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DR. DINO KARABEG, PROFESOR NA ODSJEKU ZA INFORMATIKU SVEUČILIŠTA U OSLU

Dizajn je prirodan nastavak evolucije

Danas, i u znanosti i u umjetnosti, još postoje nevjerojatne granice između pojedinih područja, pa onda i unutar njih samih. Alternativa koja se danas nameće kao prirodna je jedna potpuna sinteza. To je viđenje da je informacija samo jedna stvar i da su i znanost i umjetnost kao koordinatne osi koje označavaju jedan golem slobodni prostor bavljenja informacijom

Dr. Dino Karabeg: Način na koji stvaramo informaciju zapravo nam može osmisliti pogled na svijet koji je radikalno drukčiji od ovoga u kojem živimo

Gordan Panđa

TEXT ABOVE THE TITLE

DR. DINO KARABEG, ASSOCIATE PROFESSOR AT THE DEPARTMENT FOR INFORMATICS, UNIVERSITY OF OSLO

TITLE

Design is a natural continuation of evolution

INGRESS

<u>Today, in both science and art, there are borderlines between individual areas, and also within them. An alternative that now offers itself as natural is a complete synthesis. It is the view that information is a single thing and that both science and art are like coordinate axes that delineate an enormously large space of creative possibilities.</u>

Dr. Dino Karabeg, associate professor at the department for informatics of the University of Oslo, has recently given several lectures in Zagreb on the theme of information design. Having graduated from the Faculty of Electrical Engineering in Zagreb, he began his research career as an assistant at the Rudjer Boskovic Institute in 1978, and then continued his studies and doctorate at the University of California at San Diego. In 1992 he moved from the United States to Oslo, where he soon began developing a new idea in the area of information, the so-called *information design*, as distinguished from the existing traditional design of information. Dr. Karabeg presented the main traces of this new approach to information in a number of

research publications, and at the University of Oslo a research program and a research group in information design has been established.

•How did you come up with the idea of information design, and what does this idea in fact represent?

- At that time I lived in two worlds: on the one side, the academic world, and on the other side in the world of martial arts, meditation, Qigong (the art of mastering the vital energy, author's remark), where I had the good fortune to learn from leading teachers. While working with them, being a scientist, I understood that some of the principles that they were teaching were basic for the human life and culture. My martial art instructor, Grandmaster Sang Kyu Shim, who reached the very top in his skill, understood one of those principles after several decades of work. He then said to his closest disciples: "Now you must forget everything I have taught you. It was all wrong. We begin from the beginning!"

He understood, namely, that the essence of the technique is that it makes it possible to do the movement completely without effort, that it has been built upon physical principles in a way that makes this possible. However, he himself did not learn this from anyone. So from that moment on, through the martial art technique, he began teaching people how to move and live without effort. The majority of us, who don't now about this possibility, are bound to expend an unknown percentage of our energy unnecessarily. The paradox is that when we then think that we are doing our best, because we are putting in so much effort, we may be expending most of that effort on literally fighting with oneself.

• You want to say that misdirected effort, as in the case of aggressive ambition, is often counter-productive?

- It is counter-productive as a rule.

• How did this realization help you create information design?

- Well, I asked myself what it would be like if this insight could be applied at all levels of human life. Imagine if we have invented all this technology and aids, but our life has not become much easier, somehow the whole direction is in question. As a scientist, I found this question interesting. I thought that it was unlikely that my teacher would be the only person to discover such a basic principle, that the key to effortlessness was in the human mind and body. So I did some research and found that a number of people and cultural traditions made the same discovery, while our modern culture still continued to ignore it.

  Then I tried communicating those principles, still not engaging in this professionally. I understood that the issue is not whether something is known or unknown. There are "known" things that could radically change our values and way of living, if they could be properly communicated. I understood that the problem was in fact in communication.

• How did you apply those insights in the area of communication and informing? What part of that did you include into your system of information design?

- *Information design* is a synthesis of my various interests, also philosophical and scientific. Although the change from algorithm theory to information may seem as a complete shift, what did in fact happen? On Rudjer Boskovic Institute I worked on environmental systems modeling. That introduced me to the systemic view of the world, which was at that time new and interesting. After that I moved to California and learned algorithm theory, more precisely algorithm design, specializing in parallel algorithms.

  What is really an algorithm? It is something like a computer program or a machine – and what is required is to understand how this machine works. And how this machine may be made more efficient and better. What a person acquires with education is primarily the way of thinking, one's mind gets configured in a certain way. So we may say that my brain was configured to look at things systemically. And when I looked systemically at the model according to which our informing is built, it seemed to me like a puzzle wrongly put together. My understanding of information had already changed, I knew that information, including the scientific one, is not a map of reality, but only a model of human experience.

  If we now assume such position and change some habits – if we no longer only work with information in the traditional way but consciously, if we try to design our informing as modern people need it – then we have made a shift to the methodological approach to information that I am advocating. What I am calling information design is just a simple and natural way to disassemble our 'puzzle' and put it together in a more coherent way.

• What is specific in your model compared to the traditional model of informing?

- The traditional way of informing, by its nature and definition, is such that we learn a certain profession, for example physics, and within that profession we explore everything that can be explored by using the methods and the concepts of physics. That is the job of a scientist, everything else is of no interest to him. I submit that such approach to information has a natural alternative, which involves first seeing what sort of information is at all needed, what are the sorts of things we most urgently need to know about, or would most benefit from. Or what sort of information may help us make the world and the culture we live in sustainable or better.

  That is the information design principle, which points at information as something that shows the way. If now many of us wonder whether something might be wrong with the very direction our civilization has taken, is not the conscious handling of information one of the first changes we need to consider in order to illuminate and possibly change this direction? This is why we are talking about the design of information and of the very informing in order to make information more suitable. The development of information design appeared as a natural and sensible move, something that simply needed to be done. When I warn that we cannot use information based on only habits or interest, giving priority to that which most strongly grabs our attention, but that we need to use it

consciously in order to see what needs to be seen and what might change our lives for the better, I am only telling an obvious fact.

• Are you saying that in the traditional model the approach to information is passive, recycling the known facts, while you demand a conscious and creative approach in order to arrive from what exists to something completely new?

- Yes, that is the essence of information design! But as a researcher I would not focus my career on such obvious critique and demand. I found in that a truly wonderful field of activity. As soon as one begins to think about information in a creative and purposeful way, everything seems to end up being turned upside down. That is this metaphor of going through a mirror. It is as if you found yourself in another world where the rules are different, often inverse from the ones we meet daily. The way we create information can indeed realize for us a worldview that is radically different from the one we are living in now. We begin to see with different eyes some fundamental questions such as the question of freedom, manipulation, power, wellbeing, health and the like. From that perspective I see the present time as a wonderful and necessary change, and a future that may truly be magnificent.

• However, your model requires that people should be active, critical and selective towards information, and not only its passive consumers, which presupposes a more developed consciousness in the recipients than what we now have.

- Yes, but there is a step between the present state and the one we are talking about. And that is a conscious scientific preoccupation with information itself, the creation of information about information. I am convinced that we will, in not so much time, be teaching the school children what information is, how it affects them, how information needs to be chosen and made so that it serves our best interests, instead of being manipulated.

• What does the Polyscopic Modeling methodology represent in your system?

- Science has given us a method for creating certain truths that are universal in our culture. However, a limitation that science has is that those are the truths in particular fields. The question suggests itself whether we can create something like science that may give us similarly reliable principles in all walks of life. We have grown too accustomed to the information for daily use that is only "photograph-event." Why not have information about basic principles of human life, such as the one about effortless action?

  The tradition did not give us methods for creating high-level information, which we may also call knowledge or wisdom, as distinguished from details and facts. There is no general method for that, there are only methods in specific fields of science. The insight I had at the beginning of this whole undertaking is that, owing to the paradigm change in science and the epistemology that followed from it, we can now easily arrive at principles that are applicable everywhere.

• From that viewpoint it seems that you are advocating a way of communicating that would be more metaphorical, non-conventional and intuitive. Have we not already seen this in the history of spirituality, art and philosophy, Bergson developed in that direction a whole line of approach – "intuitionism"?

- Today in both science and art, there still exist borderlines between individual areas, and then also within them. The alternative that offers itself as natural is a complete synthesis. That is the view that information is a single entity and that both science and art are like coordinate axes that delineate an enormously large space of creative possibilities.

• Do you believe that in the near future we will be able to communicate in such syncretistic way as people used to in the age of pre-scientific, mythological thinking when the language of religion, art and philosophy was still undifferentiated?

- I believe that this is not a return to the old, but a new synthesis. Imagine that in the old, alchemical age, science and art, the man's inner and outer life, existed within one whole. However, that unity was so mixed up, that evolution had to move towards differentiation: of science from art, reason from feeling. Science was becoming more and more objective, commanding us to ignore the feelings. The art was more and more divided from the rational, serving its own ideals, "l'art pour l'artism"…

  Now imagine that the human reason and human feelings are finaly separated so that the reason has become pure reason, and the feelings pure feelings. That is in one way good, and in another way it is not. But if we are talking about finding a suitable guidance to human affaires, then the key role of the reason and the perception is to correct one another. But while they are mixed together and not differentiated, they are not suitable for that role. They must first both become pure, and then again be synthesized on a higher level. We may call that "sublimation". At that level they are no longer mixed together, they are in a dialectic relationship.

• That means, complementary?

- Yes, complementary, in the sense of supporting and improving one another. We might say that during the differentiation it was natural that the art got separated from science, that the sciences also got separated from each other, and that everything gets fragmented "to death". Now we come naturally to a synthesis, where we understand that all information, both scientific and artistic, has both a rational and an esthetic-emotional aspect. That those are indeed the dimensions of all information and that we therefore have no reason to divide the information space.

• Is that not in fact the natural direction of self development to which every individual is invited, and not only of the society and culture, which Carl Gustav Jung described as the individuation process?

- It is, but we are now going through the same or similar process as culture. Translating your question into my own language, I understand that you are asking why at all do we

need design if that is the natural process that is anyway already underway. My answer is that design is a part of that natural process. In systems theory there is a phenomenon that when you increase the energy in a non-linear system, then first a chaotic change happens, a *de facto* breakdown of all structures, following which, as the energy increases further, the structures are recreated again, but in a different way. That is an essential message of chaos theory.

I would say that this is a good metaphor for what is going on. The tradition is generally an approach that elevates the culture to a certain level, following which the 'energies' of the system rise to the level where the tradition as principle of organization no longer functions. The natural alternative to tradition is – design (I define those words in that way), that is, a conscious approach to things and information. Design opens up to a new realm of possibilities in both culture and civilization. And the change that is happening now is exactly that: In the tradition we had differentiation, the design now leads us towards a conscious and different synthesis.

Therefore, to put it briefly, through natural evolution we have come to the point where design is the natural continuation of that evolution.

Gordan Pandza