

HEURISTIC ALGORITHMS IN BUSINESS EDUCATION

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Thorough planning and smart project scheduling can be considered very important factors for the success of any project especially if we speak about the ones that have a continuous nature and last for several months or even years. To satisfy the productive work permanently different methods, techniques and approaches should be implemented. Researches and practitioners have been constantly working over elaboration of tools that amplify the effectiveness of these processes. Nowadays more and more attention is paid to soft skills of potential employees, the key competences they possess. Contemporary approach to teaching is constantly shifting from traditional “supplying with knowledge” to developing the personality of students.

While students are quite often told about the time management skills, techniques, tools and methods heuristic approaches and algorithms are not so widespread though it is believed that they were created to facilitate a solution to any problem in a more efficient and resourceful way than other traditional methods. Nevertheless it should be mentioned that it can be done at the expense of such important factors as optimality, definiteness, correctness and perfection. Heuristic algorithms are credited with being very effective at finding an adjustable solution quickly and on target. Though we should always remember about the verification of the results if necessary.

What is “heuristic”? And when are heuristic algorithms successfully utilized? The Merriam Webster’s Dictionary defines heuristic as “involving or serving as an aid to learning, discovery, or problem-solving by experimental methods” [1]. Heuristic algorithms are most commonly applied when approximate solutions are bountiful and satisfactory and exact or precise solutions are non-essential or can take too much time to obtain. The number of heuristic algorithms is considerable and is still growing. We can mention such algorithms as swarm intelligence, tabu search, simulating annealing, genetic algorithms, artificial neural networks,

support vector machines, shortest path algorithms and many others. These algorithms are widely used in computer science, artificial intelligence, mathematical optimization, language recognition, big data analysis and other spheres.

It seems quite reasonable to use heuristic algorithms in business education not only in an introductory way but to introduce them widely. There are many examples when Heuristic methods were successfully used in marketing to sell products to the mass public, entrepreneurs quite often implement trial-and-error method for their ventures and R. Branson, J. Bezos, D. Trump, W. Disney and many others are vivid examples of the effectiveness of heuristic approaches in business [2].

Being more willing, courageous and adventures to take risks, to experiment and try out new ideas, approaches and methods enables them to grasp reality and to make decisions quicker. As a result, entrepreneurs run counter the established rules and techniques, take unexpected steps and create new approaches. By doing so they create new opportunities and change economic landscape.

Thus, awareness and studying heuristics algorithms in business education can increase substantially the development of the features that are necessary for being a successful entrepreneur and to foster a new generation of business people.

References

1. Merriam-webster [Electronic resource]. – Mode of access: <https://www.merriam-webster.com/dictionary/heuristic>. – Date of access: 17.01.2019.
2. Inc [Electronic resource]. – Mode of access: <https://www.inc.com/larry-kim/11-most-famous-entrepreneurs-of-all-time-and-what-made-them-wildly-rich>. – Date of access: 07.02.2019.
3. *Karaboga, D.* Intelligent Optimisation Techniques: Genetic Algorithms, Tabu Search, Simulated Annealing and Neural Networks / D. Karaboga, D. T. Pham. – Springer Verlag, 2000. – 302 p.
4. Tufelst [Electronic resource]. – Mode of access: <http://resolver.tufelst.nl/uuid:c7705281-54df-41ea-8a61-cc1ad2abbac4>. – Date of access: 01.03.2019.