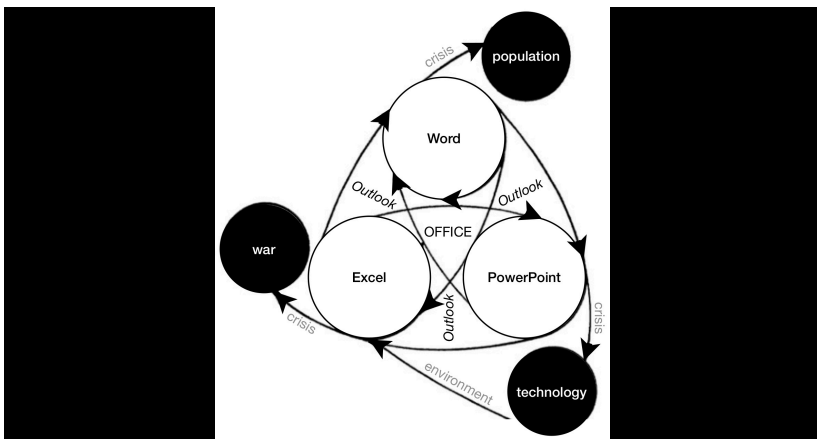




The failure of taking into account the place of *understanding* in knowledge acquisitions eventually ends up building up a debt to *reality*. This is the problem and challenge of what is called *deep ecology*. The debt to reality evidently reflect some philosophical concerns, but certainly *not only*.

Deep ecology relates to the design of processes in which the *new problems* —hatched by *solving* current problems—are systematically taken into account (design here programmes for solutions). Paradoxically, this can only be done by exceeding systems based on *feedback* (machine learning).

If Arne Næss' concept of *precisation* is understood to have this capacity, then it is likely to bridge the gap—and make up the debt—between *utilitarian* knowledge and *real* understanding. It can also be developed to hatch new repertoires in the gap between artistic and industrial production.



This flyer series explores the potential of a new alliance between art and industry to address the *environmental fix* that is presently a constant on the horizon of planet earth, with the help of deep ecology. In this perspective, industry will not be the same, and art will be pledged to research.

The deep ecological perspective consists in the following: the looming crisis linked to our current mode of production—which includes overpopulation, technology and the emergence of what one might call the age of ‘categorical humanity’ is linked to a growing *debt to reality* (*ecosophical* debt).

We know that reality is a stern debt collector. But though we anticipate this outcome we attempt to postpone it. Because we are sure that there is no alternative to how we proceed in the creation of human condition. It has become a *neutral*—thus, ideological—*fact* that we have to live with *crisis*.

The triangle of population, technology and the categorical protocol are linked to poverty, pollution and war. The categorical protocol is rooted in office-like practices, based on the assumption that the important and responsible knowledges can be covered with the Microsoft Office package.

The focal triangle: a spread-sheet, a text-processing application and a presentation-device—basically, Excel, Word and PowerPoint (and their improved equivalents Numbers, Pages and Keynote). The categorising protocol: a feedback loop between the 3 have a shaping impact on “reality”.

That is, shaping the *perceptions* of population, technology and war as faces of a necessary crisis, rather than a debt to reality that somehow has to be covered. Paradoxically—on account of what the notion of system is to ecology—a core issue may lie with *feedback* (as an effective procedure).

Thus, *feedback* accounts for the kind of machine learning that sets the premises for a certain style of human cognition, which—by looping non-same elements into a system—will also produce *crisis* as a residual impact of the system, given to be resolved within/by the system that created it.

This morass of residual effects kicking off from the systems that attempts to deal with it (in practice, in an *ad hoc* and non-systematic sort of way).

Hence the paradox: systems never operate in a systematic way, and will relate to a supplement of a reality it has generated, in an *ad hoc* manner.

An *alternative* to feedback—which eventually makes human beings model their cognitive style in machine-learning—is *feedforward*. In computer science this approach shifts from considering the computer a black box to consider it as a *hidden* layer. By this, mirroring the way humans learn.

The output from a black box is not simply fed as an input back into the black box. But are considered as two layers: the *input* layer, and the *output* layer. Between them is a third called a *hidden* layer. Here learning can make productive leaps forward, by taking the product of the wiring into account.