

# Rethinking Science and Scientific method: The General System Theory its Islamic source, local and global consequences

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# Agenda

- Introduction
- General system theory (GST) as a universal system language
- GST as an ultimate, optimal scientific and secular language of Islam i.e. A technological theory.
- Management as a cybernetic (circular) central model and moving in an anti-clockwise pattern (A unified approach of worshipping of the universe) representing science in its optimal form
- Decision making as a subsystem and central nerve of management functions i.e. Dieses, color
- Decision making as a central system in its own right
- Role of (ICT systems, 7 layers, 5 components (circular model), dual(0,1) ) in supporting decision making
- Nature and scope of reality i.e. Islamic reality, misconceptualized
- Systems Science, Integration, Unification, Theory and Methodology are essential instruments for Islamic (systemic) change with regard to individuals, organizations and societies i.e. societal
- Conclusion

- Decision making problems as natural phenomena and they constitute systems on their own right
- Lack of correspondence between systemic and natural reality, and outdated mechanistic business models prevailing in Muslim countries (A mess)
- Linear, reductionist and mechanistic era obscure the representation and solution scope (rallying cry)
- Strategic, tactics, internal, external etc.. Are the relevant instruments for balancing internal needs and external pressures with regard to the decision making process (language in pairs)
- Using systemic instruments and techniques in decision making to extend the natural identity existing in the human mind with that of the natural reality

- GST is the natural and organizational phenomena to match the complexity in the reality
- Analysis and design of IS is associated with Big Bang and Big Crunch theories which are ascertained by the Quran (i.e. process of decomposition).
- GST is a global, sustainable and total quality model
- GST is a psychologically valid scientific and viable method (Miller) and it is an information science theory
- All the characteristics of a successful leader (and more) is found in the GST i.e. GST is a leadership theory.
- General system theory (absolute)versus general theory of relativity

• GST is a trans-disciplinary and multidisciplinary approach to tackle complex decisions in hard and soft sciences in contrast to the mechanistic models which are static , stagnant , and fragmented

- GST is the basis for ERP and data warehouse systems (Internet as global IS)
- GST as the theory behind ICT and its consequences (*C.S no longer part of math.*)
- GST is the basis for economics and finance i.e. GST is the whole theory behind convergence
- Limitations of current economic and fin. mdls

- GST is the basis for software engineering (methodology)
- GST is the basis for business process re-engineering and restructuring (basic new structuration theory)
- GST is the basis for the operating system
- GST is the basis for electronic circuits
- GST is the basis for network systems (Layers, computers, topologies) and Secondary storage devices (direct access)
- GST is the basis for (ISO) and (OSI)
- The structured approach (based upon GST) has to be redefined or revisited to reflect a true UML aspects
- Integrating technology with real life systemic realities (one philosophy) resulting in emergent properties i.e.. standardization

- As an Islamic phenomena the world is perceived from a unified structured approach i.e. systemic approach (Ontology) and the source of this type of knowledge is found in the Holy Quran and the Sunna of Prophet Mohammed (peace be upon him) (Epistemology)
- The Arabic language is the sole systemic and scientific (also religious) language of the system age i.e. a truly natural language (Best and optimal for programming)
- GST is associated with centrality i.e. central tendency, dispersion and Haniffia (the S shape of the N.D.) and central limit theorem i.e. global convergence
- GST necessitates being proactive rather than reactive

- GST is the basis for normal phenomena that even the mechanistic, probabilistic distributions will converge to (C.L.T)
- GST represents fact and truth in its absolute form i.e. natural theory following the general rules of Allah (both spiritually and emotionally)
- GST means one religion, one scientific theory and one systemic reality and all parts of universal Islamic phenomena i.e. universal religion with a universal theory of science
- GST is the central instrument to overwhelm capitalism and socialism in their extreme forms

- GST as socio-organizational phenomena based upon the Sharia LAW (the universal social theory)
- GST as a universal, absolute problem solver/resolver in direct contrast with the relative, suboptimizing mechanistic approach
- GST is a systemic, viable , enlightening phenomena and it is post-post modernistic approach i.e. a phenomology theory
- GST is an optimal scientific phenomena i.e. the sole scientific methodology, and information systems (central nerve) is a model for other disciplines to follow
- GST is an alternative model for science i.e. parts cannot represent wholes (systemic reality)

- GST is a competitive business model for Muslims
- GST is ultimately an Islamic phenomena i.e. socially constructed technology
- GST constitutes the natural identity for Muslims (secular and religious i.e. unified whole)
- GST is an instrument to unify science (methodology) and technology (philosophy)
- GST is an instrument for balanced growth and development associated with social, psychological, political, economical and managerial aspects and congruent with the Sudanese culture and value system (technology)

Systemic approach as a paradigm and philosophical shift from the traditional linear and partial approach which dominates in Muslim countries (identity in crises)

- GST redesigns the ideology, philosophy and structure of science to become systems on their own i.e. science is an Islamic phenomena (sense of ownership)
- Any real life human phenomena (design, action, behavior etc..) will not work in a scientific optimal way unless it follows the general structure of Islamic phenomena (Any unsystemic phenomena will converge –voluntary or involuntary to GST type of system).
- Any phenomena deviates from GST is a 'Mess' (inverse system) following only the straight path (vertical)

- GST is open, synergistic and the sole computing (ICT) theory (hardware, software, communication and information)
- GST is the sole optimally scientific (secular) and religious language. Constituting Unified and Universal *Modeling* Language, not like OOL which is linear, partial and mechanistic (mess) (the lowest of the low)
- GST is the optimal problem solver regarding local and global aspects alike

- GST is a learning process in evolutionary context i.e. need to be institutionalized (systemized) given its origin and roots (learning methodology (new approach))
- GST is the ideal instrument to remodel, redefine and rethink current social, psychological, economic, legal, political and educational problems prevailing in the 21 century
- GST represents 'theory' for soft and hard sciences with global consequences (highest ever model) with the best value system known to man

- Convergence of the mathematical types of equations ubiquitous in our tiny planet, into cybernetic models must be the over-riding goal of any Muslim scholar (IS Models and system models). I.e. Upgrading science and technology i.e. new math forms is a mess
- The system science (GST) is associated with enlightenment, progress and evolution within systems (species) (biology) and not between systems (methodology of development) i.e. GST is an evolving science in its optimal form that can lead to revolutionary impacts
- GST is a holistic approach (unlike the partial approach) that constitutes the optimal scientific method ever (all traditional types of methods must converge to it)
- Interpreting from a systemic perspective is the best research approach to investigate dynamic and systemic reality. Shifting the control from man to Allah (SWT)

- Redefining science and information, redefining the learning process, redefining the educational system (in Arabic the words are taken from one source).
- Information system model (also related to science –in Arabic), based upon the structured approach of GST, to replace the outdated, mechanistic, linear, reductionist and partial science models (messy). This process will be called 'humanizing' science and technology making use of the cybernetic model
- Thus IS will be redefined and its implications will be felt in each and every discipline (iterative )
- System and information system models must be ubiquitous models in Sudanese and Muslim countries i.e. dominating the educational sphere i.e. departments and PhD programs.

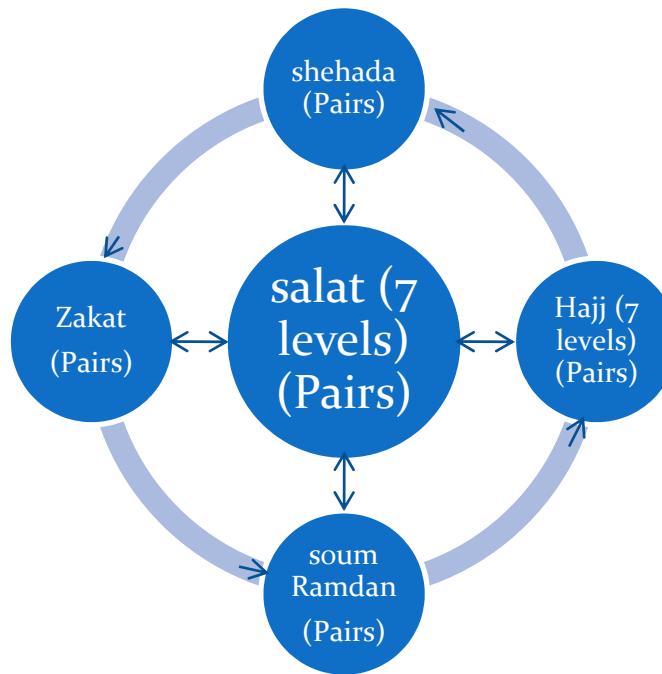
- combination, to be used, which will take the form of system science and information system, is the medium to be used across the hard and soft sciences.
- The university and the universal system language, fragmentation of science, a standardization approach (Central) and unification which means total Islamization of the universe i.e. GST is an ultimate Islamic Language
- Science, technology, can be perceived as parts of the universe that must submit to Allah (SWT)
- GST means unification of religion, unification of science and unification of theory i.e. total Islamization process.
- Fallacies : string theory, Statistical estimation theory, OOL, AI theories, Nano technology, Genetic Engineering Darwin theory, interest-based economy (Mess), mathematics is a mess (only simple math).

- Fallacies: objective social theory, rational economic theory, objective and rational political theory I.e. theories outside the confine of GST (mess)
- GST as Research theory (science) and as a research methodology (scientific method)
- Psychology is best medium for change and it is in crises (both biological and social components) effect of the machine metaphor (value-laden)
- Thinking, bounding and then learning
- Any phenomena (local or global) to be conceptualized and modeled from an Islamic perspective
- GST means complementarity at the theoretical and methodological level

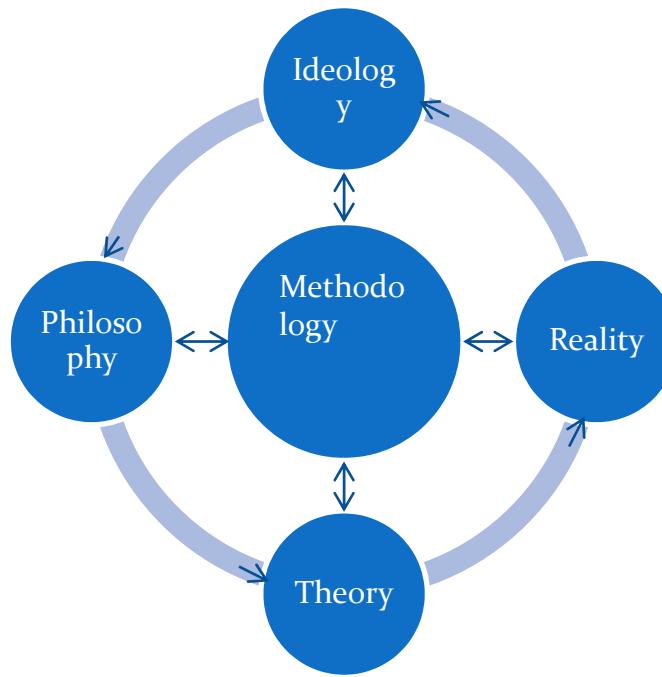
# **The fallacy of Psychology and psychoanalysis (mechanistic View) Educational psychology in crises, new philosophically distinct approach Mechanistic view and mental disorder (unsystemic, disorganization), Psychotherapy and Islamic perspective**

- Any phenomena is to be evaluated from an Islamic perspective (sole scientific view)
- Any information (being part and parcel from its source the Quran and Sunna) is to be interpreted as Islamic phenomena (dynamic systemic perspective)
- GST constitutes order, systemicity and organization
- Science, technology, research method and social attitudes times to unite
- GST constitutes absolute form of formality

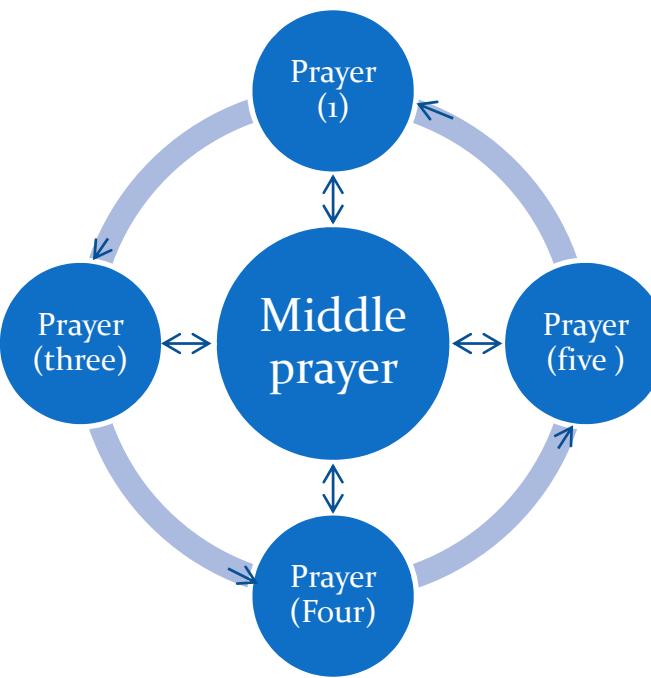
# Natural and sustainable system of Pillars



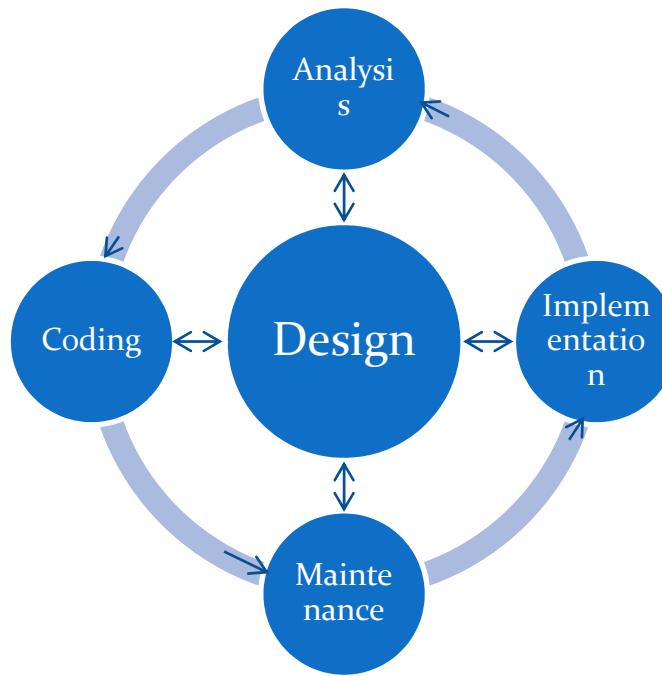
# Natural system of Organized and originated Science



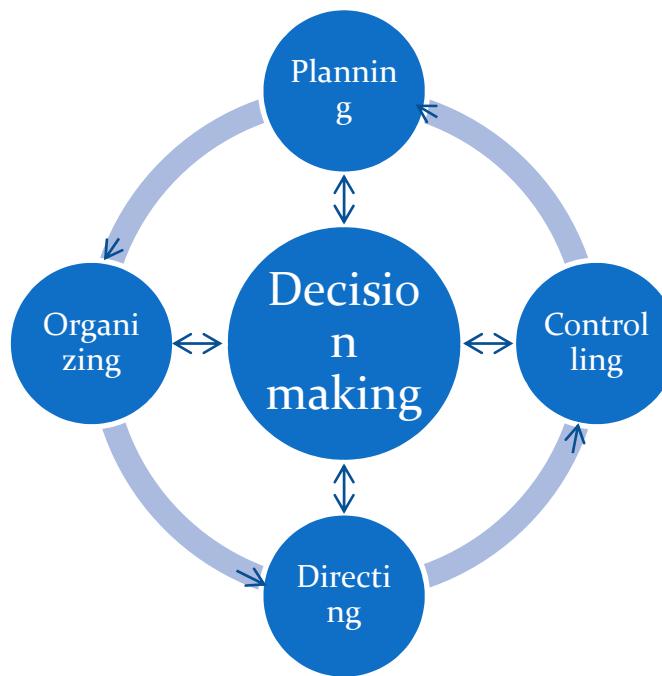
# Natural and sustainable system of Prayers



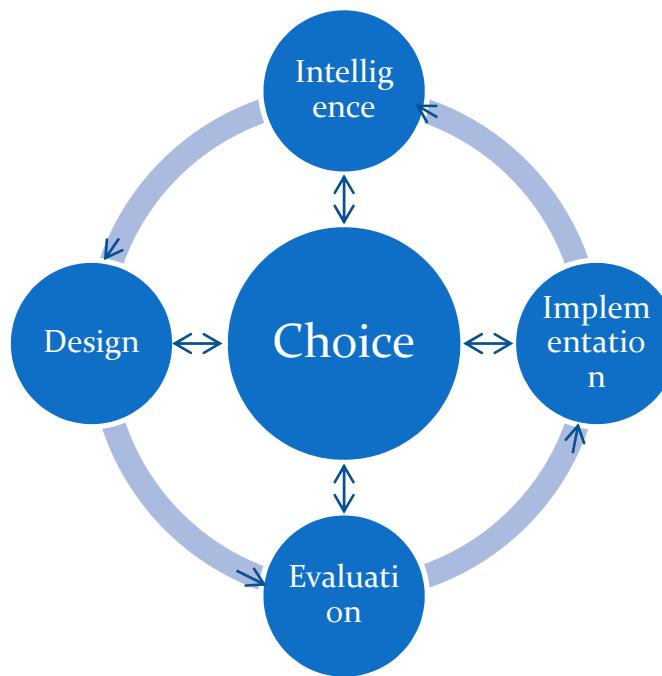
# **Natural Methodology Of IS development (Evolutionary)**



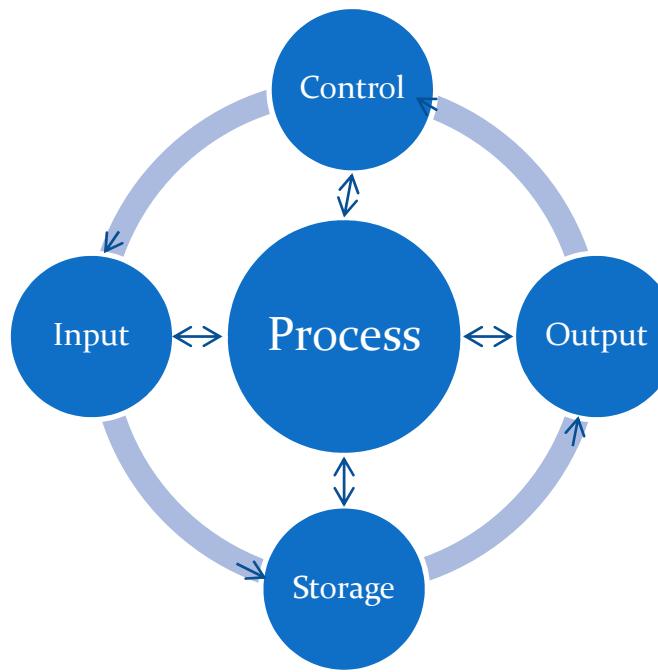
# Natural system of Management Functions (managerial theory)



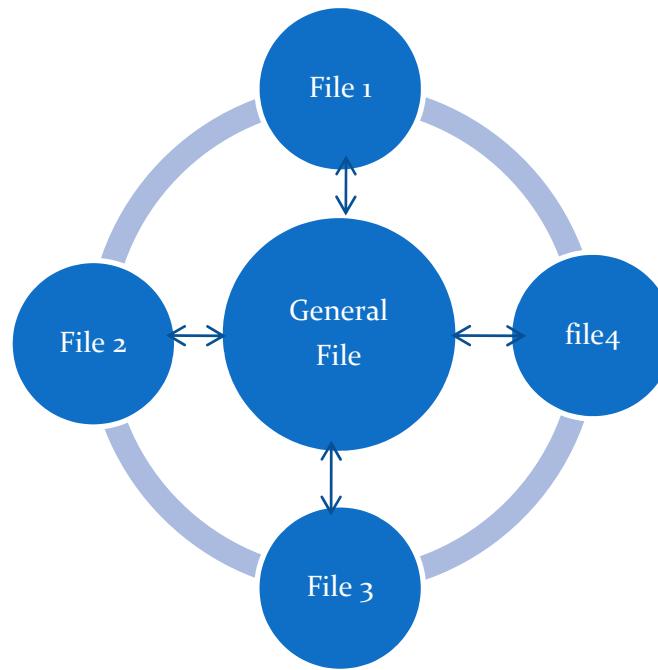
# Natural system of Decision making theory (Technology)



# Natural system of the Computer (Electronic circularity)



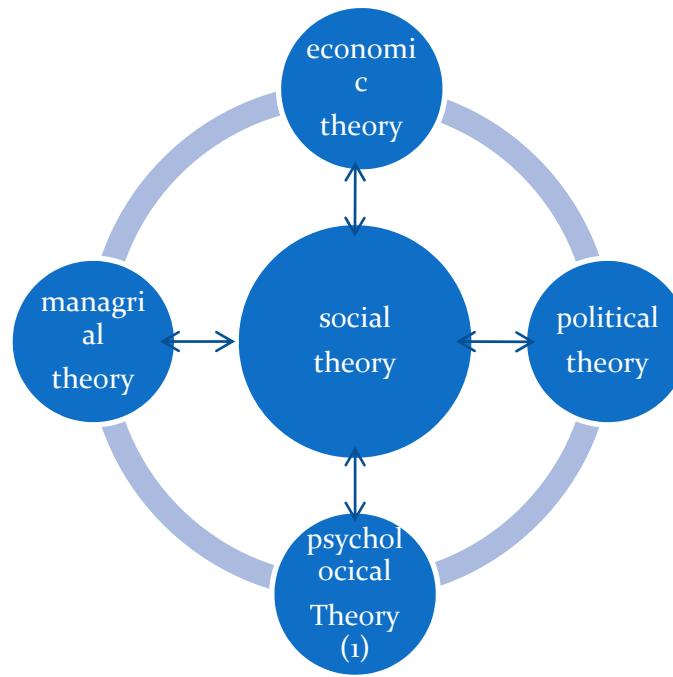
# Natural system of information system (data based management system)



# Natural systemic (scientifically ordered)Phenomena



# System-based Approach for soft Sciences Cybernetic Model: Development process





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