

Chapter

8

Ultimately Onscreen: The Futures
of the Cinema
in the Age of New Media
Zoltán Dragon

We're gonna stay on until the end of
the world. And when that day comes
we'll cover it.
(Ted Turner, founder of CNN)

Progress has its drawbacks;
you can't warm your feet on a microwave.
(Doug Larson)

The suddenness of the leap from hardware to software
cannot but produce a period of anarchy and collapse,
especially in the developed countries.
(Marshall McLuhan)

A look at media at the beginning of the twenty-first century makes one thing certain: nothing is certain in terms of media boundaries and specificities. The cinema, for example, is a composite of elaborate sound and visual systems, enhanced by the use of computer software and digital image manipulation: the line that once demarcated its borders against other media seems to be dissolving. In other words, there are no different media, only multimedia. As Nicholas Mirzoeff reminds us, “[m]odern life takes place onscreen” (1), we watch screens and are watched by cameras whether shopping or enjoying a film, “life is mediated through television and, to a lesser extent, film” (ibid.), and the Internet. If someone is not satisfied with his or her life, s/he can get an alternative life in a digitally created world with personal characteristics s/he could only fantasize about previously. Video camera and VoIP (Voice over the Internet Protocol) are now connected creating a means of communication advocated by science fiction films well before the invention of either the video or the Internet.

According to James Monaco, today “we find ourselves nearly ready to complete a job begun more than five hundred years ago when Johann Gutenberg invented moveable type” (15). That was the moment both art and communication got involved in the world of technology. By now, “the cinema – a popular form of entertainment for almost a century – has been drastically transformed,” says Anne Friedberg (439). She calls attention to the fact that the cinema has become embedded in its several media competitors, such as television and computer, and as a consequence, the boundaries between the different forms of media have dis-

solved. Films are edited on video and the post-production is more and more computer-based. Computer graphics, computer-generated animation, and computer-generated images (CGI) are today a “natural” part of movies. According to Friedberg, the “technologies of reception and display” have also blended into a multimedial format: movies are watched on the Internet, on television, or on DVD, as well (*ibid.*). Robert Stam agrees on this point when he notes that the cinema in its specific medial form “now seems to be disappearing into the larger stream of the audiovisual media, be they photographic, electronic, or cybernetic” (Stam 314). This way, the cinema is today not an antithesis of television as it was from the late 1950s (*cf.* Chapter Five, “Cinema and Its Discontents: Auteur, Studio, Star”), but rather a media partner “with a good deal of cross-fertilization in terms of personnel, financing, and even aesthetics” (315). In other words, the cinema, the film industry at large, is not a separate medium with its unique rules of composition and production, but has gradually become a component in multimedial entertainment.

Whereas Friedberg could still say in 2000 that “[t]he movie screen, the home television screen, and the computer screen retain their separate locations” (439), by the middle of the year 2007 it is clear that the trajectory of the development and potential uses of the screen as a rectangular surface used for displaying images are different. In his study of the genealogy of the screen, Lev Manovich argues that the *classical screen* (three-dimensional perspectival space on a flat surface, also used by the cinema) got replaced by the dynamic screen which presents images in movement, evolving over time (95–6). The introduction of the *dynamic screen* also forged new ways of seeing and watching: while the classical narrative cinema offered a linear structure of narratives, and a pre-manipulated set of emotions (in a melodrama, for example, overflowing emotional music signals the outburst of emotions), the new media invites the user “to forge a more personal temporality and mold a more personal emotion” (Stam 321). The dynamic screen transforms the notion and perception of space and time; while a film has a set running time, it is useless to inquire about the length of an interactive game or a CD-ROM, as it is the user or users involved who decide the exact duration.

The dynamic screen is getting a unifying position in households serving as a surface for displaying television programs, Internet sites, home movie projections, video telephone calls – and the list could continue because of the appearance of new technologies by the day. Even before this unified utilization of the screen images, through digitalization, lost their exclusive connections to the media that originally created them (Friedberg 439). An image, for example, does not need to be on a piece of paper, it can also be inspected on the screen of a computer, even if it was taken by a camera. The latest technological improvements provide high-definition imagery of mixed generic source material, which sometimes makes it impossible to determine the original recording media of the scenes unfolding on the screen.

While Marshall McLuhan’s proclamation, “the medium is the message” (8) – meaning that the medium determines the content it transmits – could be regarded as relevant until the

middle of the 1990s, it should be rethought along the lines that Friedrich Kittler envisaged already in 1986: “[t]he general digitalization of information and channels erases the difference between individual media” (Kittler qtd. in Friedberg 439). In 1995, the title of a *New York Times* front-page story also got an alternative response to McLuhan: “If the medium is the message, the message is the Web,” which indicates that a completely new era is here in terms of media (449). A more complex view is expressed by Nicholas Negroponte in his critical rephrasing of McLuhan’s slogan: “[t]he medium is not the message in the digital world. It is an embodiment of it. A message might have several embodiments automatically derivable from the same data” (Negroponte 71).

The relevance of Negroponte’s claim can be tested on everyday user experience: depending on our technical circumstances we can watch the same movie at the cinema, on DVD, on television, or online via streaming, embedded flash video, or even through evolving P2P (a “peer-to-peer” network uses the bandwidth and computing power of those who participate in it, ideal for file sharing and torrent sites) systems. Video file sharing systems, such as YouTube and others following its trail, transmit home made videos, music clips, advertisements, and even official movie trailers – which makes discussions of medium specific issues futile. Recently an online television broadcast enterprise, Joost, has started negotiations with hardware vendors “about embedding Joost into set-top boxes and televisions will change the market as we know it” (Riley 2007). Online television channels are already offering services on the Internet, but it is only a matter of time when they will conquer set-top devices in our homes as well.

These technological developments and changes in our everyday lives make it necessary to reconsider film theory, as well. According to Friedberg, it is not enough to address the issue of the cinematic screen alone: “[w]e must add computer screens (and digital technologies), television screens (and interactive video formats) to our conceptualization (both historical and theoretical) of the cinema and its screens” (440). In this light, Friedberg calls for a redefinition of old film studies terms such as screen, film, and spectators along new lines. As she writes,

[s]creens are now “display and delivery” formats – variable in versions of projection screen, television screen, computer screen, or headset device. Film is a “storage” medium – variable in versions of video, computer disks, compact disks (CDs), high-density compact video-disc players (DVDs), databanks, on-line servers. Spectators are “users” with an “interface” – variable in versions of remotes, mice, keyboards, touch screens, joysticks, goggles and gloves and body suits. (ibid.)

Along with the redefinition of the above terms, theory needs to turn to the issue of the cinematic image as well, because it is the moving image that, after all, defines the cinema. Gradually, photographic images, once the basis of cinematic representation, have undergone deep rooted changes: from analog production to digital, often computer-enhanced distribution. Whereas in the 1980s generally photos were still developed, printed and shared physi-

cally, in the late 1990s and especially nowadays not only everybody equipped with a digital camera is able to produce and share their photos, but they can also manipulate these images and share them with others in a variety of ways (via email, photo sharing sites, slideshows). The cinema was not left untainted by this shift to digitalization and its consequences in terms of circulation and transmission, which led Friedberg to reconsider the history of film: “it now seems that a singular history of ‘the film’ without [...] the telephone, the radio, the television, the computer” (ibid.) is inadequate, as it does not take into account important technical properties shared by more media.

It is interesting to see that despite the broadening of the scope in the history of the cinema since the appearance of television, apart from some notable exceptions regarding the issue of film sound, most theoretical studies on film seem to focus on solely the issue of visibility. According to Friedberg, one of the most important aspects of the competition between the cinema and television is the issue of screen formats (447): the screen sizes of the cinema were incomparably larger than those of television, even if recently home movie systems try to compensate for this disadvantage. What contemporary theorists do not take into account is the counter-movement that runs parallel to the magnification of projection potentials of both the cinematic and the televisual screens: with the appearance of mobile devices there has been growing interest in “scaling down” images to fit smaller screens. The challenge today is not to produce the biggest screen of all times, but to make visual data rendering possible for all screen sizes in the same quality. The technical side of this problem first appeared when television stations were allowed to air feature films: aspect ratios and optical differences between the cinematic and the televisual image processing became evident immediately. As Friedberg explains, first of all, “[t]he optics of television do not rely on persistence of vision and projection but on scanning and transmission” (ibid.).

The fast-paced technological development did not leave the role of the spectator intact. As Friedberg argues, spectators are no longer passive receptacles of films: they interact with the story in various ways, similarly to the computer users. The computer user “interacts directly with the framed image [...] “using” a device – keyboard, mouse, or, in the case of touch screens, the finger – to manipulate what is contained within the parameter of the screen” (448). This interactive process redefines the role of the place of interaction in turn: the screen cannot be theorized as a blank surface on which a flux of images is projected, but becomes an interface.

In Manovich’s definition, the *interface* “acts as a code that carries cultural messages in a variety of media” (64). Interface is more than the devices used to access information: it comprises of the browser and the operation system as well in the case of computers. The interface is the mode of displaying, receiving, and transmitting information, an electronic surface that allows users interactive engagement with any form of content: the screen, the software and hardware used, and the special logic they entail. However, “far from being a transparent

window into the data inside a computer,” Manovich argues, “the interface brings with it strong messages of its own” (65). It means that the logic with which an interface operates is already coded in the transmission of data. The *human-computer interface* (HCI), is a term that “describes the ways in which the user interacts with a computer” (69) and includes the above mentioned physical devices used in such an interaction together with the metaphors of folders, files, actions of copy and paste, renaming or deleting files, etc. According to Manovich, HCI is the best example of the *cultural interface*, as it has become for a large majority of people the most accessible way to interact with cultural data. Cultural interface is first and foremost a “human-computer-culture interface” (70) that allows the circulation of data among all the three constituents. Apart from HCI, other cultural interfaces are the websites themselves, which store and circulate cultural data, CD-ROMs, DVDs, computer games, and further examples of “new media cultural objects” (*ibid.*).

The cinema, as a cultural interface, has been the most influential and dominant form of representation after the tradition of the printed word (78). There are two main technical aspects that changed the static presentation form of cultural interfaces preceding the cinematic form (books, paintings, and photography included): the invention and use of mobile camera, and the mobility of the rectangular frame. The mobile camera was originally a design for three-dimensional computer graphics used for flight simulation and computer-aided design, to be later adopted by filmmakers (79). Mobility in this case is not the simple replacing or changing angles and positions of the camera, but rather the complete freedom of the camera to cross solid substance – as the digital camera tricks of David Fincher’s 2002 film, *Panic Room* – or to circulate around a particular object or person – the *photo-fahrt* technique developed into the so-called “bullet-time” model employed in the Wachowski brothers’ *The Matrix* trilogy (1999–2003). The rectangular frame had, of course, been previously employed by other kinds of cultural interfaces (such as painting and photography) but it was the cinema that introduces “the mobility of the frame” (81). It is through the new ways of visualizing introduced by the cinema that HCI inherited the mobile framing implemented in the possibility of scrolling: while HCI presents only “a partial view of a document,” the computer user is still able to “scroll through a window’s content” (*ibid.*).

Manovich has recently combined theory, digital culture and software technology in a project called *Soft Cinema*. “What kind of cinema is appropriate for the age of Google and blogging?” asks Manovich along with his fellow contributors to the multimedia project. The response is a combination of theory and art:

Soft Cinema project mines the creative possibilities at the intersection of software culture, cinema, and architecture. Its manifestations include films, dynamic visualizations, computer-driven installations, architectural designs, print catalogs, and DVDs. In parallel, the project investigates how the new representational techniques of soft(ware) cinema can be deployed to address the new

dimensions of our time, such as the rise of mega-cities, the “new” Europe, and the effects of information technologies on subjectivity. (*Soft Cinema*)

The project is not a multiple-way presentation of media art. The DVDs come with special software and a media database that interact in a way that no viewing experience can be repeated: each time the viewer replays the material on the disks, a new sequence is created for him or her by the software, selecting images, sounds, and sequences from the database included. “The software edits movies in real time by choosing the elements from the database using the systems of rules defined by the authors” (ibid.). *Soft Cinema* (short for “software cinema”) is a media art-complex that foregrounds the remastering potentials of the new media. This concept of remastering is similar to what is evoked by the recent upsurge of digitally remastered film sequences that, according to Friedberg, “illustrate the compelling urge to reprogram popular memory” (449). The digitally revised and altered original footages in films like *Nixon* (1995, dir. Oliver Stone), *JFK* (1991, dir. Oliver Stone), or most spectacularly *Forrest Gump* (1994, dir. Robert Zemeckis) “continue to reconstitute our sense of historical past” (ibid.) via the possibilities of digital technology.

Beside technological advancement and its effect on the spectator of the cinema, theories of spectatorship should start to account for the differences of viewing experience generated by the new venues of watching films as opposed to the traditional cinema (cf.: Chapter One, “Encounters of the First Kind: Once Upon a Time in Film”), Stam suggests (317). Today one can watch films in planes, airports, bars, or using portable DVD players or notebooks on the train, bus, or in the car. To make up for this change in the perception of the spectator, the new kind of cinema utilizes the latest sound innovations and digital technologies in creating “a ‘sound and light show’ cinema of sensation” (ibid.) in movie theaters. This new cinema is “reminiscent less of classical Hollywood than of video games, music video, and amusement park rides. [...] the spectator is ‘in’ the image rather than confronted by it” (ibid.). This means that the main goal of blockbuster, high-budget films today is to excite spectators’ sensation instead of concentrating on narrative. Verisimilitude, or the creation of a feasible impression of reality through narrative consistency, is not the primary task of this kind of cinema. Instead, the spectator must be dragged into the action-packed, fast-paced, and vertiginously spectacular and computer-generated whirl of imagery.

This new type of cinema is often referred to as *Hollywood 2.0*, after James Daly’s article of the same title, published in *Wired* in 1997. The term alludes, on the one hand, to never-ending “upgradings of computer software” (Stam 322) because even the most advanced software become obsolete quickly; on the other hand, however, it refers to “Web 2.0,” representing the shift on the function of the World Wide Web that now focuses on the user and the functionality of websites rather than on the bells and whistles signaled by embedded flash animations and other visual extras that hinder the fast access to actual content. What is important to see in this terminology is not that Hollywood film technology is “upgraded” from

film to film, but rather that technology is no longer the aim: it is the means by which spectacle and sound can be enhanced (Daly 1997). According to Stam, the new technological input impacts both the production and the aesthetics of film:

The introduction of digital media has led to the use of computer animation in *Toy Story* and of CGI special effects in *Jurassic Park*. Morphing [visual transformation of faces, for example] is used to interrogate essentialist racial differences (for example, in Michael Jackson's *Black or White*), in an aesthetic that emphasizes similarities across difference rather than the graphic conflicts of Eisensteinian montage. [...] In mainstream film, computer-generated sequences appeared in *Star Trek II* (1983), while computer-generated chapters appeared in *Terminator II* (1991). (322)

By the utilization of the new media in the cinema, analog images captured long ago, can be combined with synthesized ones to produce so-called "threshold encounters" (323): impossible encounters between the living and the dead. Thus Elton John can meet Louis Armstrong, and Natalie Cole can sing with her father in video clips. The past is no longer solid and static: a seven-minute Swiss film, entitled *Rendezvous à Montreal* (1987), for example, is a computer-generated film which presents a threshold encounter, a date, between Marilyn Monroe and Humphrey Bogart (*ibid.*). The new ways of computer-enhanced, digital film productions require new theoretical approaches that take into consideration the interaction of all layers of a cinematic production, including sound, image, and language in a new media environment.

While trends and theoretical grids in film theory attempt to get grips on the radically changed situation of the cinema, in a cybernetic, "digitized" update of Walter Benjamin's seminal essay, Henry Jenkins, in "The Work of Theory in the Age of Digital Transformation" (1999), calls attention to the emerging field of so-called "digital theory."

Digital Theory may address anything from the role of CGI effects in Hollywood blockbusters to new systems of communication (the Net), new genres of entertainment (the computer game), new styles of music (techno) or new systems of representation (digital photography or virtual reality). (qtd. in Stam, 318)

While Benjamin tackled the issue of the mechanical mass reproduction of works of art and its cultural implications concerning authenticity (cf. Chapter One, "Encounters of the First Kind: Once Upon a Time in Film," on this issue), Jenkins shifts to address the role and task of theory in an age where mass production is not mechanic, but digital. Hardware machinery is replaced by software, thus reproduction lost its material basis and it is still open to debate how a digital product is able to retain a specific cult value and "aura." The advent of digital theory as a potential alternative to earlier film theories, and the changes in digital media production, however, do not mean the end of the cinema. On the contrary, according to Stam, the present state of the cinematic medium, especially in terms of representation and aesthetics, closely resembles the early stages of film. "Then, as now, film 'neighbored' with

a wide spectrum of other simulation devices,” writes Stam, and “film’s pre-eminent position among media arts seemed neither inevitable nor clear” (ibid.). In the history of film, cinematic technology developed alongside scientific experiments, competed with sideshows and other popular forms of entertainment (cf. Chapter One, “Encounters of the First Kind: Once Upon a Time in Film”); today, the cinema must compete with “home-shopping, video games, and CD-ROMs” (319) among many other new media formats.

According to Stam, the new media incorporate all previous media, be it printed, aural, or visual (ibid.), whereby the boundaries among them get blurred. The question of the auteur or the issue of auteurism, as the case of individual creation, “becomes even less likely in a situation where multimedia creative artists depend on an extremely diversified network of media producers and technical experts” (ibid.). It is also true, however, it has never been easier to become an auteur: anyone equipped with a PC that features webcam and has Internet connection is able to produce his or her own films, videos, photos, or netart. Ways of producing digital images even by individuals brought about a crisis in the belief in the visual (“seeing is believing”), as images are no longer connected to solid substances and are susceptible for digital manipulation (Mitchell 57). In the new media environment, in a more and more virtual age, “[t]he image is no longer a copy but rather acquires its own life and dynamism within an interactive circuit, freed of the contingencies of location shooting, weather conditions, and so forth” (Stam 319).

The issue of *virtuality* is by no means new and is not an invention of the twentieth century. Mirzoeff defines virtuality as “an image or space that is not real but appears to be” (91). Virtual spaces are, for example, virtual reality and the cyberspace, but also include the telephone, the television, or earlier, proto-cinematic inventions. The stereoscope, described in Chapter One, for example, offers a passive reception of virtuality: the two images that interact in creating a three-dimensional setting in which the “view did not gradually recede, as in a perspective painting, but seemed set back in layers that resolved into a foreground, middleground and background” (94). Even when it helped the impression of architectural views, the background part often seemed ethereal, not realistic. The most popular stereoscopic show was when the images of sets of cards depicted foreign cities and landscapes. “The stereoscopic tourist” (ibid.) could “travel” anywhere around the globe without changing his or her physical whereabouts: the most often “visited” virtual places were major American and European cities, and famous sites in the Middle East and Africa. The American critic Oliver Wendell Holmes, for example, found himself in “a dream-like exaltation in which we seem to leave the body behind us and sail away into one strange scene after another, like disembodied spirits” (Batchen qtd. in Mirzoeff, 94) similarly to phantasmagoria shows (cf. Chapter One, “Encounters of the First Kind: Once Upon a Time in Film”). Holmes’ description is basically that of a virtual space; moreover, as Mirzoeff argues, “while remaining aware that he was in fact seated in his chair also seems to anticipate the invention of cinema” (94–5).

This rather passive experience of virtuality remained the only available form of virtual reality until the introduction of computer-generated environments although, as Timothy Leary argued, “[m]ost Americans have been living in Virtual Reality since the proliferation of television. All cyberspace will do is make the experience interactive instead of passive” (Friedberg 1993, 144). The situation is not that simple, however, as Mirzoeff argues, because the move from passive to active involvement in virtual reality transforms the user. This transformation affects the levels of the human body and of the self:

Virtual domains seem to be one example of the perception that the body need not stop at the skin but can be an open and complex structure. Virtual environments can thus be liberating for those with motor disabilities in allowing all users equal freedom of movement. For deaf people, cyberspace is at present one domain where no one can tell if you can hear. The proliferation of close-captioning devices, email, fax and TDD [Telecommunication device for the deaf] machines has allowed many deaf people a far greater degree of interaction with the hearing world than was previously possible. [...] For the writer Temple Gradin, who has autism, the Internet is a metaphor for her mind: “I talk Internet talk because there is nothing out there closer to how I think.” As such experiences multiply, many are wondering what personal identity will come to mean in a virtual society. (111)

The surface of the body was previously considered as a firm boundary between subjective experience and external reality. With the arrival of virtual reality the frontier rather seems to be an ever-changing passageway between the two domains, “a fluid and hybrid borderland between the two” (116). According to Mirzoeff, what virtual reality does is not more than pointing out the “surreal” quality in modern definitions of the body, as there can be “no norms against which people can reliably be measured” (117). This view is echoed in Elizabeth Grosz’s study of the perceptions of the human body across disciplines, according to which no discrepancy can be seen between

the “real,” material body on the one hand and its various cultural and historical representations on the other. [...] These representations and cultural inscriptions quite literally constitute bodies and help to produce them as such. [...] As an essential internal condition of human bodies, a consequence of perhaps their organic openness to cultural competition, bodies must take the social order as their productive nucleus. Part of their own “nature” is an organic or ontological “incompleteness” or lack of finality, an amenability to social completion, social ordering and organization. (Grosz xi)

According to Grosz’s argument, there is no way one could inhabit a “purely natural body” (Mirzoeff 117) as the notion of the body is always already caught up in the web of cultural and historical definitions. In virtual reality, bodily issues are present to the extent users allow them to be virtualized. Interestingly, however, whereas the earliest virtual community spaces, such as the widely popular Multi-User Domains (MUD), offered the freedom to adopt or create “new forms of sexual and gender identities,” even in the highly progressive MUD, called

“LambdaMOO, most characters present[ed] themselves as stereotypes from heterosexual masculine imagination” (107). While MUDs were originally text-based interfaces, today’s technology makes it possible to form social networks that use real-time video channels, image sharing, and possibilities to create three-dimensional virtual persona. The cinema also takes advantage of the digital technology involved in virtual identity formations – mainly in its visual capacity, in creating fully digital and virtual characters to cast them in films as actors, actresses, or animals.

According to Stam, the appearance and expansion of the new technologies in cinematic production offer new possibilities for realism (discussed at length in Chapter One, “Encounters of the First Kind: Once Upon a Time in Film”) and for what he terms *irrealism*, as well, in stylistic aspects (320). Irrealism, for Stam, is the product of new technologies that “facilitate more dizzyingly persuasive and ‘engulfing’ forms of ‘total cinema’ such as IMAX spectacles” (ibid.). The culmination of this experience is virtual reality, in which users interface with three-dimensional computer-generated environments with the help of special devices, reaching levels of the impression of reality never experienced before. In virtual reality, according to Stam, “the flesh-and-blood body lingers in the real world while computer technology projects” the virtual subject “into a terminal world of simulations” (ibid.).

Barry Levinson’s 1994 film, *Disclosure*, starring Michael Douglas and Demi Moore, depicts this situation and makes it a central topic in the plot. The film tells the story of middle-aged executive Tom Sanders (played by Douglas) at a Seattle software firm, who is engaged in designing a new, visualized data retrieval system utilizing 3D virtual reality, called the “Arcamax drive.” Sanders is rumored to be in line for promotion but due to a management shake-up, he loses the management position to Meredith Johnson (Demi Moore). Meredith sexually assaults Tom in an after-hours office meeting, and the following day claims to have been raped by Tom – only to weaken his position at the firm, and to get rid of her potential rival. However, Tom wins the prosecution of the sexual harassment charge because Meredith chose to make her “attack” at the moment Tom gained access to a friend’s answering machine via his mobile phone. The answering machine recorded the whole encounter, especially Tom’s objections as response to Meredith’s advances. In fact, Meredith’s real plan was from the beginning to out-source the production of the drive assembly project to a Malaysian firm, whose manual assembly of the Arcamax would result in loss of its efficiency. To prove his ability and restore his shaken respectability in front of his colleagues, Tom starts to uncover details of Meredith’s plan, and in the peak moment of the film, he encounters her in the virtual reality environment of the Arcamax. While Meredith busily erases the incriminating files, Tom attempts to retrieve the necessary data from back-up files. The final evidence against Meredith is then a video clip from Malaysian television showing her in the middle of negotiations with her Asian partners. What is interesting in the virtual reality sequence of the film is that the database of the central computer is visualized as an everyday office prop: Tom opens drawers,

hard-copy files, reads texts, flips pages, looks at photos – all simulated, while providing him (and the spectator) with the experience of really having been at the heart of the database leaving the physical body outside the system.

The Wachowski brothers' *The Matrix* trilogy can be seen as an extension of this idea: Morpheus (Laurence Fishburne) and his followers leave their bodies in the real world, connected to the computer by cables, while fighting agents and "whatnot" in a virtually generated symbolic network called Matrix. The trick of the film – and a negative prophecy for virtual reality – is that virtuality is not really independent of and disconnected from reality: death in the Matrix equals death in reality, as well. When Trinity (Carrie-Ann Moss) is shot at the beginning of *Matrix Reloaded*, the second part of the trilogy, the vital signals of her physical body cease to support her virtual existence until Neo (Keanu Reeves) saves her life in the Matrix. Also, when Neo stops the real-life sentinels at the end of *Matrix Reloaded*, his virtual power seems to be injected into physical reality – which almost costs his life.

A similar infusion (or confusion) of virtual and physical reality can be seen in the recent cyber-craze called *Second Life*. *Second Life* is a more advanced version of MUDs, but with a graphical interface. Users are given a "second life," a virtual life, in which they are allowed to "create themselves" and participate in a computer-generated world where they can buy, love, work, or die similarly to reality. Today, all the companies whose potential customer profile consists of the second life generation have already opened virtual retail outlets in *Second Life*; moreover, gigs and various art performances scheduled in this virtual world are also advertised all around the real world (several star bands of the 1980s, Duran Duran among them, plan their "return" via the interface and virtual reality of the *Second Life*).

Kathryn Bigelow's *Strange Days* (1995) foreshadowed a world in which virtual reality enters our lives in disturbing ways. In the film, virtual reality headgears are connected to brain parts to send impulses directly to the brain so that virtual stimulation can result in physical excitation. It is through this excitation that a virtual and imaginary space is created in which pre-recorded scenes are played and replayed endlessly. Manipulation and black-marketing of virtual image sequences, however, exploit the defenselessness of those addicted to this kind of stimulation and ruin their lives. It is only the same trick of image manipulation in the virtual space that the protagonist (Ralph Fiennes) can get his freedom back in the real life, completely quitting the use of virtual reality stimulants thence. While not connected to the brain directly, similar viewing experience is adopted by Justin.tv, called "lifecasting," which means that a person wears a mobile camera twenty-four hours a day, seven days a week, and broadcasts his or her life via the World Wide Web. While with the virtual reality headgears in *Strange Days* communal experience was out of question, lifecasting makes it possible to form a community of users who can not only watch and follow the everyday routine of the lifecaster, but can also interact with him or her: anyone can send messages, post blog entries – even new user channels can be created to enhance a social network experience.

As Stam argues, “[f]or cyber-enthusiasts, virtual reality expands the reality effect exponentially by switching the viewer from a passive to a more interactive position” (320). This also means the possibility for identity play, in which the real-life identity comprised of specific gender, race, and class can be enhanced or reworked. According to Stam, these types of virtual manipulations of identity transform “us all into what Walter Mitchell calls “morphing cyborgs capable of reconfiguring ourselves by the minute”” (320). However, this sense of freedom remains virtual indeed, as ideologically delimited power positions and even social strata remain intact to a certain extent: for example the *lingua franca* of the Internet, the main space for virtual communities, is English – even code languages such as HTML (Hypertext Markup Language) or XHTML (eXtensible Hypertext Markup Language), PHP (Hypertext Preprocessor), Javascript, and many others, use it as their basis. It means that even the code and the database structure that governs the visible surface is built up of a language, thus the World Wide Web retains the textual interface used in the cultural interface of printed material. Even the *semantic web*, which is an expression that describes the language pool that not only humans but machines are capable of navigating and comprehending, is already infused with the grammar and semantics of a natural language that is not spoken by every user.

It has become commonplace to talk about the impact the new media technology has had on our everyday lives. “[L]ess obvious, however, is the similar impact these technologies have had upon the [...] “sense” we have and make of those temporal and spatial coordinates that radically inform and orient our social, individual, and bodily existences,” writes Vivian Sobchack (67).

At this point in time in the United States, whether or not we go to the movies, watch television or music videos, own a video tape recorder/player, allow our children to play video and computer games, or write our academic papers on personal computers, we are all part of a moving-image culture and we live cinematic and electronic lives. Indeed, it is not an exaggeration to claim that none of us can escape daily encounters – both direct and indirect – with the objective phenomena of motion picture, televisual, and computer technologies and networks of communication and texts they produce. Nor is it an extravagance to suggest that, in the most profound, socially pervasive, and yet personal way, these objective encounters transform us as subjects. (ibid.)

That is, the development of the technology of representation has recently changed not only the way we communicate and make sense of our own place in culture and history, but also the way we experience our “presence to the world, to ourselves, and to others” (ibid.). Our contemporary sense of temporality and spatiality has gone through a radical shift as a consequence of the developments in various cultural interfaces. The changes are, however, not completely independent of the cultural and social developments, for as Martin Heidegger reminds us, “[t]he essence of technology is nothing technological” (Heidegger 317). In other words, technological inventions never come to their “particular material specificity and function in a

neutral context for neutral effect" (Sobchack 68). It is only in this light that in "our now dominantly electronic (and only secondarily cinematic) culture" (ibid.), many people describe the working of their minds and bodies "in terms of computer systems and programs (even as they still describe and understand their lives as movies)" (ibid.). As a counterpart, computers, too, are usually described in terms of concepts related to the workings of the human mind and body (for example, a computer or software can be intelligent, and susceptible to viral infection). It is not surprising then that these metaphorical forms of life have made their way into popular cinematic imagination, embodied in the hybrid characters of cybernetic heroes as in, for example, *Robocop* (1987, dir. Paul Verhoeven) or *Terminator II* (1991, dir. James Cameron). In her critical investigation of this phenomenon, Sobchack finds that

representational technologies of photography, the motion picture, video, and computer inform us [...] through the specific material conditions by which they latently engage our senses at the bodily level of what might be called our micro-perception, and then again through their explicit representational function by which they engage our senses textually at [a cultural, meaning-making] level of what might be called our macroperception. (68–9)

According to Don Ihde, *microperception* is what is commonly thought of as sensorial perception (seeing and hearing); *macroperception* is the cultural dimension, the hermeneutic, meaning-making context in which microperceptions are perceived by the individual (29). A simple example is the sensing of a smell: it is the cultural context that categorizes the particular smell as stink or pleasurable. As Sobchack explains, the interaction of the levels of micro- and macroperceptions brings about change in our everyday lives as users, since the different kinds of cultural interfaces, especially the cinematic and electronic ones, by mediating "our engagement with the world, with others, and with ourselves [...] have transformed us so that we currently see, sense, and make sense of ourselves as quite other than we were before them" (69).

In Žižek's view, the awareness of mediation leads to "an attitude of external distance" (137), which is evident in the users' play with false images in a virtual environment, such as MUD: "I know I'm not like that (brave, seductive...), but it's nice, for time to time, to forget one's true self and put on a more satisfying mask – this way you can relax, you are delivered of the burden of being what you are, of living with yourself and being fully responsible for it" (ibid.). However, this distanciation can also point at another extreme: by creating a special screen persona the user, perhaps not consciously, may "re-create" himself or herself to be "more himself or herself" than in his or her real life (ibid.). The created virtual identity can reveal aspects of the real identity of the user that he or she would not dare to admit in real life. According to Žižek, the reason for creating an identity in a virtual community like MUD or *Second Life*, which is so different from the real life identity of the user is necessary, as it helps

them outlive fantasies that would otherwise “bring about the disintegration of [the user’s] sense of personal identity” (ibid.).

Thus, the new media introduce new ways of identifications, which culminate in changes in the ways film theories have conceptualized the status and role of the spectator, as well. While the classical cinematic viewing situation involves a dark room full of spectators looking at the direction of the screen, the new media free the user from his or her constraints and offer alternative ways of watching a film or any other audio-visual data (smaller screens, well-lit places, not necessarily indoors). As Stam concludes, “it is no longer a question of Plato’s cave in which the spectator is trapped, but the information superhighway on which the spectator travels, presumably toward freedom” (321). The keyword, with the utilization of the dynamic screen that serves as an interface between user and cultural data, becomes “interactivity” instead of passivity, which described the spectator’s relation to the screen in theories of the cinema.

Manovich, however, finds the term “interactivity” not only too broad to be useful for theoretical discussion, but also tautological, as modern human-computer interfaces are “by definition interactive” and thus calling “computer media “interactive” is meaningless – it simply means stating the most basic fact about computers” (55). Manovich then points out that the issue of interactivity is not simple, and should be studied and understood more thoroughly, as “[a]ll classical, even more so modern, art is “interactive” in a number of ways” (56). Narrative gaps or so-called

[e]llipses in literary narration, missing details of objects in visual art, and other representational “shortcuts” require the user to fill in missing information. Theater and painting also rely on techniques of staging and composition to orchestrate the viewer’s attention over time, requiring her to focus on different parts of the display. With sculpture and architecture, the viewer has to move her whole body to experience the spatial structure. (ibid)

Manovich calls attention to the dangers of interpreting interactivity literally, that is, discussing the concept only in terms of “the physical interaction between a user and a media object (pressing a button, choosing a link, moving the body)” (57). Interactivity has psychological implications, too: filling in missing information or visual details, forming hypotheses during the time of indulging in the pleasures of experiencing art, recalling previously given information at the time of comprehending a story of a film, and also identifying with characters of a film, to mention but a few. Interactivity starts on this psychological level, and is then externalized: the logic and working idea of hyperlinks, for example, is nothing more than the externalization and objectification of “the process of association, often taken to be central to human thinking” (61). The notion of identification as an example of interactivity has further implications for the shift from spectator/viewer to user, as well:

The cultural technologies of an industrial society – cinema and fashion – asked us to identify with someone else’s bodily image. Interactive media ask us to identify with someone else’s mental structure. If the cinema viewer, male and female, lusted after and tried to emulate the body of the movie star, the computer user is asked to follow the mental trajectory of the new media designer. (ibid.)

A radical re-interpretation of the concept of interactivity is provided by Žižek, who offers “to supplement the fashionable notion of ‘interactivity’ with its shadow” and much more negative “notion of ‘interpassivity’” (111). Žižek shares Manovich’s opinion that it is “commonplace to emphasize how, with the new electronic media, the passive consumption of a text or a work of art is over” (ibid.). According to Žižek, the main focus and most often emphasized potential of the new media is the possibility for a large number of users to “break out of the role of the passive observer following the spectacle staged by others, and to participate actively not only in the spectacle itself, but more and more in establishing the very rules of the spectacle” (ibid.). This view, however, hides the more pessimistic side of interactivity, which Žižek calls *interpassivity*: the process that deprives the viewer of his or her passive satisfaction and enjoyment of the “show,” takes away the right of the viewer to do nothing but enjoy himself or herself in watching a film, for example. To illuminate this radical dimension of interpassivity, Žižek recalls that

almost every VCR [fan] who compulsively records hundreds of movies [...] is well aware that the immediate effect of owning a VCR is that one actually watches fewer films than in the good old days of a simple TV set without a VCR; one never has time for TV, so instead of losing a precious evening, one simply tapes the film and stores it for a future viewing (for which, of course, there is almost never time...). So although I don not actually watch films, the very awareness that the films I love are stored in my video library gives me a profound satisfaction and, occasionally, enables me simply to relax and indulge in the exquisite art of *far niente* – as if the VCR is in a way *watching them for me, in my place...* (112)

Inevitably, new types and forms of cultural interfaces have overtaken older, static, non-evolving interface techniques not only in terms of technology of representation, but also with regard to structuring and channeling information. According to Stam, the appearance of the hypertext shook the foundation “of the culture of the book” (325). According to the Encyclopedia Britannica Online, the *hypertext* (hyper- is the Greek term for “over” or “beyond”) is “the linking of related pieces of information by electronic connections in order to allow a user easy access between them.” The user can select a word from the text on display and “receive additional information pertaining to that word, such as a definition or related references within the text.” The hypertext offers multiple points of entry into the text, as opposed to the traditional linear texts that allow only one entry for the reader. In Stam’s view, this has positive implications for a decentralized “view of film, one that substitutes the image of infinite

passageways and pathways for the exclusivist logic of the ‘final word’” (ibid.). The hypertext is fundamentally based on “linking,” in a virtual domain where everything is just a click away from everything else. Stam envisions a cinema infused with the new media that “can help make relational connections across space and time: (1) temporal links between diverse periods; (2) spatial links across different regions; (3) disciplinary links between usually” separate fields of study; “and (4) discursive intertextual links between different media and discourses” (ibid.).

The changes in the technologies of new media will probably not leave the field of film theories intact. Newly emerging interdisciplinary studies of visual culture and digital theory incorporate and build upon earlier theories of the cinema, but they do it in a way to make their critical inquiries useful for the shifting and ever-changing terrain of contemporary cultural interfaces. The plurality characteristic of the new media and, consequently, of the new type of cinema is now becoming visible in film studies as well, as film theorists turn toward investigations of media phenomena in which film is just one, yet still important and culturally influential, component. As a result of critical inquiries and the multitude of potential approaches involved in the study of new forms of media,

theory is now less grand, a little more pragmatic, a little less ethnocentric, masculinist, and heterosexist, and a little less inclined toward overarching systems, drawing on a plurality of theoretical paradigms. [...] The question is not one of relativism or mere pluralism, but rather of multiple grids and knowledges, each of which sheds a specific light on the object studied. It is not a question of completely embracing the other theoretical perspective, but rather of acknowledging it, taking it into account, being ready to be challenged by it. (330)

Technically, the cinema has become embedded and encoded into various digital and cultural interfaces such as operation systems and all types of software. The cinematic image and the logic of filmic communication are continuously being redefined by the new media in their incorporating cinematic modes of representation. In turn, the new media is being fed back into new forms of cinematic expression. Filmmaking, participating in a cinematic culture is no longer the privilege of a chosen few or of an industry: as Manovich says, along with culture and cultural theories, it has become “open source” (333). We have perhaps arrived to an age when, to rephrase the title of Dziga Vertov’s film *The Man with a Movie Camera* (1929), a person can do much in the virtual arena of the new media – even without a movie camera.

Keywords

new media, cultural interface, human-computer interface (HCI), virtuality, virtual reality, microperception, macroperception, World Wide Web, semantic web, hypertext, screen, classical screen, dynamic screen, interactivity, interpassivity, Hollywood 2.0, user

Works cited

- Friedberg, Anne. "The end of cinema: multimedia and technological change." In Christine Gledhill and Linda Williams, eds. *Reinventing Film Studies*. London: Arnold, 2000, 438–452.
- Friedberg, Anne. *Window Shopping: Cinema and the Postmodern*. Berkeley and Los Angeles: University of California Press, 1993.
- Grosz, Elizabeth. *Volatile Bodies: Toward a Corporeal Feminism*. Bloomington: Indiana UP, 1994.
- Heidegger, Martin. "The Question Concerning Technology." In David Farrell Krell, ed. *Martin Heidegger: Basic Writings*. New York: Harper & Row, 1977.
- "Hypertext," entry in *Encyclopedia Britannica Online*, Available: <http://www.britannica.com/cb/article-9001629/hypertext>. Retrieved: 1 July, 2007.
- Ihde, Don. *Technology and the Lifeworld: From Garden to Earth*. Bloomington: Indiana UP, 1990.
- Manovich, Lev. *The Language of New Media*. Cambridge, MA: MIT Press, 2001.
- Manovich, Lev. *Soft Cinema – Website*. Available: <http://manovich.net/softcinemadomain/index.htm?reload>. Retrieved: June 29, 2007.
- McLuhan, Marshall. *Understanding Media*. Cambridge, MA: MIT Press, 1994.
- Mirzoeff, Nicholas. *An Introduction to Visual Culture*. London: Routledge, 1999.
- Mitchell, William J. *The Reconfigured Eye: Visual Truth in the Post-Photographic Era*. Cambridge, MA: MIT Press, 1992.
- Monaco, James. *The Dictionary of New Media*. New York: Harbor Electronic Publishing, 1999. (Available also on the Internet in PDF format at: <http://www.jamesmonaco.com/DNMbook/DNMBook.pdf>)
- Monaco, James. *How to Read a Film*. New York: Oxford UP, 1981.
- Negroponte, Nicholas. *Being Digital*. New York: Alfred Knopf, 1995.
- Riley, Duncan. "Embedded Joost will change the market," in *Techcrunch*, June 15, 2007. Available: <http://www.techcrunch.com/2007/06/15/embedded-joost-will-change-the-market/>. Retrieved: June 25, 2007.
- Sobchack, Vivian. "The Scene of the Screen: Envisioning Cinematic and Electronic "Presence"." In Robert Stam and Toby Miller, eds. *Film and Theory: An Anthology*. Oxford: Blackwell, 2000, 66–84.
- Stam, Robert. *Film Theories: An Introduction*. Oxford: Blackwell, 2000.
- Žižek, Slavoj. *The Plague of Fantasies*. London: Verso, 1997.

Hyperlinks referred to in the text:

Joost: <http://www.joost.com>

Justin.tv: <http://www.justin.tv>

Second Life: <http://www.secondlife.com>

YouTube: <http://www.youtube.com>