## **Defining situations - fundamental level of perception**

## Vilém Beneš<sup>1</sup>

<sup>1</sup>University of West Bohemia, FAV, KIV Univerzitní 8, 306 14 Pilsen, Czech Republic

*E-mail:* shodan@kiv.zcu.cz

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**Abstract:** I deal with development of general intelligent system (agent). This system should be able to examine surrounding environment and develop as effective behavior as possible.

Artificial systems which are designed to be intelligent suffer from very limited abilities of adaptation and learning. Designers of these systems feed them with 'low' knowledge. They unfortunately choose how the system should represent surrounding environment, what things it should trace and how it may behave in chosen situations. But this approach has fundamental drawbacks - knowledge passed from a human is not really useful for an artificial system. Besides that, human designer can't anticipate all future courses of events, designed behavior is brittle. What we need is artificial system that is able to study itself and its environment, conduct experiments, propose and prove hypothesis and derive all useful kinds of knowledge. We need to look at us, at our ways of approaching problems of all kinds, our ways of choosing our next progress.

In my article I will present some ideas about designing an artificial intelligent system with ability to adapt to every environment possible. We will have a look at architecture of the system, its perception capabilities will be investigated in greater detail. Conducting effective behavior is conditioned by success of process of defining situations. Defining situations is a way how an artificial system finds out what is worth to be percepted.

This field of research is very promising. There is a chance of forming strong positive feedback loop. Among other things - creative thinking machines could be great help for us.

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