Hungarian University of Fine Arts
Doctoral School

HYBRID MEDIA

Theses of DLA Dissertation

Ádám Lendvai

2010

Supervisor: Dr. Habil, CSc Miklós Peternák

RESEARCH

My doctoral dissertation is basically a work of media theory, whose objective is to understand the development and structure of media as well as to explore the future of media. My method of research has been to apply the behavioural mechanisms of complex systems, modelling media with interdisciplinary analogies, including structures from the natural sciences, information theory and art.

As media are complex systems, their structure emerges at the cost of fragmentation. The irrevocable future outcome of complex systems is provided by a concept that originates from the natural sciences – that of entropy. This states that all closed systems inevitably succumb to disintegration and destruction. Order is always, and with certainty, moving towards future disorder. Unidirectional time, thus, points towards a state of maximum entropy. In all closed systems, operation and development require a continuous intake of external energy, which is gained from the environment. Life on earth is also temporary; it has been made possible only as a result of the continuous energy supply provided by the sun. As they develop, systems decrease their entropy and increase their complexity, their informedness – in other words, their negentropy. What makes this possible is that their components act as replicators, which are in constant competition with their own variations before the shifting value system of the environment. The text provides an unusual definition for development, leaving no room for an absolute value system. Values can only be momentary and local; value systems are relative. Thus, development does not necessarily signify movement in the right direction (for example, it is possible that a regressed form is a more adaptive and evolved construction in context of the momentary value system of the environment). The autonomous development of complex systems is described by the concept of evolution. Evolutionary development and the movement towards maximum entropy are processes of opposite orientation; the future of the media – in accordance with the statement of the paper – will take shape between decay and development.

Genetic evolution describes the development of living organisms, where genes are the elementary replicators. Genetic evolution results in increasingly complex forms, whose orderliness (informedness) becomes increasingly greater. This is how the human brain has come into being, starting a new evolution – the evolution of information, with memes as is elementary replicators. In examining memetics, the paper exactifies the most current definition of meme transmission, according to which information is reproduced during information exchange between two people. This, however, goes against the principle of Occam's razor, as it describes the evolution of genes and memes as different processes; genes only pass on genotypes that have appeared as a result of earlier instances of reproduction, and not the phenotype that emerges and takes shape during a lifetime. In the case of memes, however, the assumption has been a Lamarckian reproduction mechanism with phenotype inheritance (for example, if the information I pass on is not identical to the information I previously received, then I do not transmit the information in a form that emerged in previous instances of reproduction). The theses introduce a concept that is unified in terms of genetics and memetics in that, instead of situating the reproduction of memes in communication through media, it is positioned in every instance in which our brain thinks of the given information. This new definition gives us a chance to understand the relationship between the information and the message. The message refers to the information which appears in the medium during the process of communication, and which is created by the information replicators and the medium replicators (the medium is the message and not the information). Following the model of information replicators, the memes, the paper introduces the concept of *med* as medium replicator. Meds are elementary replicators that create hybrid media by

creating various complexes. In support of a model in which media are constructed by meds in a modularised form, I refer to the concept of mashup, which essentially signifies media that are established as hybrids of elementary web applications.

Examining the future of media raises the question: won't the countless new hybrid media – which, as a result of technological developments, emerge with never before seen intensity – collapse into a state of non-information due to the tendency towards entropy? Will the evolution of media be able to avoid the extremes of sameness or differentness, which lead into entropic depths? Will we be met with mere media noise scattered into a pandemonium of orderlessness and chaos, or the other extreme: a homogenised media consonance which, as a result of some unifying erosion, is smoothed into conformity, losing its rich complexity? What will ensure sustainable development in the middle ground between these two extremes? The success of media is determined by the selection process congruent with the current human value system (including, for example, the FLOW experience, which describes our feelings of joy in relation to a system). While we are pointed in the direction of differentness by thematic media (pull media), which ensure the accessibility of millions of subcultural Long Tail contents, the search for special contents requires ever greater efforts on our part. In the direction of sameness, we find mass media (push media), which offer uniform, mainstream contents to the wide masses, but the thus provided information is not customized for individual receivers. In the interest of a sustainable future, media will avoid sliding into either extreme and develop towards the equilibrium of an evolutionarily stable strategy (ESS). The medium of the future will have the capability to provide relevant, person-specific contents (the advantage of pull media) without effort on part of the receiver (the advantage of the push media).
The final result of my research consists of defining the med, which connects semantically related contents via horizontal cross referencing. This med, incorporated into any medium, ensures access to relevant information for any viewer/reader/user. This is the med of relevance, which maps sameness among various pieces of information and, by creating meaning-based connections between similar contents, establishes a semantic network. I further examined the results of my theoretical research in the form of artwork. My diploma work is *mindenki.hu,* a personally designed, similarity-based 3.0 community webpage. In 2010, the experimental relevance network of mindenki.hu comprises over 20,000 registered users, as well as more than 11,000 questions they have asked and over 5000 answers that have arrived in response.

RESULTS

- The reproduction of memes does not take place during the process of communication, when one person relays a message to another; memes are reconstructed in a mutated form every time we think of the message.
- Just as in the case of genes, no Lamarckian arrows need to be drawn for memes either. In other words, in the case of memes too, it is the genotype that is inherited; the evolutionary process is identical for both genes and memes.
- Just as genes are replicators for living organisms and memes are replicators for information, meds are elementary replicators for media.
- During communication, it is not the memes (information) but the meds (message) that are reproduced.
- The med of relevance is present in the medium of the future, which establishes semantic cross referencing in the space of information.