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The Four Stages of “New Media”

In his dissertation, *Tiedotusopin rakenne* (*The Structure of Mass Communication Studies*, 1988), professor Tarmo Malmberg describes a theoretical structure he calls the “theory of continuous change.” This is a line of thinking that has been common in the post-World War II communication studies. “Everything has changed!” it has been thought after each technical advance in the media. In the 1960s there was television euphoria; in the 1970s the political cinema was expected to create a new society; in the 80s the music video was believed to blast our world imagery. Every new medium has seen the same slogans and thought processes in slightly different variations.

At the same time, however, everything has been thought to have been different. It is the concept “new media” that is indeed problematic. It is valuable as an ideological concept that is used to underline differences and undermine similarities. In addition to the “new media,” the concepts “computer media” and “digital media” are equally problematic: for example, “digital photos” have as much to do with the newspaper as with the video. In the future, media production is characterized by two processes, networking and digitalization, and the connection of these processes. Digitalization standardizes the media and systems of production; a central proportion of media products will be produced digitally. Criticizing the theory of continuous change, Tarmo Malmberg objects to an exaggerated medium specificity, i.e., the idea according to which a medium itself defines the meaning of the messages on it. Malmberg is right on two points:

First, the “new media” video meant a change in the production and distribution rather than in the viewership – even though video undoubtedly increased the number of cheap productions and generally lowered the quality in addition to the screen quality. Second, as far as the computer is concerned, Malmberg is, paradoxically enough, right in objecting to the exaggerated medium specificity:

Exaggerated medium specificity is based on the slogan “Medium is the message.” This refers to each medium being characterized by certain aspects that shape and organize the media content according to certain models.

However, at least theoretically the computer is characterized by adaptability and transformability: in a sense, the computer is a general name for the “digital machine” of our time. From this point of view, the computer medium as a message can be rather versatile, forcing to conform to a variety of models.

Even if we would accept this critique of “the doctrine of eternal change,” at the same time we must bear in mind that the phenomena considered as “new media” – including “computer media” (multimedia, hypermedia, computer networks, virtual reality systems) but excluding video – have characteristics truly different from



those of the “old media,” mass media. These characteristics can be grouped into four phases; as historical phenomena they are partly simultaneous:

1. The phase of networking, integration, and multiplicity in media.
2. The utopia of interactivity and hypertextuality.
3. The transfer from audiovisual to sensomotoric media culture.
4. The integration of media and the human body.

1. The Phase of Networking, Integration, and Multiplicity in Media

The Internet and tomorrow’s digital television are characterized by an increase and decentralization of the supply. With the digital television, the Internet and its services will be available even to those who earlier have lacked the required skills, knowledge, or financial resources. Operating systems will become more intuitive and easy to use. Television programs can be ordered to one’s home at a convenient time. In the future, the digital television provides the viewer an unlimited audiovisual library. To a certain extent this will put an emphasis on recycling old movies instead of new productions and their aggressive promotion. At least theoretically this might render video rentals unnecessary from other sources than the digital television.

Increased supply emphasizes the need to tailor the media to meet personal interests using an artificially intelligent agent or a TV guide. The broader and broader supply of cultural products and events will restructure the methods of reception as well as the nature of individually tailored reception.

The concept of media changes as vastly different technologies form networks. In addition to providing information and entertainment, “media” are used in banking, shopping, health care, cooking, and chatting with friends. In a household, there can be dozens of networking media, each of which is a specialized unit of a single integrated medium.

2. The Utopia of Interactivity and Hypertextuality

Especially at the time of the breakthrough of multimedia and computer networks the buzz word was the path he or she follows; a piece of art on a network can be manipulated by the viewer. It has been argued that the opportunities of the traditional “receivers” to influence the forms and contents of messages have increased so much as to transform active readers partly into writers themselves.

My personal estimate is that interactivity has been given unproportionate emphasis in the discussion on computer media. For example, while watching television one can similarly choose a path, moving from one channel to the next – and thus writing his or her own “media text.” Similarly, it has been argued that a reader of a literary product as well as a film viewer play active roles: the reader and the viewer always construct a personal art experience inside their minds.

The importance of interactivity is emphasized by the central role of games. In games the activity of the hand and eye is simultaneous with or surpassing the activ-

ity of the mind and eye. In interactive situations not just the hand but the whole body is used – the media experience becomes sensomotoric.

In addition to interactivity, computer media has been associated with hypertextuality (e.g. Cicconi 1999). This means links of information based on associations and analogies. Abundant in the late Middle Ages, Renaissance, and modern art, in our time hypertextuality seems to be of less significance. So far hypertextuality is an unrealized utopia, but potentially it could significantly alter the structures of our world view (cf. Foucault 1966).

3. *The Transfer from Audiovisual to Sensomotoric Media Culture*

Let us take a close look at a media hierarchy: picture, moving picture, moving audiovision, moving audio-3D-vision, audio-3D-visiomotoric media, sensomotoric media. What this series illustrates is the increase in the illusory quality of media. As computer capacity increases and the digital television becomes more common, three-dimensional computer connections become available for new types of users in the near future. 3D-connections become an essential part of the everyday life of users and consumers through two environments, home and the workplace. The 3D-connection means an increasing immersion, the fall of the user into the media landscape.

With a visiomotoric medium I mean a medium in which the viewer’s physical movement affects the (moving 3D) picture. With an audiovisiomotoric medium I mean a medium in which the viewer’s physical movement affects not only the picture but sound as well. A simple example of a visiomotoric medium is a car simulator in which the landscape on the screen responds to the movements of the steering wheel and gas pedal.

Examples of developed visio- or, in more general terms, sensomotoric media are open and closed virtual reality systems in which the user has a sensation, for example as if she or he were walking in a space imitating reality. When she or he steps on a representation of a leaf, a rustle is heard (the audiomotoric part of the experience). To my mind, the step from an audiovisual to audio-3D-visual media culture is small compared to the step to the audio(-3D-)visiomotoric media culture. The emphasis on the audio visiomotoric in the use of media brings in new senses and the related issues of research. Traditionally these issues have been addressed in, e.g., (perceptual) psychology (Piaget as a classic example): How is the emphasis on bodily experience through movement going to shape the “information society,” usually seen as a society of spirit, not body? What is the new esthetics of interactivity which defines the individual experience of using one’s body to control the virtual space?

The transfer from audiovisiomotoric to multi-sensomotoric means that in addition to sights and sounds, the user’s sense of touch, taste, and smell are served by media, defined by the user’s bodily movements. Multi-sensomotoric media are thus hybrids of motoric media and multi-sensitive media.



4. *The Integration of Media and the Human Body*

In the discussion about the future of media, one issue has been prominent: the issue of changing from interface to intraface, i.e., an interface that clings to the human body and integrates in to it. The integration of media and the human body means that technological accessories can be connected with the body. We can imagine a radio receiver the speaker of which is inside the ear. In some utopias even a “thought-powered” computer is imagined. In science fiction literature and “postmodern” media theory a human to be “enhanced” with bio-technical accessories is called a “cyborg” (Haraway 1990).

The aggressive progress of bio-technology advances at least the more reasonable utopias. Both sensomotorism and the discussion on cyborgs have had an effect on Media Studies by bringing in the theme of physicality, the issue of the body as a source of meaning (cf. Johnson 1987).

Historically, the cyborg utopia seems to signify a new phase in building an “artificial society.” In artificial societies, it is not the humans who try to adapt to the given environment; rather, the environment is modified according to a “planning science.” The idea of cyborgs shows that people are rationally goal-oriented in their desire to design not only their outer, but also their inner environment.

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