

Abstract:

Changing school education for contemporary society

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Human have been approaching their cognitive limits through technological and social development and increasing quantity of information in society. As a rule the necessary information and knowledge volume for effective action can be neither obtained, understood no used. This limit can also become a serious obstacle for the development of civilization, including limitations such as mineral resources, pure water, and fresh air. As a result the information and knowledge dimension is characterized by irrepressible and uncontrolled growth.

We want to discuss changing educational approaches for school education. Ancient peoples who created educational system lived in a "slow" world; now we live in a "fast" one, with other characteristics of the perception of time and everyday life. The changing of life needs new focuses in education.

From the one hand the very existence of modern society (not to mention its continued development) is critically dependent on the presence of responsible, professional, creative people and it could be new focus in school education. So new education and science must be differ markedly from before. From the other hand future depend of contemporary education as never before.

Unfortunately, domestic school curricula are overloaded with details and secondary information. It comes down to "a little bit about everything, specifically about nothing". Some Russian mathematical schools took a different path: the best way to learn something is to discover it yourself. So both at home and in class the pupils "rediscover" what was invented or discovered by Pythagoras, Euclid, Leonhard Euler and Newton, following along the path of the great scientists. Here the teacher has to take on the role of Socrates, asking precise questions, expressing doubt about the answers, directing the discussion and admiring the achievements of his students. As a result of this methodology, the students reach a "metalevel", they reach the summit: looking down from it, many specifics and details become obvious. These are the schools that produce the highest number of winners of national and international contests in physics and mathematics. We named this method "Rodin's Strategy". The great sculptor believed that a true artist "simply" removes from a block of marble all that is extra, in order to create a masterpiece. A teacher needs to understand how to bring his charges to their greatest potential without getting distracted by the details: teach them how to create. There is a serious body of pedagogic tradition in Russia on which one could base solutions of similar tasks.

Education is a product which creates the future and will be demanded tomorrow. Therefore it can be argued that it is necessary to realize society's needs, not only as for today (which can already be regarded as the past with respect to education), but also for tomorrow.