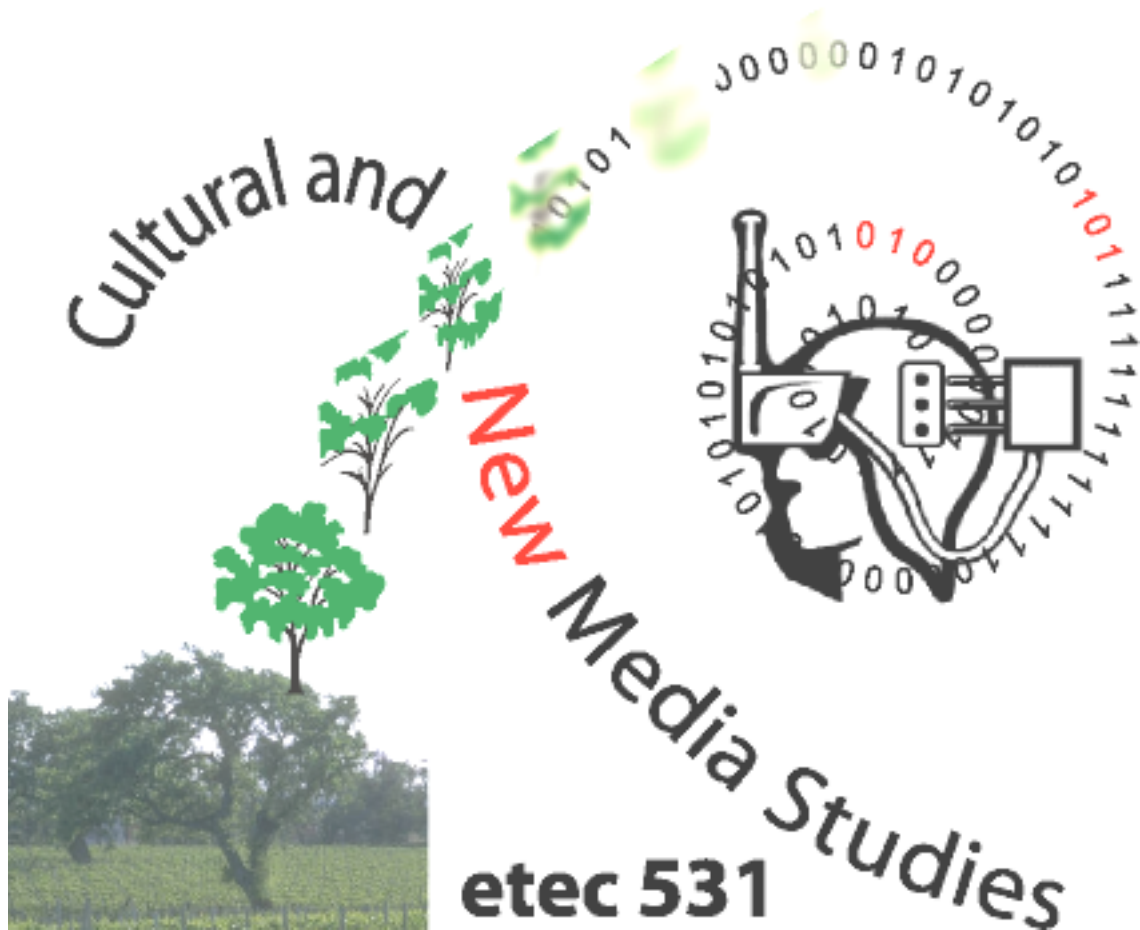


New Media Primer



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New Media

New Media, *adj., n., pl.*

- **devices** (camera, computer, audio & video player etc.)
- **networks** (information, nodes, packets, power, etc.)
- **modalities** (image, text, sound, etc.)
- **aesthetics** (hyperreality, immediacy, virtuality, etc.)
- **practices** (blogging, browsing, hacking, podcasting, programming, surfing, etc.)
- **practitioners** (desires, experiences, expertise, powers)
- **disciplines** (authorities, exemplars, case lore, norms, paradigms)
- **conditions** (inequities, globalization, power, etc.)
- **cultures** (gaming, online learning, etc.)
- **literacies** (digital, media, multiliteracies, etc.)
- **policies** (funds, strategies, rewards, etc.)
- **embodiments** (AI, cyborg, distributed cognition, VR, etc.)
- **coordinations** (capital, division of labour, expertise, etc.)
- **ecologies** (natural, artificial, hybrid, etc.)
- **corporations** (cable, content & internet providers, hardware and software vendors, etc.)
- **convergences** (AOL-Time-Warner, Walt Disney Internet Group, etc.)
- **concentrations** (media control, power, wealth, etc.)
- **spiritualities** (machine consciousness, technopaganism, Electric Gaia, etc.)

The intent of this primer is to provide a "big picture" of New Media and help you develop a complex, theoretical perspective on new media technologies. Why are cultural and new media studies important? Why is it important that we map the fields of study at the core of cultural and new media studies? Why is it important that we have a working

understanding of these fields? Why do we need to survey different theories of technology to do cultural and new media studies or prepare curriculum for our students to study new media?

New media technologies have intensified and transformed the way we communicate, the way we learn, and the way we teach. They have, we might say, transformed the student and transformed the teacher. However, the result of the convergence of education and new media is not so unidirectional. Educators and students have had much to do about how the new technologies are designed and used. The intent of Cultural and New Media Studies is to provide a forum for exploring and studying this intensification and transformation. The diversity of modules and topics offered are united by this common goal.

There are a number of convergences currently taking place that make this intensification and transformation all the more significant. Economists and policy makers view new media technologies as central to innovation, often assuming that technology will underwrite creativity and productivity. At the same time, social researchers are now heavily invested in understanding the role of new technologies in cultural and social change. On one hand, technocratic discourse, investments in globalization and free market economics are converging into a powerful ideological force (Wajcman, 2003, p. 349). On the other hand, insights into this ideological force, the social construction of technology and the contingency of wealth and power are coalescing into a counter ideological force.

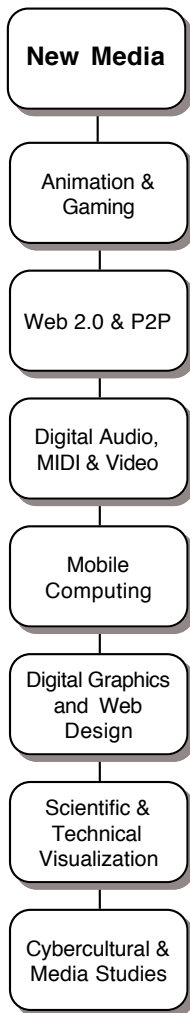
Along with these ideological convergences, we are witnessing the convergence of modalities (image, print, sound), technologies or commodity forms (digital camera, mp3, cell phone), practices (film, music, news, web) and corporate formations (AOL, Disney, Sony) along with the circumstances occasioned within this convergence. Media concentration has long been a topic of media studies, and this force is currently compounded by the complexity of smaller convergences of modalities and technologies. Pause here to think about how the convergence of modalities and technologies into single

devices reinforces media concentration. What are some of the dangers of this? What happens to the freedom of expression when "content providers" converge with "big media"?

Cultural and New Media Studies continue to be the "hottest thing in the humanities and social sciences," as a commentator in the *Chronicle of Higher Education* depicted them in the mid 1990s. Cultural and new media studies happens to be at the centre of our most sophisticated theorising, partially due to media convergence and the proliferation of new technologies and the urgency to come to terms with globalization and cultural changes underway in the world. Some theorists argue that the commercialization of education and the commodification of knowledge is part of this process of globalization; we need to understand the convergence of culture and new media to understand education and regulate commercialization and commodification. Culture is understood in its widest sense— the production and circulation of meaning. Media, new or otherwise, is understood to be a convergence of modalities (image, print, sound), technologies or commodity forms (digital camera, mp3, cell phone), practices (film, music, news, web) and corporate formations (AOL-Time-Warner, Disney-ABC-) along with the circumstances occasioned within this convergence.

Digital media design can be defined as simply design of, and with, new media (Fig. 1). Digital media design reflects the convergence of communication, media and information and focuses on the design of animated and interactive content for the web, TV, CD, DVD, and other media environments. Digital media design is created for people to experience design within digital environments and other time-sensitive media. It "involves the development of interactive, malleable, and motion-oriented messages, and expands to two-way communication in which content can respond, adapt, and change in response to the user, host, or outside circumstance. Motion allows content and form to utilize the added dimension of time to transform the communicative capacity still images while sound provides additional sensory capabilities." Digital media design signifies the new digital curriculum in the schools, such as animation, web design and video, and has more currency than IT or ICT in education. **Digital design**, as distinct from digital *media*

design, refers to a branch of electrical engineering that deals with the design of digital hardware. However, the accessibility and applicability of software accompanying convergence have resulted in a new knowledge worker and a new field of discourse, practice and study. Like industrial design, digital media design occupies a necessary space between art and computer engineering and science.



New media accounts for IT, ICT and digital media design and necessarily responds to cultural studies, communication studies, media studies and cybercultural studies (see fig. 1 and maps below). Hence, new media refers to new practices with digital technologies and a new field of study of these practices. In *The Language of New Media*, Manovich proposes five principles of the digital aesthetic, which defines new media: numerical representation, modularity, automation, variability and cultural transcoding. Or are the terms of the digital aesthetic or new media more or less as follows: Accessibility, Automativity, Compatibility, Connectivity, Interactivity, Mobility, Modularity, Portability, Predictability, Repeatability, Reproducibility, Transparency, Variability, Virtuality? Either way, the point is that new media recall old media and yet are different. According to Lister et al. (2003, p. 12), new media refer to:

- **New textual experiences:** new kinds of genre, textual form, entertainment, pleasure and patterns of media consumption (computer games, hypertexts, special effects, cinema).
- **New ways of representing the world:** media which, in ways that are not always clearly defined, offer representational possibilities and experiences (as in immersive virtual environments, screen-based interactive media).
- **New relationships between subjects (users and consumers) and media technologies:** changes in the use and reception of image and communication

media in everyday life and in the meanings that are invested in media technologies.

- **New experiences in the relationship between embodiment, identity and community:** shifts in the personal and social experiences of time, space and place (on both local and global scales) which have implications for the ways in which we experience ourselves and our place in the world.
- **New conceptions of the biological body's relationship to technological media:** challenges to the received distinctions between the human and the artificial, nature and technology, body and (media as) technological prostheses, the real and the virtual.
- **New patterns of organization and production:** wider realignments and integrations in media culture, industry, economy, access, ownership, control and regulation.

The forces underwriting the production and consumption of new media are encapsulated in a **convergence of**

- **technologies** (camera, computer, copier, fax, messaging, phone, printer, audio & video player etc. convergences),
- **modalities** (image, print, sound, etc. convergences),
- **practices** (art, communication, design, fashion, film, marketing, media, medicine, programming, technology, etc. convergences) and
- **corporate formations** (cable & internet providers, music, newspaper, radio & television convergences).

In effect, this includes a convergence of **devices** (camera, computer, audio & video player etc.), **networks** (information, nodes, packets, power, etc.), **modalities** (image, text, sound, etc.), **aesthetics** (hyperreality, immediacy, virtuality, etc.), **practices** (blogging, browsing, hacking, podcasting, programming, surfing, etc.), **conditions** (inequities, globalization, power, etc.), **cultures** (gaming, online learning, etc.), literacies (digital, media, multiliteracies, etc.), **policies** (funds, strategies, rewards, etc.), **embodiments** (AI, cyborg, distributed cognition, VR, etc.), **coordinations** (capital, division of labour, expertise, etc.), **ecologies** (natural, artificial, hybrid, etc.), **corporations** (cable, content & internet providers, hardware and software vendors, etc.), **convergences** (AOL-Time-Warner, Walt Disney Internet Group, etc.), **concentrations** (media control, power, wealth, etc.), and **spiritualities** (machine consciousness, technopaganism, Electric Gaia, etc.). New media can be defined by any one of these forces or products of convergence or by combinations of some or all of these. Indeed, it is clear that new media cannot be limited to devices, software applications or practices.

What is Cultural Studies?

Cultural Practices

Cultural studies aims to examine its subject matter in terms of **cultural practices** and their **relations to power**. Its constant goal is to expose power relationships and examine how these relationships influence and shape cultural practices.

Cultural Contexts

Cultural studies is not simply the study of culture as though it was a discrete entity divorced from its social or political context. Its objective is to understand culture in all its complex forms and to analyse the **social and political context** within which it manifests itself.

Cultural Forms

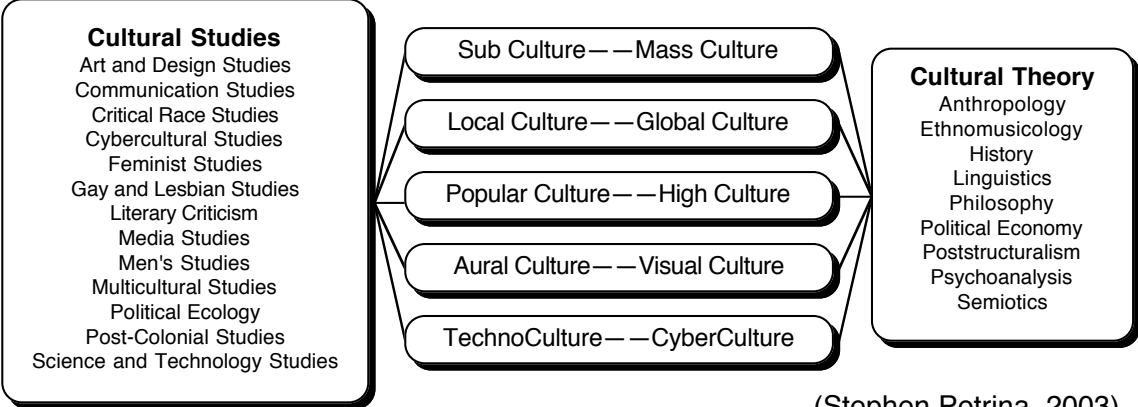
Culture in cultural studies always performs two functions: it is both the **object** of study and the **location** of political criticism and action. Cultural studies aims to be both an intellectual and pragmatic enterprise.

Cultural Theory

Cultural studies attempts to **expose and reconcile the division of knowledge**, to overcome the split between tacit (that is, intuitive knowledge based on local cultures) and objective (so-called universal) forms of knowledge. It assumes a common identity and interest between the knower and the known, between the observer and what is being observed.

Politics of Culture

Cultural studies is committed to a **moral evaluation of modern society and to a radical line** of political action. The tradition of cultural studies is not one of value-free scholarship but one committed to social reconstruction by critical political involvement. Thus cultural studies aims to **understand and change** the structures of dominance everywhere, but in industrial societies in particular. From Sardar, Ziauddin & Van Loon, Borin (1997). *Cultural Studies for Beginners* Cambridge: Icon Books, p. 9.



(Stephen Petrina, 2003)

Who
says what
In which channel
To whom
With what effect?

What is Communication Studies?

Communicator
Message
Medium
Receiver
Effect

Communication Acts and Events

Communication can be defined as "an activity in which symbolic content is not merely transmitted from one source to another, but exchanged between human agents, who interact within a shared situational and/or discursive context." From Stuart Price (1996). *Communication Studies*. New York: Longman, p. 75.

Communication Codes and Conventions

Communication Studies attend to the relationships between **transmission**, **exchange**, the **generation of meaning**, **context** and **discourse**. "All communication involves signs and codes. Signs are artefacts or acts that refer to something other than themselves; they are signifying constructs. Codes are the systems into which signs are organised and which determine how signs may be related to each other." From John Fiske. (1982). *Introduction to Communication Studies*. New York: Routledge, p. 1.

Communication Practices

Forms of Communication

Communication Media and Technology

Communication Theory
Artificial Intelligence
Cognitive Science
Cybernetics
Linguistics
Literary Criticism
Political Economy
Psychoanalysis
Semiotics

Practices
Intrapersonal
Interpersonal
Group
Mass
Extrapersonal

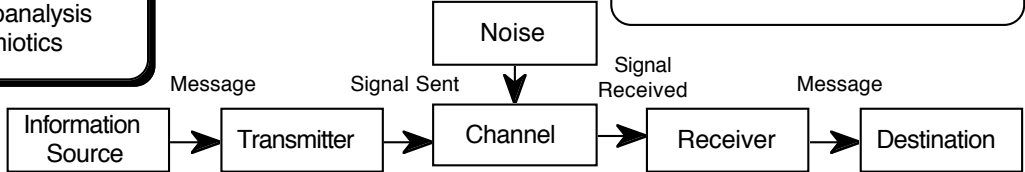
Genre and Performance

Purposes
Socialisation
Ritual
Instrumental
Persuasive
Expressive
Narrative

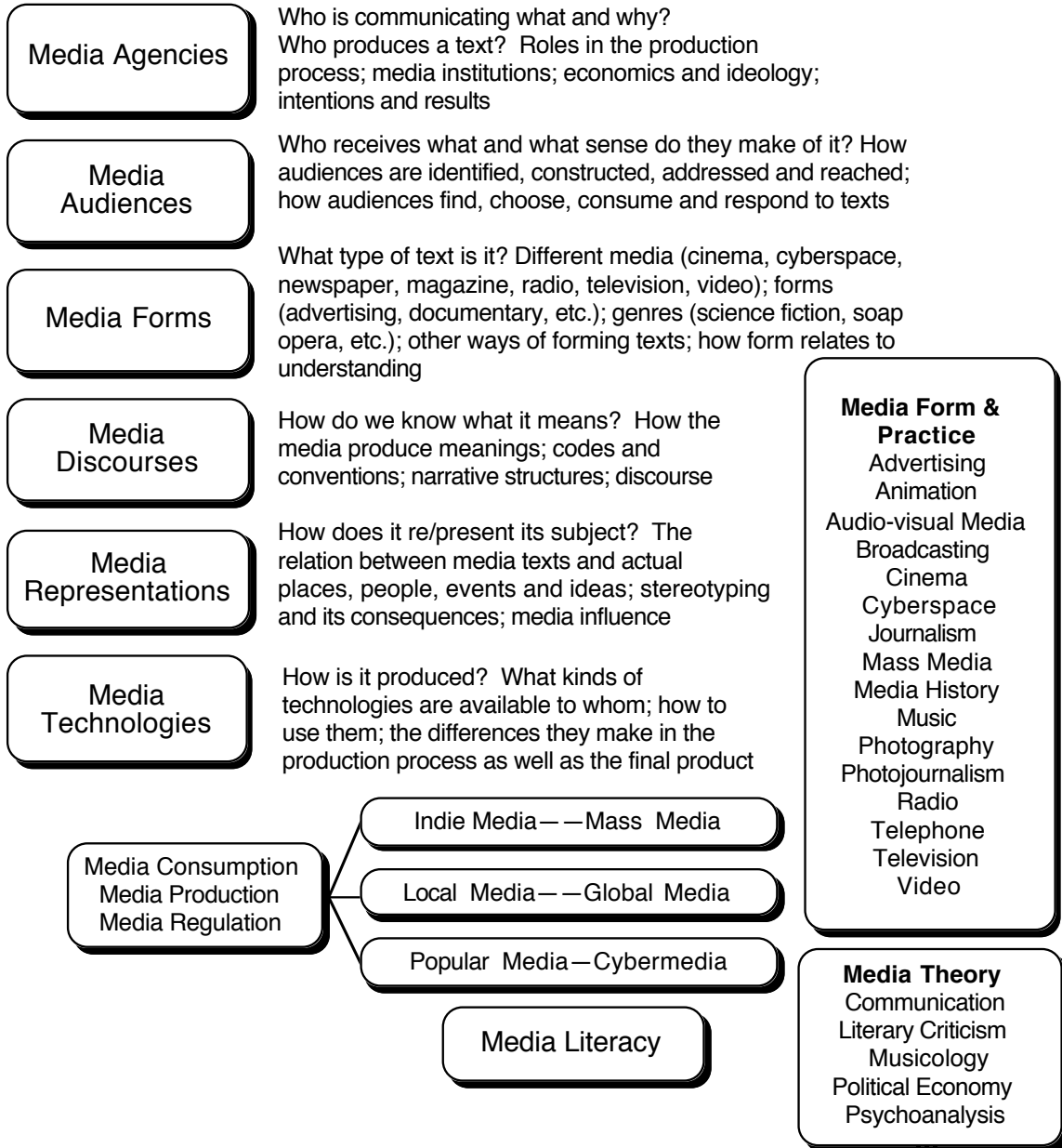
Forms
Oral
Written
Printed
Non-verbal
Pictorial
Graphical/
Symbolic
Technological

The Medium is the Message

1. Someone
2. Perceives an Event
3. And Reacts
4. In a Situation
5. Through Some Means
6. To Make Available Materials
7. In Some Form
8. And Context
9. Conveying Content
10. Of Some Consequence



What is Media Studies?



Stephen Petrina (2003)

What is Cybercultural Studies?

Cyberspace

"Is cyberspace a new universe, a parallel universe created and sustained by the world's computers and communication lines? Is it a common mental geography, built, in turn, by consensus and revolution, canon and experiment?" Or is cyberspace the "excommunication of the developing world"? Is it a "major new theatre for capital accumulation and the operations of global actors"? (quoted in David Bell, *An Introduction to Cybercultures* (NY: Routledge, 2001), pp. 7, 17-18)

Cyberculture

Cyberfeminism

What of the cyberfeminists who "write programs, paint viral images, fabricate weapons systems, infiltrate the arts and industry. The hackers, perverting the codes, corrupting the transmissions, multiplying zeros, and teasing open holes in the works? (Sadie Plant, *On the Matrix: Cyberfeminist Simulations*, in David Bell & Barbara Kennedy, Eds., *The Cybercultures Reader* (NY: Routledge, 2000), p. 336)

Cyberpunk

And of the various cyberpunks, "tribal groups, the panther Moderns in *Neuromancer* or the Low Tekes in *Johnny Mnemonic*?" (Tomas quoted in Bell, 2001, p. 176).

Cyborgs & Cybernetics

And the cyborg, "the cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of science fiction...By the late twentieth century, our time, mythis time, we are all chimeras, theorized and fabricated hybrids of machine and organism.

Cyberlaw

In short, we are all cyborgs." (Haraway quoted in Bell, 2001, p. 148)

Cyber Activities

- AI & bots
- BB, Chat, Blogs,
- MUDs & Wikis (CMC)
- Cybersex
- Cyberspecial Effects
- Cyberdemocracy
- E-commerce &
- E-Tailing
- E-Ligion
- E-mail
- Gaming
- Hacking & P2P
- Online Education
- Open Source
- Pod & Web Casting
- TeleMedicine &
- Virtual Therapy
- Virtual Reality
- Web Browsing

Cyber Issues

- Artificial Life
- Censorship
- Digital Aesthetic
- Digital Divide
- Digital Property
- Machine Consciousness
- Posthuman
- Privacy
- Science Fiction
- Virtual Community
- Sovereignty, Terrorism and War
- Third Nature

Cyber Theories

- Affective Computing
- Artificial Intelligence
- Cognitive Science
- Communication
- Information Processing
- Literary Criticism
- Musicology
- Narrative
- Media Studies
- Political Economy
- Psychoanalysis
- Semiotics

Stephen Petrina (2005)