

Knowledge

From 5-Variables Physical Science Based on Empirical Verification to 500-Variables Computer Science Based on Logic
Post-Science Institute

The foundation of knowledge is faith, not reason, because even reason has to be founded on faith. For example, the trust on the three traditional methods of reasoning, empirical verification in science, mathematics, and logic, must have their foundation in faith, not reason. And there is even the degree of faith; mathematics is more trusted than empirical verification, and logic is more trusted than mathematics. However, consistency in logic can make logical arguments incomplete or impossible.

Knowledge deals with the limit of freedom. It describes the constraint on the behavior of material objects in science, the constraint on human behavior in social science, and the requirement in creation or life and computer sciences. The limit of freedom in science is the non-violable laws of nature in physical science. Similarly, the limit of freedom in social science should be in the non-violable laws of nature in social science. One of necessary design criteria in life science is permanence or permanent existence, for creations designed with temporary existence will be worthless sooner or later. Obviously, creations must also satisfy all the non-violable laws of nature in science and social science.

In the twentieth century, almost all the educated population has faith in science. But, only well-trained scientists can speak publicly about science; others accept science on faith. The existence of non-violable laws of nature in social science has yet to be verified and accepted, but most educated people speak freely about social science. The requirement of permanence is completely ignored in almost all manufacturing, and it is generally not understood. It is first described in a patent from Post-Science Institute ***“Completely Automated and Self-Generating Software System”*** (Pat. No. 5,485,601). A mathematically rigorous non-violable law of nature in social science relating the price to the rate of return on an investment is described in a patent from Post-Science Institute ***“Quantitative Supply and Demand Model Based on Infinite Spreadsheet”*** (Pat. No. 6,078, 901).

In terms of application, the ignorance of the limit of freedom as described in the Infinite Spreadsheet (<http://www.infinitespreadsheet.com>) was the main cause of the Savings and Loan Crisis and the recent Subprime Woe. Both crises were caused by over-valuation or financial bubbles. Over-valuation in real estate is easily detected by the Infinite Spreadsheet. Briefly, the Infinite Spreadsheet simply says that an investor can name either the price or the rate of return, not both, because when the value of one is assigned, the other quantity will be determined by the rigorous mathematical relationship formulated in the Infinite Spreadsheet, which takes into consideration all the future consequences to infinity in time.

In the case of computer science or life science, the design criterion of permanence is achieved through complete automation and is nearly completely ignored in practice. All existing engineering designs and manufacturing processes create products with temporary life time. In computer science, most of the software budget is allocated for manual upgrade or maintenance. Based on the Infinite Spreadsheet, partially automated temporary software today have negative value because someone has to update and to maintain the software permanently; in an Infinite Spreadsheet calculation, the short-term gain in productivity would be far more outweighed by the permanent maintenance cost.