

Contextualizing Gender
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Lecture - 49
The Virtual Body in Anne Balsamo's Technologies of the Gendered Body

Welcome dear friends, in the previous module we had looked at Balsamo's arguments on gendered construction of the female body, through cosmetic enhancement and visualization technologies. Today we will discuss her thoughts about the Virtual Body in cyber space, where body is represented as a machine interface.


This segment by Balsamo is rather an exploration, it functions as a questionnaire for VR technologies scholars, researchers, academicians and creators. Balsamo wants to establish the meaning of certain terms virtual reality, cyber space and electronic frontier. Before discussing the concept of virtual body in the cyber space and its gendering.



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The Virtual Body in Cyberspace

- Balsamo establishes the meaning of terms Virtual Reality, Cyberspace and Electronic Frontier before discussing the concept of virtual *body* in the cyberspace.
- With the development of VR technologies and applications, the body has changed and been redefined within the "machine interface".
- Balsamo says that the body is "repressed" and "divorced from the locus* of knowledge" in the cyberspace.

* In this context *locus* may be understood as a *rhetorical topos*, a method of constructing an argument, a point of merger for various cultural arguments.

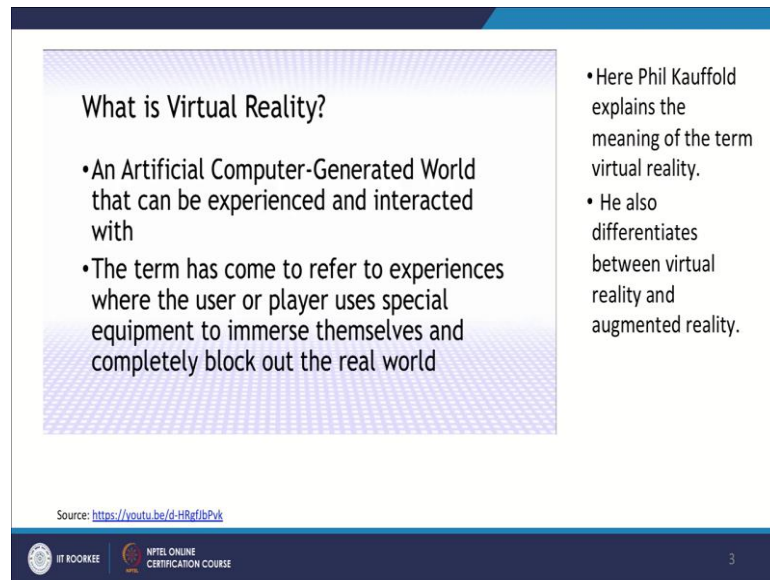


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With the development of VR technologies and its applications. The body has changed and has been redefined within the machine interface. Balsamo wants to suggest that the body is repressed and divorced from the locus of knowledge in the cyberspace. And in this context locus may be understood as a rhetorical trope, a method of constructing an argument, a point of merger for various cultural arguments.

In the next slide we have a video which further clarifies this concept. This is an excerpt from the video titled ‘the Future of Virtual Reality’ by Phil Kauffold a well-known VR expert, he takes us through the meaning of virtual reality and augmented reality.

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The slide is titled "What is Virtual Reality?" and contains the following content:

- An Artificial Computer-Generated World that can be experienced and interacted with
- The term has come to refer to experiences where the user or player uses special equipment to immerse themselves and completely block out the real world

Source: <https://youtu.be/d-HRefJbPvk>

Additional notes on the right side of the slide:


- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

At the bottom of the slide, there are logos for IIT ROORKEE and NPTEL ONLINE CERTIFICATION COURSE, and the number 3.

“So, I just wanted to talk a little bit what exactly is virtual reality. So, technically it means any computer artificially computer-generated world that can be experienced and interacted with. Technically any video game ever has been virtual reality even if you are just playing, it on the screen or your phone or whatever you it can be outer space, it can be a major running through it can be just read about anything.

What has actually come to refer to an any experiences where the user uses special equipment to completely immerse themselves in real world. And the complete immersion is the important part most of these experiences are designed to completely block out whatever is going on around you.

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- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

Source: <https://youtu.be/d-HRefJbPvk>

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So, augmented reality is different in that you are actually experiencing the real world still. You are still seeing what you are seeing we just put a layer over it. I could be looking at you and see zombies or throw spiders on you or I do not know why I am being. So, cruel, but that is the sort of thing that you can actually do.

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What is Virtual Reality?

HMD = Head Mounted Display

- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

Source: <https://youtu.be/d-HRefJbPvk>


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So, virtual reality deals with the head mounted display this is the visor or visors that actually go over your face there are others, but these are the big three right now. The

Vive, the Morpheus and the Oculus Rift and what actually is going on inside of those each eye sees a different image a stereoscopic image.

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What are you actually looking at?




- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

Source: <https://youtu.be/d-HRfJbPvK>

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And as your head moves it tracks where you are moving and changes the image appropriately.

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- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

Source: <https://youtu.be/d-HRfJbPvK>

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It can be a little scary at first, like all new technology can be. Maybe seem a little bit dystopian like you are completely cut off from the real world, maybe corporate control I do not know.

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Present Day

- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.


Source: <https://youtu.be/d-HRefJbPvk>

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But and if you have ever actually seen anybody in it is a little bit strange, it can almost be looking like somebody with an affliction. If you have ever been walking down the street and been walking next to somebody talking on a Bluetooth headset, you do not necessarily know if they are actually talking on the phone or if they just blew a fuse and virtual reality is not entirely different.

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Present Day

- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

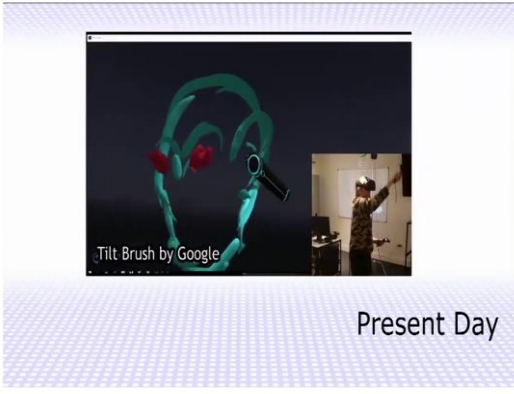
Source: <https://youtu.be/d-HRefJbPvk>

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But what is actually going on inside is little bit of a different story. So, you could actually be defending your castle with a bow and arrow from a bunch of enemies you could be do not you know.

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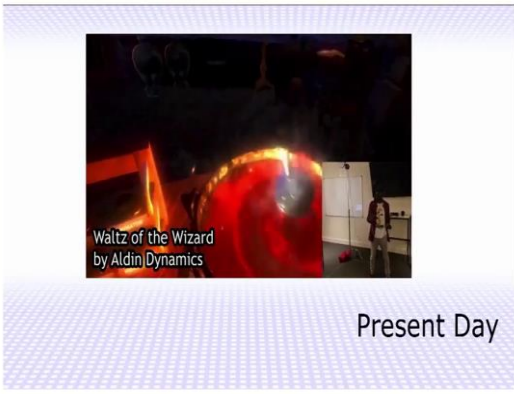
- Here Phil Kauffold explains the meaning of the term virtual reality.
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Source: <https://youtu.be/d-HRefJbPvk>

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You guys should be painting in 3D space with an entirely new medium, where instead of the canvas you can actually paint walk around see what you are doing or you could be training to become a wizard.

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- Here Phil Kauffold explains the meaning of the term virtual reality.
- He also differentiates between virtual reality and augmented reality.

Source: <https://youtu.be/d-HRefJbPvk>


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So, anybody here if you want to go to Hogwarts, because you are totally going to be able to go to Hogwarts”.

The simplistic understanding of the term VR is complicated by Balsamo, as she deconstructs the virtual body in the virtual reality. According to Balsamo the body in cyber space and various virtual interfaces are reduced to codes commodity and signifiers resulting in a biopolitics of the virtual body.

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- Exploring the meaning of body in the cyberspace, Balsamo attempts to explore the intricacies of the “biopolitics of the virtual body” in the cyberspace as a subculture.
- As Veronica Hollinger comments, Balsamo sets out to examine some of the features of technoculture which work to keep gender divisions in place, to maintain the gendered status quo in spite of advances through which bodies are routinely (re)tailored in almost every other respect*.
- In the “development of VR applications, the deconstruction of the “natural” body is now a completely naturalized phenomenon”.



* <https://www.jstor.org/stable/pdf/4240580.pdf>

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Balsamo attempts to explore the intricacies of the biopolitics of the virtual body in the cyber space as a subculture. As Veronica Hollinger has commented, “Balsamo sets out to examine some of the features of techno culture which work to keep gender divisions in place. To maintain the gendered status quo in spite of advances through which bodies are routinely tailored and retailored in almost every other respect”.

In the development of VR applications the deconstruction of the natural body is now a completely naturalized phenomenon. Balsamo posits that the material body of the user is not an adequate representation of the disembodied cyberspace traveler. Rather in the VR application the user’s body act as a commodity in the application.

It also articulates relationship among technologies, bodies and the narrative that is formulated within the cyber sphere. Balsamo concludes that cultural intersections with VR produce gendered experiences and that studying the development of VR technologies

allows us to investigate how myths about identity, nature and the body are re-articulated with new technologies. The matter of this re-articulation ensures the continuation and strengthening of traditional gendered narratives with the help of emerging technologies.

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- Balsamo suggests that “studying the development of, and popular engagement with virtual reality technologies allow us to investigate how *myths* about identity, nature, and the body are *rearticulated* with new technologies in ways that ensure that *traditional (and occasionally revisionist) narratives* about the gendered, race-marked body are socially *technologically reproduced*.”
- Balsamo explores the narrative of the body on the electronic frontier.
- In one sense, the frontier is an imaginary construction that identifies a horizon of contemporary cultural thought; in another it is a real space on the fringe of mainstream culture.

Balsamo posits, that the body is re articulated with new technologies in ways that ensure that the traditional and occasionally revisionist narratives about the gendered and also the race marked body are socially, technologically reproduced. In this context she explores the narrative of the body on the electronic frontier.

In one sense the frontier is an imaginary construction that identifies a horizon of contemporary cultural thought, it is a real space on the fringe of mainstream culture. The electronic frontier names the space of information exchange, which is preexistent in the flow of databases, fiber optic networks, computer memory etcetera. The metaphor of frontiers suggests the possibility of a vast unexplored territory.

We are surrounded by such electronic frontiers we operate within and across such applications, gadgets and technologies. Our virtual reality and experiences are translated through various technologies in the form of smart phones, smart watches simulation etcetera.

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- For Balsamo, the virtual reality is the most fascinating area of discussion and analysis.
- “Virtual environments,” now more widely known as “virtual reality,” are the most publicized computer applications of the last decade.
- Since 1987, virtual reality (VR) has further evolved into an industry in itself.
- It is also at the heart of an emergent (sub)culture that includes computer-generated realities, science fiction, fictional sciences, and powerfully evocative new visualization technologies.



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For Balsamo the virtual reality is the most fascinating area of discussion and analysis.

She suggests that the virtual environments, now more widely known as virtual reality are the most publicized computer applications of the last decade. Since 1987 virtual reality has further evolved into an industry in itself. It is also at the heart of an emergent subculture that includes computer generated realities, science fiction, fictional sciences and powerfully evocative new visualization technologies.

Balsamo explores how the repression of the body is accomplished so easily, she also cautions us about the consequences of this disembodiment.

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- Role of the body in this formation is a primary concern for feminist scholarship. Balsamo offers a reading of the cultural aspects of the virtual reality industry, which include:
 - its embodiment in a cyberpunk subculture,
 - its media spectacles,
 - and commodities-on-offer.
- Balsamo's major concern is to discuss how the body is sold in the cyberspace in the context of biopolitics of VR.
- VR technologies produce a certain set of cultural narratives that reproduce dominant relations of power, as the use of such technologies is determined by broader social and cultural forces.



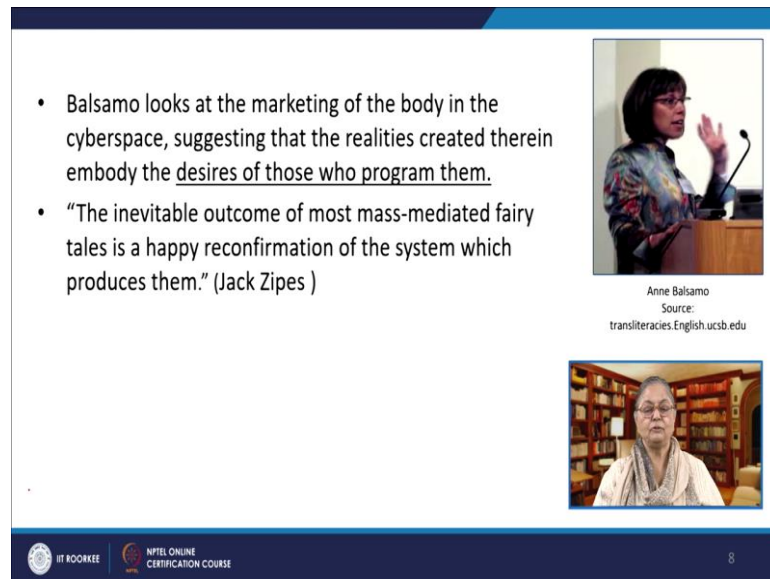
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Role of the body in the formation is a primary concern for feminist scholarship. Balsamo offers a reading of the cultural aspects of the virtual reality industry, which include its embodiment in a cyberpunk subculture its media spectacles and commodities on offer.

Her major concern is to discuss how the body is sold in the cyber space in the context of the biopolitics of VR, VR technologies produce a certain set of cultural narratives that reproduce dominant relations of power as the use of such technologies is determined by broader social and cultural forces.

We can see that since 1980s cyberspace has emerged as a subculture, a cultural phenomenon dictated by technology.

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- Balsamo looks at the marketing of the body in the cyberspace, suggesting that the realities created therein embody the desires of those who program them.
- “The inevitable outcome of most mass-mediated fairy tales is a happy reconfirmation of the system which produces them.” (Jack Zipes)

Anne Balsamo
Source:
transliteracies.english.ucsb.edu

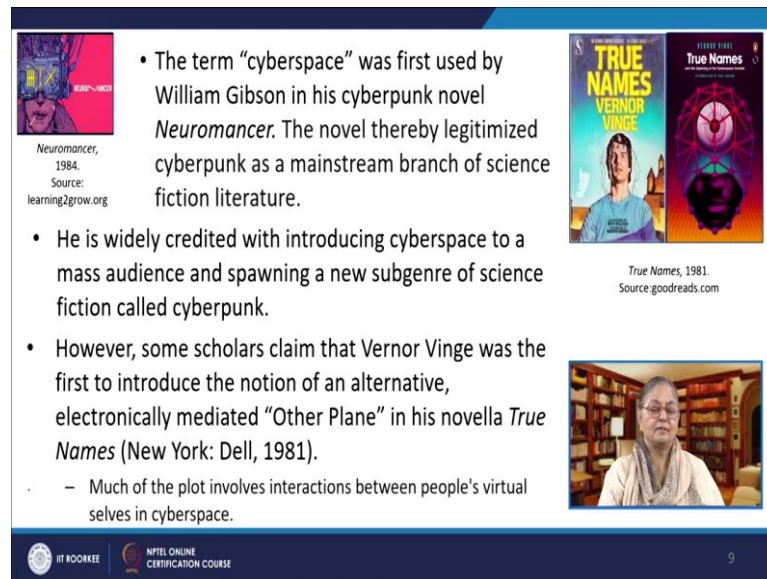
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Balsamo looks at the marketing of the body in the cyberspace suggesting that the realities created therein embody the desires of those who program them. And I quote from Jack Zipes, “the inevitable outcome of most mass mediated fairy tales is a happy reconfirmation of the system which produces them”.

Balsamo also suggests the same for a technologically dominated society. Balsamo also presents a genealogy of the term cyberspace. The term cyberspace has gained acceptance among OER technicians, to name the interior space of VR programs. It was first used by William Gibson in his cyberpunk novel ‘Neuromancer’.

The novel has been termed as the archetypal cyberpunk by Lawrence person.

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The slide contains the following text and images:

- The term “cyberspace” was first used by William Gibson in his cyberpunk novel *Neuromancer*. The novel thereby legitimized cyberpunk as a mainstream branch of science fiction literature.
- He is widely credited with introducing cyberspace to a mass audience and spawning a new subgenre of science fiction called cyberpunk.
- However, some scholars claim that Vernor Vinge was the first to introduce the notion of an alternative, electronically mediated “Other Plane” in his novella *True Names* (New York: Dell, 1981).
 - Much of the plot involves interactions between people's virtual selves in cyberspace.

Images on the slide include:

- A small image of a person's face with a digital overlay, captioned: *Neuromancer*, 1984. Source: learning2grow.org
- The cover of the book *True Names* by Vernor Vinge, captioned: *True Names*, 1981. Source: goodreads.com
- A photograph of a woman speaking, likely the presenter.

At the bottom of the slide, there are logos for IIT ROORKEE and NPTEL ONLINE CERTIFICATION COURSE, and the number 9.


Gibson’s novel *Neuromancer* had legitimized cyberpunk as a mainstream branch of science fiction literature. Gibson is widely credited with introducing cyberspace to a mass audience and spawning a new subgenre of science fiction called cyberpunk.

However, some scholars claim that it was Vernor Vinge, who was the first to introduce the notion of an alternative electronically mediated ‘Other Plane’ in his novella, ‘*True Names*’ published in 1981. Much of the plot of this novella ‘*True Names*’ involves interactions between people's virtual selves in cyber space.


Conveying a kind of power that could be considered analogous to the equivalent concept of myth and legend. Balsamo also discusses the cyberpunk, which is an entanglement of technology and art. She takes up the example of *Mondo 2000* in this context.

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- *Mondo 2000* was a preeminent hacker magazine of the 1990s which offered a glimpse into the cyberculture around the fictional world of cyberspace.
 - *Mondo* stood out because of its glossy, virtually dense, techno-art layout, with interviews from various cyberpunk visionaries.
- *Mondo 2000* picks up where McLuhan's *Mechanical Bride* left off, without the rhetorical questions and, for the most part, without the cultural criticism.
- Whereas McLuhan had looked at magazine advertisements that hinted at the ominous fusion of sex and technology, *Mondo 2000* became the magazine to celebrate the fusion of sex and technology in its advertisements for cyberpunk culture.



Mondo 2000
Source: kickstarter.com



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Mondo 2000 was a preeminent hacker magazine of the 1990s, which offered a glimpse into the cyber culture around the fictional world of cyber space. It stood out because of its glossy, virtually dense techno art layout, with interviews from various cyberpunk visionaries.

This magazine we can say picks up where McLuhan's 'Mechanical Bride' left off, without the rhetorical questions and for the most part without the cultural criticism. Whereas, McLuhan had looked at magazine advertisements, that hinted at the ominous fusion of sex in technology. *Mondo 2000* became the magazine to celebrate the fusion of sex in technology in its advertisements for cyberpunk culture.

Mondo 2000 also oddly evoked the counter cultural rhetoric of the 1960s. Retro topics such as drug synthesis, instructions, mod vision icons and reports from the underground etcetera were incorporated. The high-tech commodities reprogram culture by providing discursive space for new literary cultures and subcultures.

Juxtaposition of counter cultural rhetoric with technological elitism constructed an interesting stage for the promotion of VR technologies.

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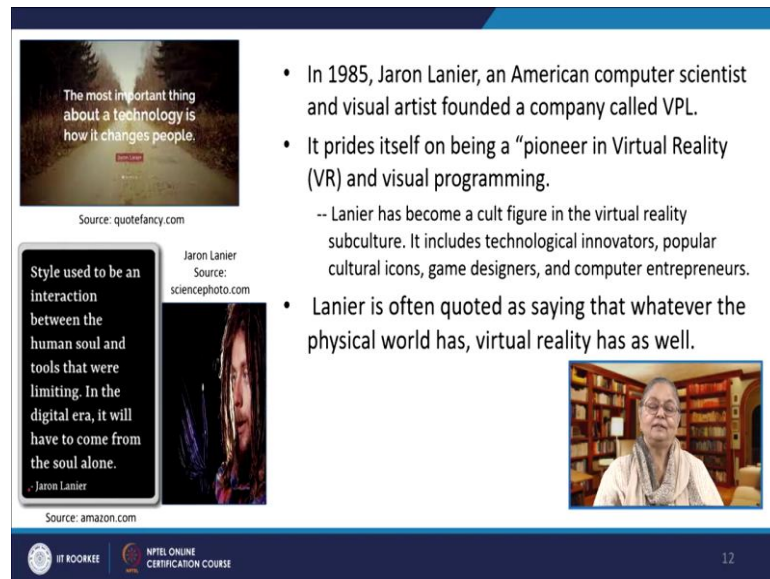
- It led to the development of a host of new products, including biotechnical apparatuses such as data gloves, wired bodysuits, head-mounted tracking devices etc.
- In short, cyberspace gave space to new subculture.
 - It included popular cultural artifacts. (Example: *Mondo*, and films such as *Lawnmower Man*, *Johnny Mnemonic*).
 - Also, a specialized language that draws on the science of computer technology and computer programming, as well as, the promise of new high-tech commodities.

It led to the development of a host of new products, including biotechnical apparatuses such as data gloves wired bodysuits head mounted tracking devices etcetera.

In short cyberspace gave space to new subcultures, it included popular cultural artifacts. For example, *Mondo 2000* and films such as *Lawnmower Man* and *Johnny Mnemonic*. Also, a specialized language that draws on the science of computer technology and computer programming as well as the promise of new high-tech commodities. It promotes the sexiness of new technology and is also unabashedly elitist representing cyberpunk bodies in glossy format. Apart from cultural transformation the cyberspace also requires physical transformation in the form of VR gadgets, in order to change the reality into a virtual reality. In contemporary science fiction the 3D computer generated space or virtual environment is referred to as cyberspace matrix or the net.

In cyberpunk novels real geographic urban suburban space is referred to as the sprawl. Graphic programs use virtual technologies to create a three-dimensional space for user interactions. Standard cyberspace hardware includes a set of wired goggles that track head movement connected to a computer that runs the VR software.

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The most important thing about a technology is how it changes people.

Source: quotefancy.com

Style used to be an interaction between the human soul and tools that were limiting. In the digital era, it will have to come from the soul alone.

Jaron Lanier
Source: sciencephoto.com

Jaron Lanier

Source: amazon.com

- In 1985, Jaron Lanier, an American computer scientist and visual artist founded a company called VPL.
- It prides itself on being a “pioneer in Virtual Reality (VR) and visual programming.”
 - Lanier has become a cult figure in the virtual reality subculture. It includes technological innovators, popular cultural icons, game designers, and computer entrepreneurs.
- Lanier is often quoted as saying that whatever the physical world has, virtual reality has as well.

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In 1985, Jaron Lanier an American computer scientist and visual artist, founded a company called VPL. The company prides itself on being a pioneer in virtual reality and visual programming.

Lanier has become a cult figure in the VR subculture it includes technological innovators, popular culture icons, game designers and computers entrepreneurs. Lanier is often quoted as saying that “whatever the physical world has virtual reality has as well”. According to Balsamo such juxtapositions of technology and the counter culture of reality suggests that cyberpunk subculture, is actively engaged in the work of processing and promoting gendered and cultural meanings.

However, Balsamo refrains from promoting technological determinism.

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Creating Meaning: Producing Counterculture

- While discussing new technologies, it is important to try to avoid the trap of technological determinism that argues that these technologies necessarily and unilaterally expand the hegemonic control by a techno-elite.
- Technologies have limited agency. Often are linked with commodity structures.
- Virtual reality industry actually disseminates a certain mythology and a set of metaphors and concepts that often reproduce the anxieties and preoccupations of contemporary culture.
- Simulated experiences "offer opportunities for safe activity in a risky world."



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Technological determinism argues that technologies necessarily and unilaterally expand the hegemonic control by a techno elite. Balsamo questions us and wants us to avoid this trap as technologies have limited agency, they are also often linked with the commodity structures.

Virtual reality industry actually disseminates a certain mythology, in a set of metaphors and concepts that often reproduce the anxieties and preoccupations of contemporary culture. Simulated experiences offer opportunities for safe activity in a risky world. One of the most often repeated claims about VR is that it provides the technological means to construct personal realities which are free from the determination of body based real identities.

Balsamo suggests that virtual reality and virtual reality applications allow us to have a body free universe where body is a functionality of the algorithm.

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- VR emerged in the 1980s - a decade when the body is understood to be increasingly vulnerable, literally, as well as discursively, to infection as well as to gender, race, ethnicity, and ability critiques.
- Called "electronic LSD," or an "electronic out-of-body experience," VR in its celebrated media form seems little more than an escape from conventional reality -- a way out for those who confront severe limitations reality imposes in the form of determining social structures, and the physical body itself.
- With virtual reality we are offered the vision of a body-free universe.



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We are emerged in the 1980s, a decade when the body is understood to be increasingly vulnerable, literally as well as discursively, to infection as well as to gender, race ethnicity and ability critiques.

Called the electronic LSD or an electronic out of body experience, VR in its celebrated media form, seems little more than an escape from conventional reality. A way out for those who confront severe limitations reality imposes in the form of determining, social structures and the physical body itself.

With virtual reality we are offered the vision of a body free universe. Upon analyzing the lived experience of virtual reality, Balsamo discovers that this conceptual denial of the body is accomplished through the material repression of the physical body.

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- Whereas VR promoters have focused primarily on the subjective and expressive dimensions of VR in public relation campaigns for VR games, users are also told that the physical body is of no consequence in virtual worlds.
- The phenomenological experience of cyberspace depends on the willful repression of the material body.
- In saying this, Balsamo implicitly argues that we need to extend the ideological critique of virtual reality technologies.



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Whereas, VR promoters have focused primarily on the subjective and expressive dimension of VR in public relation campaigns for VR games. Users are also told that the physical body is of no consequence in virtual worlds.

The phenomenological experience of cyberspace depends on the willful repression of the material body. In saying this Balsamo implicitly argues that we need to extend the ideological critique of virtual reality technologies. However, the VR does not completely negate the gendered experiences of the bodies in question.

The virtual repression showcases the biases of the creator and on many fronts it also presents a critique of gendering. The subjugation of the material body belies the gender bias in the theoretically gender free domain of virtual reality.


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- From a feminist perspective the repression of the material body belies a gender bias in the supposedly disembodied, and gender-free world of virtual reality.
- Ironically, VR technologies articulate cultural narratives about the techno-body so that these technologies have the effect of naturalizing a gendered body phenomenon.
- Indeed, we may go to great lengths to repress it and erase its referential traces - it does not disappear materially in the interface with the VR apparatus, or in the phenomenological frame of the user, in the structures of their experiences, coloring and impacting the virtual representations.
- Representation of the female body in video games can be taken as an example.



Jill Valentine, a fictional character in Resident Evil (Biohazard in Japan), a video game. Source: Pinterest.com.au

Lara Croft, a fictional character and main protagonist of the video game franchise Tomb Raider. Source: zimbio.com



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Ironically VR technologies articulate cultural narratives about the techno-body, so that these technologies have the effect of naturalizing a gendered body phenomenon.


Indeed, we may go to great lengths to replace it and erase its referential traces, it does not disappear materially in the interface with the VR apparatus or in the phenomenological frame of the user. In the structures of their experiences, coloring and impacting the virtual representations. Representation of the female body in video games can also be taken as an example.

This technological gaze is a sub product of the user's identity and the creator's own politics.

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The Biopolitics of Virtual Bodies

- Virtual reality applications *visualize* technologies and no longer simply mimic or represent reality -- they virtually *recreate* it.
- They are both cultural as well as technological constructions, fully saturated by the media and other forms of everyday technologies.
- The critical framework, once informed by feminist epistemology attempts to assess and understand the biopolitics of virtual bodies in cyberspace – to figure out how the VR technologies socially and culturally mark bodies.
- Balsamo discusses the phenomenological dimensions of the technologically mediated body, and ascertain the extent to which disembodied technological gaze is marked by the cultural imprints of gender and race.



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VR applications visualize technologies they no longer simply mimic or represent reality. Rather they virtually recreate the reality they are both cultural as well as technological constructions, fully saturated by the media and other forms of daily everyday technologies.

The critical framework once informed by feminist epistemology attempts to assess and understand the biopolitics of virtual body in cyberspace, to figure out how the VR technologies socially and culturally mark bodies. Balsamo discusses the phenomenological dimensions of the technologically mediated body and a certain extent to which disembodied technological gaze is marked by the cultural imprints of gender.

Balsamo's arguments around VR technologies are constructed on our findings against such inquiries. In contrast to a 2D database VR applications allow users to interact with three dimensional representations of information. With VR different types of models in effect come alive as one can virtually enter them.

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- VR encounters provide an illusion of control over reality or nature – especially over the unruly, gender-and-race-marked material body.
- A rather simplistic understanding is given by Randal Walser, "whereas film depicts a reality to an audience, cyberspace grants a virtual body and a role, to everyone in the audience".

Source:groupon.com

Source:genderdimensions.tanford.edu

Source:scmp.com

Source:teachinglearninganthro.org


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VR encounters provide thus an illusion of control over reality or nature. Especially over the unruly gender and race marked material body. A rather simplistic understanding is given by Randal Walser, “whereas, film depicts a reality to an audience cyberspace grants a virtual body and a role to everyone in the audience”.

According to Balsamo the VR provides an abstract world whereas, world making is a continuous phenomenon, the perspective keeps on shifting from the user to the audience and to the creator of VR application. Lanier had said that “whatever the physical world has virtual reality has as well”. So, the question which emerges is what exactly the virtual reality offers to us?

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- The cyberspatial matrix serves as an abstract environment. However, all VR systems involve the *interface* of the body and technology in the use of some kind of bio-apparatus.
- Balsamo noticed the ease with which one makes sense of the scene projected on small lenses mounted in the front of the helmet.
- In most VR programs, a user experiences VR through a disembodied gaze - a floating, moving "perspective" – that mimes the movement of a disembodied camera "eye."
- This is a familiar aspect of what may be called "A filmic phenomenology", where the camera simulates the movement of perspective that rarely includes a self-referential visual inspection of the body as the vehicle of that perspective .



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The cyber special matrix serves as an abstract environment. However, all VR systems involve the interface of the body and technology in the use of some kind of bio apparatus. Balsamo also noticed the ease with which one makes sense of the scene projected on a small lens mounted in the front of the helmet.

In most VR programs, a user experiences VR through a disembodied gaze, a floating, moving, perspective that mimes the movement of a disembodied camera eye. This is a familiar aspect of what may be called a filmic phenomenology, where the camera simulates the movement of perspective that really includes a self-referential visual inspection of the body as the vehicle of that perspective.

Balsamo claims that much of VR application is restricted to the phallogentric domain. This argument will be further taken up in detail in week 11, especially in the 5th module where we will take up the 'biopolitics of gendered body' in video games. What interests Balsamo is the way the repression of the body is technologically naturalized. A virtual body is enacted without any pain or cost of physical restructuring.

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- VR guarantees a body we desire, without saying anything about the body that we already have, with all its meanings.
- Body reconstruction programs- cosmetic surgery and body-building – display traditional gender and race markers of beauty, strength and sexuality. But a reconstructed body does not guarantee a reconstructed cultural identity.
- Body, as a sense apparatus, is nothing more than excess baggage for the cyberspace traveler. Surprisingly it does not eradicate body-based differentiation and domination.
- Much of the cyber-reality is stuck in a masculinist frame.
- Relations between cybernetically connected bodies often recreate traditional gender identities and/or sexual identities.



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VR guarantees a body we desire without saying anything about the body that we already have with all its meanings and connotations. Body reconstruction programs cosmetic surgery or bodybuilding, display traditional gender and race markers of beauty strength and sexuality.

But a reconstructed body does not guarantee a reconstructed cultural identity. Body as a sense apparatus, is nothing more than excess baggage for the cyber space traveler. Surprisingly it does not eradicate body-based differentiation and domination, much of the cyber-reality is stuck in a masculinist frame.

Relations between cybernetically connected bodies, often recreate traditional gender identities and or sexual identities. Sexualization of the female body is a common theme in various cyberpunk narratives, as creators are more comfortable with all body-based identities in terms of gender, they are more likely to reproduce the same.

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- Examples: Molly and Case, characters in Gibson's *Neuromancer* (*Sprawl*) trilogy, with biotechnological and cybernetic modifications.
 - Case: a cyberspace hacker, with blurry perception and fragmentary memory, biotechnologically modified, comes into contact with powerful artificial intelligence.
 - Molly Millions: A 'Razorgirl' who is recruited along with Case by Armitage. She has extensive cybernetic modifications, including retractable, 4 cm double-edged blades under her fingernails which can be used like claws, an enhanced reflex system and implanted mirrored lenses covering her eye sockets, outfitted with added optical enhancements. A recurring character in stories and novels by Gibson.
- Rich in information, the experience of cyberspace is always *conjunctural*: an effect of intersecting practices -- economic, technological, bodily, political, and cultural.
- The virtual body is the very medium of cultural expression itself, manipulated, digitalized, and technologically constructed in virtual environments.



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We can take the example of Molly and Case, the familiar characters in Gibson's *Neuromancer* trilogy or the *sprawl* trilogy with biotechnological and cybernetic modifications, rich in information, the experience of cyberspace is always conjunctural, an effect of intersecting practices economic technological, bodily political and cultural.

The virtual body is the very medium of cultural expression itself, manipulated, digitalized and technologically constructed in virtual environments. Though cyber space seems to represent a territory free from the burdens of history, it still is a sight for the technological and no less conventional inscription of the gendered body.

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The Re-articulation of Old Identities by New Technologies

- The issues we need to investigate with respect to the VR technologies is to produce simultaneous effects that are not easily judged to be good/bad, or moral/immoral within and across the body discourse.
- Even as VR technology promises a new form of intersubjectivity, it contributes to an unknown epidemic of cultural autism.
 - Intimacy is now redefined as a quality of interaction between the human body and the machine. (Example: Social Media)



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The issues we need to investigate with respect to the VR technologies is to produce simultaneous effects that are not easily judged to be either good or bad or moral or immoral within and across the body discourse.

Even as VR technology promises a new form of inter subjectivity it contributes to an unknown epidemic of cultural autism. Intimacy for example, is now redefined as a quality of interaction between the human body and the machine. Even as new technologies promise new landscapes for scientific research, the possibility that they might still reinforce conventional and restrictive gendered norms cannot be negated.

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- The fact that new imaging technologies produce "better" images of human anatomy does not guarantee that doctors are using the images to produce "better" diagnoses and/or treatment programs for patients. (40)
- By analogy, the fact that virtual realities offer new information environments does not guarantee that people will use the information in better ways.
- It is just as likely that these new technologies will be used primarily, to tell old stories - stories that reproduce, in high-tech guise, traditional narratives about the gendered and sexualized body in the appearance of techno-body, cyborg body.

We have looked at new and emergent imaging technologies. The fact that such imaging technologies produce better images of human anatomy, does not guarantee that doctors are using these images to produce either better diagnosis or better treatment programs for their patients.

By analogy, the fact that virtual realities offer new information environments does not guarantee that people will use this information in better ways. It is just as likely that these new technologies will be used primarily, to tell old stories, stories that reproduce in high tech traditional narratives about the gendered and sexualized body in the appearance of techno-body or the cyborg body.

Balsamo suggests that virtual realities offer new information environment, it is for this matter the techno critics and cultural critics should advocate technology as means of cultural production and not technology as means of gendered production. In the next module we will build this argument further.

In it we will discuss Balsamo's take on feminist cultural studies of science and technology and the gendered production of techno-body.

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Thank you.