



## **Moving to Cognitive Limits as Origin of Transformation of Future Education**

**G.G. Malinetskiy, O.N. Kapelko**

[gmalin@keldysh.ru](mailto:gmalin@keldysh.ru), [olga.kapelko@gmail.com](mailto:olga.kapelko@gmail.com)

Keldysh Institute of Applied Mathematics, Russian Academy of the State Service, Moscow (Russian Federation)

### **Abstract**

Our contemporary life is changing rapidly. A person must study for a long time to become a specialist. It can be argued that a man is now the weakest link in the management technology of future. To make education more effective in preparing future specialists, we need to find and adopt new technologies for education. A new approach to education in this regards was developed in Keldysh Institute of Applied Mathematics in Moscow. More specifically, we use self-organization in educational process for selection some order parameters. It allows us to define crucial steps the educational process should involve. As a result we can cut the time for studying and reach good results.

As such, this paper will hope to pose a number of questions for the discussion. Firstly, we will argue that in order to discuss the quality of education we should understand which standards we have to talk about and especially what would be educational standards needed/expected for tomorrow. It can be argued that the quality of education needs to be manage according with the strategic goals set for that society in which the quality is monitored. Moreover, it is important not forget that the overall result of the educational process can only be seen from the future. Secondly, the paper will argue and will show by an example that the cycle of the quality control in education is similar to the quality control of any management process. And finally, we will briefly discuss new approaches in education connect with interdisciplinary context and self-organization. A lot of problems and contemporary civilization risks get into interdisciplinary area and demand appropriate approaches for solving. We can recognize that our education is today is at the forefront of its cognitive limits and demand new ways of teaching of future generations of students.