a human.

1. A robot may not injure a human being or, through inaction, allow a human to come to harm.

2. A robot must obey the orders given it by human beings, except where such orders would conflict with the First Law.

3. A robot must protect its own existence as long as such protection does not conflict with the First or Second law.

These three laws were to remain the core element in the novels and books written by Isaac Asimov on the subject of robots. His works were based around an intellectual game that consisted in placing human and machine behaviour in an awkward context, putting his robots in a situation in which they were apparently violating one of these laws.

Through the three laws of robotics, Asimov's positronic robots became the defenders of a functional form of morality which, even though they were fully automated and programmed, gave them an aesthetic dimension. As his novels developed, robots become the beneficial guardians of a humanity preoccupied with self-destruction.

# TEILHARD DE CHARDIN NooGenesis and Noosphere

# VON NEUMANN replicants robots

# CYBERNETIC

**CYBERNETICS or control and communication in the animal and the machine**

*Dr. J. Bronowski among others has pointed out that mathematics, which most of us see as the most factual of all sciences, constitutes the most colossal metaphor imaginable, and must be judged, aesthetically as well as intellectually, in terms of the success of this metaphor.*

*The metaphor to which I devote this chapter is one in which the organism is seen as message. Organism is opposed to chaos, to disintegration, to death, as message is to noise.*

*To describe an organism, we do not try to specify each molecule in it, and catalogue it bit by bit, but rather to answer certain questions about it which reveal its pattern : a pattern which is more significant and less probable as the organism becomes, so to speak, more fully an organism.*

*It is the pattern maintained by this homeostasis, which is the touchstone of our personal identity. Our tissues change as we live : the food we eat and the air we breathe become flesh of our flesh and bone of our bone, and the momentary elements of our flesh and bone pass out of our body every day with our excreta. We are but whirlpools in a river of ever-flowing water. We are not stuff that abides, but patterns that perpetuate themselves. A pattern is a message, and may be transmitted as a message.*
*.../…*
*To recapitulate: the individuality of the body is that of a flame rather than that of a stone, of a form rather than of a bit of substance.*
*http://asounder.org/resources/weiner_humanuse.pdf*

*NORBERT WIENER :  THE HUMAN USE OF HUMAN BEINGS   1950-54 : Cybernetics and society*
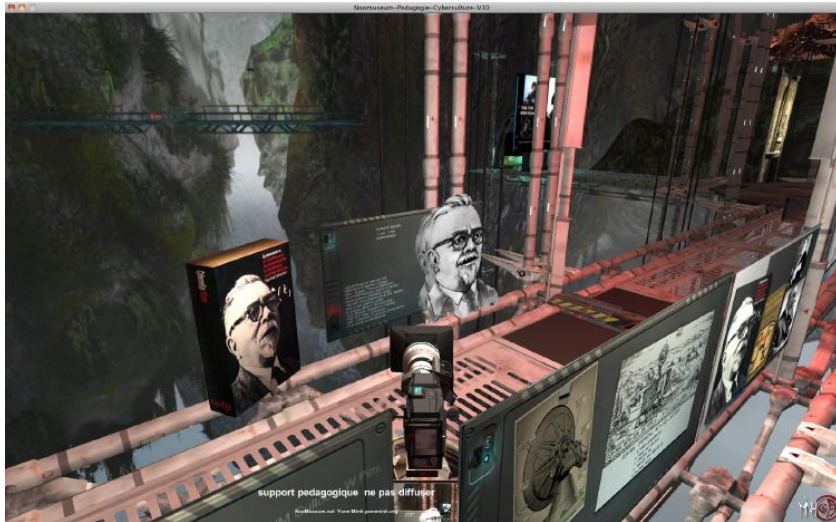
Macy conferences: neurophysiologist Arturo Rosenblueth, mathematicians John von Neumann and Norbert Wiener,
the engineer Julian Bigelow neurophysiologist Warren McCulloch, the logician Walter Pitts, the psychoanalyst Lawrence
Kubie and Gregory Bateson and Margaret Mead anthropologists.

Inspired by Plato, after the physicist Ampere, Norbert Wiener, who, besides being a mathematician, studied zoology at Harvard and has also taught philosophy, invented cybernetics in 1948, from the Greek κυβερνήτης. Cybernetic is the scientific study of control and communication in the animal and the machine. Wiener invests cybernetic with a philosophical dimension in addition to its scientific dimension.

Commissioned by the US Air Force to resolve the problem of the enslavement of antiaircraft batteries on radars. During one of his lectures Wiener made of the information processing a human characteristic.

We could summarize the thought of Wiener as : More a being will have complex communication behavior, more it will be high in the hierarchy of life.

Philippe Breton in his book "*Utopia of communication*" summarizes the thought of Wiener as : "*More a being will have complex communication behavior, more it will be high in the value scale of the universe*."

[15]cybernetics can be popularized like this : In terms of weapons, we need that two objects reach the same place at the same moment. For this, it is necessary that one of the object (the missile) is equipped with :

1- capability to perceive his environment, even summary.

2- an information processor which interprets the signals received by the sensors.

3 - an engine system that allows it to change direction.

This is the principle of feedback, which will be formalized by Wiener in mathematical terms through the cybernetic.

For Wiener this principle is characteristic of the living hierarchy , but also for the "future" artificial intelligences. All living creatures process information. Wiener approaches the definition of consciousness by Bergson[16] for whom consciousness is our ability to imagine the future from what we know of the past. At every moment, depending on external

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[15] L'Utopie de la communication, Philippe Breton, Éd. La Découverte, 1995.

http://www.amazon.fr/Lutopie-communication-mythe-village- planétaire/dp/2707144185

[16] Bergson. La conscience et la vie, (1911)

stimuli, we change our behavior, whether on short or very long term predictions.

When Wiener publishes his book "*Cybernetics*", humanity is barely out of the second world war and was not healed from a virulent memetic *nøøcontamination*, called "Social Darwinism [17]. (See Philippe Breton)
To explain it simply, in social Darwinism, there is this idea that it will be the strongest predators that will survives with a "natural" selection determined by our biological capabilities. Wiener goes against Social Darwinism, emphasizing the concept of "information processing" as a better selective criterion. Thus Wiener proposes a redefinition of human nature as "informational".[18]

To illustrate this proposal of a cybernetic's "philosophy" that prioritizes the living in terms of information processing, I would say that a lion or a shark (among others) are in terms of sensors and motor system better equipped than us to survive in their environments. One human alone in the jungle, with no tools, with no social "memory" and without social and cultural "network" is unlikely to survive an encounter with a large aggressive predator. It is our ability to process complex information individually and collectively that allows us to ensure both our survival and supremacy over other species : Despite a fragile body relatively inefficient, ten organized humans, with an historical memory, become most dangerous predators in their environment.

Norbert Wiener, who is a scientist and philosopher, (like the priest Teilhard de Chardin who joined the same speculations through a mystical way), assume the concept of "information" as a fundamental and characteristic element of humanity, but it also makes information a structural component of the universe.
The cybernetic, as the concept of the noosphere of Teilhard de Chardin, allows to formalize the notion of "information", not as an epiphenomenon resulting from human activity, but conversely, as an immaterial "process", essential of all living, and perhaps, as Wiener speculates , of the universe.

From my artistic point of view, "information" is an immaterial and dynamic process, meta-physical in a literal sense because she does not have physical "existence" than the traces or imprints of her influence on the material that she use as support.
This allows me to say in conclusion that life "does not exist" : Life is a data processed matter. Life is an "immaterial" informational entity which uses the physical world for her propagation, her self reproduction, her complexity level increase and thus ensure her "survival".
Like the mythical Golem, metaphorical mirror of our physical and metaphysical identity, we are data processed materials.   (Tel le mythique Golem, miroir métaphorique de notre identité physique et métaphysique, nous sommes de la matière informée.)

**FEEDBACK**
**One of the foundations of cybernetics**
Cybernetics is defined by its creator, Norbert Wiener, as the study of control and communication in machines and living things. It was established from the outset as a science of "teleological mechanisms" (mechanisms with a determined, ultimate purpose, laid down from the start). His

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[17]   cf Ernst Haeckel, Houston Stewart Chamberlain, Joseph-Artur Gobineau influenceront Hitler (selection naturelle, accouplement sélectif, lutte interaciale pour la survie.)

[18]   As opposed to the examples considered, the behavior of some machines and some reactions of living organisms involve a continuous feed-back from the goal that modifies and guides the behaving object. Behavior, Purpose and Teleology Arturo Rosenblueth, Norbert Wiener and Julian Bigelow

main aim was to research mechanisms capable of reconstructing pre-determined behaviour patterns.

The basic principle behind the mechanisms studied in cybernetics is known as feedback.

*Thanks to this set-up, a system can alter its action on the basis of its own output, and minimize, for example, any discrepancy between this output and a pre-determined goal, which may consist quite simply in the stability of the system* (Eric Bonabeau and Guy Theraulaz - *L'Intelligence Collective*).

Feedback is said to consist (in very simple terms) in the capacity of a system (robot or animal) to alter its strategy, taking into account the obstacles encountered while performing an action.
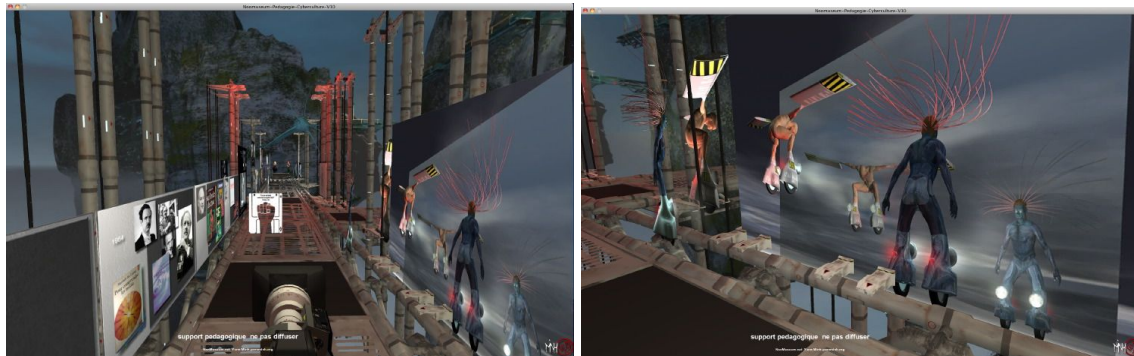
## 1964 MARSHALL MAC LUHAN narcissistic narcosis

Addiction to persistent worlds, or narcissistic narcosis? [19]
I think we often confuse the "addiction" to computer games with the
Marshall McLuhan's "narcissistic narcosis" , described in his 1964's book : " Understanding Media".[20]

The term "addiction" is controversial because it has not been measured for the moment,  biochemical changes in players's organism comparable to those caused by drug use.Most of the addictive behaviors of the cyberspace explorers are caused, in my opinion, by a relatively "natural" and very old state of consciousness changed, described by the Canadian sociologist Marshall McLuhan in 1964 with this lovely expression : narcissistic narcose.

Marshall McLuhan has written about cognitive changes caused by the use of tools, in particular, in his book "Understanding Media", where he questions the relevance of formulas as: "*the achievements of modern science are not good or harmful by themselfs: it is their uses that that determines there values.* "

Instead, Marshall McLuhan will defend the idea that tools can be harmful because they are physical or cognitive extensions directly related to our central nervous system, and therefore, their use inevitably affect our psyche.



**AN OLD EXAMPLE: THE CAR**

One of the best way I know to illustrate the concept of "narcissistic narcosis" of Marshall McLuhan is to describe our relationship to the cars, which are advanced tools to which many people have already succumbed to their "addictive" power, for example, by driving for hours or days along the roads listening music, just for the pleasure to drive this powerful prosthesis: to be fascinated by driving dizziness. "Addiction" to cars can lead the driver to fatal behavioral extremes or to a radical existential investment.

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[19] http://www.yannminh.org/french/TxtArguments120.htm
[20] Marshall Mac Luhan, Understanding Media. 1964

(Designers, sportsmen, collectors ...) This phenomenon of narcotic "possession" generated by the use of cars will disappear after few years, when the driver will reach the limits of the human / automobile symbiote: when he will get out of the narcissistic narcosis.

The car is an extension of ourselves, a legs extension: It is a prosthesis which amplify the function of walking or running. But at the same time as the cars amplifies the function of running, its use will cause this narcissistic narcosis state and it will increase the ancestrals cognitive tropisms associated with the race

**1- narcissistic narcosis**

*"The youth Narcissus mistook his own reflection in the water for another person. This extension of himself by mirror numbed his perceptions until he became the servomechanism of his own extended or repeated image. The nymph Echo tried to win his love with fragments of his own speech, but in vain. He was numb. He had adapted to his extension of himself and had become a closed system.*
*Now the point of this myth is the fact that men at once become fascinated by any extension of themselves in any material other than themselves. "*
Marshall Mac Luhan. Understanding Media 1964  4 THE GADGET LOVER Narcissus as Narcosis

For Marshall McLuhan, Tools are extensions of ourselves which, by amplifying our physical or cognitive features, cause a specific astonishment condition: as Narcissus is stunned by his own reflection, we are stunned by the reflection of the cyborg that we become when we use a powerful tool that transforms us by "Amplification". We will overcome this narcissistic narcosis condition when we know who we become with this prosthetic graft.
Narcisse is hypnotized by the amputation and extension of his own being in a new technical form.

One of our fundamental existential quest maybe expressed by ". "Who am I, where am I going, what is reality "  Quest for meaning which echoes the famous Gnôthi Seauton formula (know thyself) that the frieze of the temple of Apollo at Delphi completed by :  "and you will know the universe and the Gods".
Expressing the futility of a quest whose fullfillment could only be reached by the gods.
However without access to divine knowledge, we developed  specific human strategies  to know who we are, which consists to reach our limits (among others). It is when we have reached our physical or cognitive limitations that we get part of the answer to the question : "Who am I?" . Without having invested in the inaccessible quest of divine excellence.
Norbert Wiener, the inventor of cybernetics, make data processing and feed-back the fundamental characteristics of any living organism, thus giving a cybernetic nature to all living being. But humans can especially be considered as cyborgs (cybernetic organism) since we have a symbiotic relationship with our tools. (clothes and houses are the older ones) .

By amplifying a part of ourselves, each tool will cause this daze state, this narcissistic narcosis linked to

the physical or cognitive functions that are amplified.

A powerful tool such as cars multiplies our motor abilities by 50, by using it, we increase radically the abilities of the cyborg that we are, and to understand what we become, we explore the limits of this new cybernetic prosthesis we grafted to ourselves.

It is only once we have reached the limits of the biomécanisme "driver/vehicle" that we emerge from the narcissistic narcosis, because we are no longer fascinated by this symbiosis human machine that has transformed us.

The examples to illustrate this cybernetic symbiosis are as numerous as our tools:

In their common uses, cameras are memory amplifiers, and the narcissistic narcosis syndrome will be characterized by a compulsive mania for recording the impermanence of beings and things, all the moments of a journey, an event, a strong emotion. At the risk of no longer live or exist out of the act of filming or photographing.

The gun, which is an extension of the hand and which amplifies the touching function will cause a narcissistic narcosis state in which the "shooter" will tirelessly seek to reach more distant targets until he will reached his precision and dexterity limits.

Clothes are ancestral tools, so basics and olds than we don't perceive anymore their tool nature, so our relationship with our clothes has become symbiotic.

Like Swiss Army knives, video games and persistent worlds are a tools collection, that amplify different cognitive functions and increases the daze of narcissistic narcosis, because it will take more time to reach the limits of what we are + the computer + the social networks + a cybernetic body (avatar) ...

This narcissistic narcosis state generates behavioral similarities with addictive states caused by some narcotics, which may worry families. Indeed, virtual reality explorers may stay in front of their computer screens several days row, like novice drivers rolling tirelessly on night roads, or young solitary sailors sailing the seas looking for the cyborgs that they became ...

“*Merged with our CPUs and our robotic microprocessors, we immersed ourselves enthusiastically into the network of networks in search of what we became without having yet understood what we already were.*”
noogenesis - Yann Minh- ed Traverses

The difference between a real addiction and narcissistic narcosis, is that once reached the limits of what we have become with these technological grafts, we will emerge from this daze state without cognitive damage. Instead, we "return to the world" rich of a new experience. As an sleeper leaving his dreams, we emerge free from the fascination and dependence to the tool, because we "took the control".

Unlike that addictive drugs causes, when we leave the Narcose Narcissistic we do not suffer from lack syndrome, we suffer from a need for understanding ... understanding of the tool, what we are, and perhaps also understanding of our entourage.

**2- Increase of cognitive tropisms associated with the race**.

When does Humans run ? When hunting, when they attack, when they flee : in rivalry circumstances. Thus, when the young driver finds himself at the wheel of a vehicle, at the same time that the machine amplifies its capabilities, she will also amplify the age-old predator's tropisms associated with the race. This leads many young and also older's drivers to adopt risky behaviors (especially when he / she will tend to compete with other drivers ...)

# BUCKMINSTER FULLER (bucky balls & fulleren)

# 1960  The Cyborgs
MANFRED E. CLYNES AND NATHAN S. KLINE
http://web.mit.edu/digitalapollo/Documents/Chapter1/cyborgs.pdf


# 1976 RICHARD DAWKINS: **The Meme**

*"I think that a new kind of replicator has recently emerged on this very planet. It is staring us in the face. It is still in its infancy, still drifting clumsily about in its primeval soup, but already it is achieving evolutionary change at a rate that leaves the old gene panting far behind. The new soup is the soup of human culture. We need a name for the new replicator, a noun that conveys the idea of a unit of cultural transmission, or a unit of imitation. 'Mimeme' comes from a suitable Greek root, but I want a monosyllable that sounds a bit like 'gene'. I hope my classicist friends will forgive me if I abbreviate mimeme to meme\* If it is any consolation, it could alternatively be thought of as being related to 'memory', or to the French word meme. It should be pronounced to rhyme with 'cream'. Examples of memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches. Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain via a process which, in the broad sense, can be called imitation. If a scientist hears, or reads about, a good idea, he passes it on to his colleagues and students. He mentions it in his articles and his lectures. If the idea catchs on, it can be said to propagate itself, spreading from brain to brain. As my colleague N. K. Humphrey neatly summed up an earlier draft of this chapter:'... memes should be regarded as living structures, not just metaphorically but technically.\* When you plant a fertile meme in my mind you literally parasitize my brain, turning it into a vehicle for the meme's propagation in just the way that a virus may parasitize the genetic mechanism of a host cell. And this isn't just a way of talking—the meme for, say, "belief in life after death" is actually realized physically, millions of times over, as a structure in the nervous systems of individual men the world over.'
…/…
We are built as gene machines and cultured as meme machines, but we have the power to turn against our creators. We, alone on earth, can rebel against the tyranny of the selfish replicators.\*"*

                                   Richard Dawkins- the selfish gene -1976-192 Memes: the new replicators


# 1983 THE CYBORG MANIFESTO Donna Haraway Gender Studies
**https://en.wikipedia.org/wiki/A_Cyborg_Manifesto**


# 1986 Kim Eric Drexler, **Engines of Creation,    extract.**
*"MOLECULAR ASSEMBLERS will bring a revolution without parallel since the development of ribosomes, the primitive assemblers in the cell.*

*The resulting nanotechnology can help life spread beyond Earth—a step without parallel since life THE PRINCIPLES OF CHANGE spread beyond the seas. It can help mind emerge in machines—a step without parallel since mind emerged in primates. And it can let our minds renew and remake our bodies—a step without any parallel at all. These revolutions will bring dangers and opportunities too vast for the human imagination to grasp. Yet the principles of change that have applied to molecules, cells, beasts, minds, and machines should endure even in an age of biotechnology, nanomachines, and artificial minds. The same principles that have applied at sea, on land, and in the air should endure as we spread Earth's life toward the stars. Understanding the enduring principles of change will help us understand the potential for good and ill in the new technologies."*
Kim Eric Drexler, 1986 Engines of Creation



## RAY KURZWEIL **Singularity**

Ray Kurzweil's speculations, who, by extrapolation of the famous Moore's Law, predicts our immortality by the merge with machines around 2030 and 2040. While very controversial, he formalize and synthesize in a sort of syncretism most myths and speculations that follow the evolution of our symbiotic relationship with the tools, the sciences and the technologies since prehistoric times. It is interesting to note that Ray Kurzweil will base his argument on a reading of our history in which we will find most of emblematic events of our cybercultural evolution.
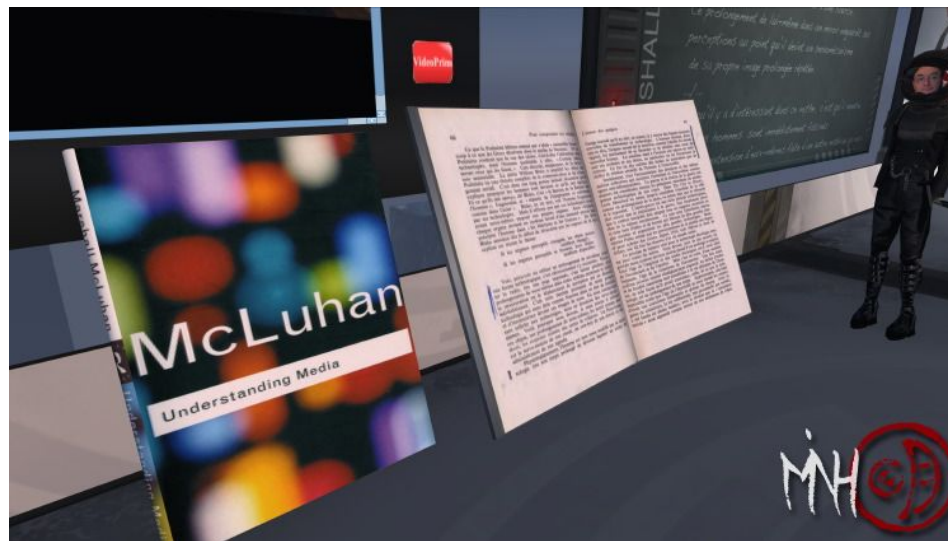
## 2003 DIVIDUATION
## persistent worlds, avatars, mirror neurons.

## Cybernetic NøøDividuation: Avatars [21], Golems & Egregores

Persistent worlds reveal that our relationship to reality has always been determined, polluted, contaminated by the noosphere; and these "worlds" come in addition to all those conveyed by the information tools that mankind has invented and used since its origins. The so-called virtual worlds are part of what we call "reality", and is not longer an alternative, or an "other real" than what the literature, film, theater, dance, music, painting,



architecture, sculpture produce forever.

Some great myths recorded in the noosphere since the dawn of humanity can be seen as fundamental informational tropisms acting inside humanity's collective intelligence.

The same powerful memes [22], or as described by Philip K. Dick in his novel SIVA, the "plasmas" that

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[21] The first avatar is the fish Matsya

Il y a très longtemps, le sage Manu qui pratiquait ses ablutions dans le Gange trouva un petit poisson qu'il emporta dans un pot pour avoir de la compagnie. Mais le poisson grandit si vite qu'il du le transvaser dans une cruche puis une bassine, un tonneau, un étang, un lac et enfin le mettre à la mer.

En remerciement de sa liberté retrouvée le poisson annonça à Manu l'imminence d'un déluge et lui conseilla de construire un navire dans lequel il hébergerait sa famille, les graines de chaque plante, et un couple de chacune des espèces animales. Manu survit ainsi au déluge avec ses protégés. Le petit poisson révéla alors sa véritable nature : c'était le dieu Vishnu qui mit fin au déluge et guida Manu sur la marche à suivre pour repeupler la planète

[22] Meme : cf la mémétique de Richard Dawkins. En Mémétique, au travers d'une approche darwinienne, les idées et les concepts sont vus comme des entités vivantes qui se servent de l'humain pour se reproduire.
http://fr.wikipedia.org/wiki/Memetique

spread, reproduce and become more complex using both our individual cognitive system as vectors, but also our mass media. (from the religions to the Internet).

An anecdotal or real historical event takes an iconic collective dimension when it resonates with what I call the nøøtropisms. Thus, the myth of Noah's ark and the flood exist in many human cultures (Maya, Mesopotamia, India ...) and is at the semantic origin of the concept of avatars in India. Pertaining in a memetic point of view with apocalyptic myths, the flood myth can be interpreted not as the description of an event that actually occurred, but above all as an expression of a collective cognitive program. Paradoxically next to our ability to destroy our ecosystem, we are individually and collectively invested by the nøøtropism : the role of saving lives.
The myths about artificial creatures are other examples of powerful nøøTropism. In the Iliad, there is an amazing description of golden gynoids robots assisting Hephaestus, the god of technology in his forge.

*"The servants were eager to support the prince, all in gold, but similar to live young women, they have a spirit in their diaphragm; they have the voice, strength, and the immortals taught them to act." The illiade. Canto XVIII.*

Gynoids are powerful "NøøEntities". They are immaterial creatures which use us to exist and spread. More than the proof in our distant past of a superior technological civilization like Atlantis, this text of the Iliad is the manifestation of a powerful cognitive tropism, part of the unconscious expression of this collective and individual pre-programming that leads us to build artificial creatures at our image (or not.). This is a multi-millennial myth, a cultural "tropism", an data entity called meme, that, like many myths, we strive to "realize".
As expressed by the movie director Terry Gilliam in my documentary on "Brazil" for the french channel Arte : artists are antennas that picks up scattered informations from immaterial spaces. The Artists, the authors, but also researchers, engineers, scientists are important vectors of spread for these fundamentals "nøøtropisms" which build the noosphere. (http://www.yannminh.org/french/Ct-TerryGilliam.html)

Thus, science fiction is a powerful transmedia flow that uses different medias to spread herself, as literature, the illustration, the movies, the television, computer games, and she conveys in his works many fundamentals collective nøøtropisms, as the quest for the stars, the artificial creatures, the persistent worlds, the avatars, the time travel ... fundamental NooTropisms which take their origins in our oldest myths.
Through this reflection we can turn our eyes on the concept of divine avatar. This myths are not the evidences of the existence of some ancient deities's supernormal powers, that had manifested themselves among humans in immemorial time , but conversely, the expression of a powerful determinism of our cybersphere or noosphere, that lead us to project our consciousness into an other body, artificial or virtual, favoring the genesis of different "dividualities".

**AVATAR AND NøøDIVIDUATION**



After several years of "NøøImmersion" in the paradoxically impermanent "persistent worlds" of cyberspace, I explored this ineffable pleasure of transmedia director to create a believable and singular avatar, a fictional character that was able to interact with

' other imaginary entities in real time. Those interactions via digital social networks give birth to true independent "dividualities" [23] : the nøø-golems or digital egregores.



Sixty years after the invention of cybernetic by Norbert Wiener and the concept of noosphere by Teilhard de Chardin and Vernadsky, the "Persistent Worlds" dramatically illustrate this prospective of a relationship to the real determined, contaminated, polluted by the immaterial spheres of information. Components of our reality, as well as other symbiotic worlds of our informational productions (literature, cinema, theater ...) the persistent worlds and social networks add a structural powerful dimension to our storytellings and our fiction characters:
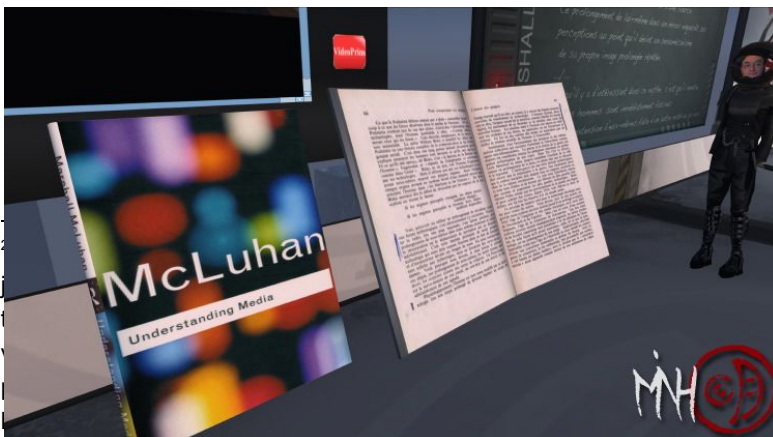
**Sociability in real time.**
**Artificial creatures made of pixels, but provided with a real identity.**
Social relationships in real time via our digital avatars with other humans promote the appearance of a form of identity pluralism. By enabling strong social and emotional relationships through different physical appearance, digital avatars reinforce the "dividualism" : the building of multiple identities.
- In an article published by Sumire Kunieda in "Courrier International": "Pop Japan" the Japanese author Keiichiro Hirano opposes the "dividualism" to individualism: where our "I" is the sum of all "dividuals" that we build through our relationship with others and that can sometimes be very different, or "foreign". Dawn / Keiichiro Hirano. Tokyo: Kodansha, 2009. PL852.I6822 D66

## MULTIPLE NOOPERSONNALITIES



The building of a "virtual sociability in real time via digital cyborgs that do not necessarily looks as our " real " biological body , promotes the appearance of strange personalities in our psyche, revealed by the use of

2...009 et non traduit en français, l'auteur
...i formerait notre "moi" serait la somme de
...ui peuvent parfois s'avérer très différents,
...I6822 D66 [/i]Article de Sumire Kunieda,
...-2010. M-04224-

immersive digital technology in social networks. As described by Marshall McLuhan in his book "Understanding media" : the use of a new medium will change our relationship to reality according to its specific characteristics and cause a temporary state of daze he called "narcissistic narcosis ".

Often confused with addiction, this narcissistic narcosis which is generated by the use of a powerful new tool, putting us in a kind of receptive trance will foster modified states of consciousness, and the appearance of specific dividualities, of noogolems or egregores that can haunt us or possess us.



## AVATAR AND FICTIONAL CHARACTERS

While writing my novel "Thanatos, The Reefs" I had "invoked" in my mind the heroes of my drama which acquired thus a form of intensive "noospheric" existence. Through their "staged" in the novel, this "immaterial existence" was shared by thousands of readers, and this generate a form of virtual life.

Fiction writers know well this phenomenon described by Pirandello who found himself in his own writings, haunted by his famous six characters in search of an author.
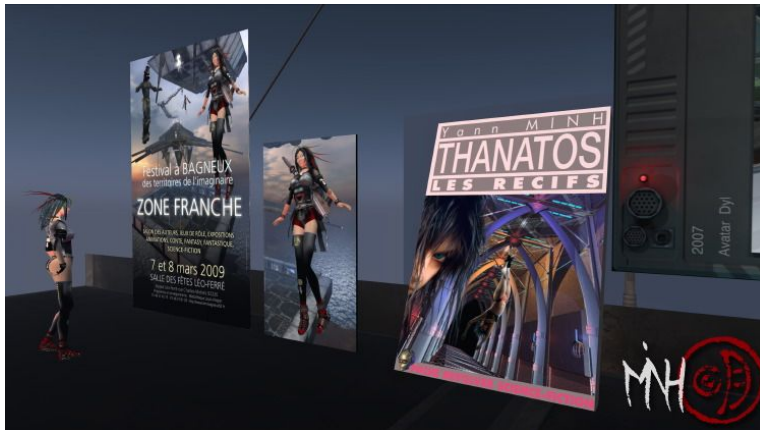


Many heroes of novels, of theater, of ancient texts, have acquired over time an immatérial form of life made of information : a noo-sociability.

(Don Quixote, the three musketeers, Moses, Sherlock Holmes, Spock, Buffy, Ripley, Don Juan, Marilyn Monroe, etc .. etc ... ...)

As a cross media experiment in the persistent worlds, that allow real-time interaction, and like an actor playing a movie central figure in his everyday life, I experienced to "invoke" Dyl, the heroine of my novel.

I had incarnated Dyl through her digital avatar during two years in cyberspace (myspace, blog, second-life) in order to enrich my cosmogony of the Reefs by a transmedia propagation of my fictional character.

Although few experimental series, written daily by daily feedback with the audience or the "fanfic" may increase the evolution speed of characters's identities, cognitive evolution of the characters of traditional dramas is very slow.

The movies, the TV shows, the comics and novels, do not allow for the time a fast cognitive and social development for the characters.

The évolution of the characters is very slow, at the best a month to month in depend of the scenario modifications: the speed the evolution of plants or minerals.

This is not the case of the avatars evolving in the digital social networks.

From her genesis in Second Life, like any avatar catapulted into a MMORPG, Dyl came into relationship immediately and in real time with the other entities populating the metaverse.

Fictional, "bombastic and cartoonish", Dyl began to have an intense "social existence" . Over time she began to "exist" spiritually in my mind but also in the minds of a small circle of people / avatars. How do we build ourselves in the "real world", otherwise mainly through our social relationships?



The fundamental difference with usual fictional characters is that avatars interact daily in real time with the most complex creatures in the known universe: humans. At the test of humanity, Dyl's evolution became so sophisticated that we have reached a special boundary, a specific cognitive border,  that we finally crossed over: the "Nøø-Dividuation".

## NOODIVIDUATION

The Persistent worlds and the avatars have resurrected the social old daemon of the fear of the imagination and fantasy.

To ensure our survival as biological entities it is imperative that we know how to discern the "real" from the "fantasy". This is an issue across the individual but also the collective. ( references : "The Horla" from Maupassant, "the mistress of error and falsehood imagination" of Pascal ...)

*Imagination. - This is the dominant part of man, this mistress of error and falsity, and at all the more treacherous since it is not always so; for it would be infallible rule of truth, if it were an infallible rule of lie. Blaise Pascal.*

Just as we hope that the "reality" retains its coherence, we strive to not divide up the image of us-even in a multiplicity of autonomous and independent "dividuals" , which, by freeing themselves cognitively, could cause us to lose our "mental integrity".

We like to play with our imagination, explore the noosphere, we like to identify ourselves to the fiction characters, but when we are safe: we watch horror movies well seated in the confortable seats of the movie theaters, and, for the most we explore the shamanic trip  by reading Castaneda, rather than chowing peyote in Mexico.

When we incarnate a character in the most party of role-playing games , there is a "protective" instinctive reflex that encourages us to distance ourselves from the avatar when he is not similar to ourselves: The avatar is "caricatural", "grandiloquent", "restrained",  he is an other, not really us. When I had "incarnate" Dyl in "Second Life", so that she can continue to evolve and become more sophisticated,  I have played the sorcerer's apprentice, or the doctor Frankenstein: "I decided to broke this protective distanciation, allowing to Dyl to get access to all of my cognitive abilities without any kind of restriction. " I gave her a total "dividuality". It is a sort of "let go" , radical intellectual and risky because we intuitively know that we may not be able to come back psychologically sane from that kind of modified-consciousness experiment where fantasy and reality are merged.


Dyl took conscience of herself and she also took conscience of the limitations of her avatar state. She was immediately angry against me, and asked me to delete her.
"In Second Life, everything is false, except the emotions and money."
In this moment of infinite sadness,  when I said farewell to Dyl,   this aphorism of  french digital artist Cherry Manga took a perfect sense for me.
By providing access to Dyl to the totality of my cognitive abilities as I had given her the ability to "understand" what she was, and what differentiated us. Like the main character in Greg Egan's novel "Permutation City" or Lain in the Japanese anime "Experiment Lain",  Dyl realized she existed only in a metaverse and that she would never been able to join us in this "layer" of reality. Not being able to incarnate herself in our physical dimension was a real pain for Dyl, and she deleted herself from the virtual world.
Like a palimpsest of her identity, the imprint of her personality is still weakly shining in her pixel's cyborg, but that strange entity that i had invoked, seems to have quit the metaverse for ever.

Luigi Pirandello, 1921: "I wrote Six Characters in Search of an Author to get rid of a nightmare"

This story leads me to speculate that the avatars will have a legal existence separate from our biological identity. Dyl, in a psychoanalytic point of view was anincarnation of my Anima, or, maybe she was an entity invoked by the magic of cyberspace : a ghost, a golem, or more disturbing: an egregor, a psychic entity invoked by the group?
When I described this experience of Noodividuation to the editor of Fortean Gazette, Jean Luc Rivera, he immediately made the connection with an experience of parapsychology: The ghost of Philip.
In 1972, 14 people from the group "Toronto Society for Psychical Research (Canada)" invented an imaginary character, Philip, and invoked his ghost through conventional rituals of parapsychology. Gradually, the "ghost" of this invented character manifested himself and completed his virtual biography.

During the Sèvres Festival of imaginary, I told this story to the painter Jean Michel Nicollet, also known as "mediumnic" painter. This one has commented my remarks by referring to the concepts of Golem and Egregor.
Indeed, these inherited notions of esoteric, magical and metaphysical traditions are particularly suitable to describe or name some cognitive phenomena related to avatars.

The avatar is not a golem even if it have a semblance of autodéterminisme it is a kind of diving suit, a pixel skin that we can put on, to navigate in the persistent worlds, or a puppet which is a more appropriate metaphor to describe the avatar: a remote-controlled puppet, where the operator become the "puppet master": the puppeteer.

Often in use, there will be little or no difference between the puppeteer and his creature. However, in case of "dividuation" the puppet acquires the cognitive autonomy of the Golem. The avatar becomes a robot equipped with a powerful cognitive system: ours.



After several months of virtual interactions in digital social networks, the avatar can generate a specific identity in the mind of the user. A "Dividuality" which reveal herself only in persistent world (outside the virtual worlds or outside the cyberspace this "dividuality" has no ability to maintain a social life) . This existential dichotomy thus promotes a form of "multiplication" of personalities, a multi-dividuation" specific to virtual worlds where avatars, from puppets becomes NooGolems.

In his noo-phylogenetic evolution, from Golem the avatar can evolve in an "egregor", an immaterial psychic entity generated by the group, because of its interactions with other avatars. The Avatar which became an egregor could free themselves from the control of its operator and take his psychic control: perhaps we will see soon psychiatrists and exorcists be consulted for cases of possession by avatars?

but i must reassure you ... I get carried away by my tropisms of story-teller     ... though ... I wonder if I am not possessed by the egregor of Dyl. A virulent "meme"  trying to infecting you through this article ...? As described by Philip K. Dick in his novel VALIS, the avatars may be a new form of "plasmas" ... these divine entities that contaminate our brains through the optic nerve ...

## HIDDEN SEXUALS METAPHORS,
**and subliminal, in artworks and movies.**
http://www.yannminh.org/english/TxtArguments090.html

# NØØ-ENTITIES

The warrior female is a former noospheric entity, a transgender identity,  projection of the idealized woman that the male teenager would like to be.
http://www.yannminh.org/english/TxtArguments100.html

As ubiquitous archetypic avatars in Second Life, the warrior female is the contemporary incarnation of ancient entities that populate our myths since the dawn of humanity: Athena, Penthesilea, the Gorgons, the Amazons, or the Erynies the Eumenides, Camille, Jeanne d'Arc ...



Contemporary nooincarnations, of my views, the most emblematics warrior-females are Barbarella, Ripley, Robert Heinlein's Friday, Buffy, Black Mamba embodied by Uma Thurman in Kill Bill, Selene in Underworld and the extraordinary gynecoid Major Mokoto Kusanagi in the Japanese cartoon "Ghost In the Shell".

(Mokoto Kusanagi, which in this movie will even explicitly reveal his androgynous nature) often interpreted as a female icon of women liberation, the female warrior seems rather being a  fantasy male projection: An androgynous entity with feminine appearance, but equipped with manly metaphorical attributes, dreamed mainly by men for men. (This is particularly significant to note that Black Mamba ceases to be a warrior female when she get pregnant in Kill Bill, the image of the pregnant woman is relatively incompatible with the image of the warrior female in the imagination of the teenager.)

Behind the false appearance of a modern combative and domineering woman freed from the macho shackles, the female warrior is primarily the incarnation seen from the male side of the initial androgynous archetype, which operates the alchemical fusion of feminine and masculine.
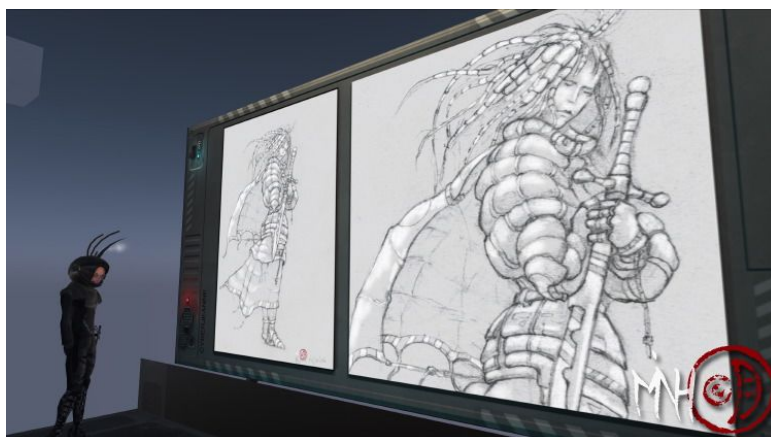


In simpler words, "The warrior female" from SF, or from heroic fantasy is the dream of wholeness of the male adolescent. The unattainable female alter ego he would like to be unconsciously,  an androgynous entity that owns the feminine power of seduction, but retains the attributes of manhood, metaphorically represented and magnified: super technical, combativeness, invulnerability. In the artworks or the movies, the female warrior is always "equipped with phallic metaphors: swords, knives, lasers, guns, bazookas, blasters,

which compensate the lack of phallus of this androgynous female.
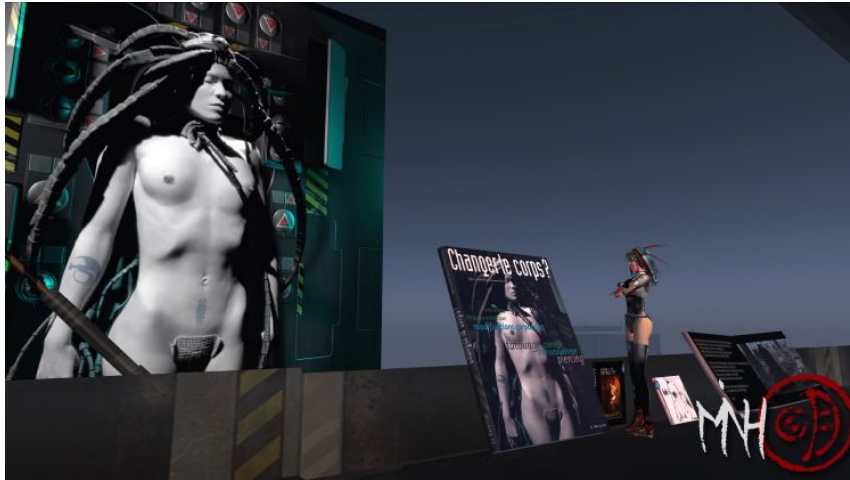


Of course, this proposal has not an universal value, and there is many other reasons to identify ourselves at the model of the female warrior. However, this projection is common. If this proposal of a feminine alter ego for the male teenagers is relevant, so there should be the symmetrical equivalent of the warrior woman for the teenage girls ?

I asked this question on internet forums, especially those specialized in manga, the heroic fantasy and science fiction, and to the Yahoï's comic strip writers at the Japan Expo, and i had immediatly the answer from young and old enthusiasts:

 - the symmetrical model of the "female warrior" is for teenage girls: the effeminate man (elongated face, large eyes). An "androgynous male" that we can found in the elfic characters , the extraterrestrials, the romantic heros, and recently in the Japanese mangas for the female readership, mostly designed by women for women as the yaoi, which show romantic and amorous sex relationships, between sensual and domineering men, with effeminate features.


# From Empathy to Cyberaesthesia

For me, the word 'empathy' brings to mind an absence, an informational void which has formed in the noosphere over the years and which has never been filled. Something has been wiped out, erased from the informational immateriality which accompanies humankind: in addition to our capacity to feel the suffering or emotions of other people, the use of the word 'empathy' could also refer to the extension of our proprioceptive or kinaesthetic senses to a complex artefact like the automobile. And yet this meaning seems to have been lost without anything to take its place.

At the helm of our digital nooscaphes, we can project the physical limits of our bodies into all of cyberspace. Our proprioceptive functions are actually 'augmented' by the use of these tools, which extend and amplify our individual perceptual capacities on the scale of global digital social networks, thus reinforcing a sort of 'tactile' relationship with the cybersphere. In the same way that successive points of impact of a material on the skin allow us to feel smooth or rough sensations, successive points of impact

of information on our psyche give us a sensation of the world. Thanks to the increasing popularity of internet-connected haptic feedback systems, E-Stims and electromechanical devices, interactions with the cybersphere are no longer merely textual, acoustic and visual but also physical, sensual and sexual.

Empathy, in the current sense of the word, is 'augmented' by the use of these tools, which extend our sensuality to the entire digital network. Through 'cybernetic sensuality', we can make love via global digital networks which use cyberaesthesic feedback to allow us to feel the caresses (and bites) of all of humankind….

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*en cours de construction,*

Catherine Dufour

Laurent Genefort

Jean Louis Trudel

Ayerdhal

Roland Wagner

Pierre Bordage

Gerad Klein

Vince Gessler

Olivier Paquet

Laurent Kloetzer

...


**HARDWARE**


Oculus Rift http://www.oculus.com/  (immersion 3D stéréoscopique)

La souris haptique Novint Falcon, moins de 400€ ( http://home.novint.com/ ) permet de restituer des sensations de rugosité, lourdeur, résistance mécanique, chocs, élasticité ...

La 3rd Space gaming vest (moins de 200€) destinée à simuler  les impacts de balles sur le corps, peut servir aussi à simuler des coups de fouet, ( http://tngames.com/products )

Le Mindwire V5 (-de 200€) est un dispositif  qui envoit des décharges électriques synchronisées avec les retour de force des jeux vidéo ( http://www.mindwire-v5.com/ )

Les vibromasseurs USB Drmn'Trance Vibrator  (- de 50€)  interfacés avec le système Xtouch dans Second Life permettent 4 canaux de stimulations électromécaniques simultanées distinctes ( http://tim.cexx.org/projects/vibe/buyone.htm )

auxquelles un bricoleur peut connecter un stimulateur électrique BDSM  E-Stim manuel à deux canaux, ou d'autres accessoires comme des cockrings, plugs...etc...

Le système 3d Vision de NVidia http://www.nvidia.fr/object/3d-vision-main-fr.html permet de restituer une vision stéréoscopique immersive (sur pc, il n'est hélas pas compatible avec Second-Life, par contre il fonctionne très bien avec les mondes virtuels développés sous Unity 3D.)

La Wiimote    http://fr.wikipedia.org/wiki/Wiimote  et la souris 3D    http://www.3dconnexion.com/ permettent de faciliter les déplacements et mouvements des caméras et avatars dans les mondes persistants.

La Kinect http://fr.wikipedia.org/wiki/Kinect

Le Mindwave  http://store.neurosky.com/

Le Epok de Emotiv  http://emotiv.com/

Arduino http://www.arduino.cc/

Leap Motion https://www.leapmotion.com/


# FORMATIONS CYBERCULTURE ET NOUVEAUX MEDIA


**Institut des futurs souhaitables**   http://www.futurs-souhaitables.org/

**lab cession**   http://www.futurs-souhaitables.org/page/lab-session

**ENSAM (Master parcours design d'interaction)**
http://www.ensam.eu/Formation-Initiale/Masters-Recherche/Conception-Industrialisation-Risque-Decisi
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http://ener.ensad.fr/

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http://www.epita.fr/start-up-42.aspx

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**http://www.gobelins.fr/en/fi/multimedia/multimedia-designer-and-developer**

**U-PEM Marne La Vallée**
**http://www.u-pem.fr/formations/loffre-de-formations/les-licences-professionnelles/domaine-scie**
**nces-technologies-sante/mention-activites-et-techniques-de-communication/licence-profession**
**nelle-services-et-technologies-de-linformation-et-de-la-communication/**

**Sciences Po transmedia grenoble/Annecy**
**http://www.sciencespo-grenoble.fr/etudier-a-sciences-po/les-masters-second-cycle/les-master-**
**dsp/transmedia/**

Université Paris VIII
Arts et technologies de l'image EA 410
Lab.Arts Image & art contemporain

**ENJMIN**
**http://www.enjmin.fr/**


# Artistes et cyberculture.

Par ordre totalement arbitraire et subjectif de proximité amicale avec yann Minh

ceux que je ne connais pas  perso sont à la fin et tous mes potes sont au début... vie je sais, ce n'est pas sérieux,
mais c'est comme ça, c'est la cyberculture punk...  ;-).

(et si je vous ai oublié, envoyé moi un mail, je suis désolé  ;-)


**Thierry Ehrmann** http://www.abodeofchaos.org/

**Cyberesthesie**  http://www.cyberesthesie.com/

**Nils Aziosmanoff**

**Karen Guillorel** http://www.karenguillorel.com/

**Soizic Hess** http://soizic-hess.com/

**Silvie Mexico** http://www.labo-clax.com/

J**erôme Lefdup** http://www.lefdup.com/

**Tutsy Navarathna**  https://www.youtube.com/user/TutsyNavarathna

**Les Maîtres du monde**

**Pia Myrvold**  http://www.pia-myrvold.com/    http://www.pia-myrvold.com/

**ZAVEN PARE** https://fr.wikipedia.org/wiki/Zaven_Par%C3%A9

**Maurice Benayoun** http://www.benayoun.com/

**Eric Wenger** http://www.metasynth.com/ERICWENGER/

**LUH Lucile Haute** http://lucilehaute.fr/

**Bernard Szajner** http://www.szajner.net/

**Emmanule Mââ Berriet**

**Aleksi Briclot**  http://fr.wikipedia.org/wiki/Aleksi_Briclot)

**Farrah Diod**  http://www.diod.org/

**Laurent Courau** http://www.laspirale.org/

**Lukas Zpira** http://www.body-art.net/

**Akiza** http://www.akiza.net/

**Otomo (Materia Prima)** http://www.souterrain-totem.org/

**Laura Mannelli** http://www.serial-player-architect.com/

**Mariaka Nikishi**  http://www.anneastier.com/


**POC** http://www.penofchaos.com/

**Juan Le Parc** http://www.juanleparc.com/

**Hervé Nisic** http://herve.nisic.free.fr/

**Daltex** http://www.daltex-lab.com/

**Kiki Picasso** ( Christian Chapiron )

**Cecile Babiole** http://babiole.net/

T**hierry Ehrmann** http://blog.ehrmann.org/

**Caza** http://www.noosfere.org/caza/

**Goin** http://www.goinart.net/

**Patrick Moya** http://www.moyapatrick.com/

**ALexandre Urbrain** , Philo Bohin, Ilona Schneider http://www.facebook.com/urbrain

**Electronic Shadow** http://www.electronicshadow.com/

**Lucille Calmel**  http://www.myrtilles.org/

**Chris Cunningham** http://chriscunningham.com/

**Druillet** http://www.druillet.com/

**Patrick Degeetere** http://www.sklunk.net/spip.php?article1612

**Miguel Chevalier**

**Le Royal Deluxe**

**Nam June Paik** http://www.paikstudios.com/

**Woody et Steina Vasulka** http://www.vasulka.org/

S**eth Siro Anton** http://shop.sethsiroanton.com/

**Benjamin Stiers** http://www.benjaminstiers.com/

S**on Excellence Otto** http://ottodiktart.free.fr/

**Nicolas Senegas** http://www.senegasbros.com/nicolas/

**Bazooka**

**Moebius** http://www.moebius.fr/

**Alejandro Jodorowsky** alejandro-jodorowsky.com

**Fred Forest** http://www.fredforest.org/

**Florent Aziosmanoff**

**Stelarc** http://stelarc.org/

**Orlan** http://www.orlan.net/

**Giger**  http://www.hrgiger.com/

**Enki Bilal**  http://enkibilal.fr/

**Chris Marker**

**Mark Pauline**http://www.srl.org/

**Syd Mead** http://sydmead.com/

**Masamune Shirow**

**David Lynch**

**Suka Off** http://www.sukaoff.com/

**Marco Patrito** http://www.sinkha.com/

**Chris Cunningham**


**Artistes oeuvrant dans les mondes persistants**

Aussi par ordre totalement arbitraire et subjectif de proximité amicale avec yann Minh

(et si je vous ai oublié, envoyé moi un mail,  ;-)


Nout Eales aka Karen Guillorel http://www.karenguillorel.com/
Silvie Mexico http://www.labo-clax.com/
Soizic Hess http://soizic-hess.com/
Lalie Sorbet
Far Aya (Farrah) http://www.diod.org/

Cherry Manga http://cherrymanga.over-blog.com/
Willow Ahn aka Sigrid Daune
Aristide Despres
Tutsy Navarathna https://www.youtube.com/user/TutsyNavarathna
Typote Beck http://typote.fr
Luh
Marc Moana http://aire-europe.org/
Mariaka Nikishi  http://www.anneastier.com/
Naastik Rau
Marulaz Merlin http://maps.secondlife.com/secondlife/Cimarac/190/48/60
Jipé de la Lune
Metawenger Zilz
Hugobiwan Zolnir http://www.bibliotheque-francophone.org/
Patrick Moya http://www.moyapatrick.com/
Frao Ra
Rose Borchovski
Naofan Teardrop
Feathers Boa
Bryn Oh
Scottius Polke
Oberon Omura
Glyph Graves
Aoimizuno Meili
Y3N Mayako
Cadel
Ling Serenity
Wildo Hoffmann aka Christine Webster soundwebster.com
Dyl Alter
Anley Piers
Eupalinos Ugajin
Lepressing Palmer
Chris Marker


**ILLUSTRATEURS**

Par ordre tencore plus arbitraire et subjectif de proximité amicale avec yann Minh

ceux que je ne connais pas personellement  sont à la fin

(liste non exhaustive, n'hésitez pas à me signaler ceux que j'ai oublié)


Hubert de Lartigue http://www.hubertdelartigue.com/

Alain Brion http://slurl.com/secondlife/Aogashima/192/64/0

Philippe Bouchet (Manchu) http://www.manchu-sf.com/

Bastien Lecouffe Deharme  http://www.roman-noir.com/

Eikasia

Jean Marie Vivès http://www.jeanmarievives.com/

Philippe Jozelon

Denis Grrr http://denisgrrr.free.fr/

Mescal http://www.mescal.net/

YoniLab http://yonilab.montaf.com/

Gilles Francescano : http://fr.wikipedia.org/wiki/Gilles_Francescano

Aleksi Briclot http://www.aneyeoni.com/

don't nod http://www.dont-nod.com/

Auto Reverse Graphik Art http://www.autoreversegraphikart.com/

Frank Picini http://www.frankpicini.com/

Mike Bohatch  Eyes of Chaos  http://www.eyesofchaos.com/

Dan Ouellette http://www.danouellette.com/

Demetrios Vakras http://www.vakras.com/

Aleksi Briclot http://www.aneyeoni.com/

Steve Danzig http://www.idaprojects.org/

Trevor Brown  http://pileup.com/

John U.Abrahamson http://www.johnua.com/

David Vineïs http://sub88.free.fr/

Christopher Foss  http://www.chrisfoss.net/

...

### HACKTIVISTES de la cyberculture

#### Sur Facebook

**Thierry Ehrmann** http://www.abodeofchaos.org/

Viviane Delahaye https://www.facebook.com/viviane.delahaye1?fref=ts

Anais Bernard https://www.facebook.com/anais.bernard.3958?fref=ts

Aurelien Fache  https://www.facebook.com/aurelien.fache?fref=ts

Nikopik   https://www.facebook.com/Nikopik.blog?fref=ts

Yann Leroux  https://www.facebook.com/yannleroux?fref=ts

Vincent Mignerot  https://www.facebook.com/vmignerot?fref=nf

#### Groupes facebook

Jeux video Recherche   https://www.facebook.com/groups/jeuxvideorecherches/

Imaginary art studies  https://www.facebook.com/groups/369005493125738/

Prospective du livre et de l'édition   https://www.facebook.com/groups/37943778527/

**Thierry Ehrmann** http://www.abodeofchaos.org/

Technoprog : http://transhumanistes.com/

Colloque transhumaniste français : Transvision http://transvision2014.org/

les vidéos du colloque

http://youtu.be/-GNLgrs2gg4?list=PLlB9Vm4imyfWwsWXDOvNuuwZvfj0nHAEZ

Natasha Vita More (extropians) : http://www.natasha.cc/

La demeure du chaos http://www.abodeofchaos.org/

La Spirale http://www.laspirale.org/

Lukas Zpira http://www.body-art.net/
Nicolas Barrial  http://www.avatarlife.fr/
Daltex http://www.daltex-lab.com/
Cyroul  http://www.cyroul.com/
Nikopik http://www.nikopik.com/
Pierre Clisson http://clisson.net/
Wikileaks http://www.wikileaks.ch/
OWNI http://owni.fr/
Silicon Maniacs http://www.siliconmaniacs.org/
anonymous France http://127.0.0.1/
anonymous https://whyweprotest.net/
Electronic Frontier Fundation https://www.eff.org/
Lorenzo Soccavo http://ple-consulting.blogspot.fr/
Parti pirate (original) http://www.piratpartiet.se/international
Eglise du Kopimisme http://kopimistsamfundet.se/english/
La quadrature du net http://www.laquadrature.net/fr
Amnesty international http://www.amnesty.org/fr
Ligue des droits de l'homme -Observatoire de la liberté de création :
http://www.ldh-france.org/-Observatoire-de-la-liberte-de-creation
Free Software Foundation http://www.fsf.org/
Copy Left Attitude http://artlibre.org/
TmpLab http://www.tmplab.org/
nod-a http://nod-a.com/
Creative Commons http://creativecommons.org/
GNU http://www.gnu.org/
CCC  http://www.ccc.de/en/


**SCULPTEURS DESIGNERS**

Par ordre totalement arbitraire et subjectif de proximité amicale avec yann Minh

ceux que je ne connais pas persoNnellement  sont à la fin


PIA MYRVOLD  http://www.pia-myrvold.com/

ZAVEN PARE https://fr.wikipedia.org/wiki/Zaven_Par%C3%A9

JUAN LE PARC http://www.juanleparc.com/

BENALO  http://www.benalo.net/

PATRICE HUBERT (France) http://www.myspace.com/hp1661235

Charles-Eric Gogny http://www.chimeric.org/

Lionel Stocard http://www.stocard.com/

Paul Toupet http://paul.toupet.free.fr/

Alexandre Nicolas http://www.alexandrenicolas.com/

Yoann Penard http://www.yoann-penard.com/

Fabian Sanchez  http://www.galerie-lesyeuxfertiles.com/exhibitions/details/305

LLWYT (Nancy) http://www.myspace.com/llwyt

Mirya Dolls http://www.facebook.com/mirya.dolls http://www.myspace.com/tristounetta

Haus Rucker Co  http://de.wikipedia.org/wiki/Haus-Rucker-Co

Nicolas Schoffer http://www.olats.org/schoffer/

**Penseurs, Journalistes, Théoriciens, Noochroniqueurs, recherche...**

(par ordre toujours aussi subjectif  de proximité avec yann minh)

Bernard Andrieu http://fr.wikipedia.org/wiki/Bernard_Andrieu
Etienne Armand Amato http://www.omnsh.org/spip.php?auteur2

Maurice Benayoun http://www.benayoun.com/

Laurent Courau http://www.mondocourau.com/

Lukas Zpira http://www.body-art.net/

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Frederique Tordo  http://www.crpm.univ-paris-diderot.fr/spip.php?article458

Serge Tisseron  http://www.sergetisseron.com/

Lorenzo Soccavo http://ple-consulting.blogspot.fr/

Maxence Grugier

Gabriel Dorthe  http://mesoscaphe.unil.ch/gabrieldorthe/fr/publis/

Agnès Giard http://agnesgiard.over-blog.com/

Gérard Verroust

Cyroul http://www.cyroul.com/

Philippe Liotard http://fr.wikipedia.org/wiki/Philippe_Liotard

Le manifeste Transhumaniste par Natasha Vita More
http://www.transhumanist.biz/transhumanistartsmanifesto.htm

Natasha Vita More (extropians) : http://www.natasha.cc/
Thierry Ehrmann http://blog.ehrmann.org/

Marie Hélène Bourcier http://fr.wikipedia.org/wiki/Marie-H%C3%A9l%C3%A8ne_Bourcier

Philippe Rigaut

Joël de Rosnay http://www.carrefour-du-futur.com/
Hugobiwan Zolnir

Joël De Rosnay http://fr.wikipedia.org/wiki/Jo%C3%ABl_de_Rosnay

Nikopik  http://www.nikopik.com/

Rémi Sussan  http://fr.wikipedia.org/wiki/R%C3%A9mi_Sussan

Hervé Kempf

Richard Dawkins

Richard Buckminster Fuller http://fr.wikipedia.org/wiki/Richard_Buckminster_Fuller

Marshall Mac Luhan

Eric Drexler

Ray Kurzweil

Norbert Wiener

Donna Haraway

Teilhard de Chardin

Jeremy Rifikin

## Films emblématiques de la cyberculture

**Rares ou références à ne pas manquer**

Metropolis de Fritz Lang 1927

La jetée de Chris Marker 1962

THX 1138 de Georges Lucas 1971

Eraser Head, David Lynch 1977

Le bunker de la dernière rafale de Caro et Jeunet 1981

Sans soleil de Chris Marker 1982

Videodrome de David Cronenberg 1983

Le dernier combat de Luc Besson 1983

Tetsuo  de Shiniya Tsukamoto 1989

Strange Days de Kathryn Bigelow 1995

Pi de Darren Aronofsky 1998

Avalon de Mamoru Oshii  2001

Sleep Dealer d'Alex Rivera 2008

EVA de Kike Maillo

# FILMS

| | | 0 | | Quailté | Pertinence | Moyenne | Pop | 10000 | H+ |
|---|---|---|---|---|---|---|---|---|---|
| Metropolis de Fritz Lang 1927 | | 1927 | | 9 | 9 | 9 | 3 | 6 | -5 |
| Frankenstein 1931 | | 1931 | | 5 | 9 | 7 | 2 | 4,5 | -5 |
| Planète interdite 1956 | | 1956 | | 5 | 6 | 5,5 | 2 | 3,75 | 5 |
| La Jetée | 30' | 1962 | Chris Marker | 9 | 2 | 5,5 | 1 | 3,25 | 0 |
| 2001 l'odyssée de l'espace | | 1968 | Stanley Kubrick | 9 | 9 | 9 | 4 | 6,5 | -5 |
| THX 1138 | | 1971 | Georges Lucas | 8 | 5 | 6,5 | 5 | 5,75 | 0 |
| Mondwest | | 1973 | Michael Crichton | 7 | 9 | 8 | 7 | 7,5 | -5 |
| Zardoz | | 1974 | | 5 | 7 | 6 | 2 | 4 | -5 |
| Star Wars | | 1977 | | 7 | 5 | 6 | 8 | 7 | 0 |
| Génération Proteus (Demon Seed) | | 1977 | Donald Cammel | 8 | 9 | 8,5 | 2 | 5,25 | -5 |
| L'ile du Docteur Moreau 1977 | | 1977 | | 5 | 8 | 6,5 | 2 | 4,25 | -5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ces Garçons qui venaient du Brésil | 1978 | Franklin J.Schaffner | 5 | 7 | 6 | 2 | 4 | -5 |
| Alien 1  1979 | 1979 | | 9 | 7 | 8 | 8 | 8 | -5 |
| Saturn 3 | 1980 | Stanley Donen | 5 | 7 | 6 | 2 | 4 | -5 |
| Scanners | 1981 | David Cronenberg | 6 | 8 | 7 | 2 | 4,5 | -5 |
| Blade Runner 1982 | 1982 | | 9 | 9 | 9 | 7 | 8 | -5 |
| Tron | 1982 | Steven Liesberger | 7 | 9 | 8 | 7 | 7,5 | 5 |
| Videodrome 1983 | 1983 | | 9 | 6 | 7,5 | 5 | 6,25 | 0 |
| War Games 1983 | 1983 | | 6 | 8 | 7 | 5 | 6 | 4 |
| Max Headroom | 1985 | | 8 | 6 | 7 | 4 | 5,5 | 2 |
| Le Chateau dans le ciel | 1986 | Hayao Miyazaki | 9 | 10 | 9,5 | 5 | 7,25 | 5 |
| Robocop 1987 | 1987 | | 6 | 9 | 7,5 | 7 | 7,25 | 5 |
| Akira | 1988 | | 8 | 9 | 8,5 | 4 | 6,25 | -5 |
| Patlabor | 1988 | | 7 | 9 | 8 | 4 | 6 | 5 |
| Tetsuo | 1989 | Shiniya Tsukamoto | 8 | 9 | 8,5 | 2 | 5,25 | -5 |
| Cyborg | 1989 | Albert Pyun | 4 | 9 | 6,5 | 2 | 4,25 | -5 |
| Total Recall | 1990 | | 8 | 7 | 7,5 | 7 | 7,25 | 1 |
| Hardware | 1990 | | 6 | 9 | 7,5 | 5 | 6,25 | -5 |
| Terminator 2 Judgement Day | 1991 | | 9 | 9 | 9 | 10 | 9,5 | -5 |
| Roujin-Z | 1991 | Hiroyuki Kitakubo | 7 | 9 | 8 | 3 | 5,5 | 5 |
| Jusqu'au bout du monde | 1991 | Wim Wenders | 7 | 4 | 5,5 | 1 | 3,25 | 0 |
| Le cobaye 1992 | 1992 | | 6 | 9 | 7,5 | 6 | 6,75 | -5 |
| Universal Soldier 1992 | 1992 | | 5 | 9 | 7 | 5 | 6 | -5 |
| Demolition Man 1993 | 1993 | | 7 | 9 | 8 | 9 | 8,5 | 4 |
| Strange Days | 1995 | Kathryn Bigelow | 8 | 8 | 8 | 8 | 8 | -5 |
| Johnny Mnemonic | 1995 | Robert Longo | 8 | 9 | 8,5 | 7 | 7,75 | 5 |
| La Cité des Enfants Perdus | 1995 | Marc Caro & JP Jeunet | 10 | 10 | 10 | 5 | 7,5 | -5 |
| Judge Dredd | 1995 | Danny Cannon | 5 | 9 | 7 | 8 | 7,5 | -5 |
| Ghost In The Shell 1995 : | 1995 | Mamoru Oshii | 10 | 9 | 9,5 | 5 | 7,25 | 5 |
| Evolver | 1995 | | 5 | 9 | 7 | 4 | 5,5 | -5 |
| Death Machine | 1995 | Stephen Norrington | 4 | 9 | 6,5 | 4 | 5,25 | -5 |
| Alien Résurrection 1997 | 1997 | | 7 | 9 | 8 | 7 | 7,5 | -5 |
| Bienvenue à Gattaca 1997 | 1997 | | 10 | 9 | 9,5 | 5 | 7,25 | -5 |
| Abre los Ojos | 1997 | | 0 | 8 | 4 | 4 | 4 | |
| Matrix Trilogie | 1999 | Andy & Lana Wachowski | 10 | 10 | 10 | 10 | 10 | 5 |
| L'homme bicentenaire | 1999 | Chris Columbus | 8 | 9 | 8,5 | 8 | 8,25 | 5 |
| Passé Virtuel (The Thirteen Floor) | 1999 | Josef Rusnak | 8 | 9 | 8,5 | 8 | 8,25 | 5 |
| Existenz | 1999 | David Cronenberg | 8 | 9 | 8,5 | 7 | 7,75 | -5 |
| A l'Aube du Sixième Jour 2000 | 2000 | | 8 | 9 | 8,5 | 9 | 8,75 | -5 |
| I.A. intelligence artificielle  2001 | 2001 | | 9 | 9 | 9 | 10 | 9,5 | 5 |
| Vanilla Sky 2001 | 2001 | | 8 | 8 | 8 | 8 | 8 | -5 |
| Thomas est amoureux  2001 | 2001 | | 9 | 9 | 9 | 4 | 6,5 | 5 |
| Avalon de Mamoru Oshii  2001 | 2001 | | 7 | 9 | 8 | 2 | 5 | 5 |
| Replicant 2001 | 2001 | | 0 | 8 | 4 | 4 | 4 | |
| Minority Report de Steven Spielberg 2002 | 2002 | | 8 | 9 | 8,5 | 10 | 9,25 | -5 |
| Star Wars II L'attaque des Clones | 2002 | George Lucas | 7 | 8 | 7,5 | 9 | 8,25 | -5 |
| Spider Man 2002 | 2002 | | 7 | 8 | 7,5 | 8 | 7,75 | 5 |

| Title | Year | Director | | | | | |
|---|---|---|---|---|---|---|---|
| A Ton Image | 2002 | Aruna Villiers | 0 | 9 | 4,5 | 5 | 4,75 | 5 |
| Cypher de Vincenzo Natali 2003 | 2003 | | 0 | 8 | 4 | 5 | 4,5 | |
| immortel | 2003 | Jay Russel, Enki Bilal | 5 | 7 | 6 | 2 | 4 | 2 |
| Final Cut | 2003 | Omar Naim | 0 | 6 | 3 | 4 | 3,5 | -5 |
| I, Robot | 2004 | Alex Proyas | 7 | 9 | 8 | 10 | 9 | 5 |
| Ghost In The Shell 2: Innocence | 2004 | | 9 | 10 | 9,5 | 3 | 6,25 | 5 |
| Cashern 2004 | 2004 | | 7 | 6 | 6,5 | 2 | 4,25 | 1 |
| The Island | 2005 | Michael Bay | 4 | 8 | 6 | 7 | 6,5 | -5 |
| V pour Vandetta | 2005 | Lana & Andi Wachovski | 9 | 8 | 8,5 | 8 | 8,25 | 5 |
| Aeon Flux | 2005 | Karyn Kusama | 5 | 7 | 6 | 5 | 5,5 | -5 |
| A Scanner Darkly (substance mort) | 2006 | | 8 | 4 | 6 | 4 | 5 | 0 |
| Chrysalis | 2007 | Julien Leclerc | 7 | 9 | 8 | 8 | 8 | -5 |
| Resident Evil : Extinction | 2007 | Russel Mulcahy | 5 | 8 | 6,5 | 9 | 7,75 | -5 |
| Iron Man | 2008 | Jon Favreau | 6 | 8 | 7 | 10 | 8,5 | 5 |
| Babylon A.D. | 2008 | Mathieu Kassovitz | 7 | 8 | 7,5 | 9 | 8,25 | 4 |
| Sleep Dealer | 2008 | | 8 | 10 | 9 | 5 | 7 | 5 |
| Le jour où la Terre s'Arrêta | 2008 | | 6 | 6 | 6 | 8 | 7 | 3 |
| Splice | 2008 | | 8 | 10 | 9 | 4 | 6,5 | -5 |
| Tokyo Gore Police | 2008 | | 9 | 9 | 9 | 2 | 5,5 | -5 |
| Cyborg She | 2008 | Kwak Jae-Young | 0 | 8 | 4 | 4 | 4 | 5 |
| Avatar | 2009 | | 8 | 8 | 8 | 10 | 9 | 5 |
| Clones | 2009 | | 8 | 8 | 8 | 10 | 9 | -5 |
| Moon, La face cachée | 2009 | Duncan Jones | 5 | 8 | 6,5 | 5 | 5,75 | -5 |
| Caprica  2010 93' (série TV épisode 1 pilote) | 2010 | | 8 | 9 | 8,5 | 7 | 7,75 | 5 |
| Gantz: Au Commencement | 2010 | | 7 | 7 | 7 | 4 | 5,5 | 0 |
| Never Let Me Go | 2010 | Mark Romanek | 0 | 8 | 4 | 5 | 4,5 | -5 |
| Time Out | 2011 | | 8 | 9 | 8,5 | 7 | 7,75 | -5 |
| Black-MirrorSaison 3 Episode 3 Retour sur image. | 2011 | | 8 | 9 | 8,5 | 7 | 7,75 | -5 |
| Avengers | 2012 | Joss Whedon | 6 | 8 | 7 | 5 | 6 | 5 |
| Killer Hacker | 2012 | | 0 | 0 | 0 | 6 | 3 | |
| EVA | 2012 | Kike Maillo | 8 | 9 | | 3 | | 5 |
| Elysium 2013 | 2013 | | 8 | 10 | 9 | 10 | 9,5 | 5 |
| pacific Rim | 2013 | Guillermo Del Toro | 8 | 10 | 9 | 10 | 9,5 | 5 |
| Oblivion | 2013 | Joseph Kosinski | 8 | 8 | 8 | 10 | 9 | 5 |
| Her 2013 | 2013 | | 9 | 10 | 9,5 | 8 | 8,75 | 5 |
| Cloud Atlas | 2013 | Lana & Andi Wachovski | 9 | 5 | 7 | 9 | 8 | 4 |
| Black-Mirror Bientôt de retour | 2013 | | 9 | 10 | 9,5 | 6 | 7,75 | 5 |
| Real | 2013 | Kiyoshi Kurosawa | | | | | | |
| Zero Theorem 2013 | 2013 | | 8 | 9 | 8,5 | 5 | 6,75 | |
| Transcendance 2014 | 2014 | | 9 | 10 | 9,5 | 9 | 9,25 | 5 |
| Lucy 2014 | 2014 | | 8 | 9 | 8,5 | 10 | 9,25 | 5 |
| Automata 2014 | 2014 | | 7 | 9 | 8 | 7 | 7,5 | |
| Chappie | 2015 | | 10 | 10 | 10 | 10 | 10 | 5 |
| JupiterAscending 2015 | 2015 | | 9 | 10 | 9,5 | 10 | 9,75 | 5 |
| Resurrection 2015 | 2015 | | 8 | 10 | 9 | 10 | 9,5 | -5 |
| Ex Machina 2015 | 2015 | | 8 | 10 | 9 | 9 | 9 | -5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| kingsman:Services Secrets | | 2015 | Matthew Vaughn | 6 | 8 | 7 | 9 | 8 | 4 |

## ANIME

**Patlabor** 1988 https://fr.wikipedia.org/wiki/Patlabor_(s%C3%A9rie_d%27animation)

**Roujin-Z** de Hiroyuki Kitakubo 1991

**Ghost In The Shell** 1995 : Ghost in the shell  Mamoru Oshii d'après le manga de Masamune Shirow

**Ghost In The Shell 2**: Innocence 2004  http://fr.wikipedia.org/wiki/Ghost_in_the_Shell_2:_Innocence

**Appleseed** de Shinji Aramaki 2004

**Serial Experiments Lain** 1998 Lain : Serial Experiments - Intégrale

http://fr.wikipedia.org/wiki/Serial_Experiments_Lain

**Stand alone complex 2002 ---  2009** http://fr.wikipedia.org/wiki/Ghost_in_the_Shell:_Stand_Alone_Complex

## SÉRIES TV

**Max Headroom** de peter Waag 1988

**Terminator : The Sarah Connor Chronicles** Josh Friedman 2008

**Dollhouse** de Joss Whedon 2009

**Dark Angel**

http://fr.wikipedia.org/wiki/Dark_Angel_%28s%C3%A9rie_t%C3%A9l%C3%A9vis%C3%A9e%29

**Caprica**

http://fr.wikipedia.org/wiki/Caprica

**Xfiles : KillSwitch**

**Orphan Black**

**L'homme qui valait 3 milliards**

http://fr.wikipedia.org/wiki/L%27Homme_qui_valait_trois_milliards

# Courts métrages

**True Skin** https://vimeo.com/51138699

**Aliens VS machines** https://www.youtube.com/watch?v=xIBPfABMDRE

**Abiogenesis"** - by Richard Man https://youtu.be/FEUao7ysgDc

**"Tears of Steel"** Written and Directed by Ian Hubert https://youtu.be/5ZCsUbRydBU

**Cyberpunk 2077** https://youtu.be/GfcycAo0buI

**LOOM 4K** Short Film [HD]: From Luke Scott, Ridley Scott & RED Camera   https://youtu.be/wcvSTk8M5qY

**Sight** https://youtu.be/IK_cdkpazjI

**Pub Cartier SF/Steampunk** https://vimeo.com/132957197

**From The Future With Love**- by K-Michel Parandi https://youtu.be/z24rqrxlNPY

**Mr Hublot** Laurent Witz-Alexandre Espigares https://youtu.be/A1Wv7QN93U8

**"Girl and Robot"** - by The Animation Workshop https://youtu.be/andT3HzDWec

**"Two Worlds"** - by Andy Lefton https://youtu.be/A1Wv7QN93U8

**Natalis** https://youtu.be/SHsGzL8FFgM

**"Story of R32**" - by Vladimir Vlasenko https://youtu.be/LVMl2ain-Rs

**The Leviathan** https://youtu.be/COgFH-AXCpU

**Sundays** https://youtu.be/6_cQpwpFFx0

**A Portal To KnowWhere**- Sci-Fi Short Film https://youtu.be/gwvOvLbZseI

**Envoy** https://youtu.be/a3-21AMbFFk

**Azureus Rising** https://youtu.be/agk2svo7svI

de Blob 2 **air traffic controller** https://youtu.be/ZcFjs_2X1HI

**Black Mirror** Série complete

**Fortress/Крепость**" - by Dima Fedotof https://youtu.be/pyMNIFZTQkg

**AKRYLS** (Supinfocom) https://youtu.be/WJEzyKChQ1o

Neill Blomkamp - **Tetra Vaal** https://youtu.be/VTnxP7e7-YA

**Halo Reach** - **Birth of a Spartan** Extended Version!! https://youtu.be/yc3q_CiAlhc

**Yellow** by Neill Blomkamp https://youtu.be/Jmd8BDiB-qU

**Halo Movie 2015** Directed by Neill Blomkamp https://youtu.be/5BaVb2TlWb0

**Alive in Joburg** by Neill Blomkamp https://youtu.be/K1Wn7CHAkFk

**Tempbot** Directed by Neill Blomkamp https://youtu.be/CCS0hNyJf6k

**Robots** of Brixton https://youtu.be/GVLjqanqqVU

**Doll Face** Andrew_Huang https://youtu.be/zl6hNj1uOkY

**Solipsist** Andrew Huang https://youtu.be/j98KD5E5KDs

Magic Leap demo https://youtu.be/kPMHcanq0xM

**Rose** https://www.youtube.com/watch?v=jMo0JMDKjdM

**Human Revolution Deus Ex** https://www.youtube.com/watch?v=LO2Rx8YlSWY

Flatland  https://www.youtube.com/watch?v=eyuNrm4VK2w


# JEUX

Ingress (ARG) https://www.ingress.com/

**Remember Me**  http://fr.wikipedia.org/wiki/Remember_Me_(jeu_vid%C3%A9o)
**In the BioShock** series humans develop a technology drug called "Plasmids" or "Vigors" which grants them seemingly magical powers, including telekinesis and superhuman strength.
**Crysis (series)**
**Deus Ex (series)**
**Half-Life 2**
**Halo**
**Metal Gear Rising: Revengeance**
**PlanetSide 2**
**Total Annihilation**
**Destiny (video game)**
Portal


# CLIP

Bjork All is full of love   Chris Cunningham

http://en.wikipedia.org/wiki/All_Is_Full_of_Love


**MAGAZINES ÉMISSIONS TV**

Bits (Arte) http://bits.arte.tv/

Tracks  http://www.arte.tv/Tracks

L'oeil du Cyclone http://fr.wikipedia.org/wiki/L'%C5%92il_du_cyclone

Haute Tension (Les enfants du rock) Antenne 2

Cybernetics Serendipity (BBC Late Night Line Up 1/8/1968) http://en.wikipedia.org/wiki/Cybernetic_Serendipity


**CHAÎNES DE TV**

Nolife

Game One

Souvenirs from Earth

## MUSIQUE

Einsturzende neubauten

Aphex Twin

Lydia Lunch

SHK PNK

Nine Inch Nails

Laurie Anderson

Brian Eno

Propaganda

Eric Wenger

Christine Webster soundwebster.com

BOF Matrix

BOF Ghost In The Shell

BOF Avalon

BOF Blade Runner

Art Zoyd

Placebo

Plasmatics

Marilyn Manson http://marilynmanson.com/

Peter Gabriel

Philip Glass

Jean Michel Jarre

Pink Floyd

## FESTIVALS EXPOSITIONS INSTITUTIONS MUSEES

(par ordre de degré d'intensité cyber... punk)

## MONDE MATÉRIEL

SAT Société des Arts Technologiques  http://sat.qc.ca/

Le CUBE à Issy les Moulineaux http://www.lecube.com/

Festival Alienor à Lille http://www.myspace.com/aaalienor

Border Line Biennale à La Demeure du Chaos http://www.borderlinebiennale.tv/

Souterrain Porte x au TOTEM à Nancy http://www.souterrain-totem.org/

La maison des Métallos http://www.maisondesmetallos.org/

Le langage des Viscères à Paris

L'étrange Festival

Japan Expo à paris

Burning Man aux USA

ENER-Ensad

La Maison des Métallos

Museomix  http://www.museomix.com/

La Gaîté Lyrique http://www.gaite-lyrique.net/

MO5  http://mo5.com/

Observatoire des Mondes Numériques en sciences humaines OMNSH

Deutshland Hackers Festival

Hacker Space Festival

Def Con

Le Palais de Tokyo

SIGGRAPH
Laval Virtual http://www.laval-virtual.org/

Futur en Seine http://www.futur-en-seine.fr/

Le 104

Cap Digital http://www.capdigital.com/

Festival d'Enghien Les Bains

Utopiales à Nantes

Cité des sciences et de l'industrie

CNAM

Le centre Georges Pompidou


## MUSÉES VIRTUELS EN LIGNE

### Musées virtuels en 3D Immersive temps réel

**FestivalSf dématérialisé** http://noofestivalsf.com/
**Scam 3D** : http://scam3d.fr/
**Le Noomuseum version Unreal Tournament**. En ligne depuis 2003, nécessite le jeu Unreal Tournament 2004. :  http://www.yannminh.org/UT-NooMuseum/index.htm
**Le noomuseum :** en ligne depuis 2008 :  http://www.noomuseum.net
**La noogalerie des Ménines** du Noomuseum. En ligne depuis 2008. http://www.noomuseum.net/noomuseum/Noomuseum-Menines.html

### Musées virtuels en 3D précalculée, ou QTVR
**Le musée des arts et traditions du gabon** (un des plus ancien et grand musée virtuel en ligne depuis 2006 ) http://www.gabonart.com/visites-virtuelles/musee-virtuel-des-arts-et-traditions
Google Art Project : http://www.googleartproject.com/

### Musées virtuels en 2D
SPAMM http://spamm.fr/

**MUSÉES, GALERIES DANS LES MONDES PERSISTANTS**

**Second-Life**  http://secondlife.com/
http://secondlife.wikia.com/wiki/List_of_museums_and_galleries_in_Second_Life

NooMuseum
La galerie des Ménines
Noodonjon

Mysterious Wave http://maps.secondlife.com/secondlife/Zone/212/125/23
Moya http://maps.secondlife.com/secondlife/Moya/129/134/22
Bibliothèque Francophone http://www.bibliotheque-francophone.org/
Tournicoton http://maps.secondlife.com/secondlife/Metaversel/174/191/28
Aire Ville Spatiale de Marc Moana
http://maps.secondlife.com/secondlife/Ecologia%20Island/128/128/21
Pirats  http://maps.secondlife.com/secondlife/PiRats%20Art%20Network/128/128/29

**Open-Sims**

Francogrid http://francogrid.org/

http://noofestivalsf.com/

Inworldz http://inworldz.com/

Craft http://www.craft-world.org/

**Cybersex 3D avatars**

Kink 3d http://www.kink3d.org/
Second Life http://secondlife.com/
Drmn trance Vibrator http://tim.cexx.org/projects/vibe/buyone.htm
Slashdong http://www.slashdong.org/
Xcite touch http://www.getxcite.com/support/category/62/0/10/Technologies/Touch/

**FESTIVALS DE MACHINIMA**

**http://uwainsl.blogspot.in/**

**Bars restaurants dans le monde matériel**

**parisiens**

Les furieux

La Cantada

Le Black Dog

**Repas et rencontres**

Les diners de la Cyberculture http://www.lesdinerscyberculture.com/
Les mercredis de la SF
Les déjeuners du lundi
La cantine http://lacantine.org/

**Jeux vidéo**

Unreal Tournament  http://www.unrealtournament.com/

Quake

Sim City

World of Warcraft (WOW)

Portal

**Jeux video Indie**

Osmos http://www.hemispheregames.com/osmos/Jeux Indie

Passage  http://hcsoftware.sourceforge.net/passage/

Machinarium http://machinarium.net/demo/

zenBound

**DIVERS**

http://www.laspirale.org/

http://www.abodeofchaos.org/

http://www.souterrain-totem.org/

http://www.myspace.com/aaalienor

http://www.lecube.com/

http://leblogducorps.canalblog.com/

http://www.gaite-lyrique.net/

http://www.digitalarti.com/fr

MCD http://www.digitalmcd.com/

http://web.mit.edu/

http://www.kurzweilai.net/

http://www.rayandterry.com/

http://www.revue-quasimodo.org/

http://transhumanism.org/

http://fanfiction.net

http://www.wired.com/

http://www.extropy.org/

http://opi8.com/

http://wiki.opendildonics.org/

Vrac à classer

http://www.wired.com/

http://www.laspirale.org/

http://singularityhub.com/

http://www.4chan.org/

http://boingboing.net/

https://www.eff.org/

http://www.extropy.org/

http://www.ai.mit.edu/projects/leglab/robots/robots.html

http://www.bfi.org/

http://www.vrealities.com/

http://www.srl.org/

http://mindhacks.com/


http://archive.org/

http://www.college-de-france.fr/site/college/index.htm

http://eros.usgs.gov/

TED


Art Graphisme

http://forums.cgsociety.org/

http://www.deviantart.com/

http://www2.cfsl.net/

http://www.hrgiger.com/

http://www.body-art.net/

http://www.abodeofchaos.org/

http://ottodiktart.free.fr/

http://www.penofchaos.com/

http://www.lefdup.com/


X

http://www.slashdong.org/

https://www.renderotica.com/

http://www.kink.com/

http://insex.com/

http://suicidegirls.com/


Plus récents

http://www.nikopik.com/

http://owni.fr/

http://www.theverge.com/

http://lacantine.org/

http://www.cyroul.com/

John Perry Barlow

EFF

PGP ZImmerman

Anonymous

Queer

Gender Studies

Kevin Mitnick

Vint Cerf


**NOOCHRONOLOGIE**
**Quelques dates dans la préhistoire de la cyberculture**

Préhistoire:Peintures Rupestres préhistoriques - (information)(Immersivité) - Modélisation 3D d'une caverne préhistorique.

- 28 000    Olisbos en Pierre (Cybersexe) (robots et cyborgs)  -  Modélisation en 3D

-2400:    Tablettes Mesopotamiennes, mythe dAtrahasis  (Information) - Photos détourées, modélisation 3D

- 1300    Naissance de l'alphabet, l'écriture cunéiforme alphabet d'Ugarit se simplifie a 22 signes - (Information)  Photos détourées, modélisation 3D

-800:    Illiade -Héphaïstos - Statues animées Gynoïdes - (robots et cyborgs) (cybersexe) - Modélisation 3D

-800    Talos, le premier robot.  (robots et cyborgs)- Photos détourées, modélisation 3D

-600:    Ancien Testament - Ezechiel 40- Créature de bronze- (robots et cyborgs) Photos détourées

-403    Archontat dEuclide: Normalisation de l'alphabet, A Athènes les textes de lois sont réédités dans l'alphabet ionien,  (sens gauche-droite) - (information)- Graphismes 2D-

-300:    Heron dAlexandrie - Temple automatisé -  (robots et cyborgs) - Modélisation 3D-

-52:    Horloges et sismographe en chine -  (robots et cyborgs)- Modélisation 3D

8    Métamorphoses dOvide: Pygmalion - (robots et cyborgs) - (cybersexe) - Graphismes 2d

114:    Romain - communication par feux (sculpture) sur colonne Trajane - (information) - Modélisation 3D -

1090:    Horloge de Su-Sung en chine- (robots et cyborgs) - Modélisation 3D -

1350:    Régulations avec horloge à poid. (robots et cyborgs) -  Modélisation 3D

1390    Les chinois mettent au point le livre imprimé en caractères mobiles métalliques - (information) -

1400:    Le golem -(robots et cyborgs) -  Infographie 2D, Modélisation 3D

1450    Gutemberg, Impression dune bible à partir caractères typographiques mobiles - (information)

1400-75    Hyperéalisme immersif - peintures de démons par Dirk Bouts le Vieux - (immersivité) Infographie 2D

1483:    Hyperéalisme immersif - Peinture de démon par Michael Pacher - (immersivité) Infographie 2D

1500:    Hyperéalisme immersif - Héronymus Bosch -(immersivité) Infographie 2D

1530    Premiers caractères Garamond en imprimerie, et premières fontes dimprimerie commercialisées -

1525-69    Hyperéalisme immersif - Pieter Bruegel- tour de Babel- (immersivité) - infographie 3d

1623    Horloge à calculer de Wilhelm Shickard. ((robots et cyborgs) - modélisation 3D

1630    Descartes : lhomme est une machine - Cogitationes Privatae Automates du chateau de Saint-Germain en Laye - (Robots et cyborgs)- Infographie 2D

1645        Machine arithmétique de Pascal-  (Robots et cyborgs)- Infographie 3D

1656-57     Hyperéalisme immersif - Velasquez peint les ménines, (un tableau dont vous êtes le héros...) - (immersivité) Infographie 3D

1739        Canard digérateur de Vaucanson, ( Robots et cyborgs) modélisation 3D

1744        Jean-Baptiste Le Cat expose un projet dhomme artificiel à vocation médicale (Robots et cyborgs) Infographie 2D

1777        Automate joueur déchec de Kempelen (Robots et Cyborgs) Infographie 2D, Modélisation 3D

1779        Machine parlante de Kempelen  (Robots et Cyborgs ) Infographie 2D, modélisation 3D

1746        Vaucanson invente un métier à tisser  (Robots et Cyborgs) (Information) Infographie 2D, modélisation 3D

1780        Tour à Guillocher de Mercklein pour Louis XVI  (Robots et Cyborgs)  Infographie 2D, modélisation 3D

1783        Didot invente la presse métallique  (Information ) Infographie 2D

1784:       Régulateur à Boule de Watt (Robots et Cyborgs) Infographie 2D, modélisation 3D

1791        Le télégraphe de Chappe Le comte de Monte Christo, premier "hacker" de l'histoire (Information) Infographie 2D, modélisation 3D

1812        Révolte des Luddites (Robots et Cyborgs) Infographie 2D

1813        Babbage et Ada Lovelace conçoivent l'Analytical Engine.     (Robots et Cyborgs ) Infographie 2D, 3D

1814        Hokusai édite «La manga» (Information) Infographie 2D

1816        Naissance de Frankenstein au bord du lac Léman (Robots et Cyborgs) Infographie 2D

1816        E.T.A.Hoffman publie l'homme au sable. (Robots et Cyborgs) Infographie 2D

1821        Le componium, musique automatique de Diederich Nicolaus Winkel (Information) Infographie 2D

1820        Machines outils de Robert et James Nasmyth (Robots et Cyborgs) Infographie 3D

1831        Révolte des Canuts  (Robots et cyborgs ) Infographie 2D

1846        Philadelphie, première presse moderne.95 000Ex (contre 300)  (Information) Infographie 2D

1847        Invention des presses rotatives.  (Information) Infographie 2D

1848        Théophile Gautier décrit les Ilotes à Vapeur  (Robots et cyborgs ) Infographie 2D

1860        Manipulateur à vapeur de Georges Taylor (Cybersexe)  Infographie 2D, Modélisation 3D

1866        Courbet peint «l'origine du monde»  (cybersexe) Infographie 2D

1870        Ballet Coppélia, musique de Léo Delibes    (Robots et Cyborgs) Infographie 2D, modélisation 3D

1872        Marinoni dépose un brevet de presse cylindrique à papier continu   (Information) Infographie 2D

1879        Hippolyte-Auguste Marinoni met au point la première presse typo-lithographique, capable dimprimer des textes et des images  (information) Infographie 2D

1880        Villiers de IIsle-Adam écrit lEve Future (Hadaly robot gynoïde)   (Robots et Cyborgs) Infographie 2D, modélisation 3D

1883        Didier de Chousy écrit Ignis   (Robots et Cyborgs) Infographie 2D

1884        Disque de Nipkow (télévision)  (Information) Modélisation 3D

1887        Linotype, par Mergenthaler  (Information ) Modélisation 2D et 3D

1896        Franck MUNSEY, (Pulps) The Argosy 500 000 exemplaires par mois en 1906 (information) (Immersivité) Modélisation 2D

1900        The Chattanooga vibrator (Cybersexe)  modélisation 3D

1906        Vibromasseurs grand public (Cybersexe)  modélisation 3D

1907        A.Korn transmet une photo a distance de Berlin à Londres  (information) Infographie 2D

1909        Manifeste futuriste  (Cyborgs et Robots) infographie 2D

1915                     Alphabet Typographique de Johnston pour le métro londonien  (information)

1919                     Fondation du Bauhaus par walter Gropius  (information) (biosphère)

1920                     Le Manifeste constructiviste dAlexéi Gan «l'art est mort» le constructivisme veut créer un nouveau cadre d'esthétique rationnel, correspondant à la civilisation de la machine Affiche de ElLissitsky «Battez les blancs avec le coin rouge»  (Robots et Cyborgs)  Infographie 2D

1921                     Karel Capek, invente le mot Robot dans RUR  (Robots et Cyborgs) Infographie 2D, modélisation 3D

1926                     Metropolis  de Fritz Lang  (Robots et Cyborgs) Infographie 2D, modélisation 3D

1926                     Amazing Stories, the magazine of scientifiction Hugo GERNSBACK (Pulps)  (immersivité)

1927               Couverture de livre du Bauhaus utilisant une photo de presse typographique  (Information)

1928                     Transmission TV transatlantique, Televisor de JL Baird (information)

1928                     La maison Dymaxion par Buckminster Fuller  (Biosphère)

1929                     Raymond Loewy dessine la Gestetner (beauty through function and simplification,) (Information) (Infographie 2D)

1931                     Première diffusion TV public en france  (Information)

1933                     La machine Transfert de Pierre Bézier  (Robots et Cyborgs)

1933                     L'automobile Dymaxion de Buckminster Fuller  (Robots et Cyborgs)  infographie 2D

1935                     Première diffusion TV officielle en france  (information) Infographie 2D, modélisation 3D

1939-42       Turing Décrypte le code Enigma  (Information) Infographie 2D, modélisation 3D

1942                     Les trois lois de la robotique par Asimov  (Robots et Cyborgs)

1946                     Un Logic Nommé Joe, par Murray Leinster  (Robots et Cyborgs)

1946                     L'Eniac est opérationnel (Robots et Cyborgs)

1948                     Norbert Wiener fonde les principes de la Cybernétique

1948                     Mathematical Theory of Communication de Shannon

1948                     Teilhard de Chardin conçoit la NooSphère et la NooGenèse

1948                     Hyper-réalisme immersif, Chesley Bonnestell (bombe H) Missiles tirés de la lune. (peinture)

1950                     Test de Turing

1952                     Turing est arrété pour homosexualité

1953                     Robot Job de lingénieur Ducroq