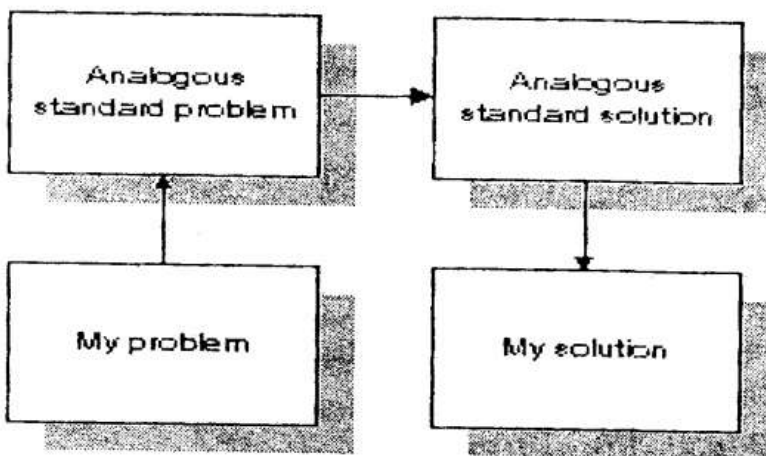


THEORY OF INVENTIVE PROBLEM SOLVING (TRIZ)

Докл. - Крестенкова Е., ХМ-31

There are two groups of problems people face: those with generally known solutions and those with unknown solutions. Those with known solutions can usually be solved by information found in books, technical journals, or with subject matter experts.



General Problem Solving Model.

The other type of problem is one with no known solution. It is called an inventive problem. Depending on the complexity of the problem, the number of trials will vary.

An approach, relying not on psychology but on technology was developed by Genrich S. Altshuller.

There are a number of laws in the theory of TRIZ. One of them is the Law of Increasing Ideality.

The TRIZ Process Step-By-Step :

Identifying My Problem.

Formulate the problem: the Prism of TRIZ

Search for Previously Well-Solved Problem

Look for Analogous Solutions and Adapt to My Solution

The 40 Inventive Principles.

1. Segmentation

2. Extraction

3. Local Quality
 4. Asymmetry
 5. Combining
 6. Universality
 7. Nesting
 8. Counterweight
 9. Prior counter-action
 10. Prior action
- etc.

ARIZ (Algorithm for Inventive Problem Solving)

Formulate the problem.

Transform the problem into a model.

Analyze the model.

Resolve physical contradictions.

Formulate ideal solution.

Directed Product Evolution (DPE)

Traditional technological forecasting tries to predict the "future characteristics of ... machines, procedures, or techniques."

TRIZ with QFD

Since TRIZ can help engineers and developers solve technical contradictions and invent new technologies, its use in New Product Development is very important. Combined with Quality Function Deployment (QFD), a company should be able to identify important customer requirements and then solve any technical bottlenecks that arise.

EUROINTEGRATION: NEEDS FOR NEW FORMATS IN STUDENTS' RESEARCH

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Essentially new eurointegration strategy of Ukraine provides reorientation of all our public life to new priorities and new models of social success. In author's opinion, the important parameters of involving Ukraine in Bologna process are skills of a student to find yourself in scientific researches, which assist the opportunity to realize yourself in a system of the European student's scientific