WHAT IS CALLED THINKING IN THE FOURTH INDUSTRIAL REVOLUTION?

IGOR VAL DANILOV, CEO MULTI NATIONAL EDUCATION, ROME, ITALY

ABSTRACT
The reflection proposes to consider communication as an environment with similar essence as thinking. It has an important influence on both: on knowledge dissemination and on ‘socio-cultural process’ of values formation as well. Author argued that the communication environment has the same meaning as social reality which is ‘world of culture’, or ‘imaginary world’, or the ‘Collective stock of knowledge’, defined by philosophers and sociologists. The reflection gives a feeling of the communication environment with two examples of research findings, due to the fact that knowledge distribution is different in different societies and cultures. There are some limits on thinking which are produced by invasion on perception in different societies. The communication environment forms the ratio or balance of the person’s feelings, thanks to which the process of building an objective reality in a mind is simplified and accelerated in dynamics. The changed balance of perception of reality forces the consciousness to change the principles of reality formation in it. Thus the communication environment could change consciousness and change the process which we called thinking. This reflection suggests that new meanings and new concepts will appear when we will develop the communication technology and thus we push the boundaries of thinking.

KEYWORDS: Communication environment, perception, thinking

WELCOME AND FOREGROUND THOUGHTS

Let me open my reflection about the subject with the meaning of the topic of the conference. What do we mean when we talk about: Education in the fourth industrial revolution? To elaborate it I would reflect about two concepts: the meaning of perception and the meaning of thinking. Of course perception and thinking are mutual influencing processes. Is it possible to think without any perception of reality? Unfortunately, due to the absence of answer, we don’t know anything about it. No-one existed in that of condition informed the society about this, if it has happened. Is there any perception without thinking? From my point of view no because, all acts of perception are full of meanings - even the once which we also do not recognize mentally - they form our mental reactions and that is why all perception acts are mental actions. I don’t think that the thinking process could exist with perception only and I don’t think that the perception and thinking are the same processes. I would start with the supposition that perception limits the possibility to think or in another words I would propose that perception leads the thought.

How does perception limit thinking?

All sensitive impulses from reality which we recognize are giving us comprehension or meaning about it. But on the other hand it makes sense to note here the quantum mechanics statement,
that the result of the experiment depends on its observer which probably means that inanimate matter somehow has perception of reality as well.

Thus perception probably is an act of communication, as the definition of communication is the act of conveying intended meanings from one entity to another through the use of reciprocally understood signs and semiotic rules. Unfortunately in both cases of communication as with other alive entity as with inanimate matter we don’t exact understand their respond.

So, from my viewpoint, communication has similar essence as thinking.

From the childhood of our civilization, communication has been developing, it became more and more strong and intensive, as people recognized the surrounding reality and filled it with meanings and senses.

Our perception of reality is a product of socio-cultural process and all knowledge is socially mediated. The knowledge depends on the culture of the Society where it is distributed.

Following my reflection above I would continue the statement: the culture of the society depends on the knowledge as well. Because there is always communication environment between all of us and between each of us and reality. The communication environment has an important influence on both: on knowledge dissemination and on ‘socio-cultural process’ of values formation.

Why do I think so?

Let me continue the reflection on the meaning of the communication environment through elaborating the social reality concept.

When we think about social reality what do we mean?

Probably since Hegel’s reflections on the interconnection of the members of society the concept of the third world between us and reality doesn’t leave philosopher’s and sociologist’s attention. Charles Taylor has tried to explain in his book Modern Social Imaginaries (2003) the modern society as a consequence of the relation with the complete imaginary world, a broad understanding of the way how certain people imagine their collective social life.

Karl Karl Popper introduced the notion of the third world, or World 3, as the world of culture (1962). Considering it as a product of thinking, Popper also proposed a hierarchy of worlds in which the mental world is related to the physical world and the culture accordingly somehow arises from the mental world.

Thomas Luckmann and Peter L. Berger in The Social Construction of Reality argued: “Language objectivates the shared experiences and makes them available to all within the linguistic community, thus becoming both the basis and the instrument of the collective stock of knowledge. Furthermore, language provides the means for objectifying new experiences, allowing the incorporation into the already existing stock of knowledge, and it is the most important means by which the objectivated and objectified sedimentations are transmitted in the tradition of the collectivity in question” (1966). I suggest to think about the communication environment as about the social reality concept which is world of culture, or imaginary world, or the Collective stock of knowledge, defined by philosophers and sociologists.
In fact, language, symbols of art, rituals, unspoken rules of society - they are all connection instruments and these are all like communication particles of the communication environment which creates our routine life.

Let me give you a feeling of the communication environment with some samples, due to the fact that knowledge distribution is different in different societies and cultures. From my viewpoint, this fact demonstrates their different communication environments.

The results of my analysis of researches produced separately by World Values Survey and World Bank Institute made me end up with a conclusion about the influence of the knowledge dissemination on human values formation and vice versa. The figures on the diagram 1 reveal that countries ability to generate, adopt and diffuse the knowledge supports the human values development.

The culture of each Society is the symbiosis of the human values, it means also that the communication environment which is the conductor of the knowledge is the important player of values formation.

The diagram 2 presents the results of my research of the public discussion level on the concepts, which reveal the different communication environments in the different societies. Here I have studied the differences of the intensity of free public polemics on the fundamental sociological and advanced sciences concepts in different languages through publications in Wikipedia on the topic. The keywords chosen for this step of the research have the same meaning in all the present languages. The investigation task encloses the quantity calculation of publications: books, articles and audio files, - used in the preparation of each article on the certain concept in each language of the encyclopedia. The study did not take into account the articles content, the depth of the topic disclose and the personal opinion of authors on them. I was only interested in the free public discussions level on the concepts, which, in my opinion, gives me the possibility to make a conclusion about the different levels of the public attention to these subjects in certain linguistic communities because of the different intensity of relevant publications on the topic in different languages.

And now, I would like to ask you to take your attention on the coherence between two diagrams, which from my point of view presents us connection between dominant human values of each society and main concepts better distributed in it.

I hope that with my modest research you have felt a little bit of this communication environment, its different resistance to the spread of knowledge in different linguistic societies. Of course the phenomenon should be elaborate more with more deep researches.

So I hope that my explanation above has presented my viewpoint about communication environment being a mediator between consciousness and reality, and also that there are some limits on thinking which are produced by invasion on perception in different societies.

At the next step of the reflection I try to understand how the communication environment could change consciousness and change the process which we called thinking.

Few thoughts about how the consciousness interacts with the communication environment.

The interesting viewpoint was suggested by Marshall Mcluhan:

- The communication environment forms the ratio or balance of the person’s feelings, thanks to which the process of building an objective reality is simplified and accelerated in dynamics
The influence of the communication environment on perception due to the emergence of new communication technologies leads to a change in the balance of perception which are: visual, auditory, tactile and tasting sensations.

Before European science renaissance in XV - XVI centuries the knowledge has been distributed retelling by words to mouth from one person to another - via auditory channels mainly. Oral passing knowledge has a special relation with a time, it might not be saved in time, in confront of the printed knowledge which is never changed in time. This follows to reveal the difference between the time concept in the different periods of History.

The mass printing of books in XV century has led, as Marshal McLuhan wrote in his book The Gutenberg Galaxy (1962), to the increasing of human visual perception as opposed to audio one. But since the objective reality remains the same, as we always hope, the changed balance of perception of reality in the human mind forces the consciousness (conscious imagination and subconscious) to change the principles of reality formation in the mind; I would say it changes the paradigm of perception of reality and creates the new balance of perception and as a consequence then it changes the science paradigm.

Thus, the mass-printing books invasion affected the change in balance of human perception of reality and created the new meaning of reality with the four-dimensional space-time continuum. This changing perception created the Newton physics with the linear and uniform time in which our civilization has been living since the Renaissance, it created the modern science paradigm as well. For example, because of that the watches - time measurement machine - the materialistic embodiment of time has taken dominant position in the cities, houses and people personal spaces, as a prove that the time has got the dominant position in the social routine life.

New communication technologies again is changing the human perception now. Quantum physics explanation of reality invites us in multiverse reality.

Could we think that it is the consequence of communication technologies invasion on perception, has been taking place since beginning of XX century which allows a person to be simultaneously, in several places and in different realities with the help of telephone, radio, television and internet? The correspondence theory of the truth is the dominant now, according the survey of more then 3226 professional philosophers in 2009, 45% of respondents accepted it. It states that the truth or falsity of a statement is determined only by how it relates to the world and whether it accurately describes (or corresponds with) that world.

How does the new reality perception with the multiverse concept change the truth concept as we meet with an another reality explanation, which is multi-dimensional reality? What would be the truth concept in this case and how does the new concept change the knowledge and education process?

So the developing communication environment with new technological openings will change the perception and thinking; and last theory of the quantum mechanics about the many-worlds interpretation in my opinion presents us the result of new paradigm of reality - multiverse reality as I presented above already.

What did Martin Heidegger mean in his book What is Called Thinking? (1952): generally people don’t think because they just combine values and concepts already have inside of their structure of thinking, thus there is a difficulty to create a new thought, which is a transcendental phenomenon.
From my viewpoint we learn how to think, we study the thinking process with developing of the communication environment. The thought is formed out of the structure of mentality and out of its boundaries since the thought is the transcendental phenomenon.

But, the thought needs the formation of its context because every thought is born only here in the field of its context. This ‘Stock of knowledge’ our civilization has been creating and saving in our communication environment. So New meanings and new concepts will appear when we develop the communication technology by which we push boundaries of thinking, especially in education process.

New communication technologies in distance e-learning could modernize the process of the acquisition of knowledge and I hope they also could help us to create new senses and new thoughts. At the end I would like to conclude with the reply on the question of my speech - Called Thinking in the fourth industrial revolution from my viewpoint means to pass through limits of thinking by developing communication environment with the help of new communication technologies as one of the way to do it.
Annexes

Diagram 1

The coherence between knowledge and values

Diagram 2

Public discussion level on concepts
Danilov Igor Val (2018), *Ψ-Emotional communication in the collective*
https://www.amazon.com/Emotional-communication-collective-investigation-paperebook/dp/B07F2HRXMG#reader_B07F2HRXMG

Heidegger Martin (1968), *What is Called Thinking?* New York, Harper & Row


Popper Karl (1945), *The Open Society and Its Enemies*, Routledge
