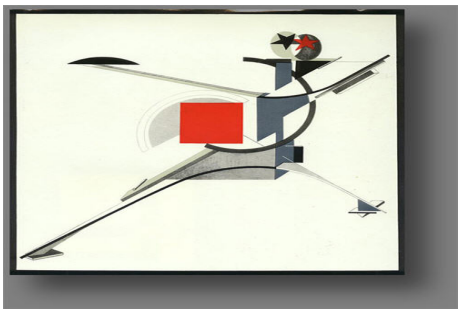
12.3 the definition of meaning

As indicated in section 1.1 meaning, or for that matter learning, takes place, according to Education, at various levels:

learning/meaning

- actionary level – action and movements
- sensory/iconic – images and impressions
- symbolic – language and mathematics

Learning by doing, or learning by games may be effective, precisely because all these levels are involved.



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A cognitaive approach, however, may not be adequate to explain the meaning of multimedia or visual art. As observed in Semiotics:

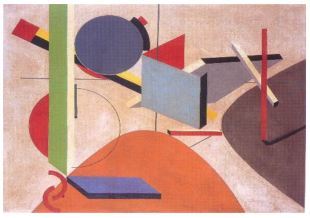
basic geometrical shapes

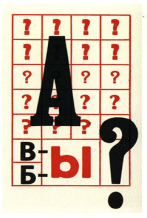
> *... basic geometrical shapes have always been a source of fascination, even of religious awe. And our scientific age is no exception.*

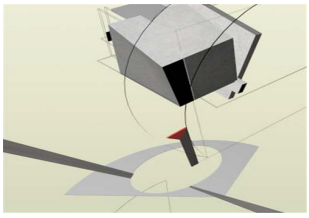
Artistic speculation may lead to an absolutist interpretation of geometric shapes, or as stated in Semiotics:

nervous system

> (basic geometrical shapes) have been thought to have the power to directly affect our nervous system, for instance by the constructivist artist Gabo: *the emotional force of an absolute shape is unique and not replaceable by any other means ...*







A well-established theory of meaning is provided by *semiotics*, which distinguishes between *signifier(s)* and *signified(s)*:

semiotics – a theory of meaning

- signifier – sign/symbol
- signified – what is referred to

According to Semiotics, *meaning* is the *relation between signifier and signified*. Semiotic theory may be applied to the domain of language and speech, which is its original domain of application, as well as to the visual domain. Hovever, for the visual domain there seem to some obstacles. One question is whether semiotic theory applies to the visual domain. But another issue is, according to Semiotics, that in our culture the visual domain seems to be inferior to the linguistic domain. Semiotics raise the question:

semiotic modes

> ... is the move from the verbal to the visual a loss, or a gain?

Yet, in a brilliant turnover, where they establish the viablity of semiotics for the visual domain, they invert the possible inferiority of the visual domain into a position where it may potentially be superior to language, asking whether

complexity

> ... it has to be handled visually, because the verbal is no longer adequate?

To strengthen their argument, they even point to the hidden multi-modality of written texts, that is the use of images and sensorial impressions hidden in the written word(s):

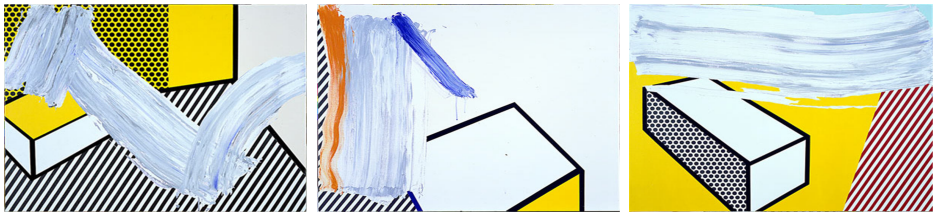
multimedia

> the multi-modality of written texts has, by and large, been ignored, whether in educational contexts, in linguistic theorizing, or in popular common sense. Today, in the age of *multimedia*, it can suddenly be perceived again.

In this way the not only establish a firm position for *visual semiotics*, but at the same time raise the issue of literacy, *visual literacy* that is, as an essential skill related to the place of visual communicatin in the semiotic landscape:

> the place of visual communication in a given society can only be understood in the context of, on the one hand, the range of forms or modes of public communication available in that society, and, on the other hand, their uses and valuations.

As recognized by politicians and educators, visual literacy or media literacy is to be regarded an essential skill in our media-driven (information) society, not only to be able to cope with information, but also to determine what is right or wrong, to be able to distinghuish between being manipulated and being informed!



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Even in art expressions, for which there is no clear notion of *signified(s)*, we may given an answer to the question of meaning.

sonic act(s)[1]

> what is the meaning of meaning in apparently meaningless expressions

The meaning of such expressions is goverend by the relation between the *signifiers*, or in other words, the formal properties of the artefact.

Such formal properties also play a role in what has been called *modality* in section 11.3 . According to Semiotics, modality is strongly related to the reliability of (visual) messages:

modality

> one of the crucial issues in communication is the question of the *reliability of messages*. Is what we see or hear true, factual, real, or is it a lie, a fiction, something outside reality? To some extent the form of the message itself suggests the answer.

In orther words, *modality* may be taken as a *veracity marker*, that is an indication of how a message is meant, as serious, ironic, sarcastic, or *realistic* ...

Modality may also be expressed by a choice of what Semiotics call a *coding orientation*, which determines, as we have discussed in section 11.3, what counts as *real*:

coding orientation

- *technical/scientific* – effectiveness, blueprint
- *sensory* – pleasure principle is dominant
- *abstract* – used by socia-cultural elite
- *naturalistic* – dominant common sense paradigm of realism

Coding orientation, in other words, subtly implies a judgement on what is considered *real*, that us relevant!

the politic(s) of meaning With the introduction of *new media*, including film, television, and more recently computer games, concern will be expressed with the loss of tradional values. As an example, film, as well as its succecor television may be criticised:

aesthetics of shock

[1] www.sonicacts.com/

> it is within the realm of probability that the *shock*, which Walter Benjamin diagnosed as being film's aesthetic innovation, will undergo renewal and intensification with far more sophisticated means.

A fortiori, television, and the habit of recording everything, making our private lives public is subject to criticism:

voyeurism

> the most obvious symptom of this loss of distance will be a voyeuristic, dissecting penetration of representations of objects and bodies.

Film, for example, comments on television as a great achievement, and yet seems to experience it as a loss:

TV

> for the first time in the history of man's striving for understanding, *simultaneity* can be experienced as such, not merely translated as a succession in time.

sensory stimulation

> although the new victory over time and space represents an impressive enrichment of the perceptual world, it also favors a *cult of sensory stimulation* which is characteristic of the cultural attitude of our time.

What the loss entails becomes clear, when *convenience* and *accessibility* is compared with the effort required by more tradional ways of thinking:

direct experience

> proud of our inventions – photography, film, radio, ... – we praise the educational virtues of *direct experience*.

communication

> when communication can be achieved by pointing with the finger, however, the mouth grows silent, the writing hand stops and the mind shrinks.

In other words, Film fears that our traditional intellectual values, and perhaps even skills, will be lost. Although written more than half a century ago, these precautions are reminiscent to the concerns expressed by parents and educators nowadays.

4

It is not easy to either do away with these concerns, nor to fully agree with them. However, given the developments in the *new media*, the community web sites, the availability of online games, the potential danger of addiction to games, and perhaps even the use of wikipedia to do schoolwork, there seems to be some reason for concern.

From a slightly more political perspective, we may ask ourselves, following VirtualArt:

channels

> ... the decisive questions remain: who controls the channels, who distributes right of access, and who exercises economic and political authority over the networks?

Not to be led astray by false media dreams, but having confidence in our autonomy and the autonomy of our children. As observed in VirtualArt our vision(s) may be wrong:

visions

> ... the history of technological visions is the history of our dreams, our vagaries and our errors. Media utopias fluctuate, often occurring in a magical or occult ambience.

Yet, our visions represent our dreams, and the *new media* do provide us with a new creative realm of reality. Principally, multimedia and game technologies are enabling technologies, enabling the development of the (digital) culture of the 21th century. Not only in our western world, for our own children, but also in developing countries, which should not fall victim to a *digital divide*.

example(s) – *multimedia in africa*

End of 2006, we were asked to participate in a joint project with ethiopian universities to develop a *multimedia* curriculum for these universities. In developing such a curriculum we should stick to the principles outlined below:

s*ynopsis*

> ... the curriculum should emphasise basic principles, and to the extent possible employ open standards and open source. Practical assignments must be centered on local culture, and stimulate the young talent to explore innovative applications for cultural heritage, serious games and artistic expression.

w*here, what & why*

- where – Ethiopia & VU
- what – introduction multimedia
- why – to develop curriculum

e*nvironment*

- low end computers – windows, linux
- elementary skills – programming, design

a*ssumptions*

- open source – flex 2 sdk, Delta3D
- open standards – XML, X3D
- basic principles – exploratory development

t*argets*

- local – present local cultural heritage
- serious – develop serious game(s)
- benefits – promote local culture and commerce

These statements express thye situation beforehand. At the time of writing the project has not been started, due to a delay caused by one of the candidate tutors from the ethiopian dropping out.

research directions– *humour in games*

For presenting Clima Futura to the jury of the scientific communication contest, we decided to have three central presenters (anchors) and an expert-panel (choir), that may comment on detailed scientific or technical issues. The presentation, stressed the multi-disciplinary approach, covers the following topics, in the order of listing:

presentation

1. philosophy – pathos, ethos, logos
2. trailer – drama, apocalyptic, appeal to player
3. climate star – scientific issues & game play
4. game development – architecture and project plan

Although it too early to look back, we may on reflection ask attention for another potential pitfall, that endangers any educational game, once aptly expressed by Sartre in his criticism of *l'esprit de serieux*. Indeed, we may become too serious! As a potential line of research that may support the design and development of Clima Futura, we refer to an *ontology of humour*, Humour, that may be taken as a guideline to avoid the common pitfall of *serious games*. In brief, Humour distinguishes between three theories of humour, that each denote a particular function of humour: *relief theory*, which explains humour as a reduction of stress, *superiority theory*, which asserts that humour has a social function, as a means to enforce the norm of a group or culture, and *incongruity theory*, which relates humour to the discovery of hidden meanings. We leave it to the imagination of the reader to establish in what way the various types of humour may be put to effect in the *climate issue*, or for that matter in any *serious* game.