

# Ontology as a foundation and a starting part of contemporary critical thinking: new literacy for information era

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## Annotation

The ontology is a concept — as it is used here — for the universally underlying patterns of concepts, assumptions, postulates, rules, beliefs, logical and illogical links, stereotypes, models, pictures and so on, which we need to use consciously or unconsciously to represent our socio-human vision of what we believe to be reality. Although the ontological approach has been developing greatly in the sphere of IT and business processes engineering and has become a basis for knowledge management and knowledge engineering, it is still unreasonably underestimated in all education levels as well as in many other domains, where it can be incredibly productive. It is possible to enrich the critical thinking and its learning in many ways through the integration with the ontology. The author developed a basic training course in the ontology as an introduction to a critical and to any other forms of high order thinking. The training — as a Moodle-based online course — was delivered for the undergraduates in sociology and social work and for a small group of working specialists. The theoretical grounds and the practical results are presented shortly in the questions and answers.

## Q & A

### **What is one of the last modern meaning of the concept «ontology» and why it is very useful and productive?**

The new ontology is not about «What is this in reality?», but about «What is this in the human interface for reality? How this interface is constructed? How we can learn, use and develop onto-logical interface for better interaction with reality?»

### **Where, when and how does critical thinking begin? Where, when and how does any thinking begin?**

Any thinking is possible if you have basic thinking things: the thinking tools, the thinking patterns and the raw materials for thinking (pictures of the world, facts, opinions, words, concepts, points of view, models, logics, values, rules, norms, principles, taxonomies, classifications, relationships, predicates, beliefs, axioms, etc.) It's about the ontology of thinking. You cannot make any thinking step without an ontological equipment. And any thinking is thinking about the ontologies by ontological means. Ontological matter comes first, thinking spirit second. So, let's think about the ontology first.

### **Where are from all critical thinking concepts, elements, standards, and strategies?**

They are all made and unified in the Paul-Elder model from the specific ontological point of view for the specific ontological world picture. Only the specific ontology critically needs and demands critical thinking. So, let's reflect and (re)construct the ontological level of critical thinking and ontological status of its means. The ontological basis for critical thinking must be reflected, reconstructed and constructed from new points of view for new goals and new results.

## **Is the mastery in critical thinking possible without critical ontology and ontology thinking?**

I believe it is not.

## **Will it be better and more effective to begin to teach and learn critical thinking with ontological approach?**

I've tried it by the basic ontological online training and have a very promising results with very good feedback from the students.

The leaders of tomorrow will be those who will become the leaders in the ontological literacy and ontological competency.

## **Recommended videos and texts**

Do we see reality as it is? / Donald Hoffman (TED2015)

[https://www.ted.com/talks/donald\\_hoffman\\_do\\_we\\_see\\_reality\\_as\\_it\\_is](https://www.ted.com/talks/donald_hoffman_do_we_see_reality_as_it_is)

Axioms for a Dark Ontology / Levy Bryant

<https://larvalsubjects.wordpress.com/2013/05/14/axioms-for-a-dark-ontology/>

What Are Ontologies, and Why Do We Need Them? / B. Chandrasekaran and John R. Josephson, Ohio State University, V. Richard Benjamins, University of Amsterdam

<https://pdfs.semanticscholar.org/2594/b664bcba99205effbd2e53d18fbb8c154937.pdf>

Business Objects: Re-Engineering for Re-Use / Chris Partridge. Third Electronic Edition published 2011 by BORO Engineering

BORO Foundational Ontology's Meta-ontological Choices / Chris Partridge

[https://www.academia.edu/33717321/BORO\\_Foundational\\_Ontologys\\_Meta-ontological\\_Choices](https://www.academia.edu/33717321/BORO_Foundational_Ontologys_Meta-ontological_Choices)

(Only one)

Questions always are primarily (first)  
No answers without questions.  
The ontologies are questions' products.  
The questions produce the answers.

Everyday ontology

Что было раньше: курица или яйцо?

Что делать раньше: фундамент или первый этаж?

Возможны ли когнитивные операции без и вне онтологической matter'иализации?