

A Problem with TRIZ Heritage

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Dear Ellen & Michael,

I have been reading your publication since its inception. There is not much to add to the importance of your publication for popularization of TRIZ. People from many countries and different walks of life read the Journal and write in it. The former is always good, the latter is questionable, at best.

The biggest problem I see is the lack of fundamental TRIZ education. The situation created, in part, by convoluted process by which TRIZ was introduced to the West. To gain an immediate commercial benefits, TRIZ was introduced as an initiative, rather than science, which it is. Thus, a 3-5 days TRIZ courses are offered as a substitute for a 220 hours TRIZ curriculum at Peoples University of Creativity, not sure this is the correct name, in St. Pete, Russia. In my recent conversation with Mr. Mitrofanov, the founder of the University, he stated that the course is actually 240 hours long and to graduate one has to complete a project.

The next problem originates from the fact there is not much printed material available on TRIZ. Here I mean text books similar to those aiding students in their studies of some subject.

In addition, TRIZ is largely misunderstood. Altshuller's claim that TRIZ is based on technology not psychology plus the introduction of knowledge based tools, created very strong case of psychological inertia. There are two issues one must understand to effectively utilize TRIZ:

1. Regardless of TRIZ origins, creative process is psychology related;
2. TRIZ is qualitative not quantitative science. Only after a concept is developed can one start to quantify economics of implementation. And then, it may have to wait until the system is designed.

One example of misunderstood intentions of Altshuller is various attempts aimed at quantification of Ideality. The formula derived by Altshuller, some say it is not, looks as follows:

$$I = \frac{S(u)}{S(h)}$$

Where: I stands for Ideality, S(u) stands for the sum of useful functionality, and S(h) stands for the sum of condign punishments associated with useful functionality.

Now, is this formula represents mathematical expression of real life situation? Of course it is not! Altshuller used this expression only as an illustration of the Ideality concept, which states, simply put: The best system is the absence of the system, yet the intended functionality is accomplished. This formula is also convenient as an illustration of the following postulate: as HARM approaches zero IDEALITY approaches infinity. Again, in qualitative approach, this expression makes a lot of sense. As quantitative tool it makes no sense at all. If we want to discern the size of Ideality we need to assemble components of generally accepted Ideality expression as a simple case of subtracting HARM from USEFUL functionality, or

$$I = S(u) - S(h).$$

This is not an attempt to quantify Ideality, the number of variables is way too great. However, in this rendition it helps to understand the nature of Ideality being local, rather than global phenomenon.

Thank you and best regards,

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