

Systematic Innovation for Computing - Definitions and Characterizations

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Innomation Corp bases its Systematic Innovation (SI) for Computing services on tool sets that we developed specifically for computing innovation and through modifications of some of the TRIZ discipline tools. As computing systems are technical systems and most often service both technical and business needs, SI for Computing adheres to most SI for Technology concepts and establishes the system's operational requirements by analyzing the associated technological and business demands. However, unlike pure SI for Technology, SI for Computing deals with the virtual components of coding requiring a somewhat different approach to modeling and working with those system components. Like TRIZ, SI for Computing focuses the problem solver on the “real” problem to be solved and breaks the mental inertia around how that classification of problem has been traditionally solved. The methodology utilizes a systems engineering approach to analyze the computing system (and the associated engineering system it is controlling) and therefore looks for the most effective solution direction which can be hardware, software, or technical systems improvements as well as systems control and interface considerations. Further, SI for Computing identifies and helps to negate conflicts facing your organization. The result is a clear understanding of what issues need analysis focus and will best address the organization’s challenges in a holistic way. Then SI for Computing produces a surplus of innovative and wide ranging solutions addressing the identified needs.

What are some of the SI for Computing tools?

- **Prediction Trends (Trends of Computing Evolution)** – A compilation of multiple technical trends applied to computing analysis that can be used to understand how computing systems and services have evolved over time and will change in the future.
- **Perception Mapping** – An analytical tool used to inter-relate seemingly unrelated perceptions from a variety of people (customers, managers, delivery drivers, government officials, etc.) about a situation or issue. The results show a clear view of the computing system's operational requirements.
- **Cause and Effect Chain Analysis** - An analytical tool that identifies the key disadvantages of the analyzed computing system. This is accomplished by building cause-effect chains of disadvantages that link the target disadvantage to its fundamental causes.

- **Function Analysis** – An analytical tool that identifies system functions and their characteristics. Also the basis for the computing systems analyses that provides insight as to how the systems operates and the opportunities for improvement.
- **Trimming** – An analytical tool for improvement of the computing system by removing (trimming) certain components and redistributing their useful functions among the remaining system components.
- Just as in other disciplines, SI for Computing provides multiple ways to model problems and solutions as well as providing tools to help with the transition from problem to solution modeling.

Go to InnomationCorp.com for more information about TRIZ and Systematic Innovation for Computing.