THE SCIENCE OF LAWS:
IMPACT ON 21st CENTURY
GOVERNANCE

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WHY A NEW SCIENCE?

TO INCREASE KNOWLEDGE OF LAWS AND LAWMAKING
TO IMPROVE GOVERNANCE AND THE RULE OF LAW

DISCUSSION

• GOVERNMENT
• LAWS
• TRADITIONAL LAWMAKING
• SCIENTIFIC LAWMAKING
• FUTURE EFFORTS
GOVERNMENT

• NECESSARY
  • ORGANIZATION
  • STABILITY
  • PROTECT RIGHTS
  • RESOLVE DISPUTES
DEMOCRACY

PEOPLE AS A WHOLE (CITIZENRY) CONSTITUTE THE SOVEREIGN OF GOVERNMENT

DEMOCRACY

PURPOSE Secure Rights, Liberty of People (D. of Ind.)

OBLIGATION Solve Problems
RIGHTS AND LIBERTY
(Measurable Parameters)

• Human Rights
• Living Standards
• Quality of Life

LAWS
LAWS

• PROBLEM SOLVING MEANS OF GOV’T
• SOLVE PROBLEMS

LAWS

• Human – Made Tools
• A Form of Software
• Consume Resources
• Have Side Effects
• Produce Results
SERIOUS PROBLEM

Laws Fail to Solve Societal Problems

FAILURE OF LAWS

- Millions of Laws (global)
- Problems Not Solved
- War, Poverty, Abuse of Human Rights, Hunger, Financial Crises, Lack of Potable Water...
REASON FOR FAILURE

TRADITIONAL METHOD OF LAWMAKING
(The Legislative Process)
TRADITIONAL METHOD OF LAWMAKING

- Used by All Gov’t’s
- Make Laws

TRADITIONAL METHOD

Fatally Flawed As A Problem Solving Process
TRADITIONAL METHOD

Not a Problem Solving Process (!)

IRONY

- Governments Obligated to Solve Problems
- Use Process Not Designed to Solve Problems
TRADITIONAL METHOD

- Begins with an Idea for a Law
- Ends with Enactment of a Law
TRADITIONAL METHOD

LACKS OR DEFICIENT IN:

1. Problem Definition
2. Statement of Purpose
3. Design Expertise

4. Assessment Costs / Risks
5. Knowledge (!)
6. Follow Up Evaluation
RESULT OF LAWMAKING

↑ Size, Cost, Complexity of Bodies of Laws

Size of Body of Laws

Time →
RESULT OF LAWMAKING

- Poorly Designed Laws
- Unknown Number of Laws
  Useless or Harmful
- Governments “Flying Blind”

↑ Usefulness of Laws to the People

Number of Laws →
RESULT OF LAWMAKING

• Problems Persist
• Selective Enforcement of Laws
  • Violates Rule of Law
  • Threatens Democracy

HOW TO CORRECT THE FAILURE OF LAWMAKING?
ANSWER: SCIENCE

- Expand Science to Encompass Laws and Lawmaking
- Create a New Science of Laws
Rationale – Science Brings to Lawmaking

• Knowledge
• Expertise
• Ethics
• Quality

SCIENCE OF LAWS

• Investigative Science
• Creative Science
INVESTIGATIVE SCIENCE

Answers the Question:

What is the Relationship Between the Laws of Government and the Well Being of the People?

INVESTIGATIVE SCIENCE

• Analyzes Outcomes of Laws
• Defines Mechanics (Cause and Effects) of Laws
INVESTIGATIVE SCIENCE

• Accumulates Knowledge (History) of Laws
• Enable Governments to Avoid Mistakes of the Past

INVESTIGATIVE SCIENCE

Basis of a Quality Assurance (QA) Program for Laws
QA For Laws

Analysis: Is a Given Law "Necessary and Proper?"

• If Not, REPEAL
CREATIVE SCIENCE

Applies Engineering Methodologies to Lawmaking

• Quality Design (QD) Standards
• Engineering “Best Practices”
• Ethical Standards
CREATIVE SCIENCE

Multi-Disciplinary Engineering

• Systems / Software Engineering
• Economics, Law, Sociology
• Statistics, Psychology, Human Factors...

CREATIVE SCIENCE

• Design Individual Laws
• Design Systems of Laws
• A Challenge for Systems Engineering
SCIENTIFIC LAWMAKING

- Synergy / Government and Science
- Goal of Both Gov’t and Science:
  - Satisfy the Purpose of Democracy

ROLE OF LEGISLATORS

“TRUSTEES” NOT “LAWMAKERS”

- Debate Issues and “Set Policy”
- Enact, Repeal Laws
- Oversee Quality Programs
- Not “Make Laws”
ROLE OF ENGINEERS, SCIENTISTS

Designers / Analysts

• Create, Optimize Laws (QD, QI)
• Analyze Laws (QA)

TRADITIONAL LAWMAKING

Idea (Input)  →  Laws (Output)
SCIENTIFIC LAWMAKING
Feedback Control System

Societal Problems / Goals

Design of Laws (QD, QI)

Law Solutions (Satisfy the Purpose of Democracy)

QA

Non-Productive Laws Repealed

SCIENTIFIC LAWMAKING (F-B)

Self-correcting in the direction of optimum outcomes in the best interests of the people
FUTURE IMPACT OF THE SCIENCE OF LAWS

1) LAWMAKING BECOMES KNOWLEDGE INDUSTRY

2) QUALITY AND ETHICAL STANDARDS EST’D

IMPACT

3) KNOWLEDGE GROWS

4) ▼ SIZE and COST of BODY of LAWS
IMPACT

5) PROBLEMS SOLVED BY EVER-IMPROVING MEANS

6) PUBLIC RESPECTS GOV’T AND THE RULE OF LAW

IMPACT

7) EFFICACIOUS SOLUTION OF SOCIETAL PROBLEMS

1. WAR*
2. POVERTY
3. ABUSE OF HUMAN RIGHTS
4. PRIVATION (WATER, SANITATION...)
5. POLLUTION...
SCIENCE OF LAWS
CURRENT STATUS

CURRENT STATUS
Hold Annual Conferences
• Partner with INCOSE
• Peer Reviewed Papers
CURRENT STATUS

• Science of Laws Web Site (www.scienceoflaws.org)
• On-Line Journal of the Science of Laws

CURRENT STATUS

• Open Source Accumulated Index of Abstracts of the Science of Laws on Web
SCIENCE OF LAWS

FUTURE WORK

Update and Expand Index of Scientific Abstracts of Laws and Related Methodologies
FUTURE WORK

Develop Quality Design Standards for Laws (ISO)

FUTURE WORK

Begin Trials with Modeling and Simulation of New Laws
FUTURE WORK

Create Society of Peers of the Science of Laws

FUTURE WORK

Develop College Curricula

- PhD Investigative Science
- PhD Creative Science
SUMMARY

Traditional Lawmaking

• Failure at Solving Problems
SUMMARY
Sci/Laws Will Correct Defects of the Traditional Method

SUMMARY
Sci/Laws Will Increase Knowledge of Laws and Lawmaking
SUMMARY

Sci/Laws* Will Improve the Performance of Governments and the Rule of Law

THANK YOU

www.scienceoflaws.org
THE IDEAL LAW

- Simply stated, clear
- Completely effective
- Minimum costs, burdens
- User friendly
- Synergy with other laws
- No adverse side effects

↑

Efficacy Of Useful Products

Cycles of QD / QA / QI