A Phenomenological Analyzes Trial of AI Syntagma

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Abstract: Present paper intend to initiate a research program of human knowledge. In order to start this research it is important to find proper question related to Artificial Intelligence design system.

Keywords: artificial intelligence; phenomenological analyze

1 Introduction

The present paper intends to initiate a research program of the human knowledge in order to obtain a theoretical base which will allow the possibility to design artificial intelligence (A.I.) systems. This program will be started by the notional analyze of a syntagma (collocation) which, we must admit, designates one of the scientific development vectors from which we have great expectations, more precisely we will analyse the Artificial Intelligence (AI) syntagma.

We intend to make a phenomenological analyse which start always with the ontic meaning of the phenomenon (here the mentioned collocation) and intend to reach ontological senses. The results of such quasi philosophical trial must guide us in the next works.

From [1, 2, 3] (which are not ontic opinions about this subject) we know that AI has come to encompass many different areas of investigation for example: automated reasoning; natural language processing; expert systems; game playing; vision; learning, and we are also informed that when we analyze the artificial intelligence we don't must aspect to find a copy of the human brain.

Many scientific works on AI, after a briefly introduction focus on describing fuzzy logic, neural networks, etc. We think that it is also important to reveal (here in a phenomenological way) what we aspect from the science which is named Artificial Intelligent. Usually the first step of such analyses is to find the appropriate questions which will make deeper the phenomenon understanding.

We hope that this first step will be a good one in order to understand the mentioned domain. Also the way in which we deal with this problem will clarify the research modality that we want to use in the mentioned research program.

2 A Work Definition of AI

The Artificial Intelligence is a syntagma composed by two terms (intelligence and artificial) that through their nature generate an interior stress, because the term of intelligence is in the ontic acceptation bound by the human or at the most by the living being and the *artificial* attribute comes to underline the fact that we have in mind a human creation or more precisely a product achieved by the human being. In this way the Artificial Intelligence becomes a human product that imitates the intelligence features (human, eventually naturals). We must recognize that from a psychological point of view this comment amplifies the mentioned stress. In our word the intelligence has become a fetish and has generated, in this way, a psychological complex. We will remember that all the people wish to prove intelligence even many of them don't know exactly what the intelligence is. Because of that behavior we accept hardly that intelligence can be associated with an object.

After all this considerations if we have accepted that AI is a product that copies the human intelligence than we have to understand what means *intelligence* and what means *to copy*.

2.1 The Intelligence

The intelligence is defined in several ways, from this richness we will start with the following work definition: ***The intelligence is the capacity of understanding the experience and the capacity to take benefit from this understanding***.

The enunciated definition articulate causally two attributes: the experience understanding and the benefit of this understanding. If we focus at the *experience understanding* we will discover that is a tautological expression, because the experience assumes a certain understanding. For example, the experience in the Kantian sense it is more then a sensations assembly, including a certain base of knowledge.

Because of this reason will replace the *experience understanding* through a term more comprehensive that transform the work definition in: *The Intelligence is the capacity of knowledge and the capacity to take benefit from this understanding.*

If we wish to analyze now what *take benefit* means, we have to admit that this collocation assumes ethical approaches. Because in this moment we intend to

avoid such ethical approaches we will reduce the significations of the benefit and will replace this expression with: *the facility of knowledge accessing* (inclusive the ones that mention the possibility of benefit).

In this way the work definition has become: *the intelligence is the knowledge capacity and the facility of access these knowledge*. According to this definition an intelligent human being is the one that can know easily and can use this knowledge (fruitfully).

2.2   The Imitation

We will return at the *artificial* term content in the AI syntagma. We intend to copy the intelligence features of the human being and for that is important to understand what means *to copy* .To copy in an ontic sense is the operation in which the original is transposed with approximation into a product. Then, when I copy, I don't claim to perform an identical one but only to transpose certain features that I consider to be essentials. I'll give up, in this way, at all that seems to be accidental and I will perform a representation accepted by the original object concept.

To imitate is an activity that it's bounding by the knowledge because I don't imitate the object himself but I copy my knowledge regarding this object. Furthermore, when I imitate I decide that certain notions are important and other don't, and these decisions are based on my knowledge.

After that, to imitate means the approach of a certain technology. The technology assumes the knowledge of some procedures, the existence of some tools and objects (materials) where I will implement my copy. So in the knowledge process imitation I must identify all these elements.

Therefore we can conclude that when we mention the AI syntagma we refer at the copy of our knowledge about knowledge and about the access of this knowledge.

3   Opinions about Knowledge

The above analyze has underlined our capacity to know about knowledge process. We must mention from the beginning that the human knowledge sources are of various forms: mythical, religious, artistically, scientifically etc. and we must specify our position regarding this problem. Therefore bellow when we mention the cognition about knowledge we will understand the scientifically cognition of the human knowledge in her generality. Now it is natural to analyze what we understand through scientific cognition. The subject vastness and the space allowed to this article will be balanced trough the *opinion* term used in the following description. Also we will formulate certain opinions on the subject:

- Scientific knowledge divide the reality in quasi independent domains (the systematic vision);

- For a certain domain it's start from a minimum number of fundamental troughs. When this principles are proposed we desire that they are independent and in minimum number. The principles are carried out inductively, this process is induced by the experience and are after that adjusted through the theory results that they generate;

- Based on the principles, through deductions, theories are constructed. A theory represent the knowledge that can explain the phenomena from a certain domain of the reality;

- Based on a certain theory, a particular phenomenon is represented through the model. The model is a peculiar knowledge assembly, obtained by approximation process, that aspire to become operational;

- Scientific knowledge must be validated continuously by the experiment;

- It has as aim the a priori knowledge, more precisely we wish to know how will ensuing the phenomena before the experimentation (voire pour prevoire).

In Figure 1 is presented a block diagram that present the position of the model concept in the scientific knowledge. Firs the phenomenon (which is *viewed*) is analyzed and integrated in certain theoretical domains. These theoretical domains offer the tools which allow us to imagine the model of the viewed phenomenon. After we have constructed the model we will be able to use it. Because the results of such using are abstract it is necessary to translate them in phenomenon in order to make them intelligible. After all these we are able to predict the behaviors of the phenomenon before we have made the experiments. The *rules* of scientific knowledge tell us that these results (the imagined phenomenon) must be confirmed by the phenomenon that we have (will) view from experience.

Conclusively the scientific knowledge has as operational element the model. The model is defined as being an approximation of the phenomenon which is constructed starting from a theory by elude the *non important* from the *important* of the phenomenon. This process (the separation in important and non important) is a subjective decision (depend on the subject – human – that know), but we have the hope that the experiment will infirm the bed decisions.

We have mentioned that the model is operational this means that the model can be used directly for obtaining the mentioned purpose: the a priori knowledge.
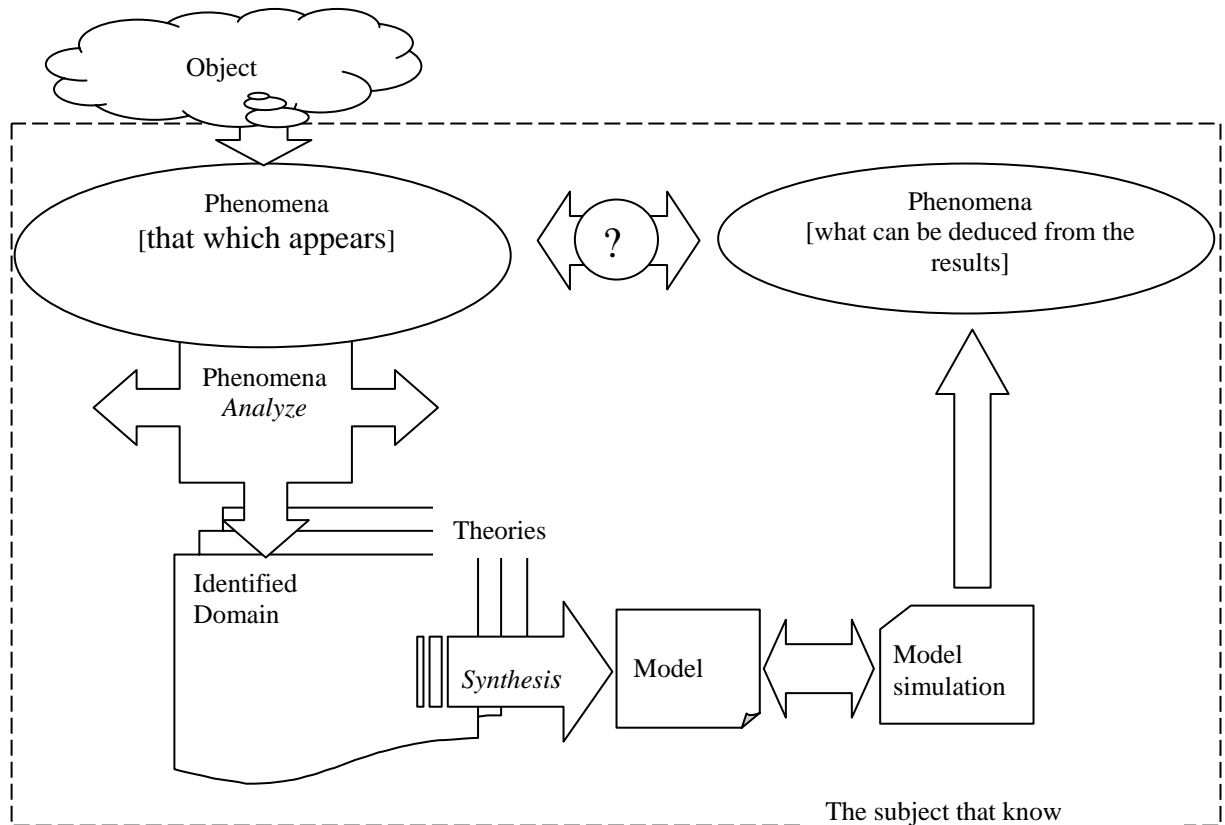
Figure 1

The model creation

We can describe the phenomenon of model using in two ways: first if the model is simple we can use it directly (mental experiment), but if the model is too complicated to be used directly we must use technologies in order to obtain results. This technology contain methods (mostly mathematical), tools (mostly computers) and support objects (paper, computer screen, etc.). We name this operation as simulation.

It is important to approach the fact that when we imitate, we will not imitate the subject himself or the phenomena but the imagined model. Figure 2 attempts to illustrate these aspects.
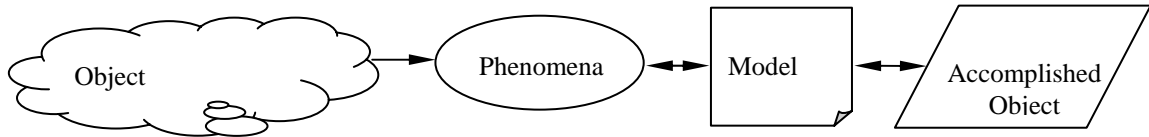
Figure 2
The imitation

Conclusions

If we will resume the previous results we can say that when we mention the AI syntagma we aspect to find a science which contain the technology to copy the model's of human knowledge and the access to this knowledge. In order to construct such models this science must be linked to cognition theories.

Starting from these conclusions we can find now the appropriate questions which allow the possibility to deep the understanding of the AI and which drive to intelligent product construction.

1. Are they known theories that have as object the human knowledge?

2. How can we use them in order to develop a human knowlege model?

3. How can we simulate this model and how can we improve it?

4. What is the technology – the methods and the tools – which can be used in order to copy the model?

5. What are the properties of the object that can be transformed in intelligent object?

6. How can we experiment the intelligent object?

7. What are the ethical aspects of the intelligent object construction?

Others benefits of the A.I collocation analysis consist on the possibility to express a point of view about A.I. already made products. In order to exemplify such point of view we will analyze briefly the fuzzy logic (FL).

So what is FL? Is it a theory of human knowledge, a model or a technology by through which a model can be copied? We consider that FL is a tool. But in this case which is the model? Many scientific papers proposed us to study the certain phenomena of the human reasoning and to model it by using several sentences in consistence with a grammar. What is the meaning of these suggestions?

- First of all the authors of these advices consider that if a person is specialized in a certain activity it will be also able to construct a model of his reasoning in connection with this activity. But this is not a scientific way to solve a problem (theory -> model) because the scientist is invited to develop an implicitly theory for each phenomenon and based on this theory to construct an explicit model.

- Secondly we must admit that the fuzzy controllers works, and this means that the mentioned technology is very suitable. This description show us that this kind of solutions are artisan's and not scientific.

Is the technology based on FL comprehensive to the human knowledge? In order to answer properly to this question is necessary to consider a certain knowledge theory. Even we have not referred to a certain theory we can make some comments to this question. We have identified two procedures used in scientific knowledge: deduction and induction. If we admit that FL is based only on deduction this means that we have find that this technology is not comprehensive. But this conclusion offers us not only bed news but also the direction of developments which can complete this tool.

References

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