PRACTICE MAKES PERFECT

LECTURE 1.1 CONNECTICUT'S SPEEDER-FRIENDLY CRACKDOWN (THE NEW YORK TIMES) -- JS
LECTURE 1.2 ACADEMIC PORK: EDUCATORS FAULT, PRAISE PAYMENTS (THE BOSTON GLOBE) -- JS
LECTURE 1.3 HOW NOT TO RUN A RAILROAD (BRITISH RAIL) (THE ECONOMIST) -- JS
LECTURE 2.4 SCIENCE AND PROFIT (THE ECONOMIST) -- FF
LECTURE 3.1 OIL AND CLOUD-FORESTS DON'T MIX (THE ECONOMIST) -- JS
LECTURE 3.2 COMMENTARY: GOT A BILL TO PASS? WRAP IT IN THE FLAG! (BUSINESS WEEK) -- JS
LECTURE 3.3 COLLEGES GIVING PROBERS DATA ON FOREIGN STUDENTS (THE BOSTON GLOBE) -- JS
LECTURE 3.5 LANGUAGE AND IMAGES -- IDEAS ABOUT THIS IN THE WAKE OF SEPT 11 -- NO ARTICLE -- JS
LECTURE 4.1 COUNTING LOSSES, (FIRE) DEPARTMENT RETHINKS FIGHTING EVERY FIRE (THE NEW YORK TIMES) -- DH
LECTURE 4.2 A SELF-SUFFICIENCY ENERGY POLICY? (THE BOSTON GLOBE) -- DH
LECTURE 1.4 G.E. IS ACCUSED OF TRYING TO UNDERCUT ORDER TO DREDGE HUDSON RIVER (THE NEW YORK TIMES) -- JS

BLOCK 1b
Lecture 1.4: Reprise

DISPLAYS

Speaker: Prof. Joseph M. Sussman
MIT

October 26, 2001
BLOCK 1

INTRODUCTORY IDEAS
SNOWFALL

IT IS A MESSY WORLD

UNCERTAINTY IS EVERYWHERE
NO RIGHT ANSWER
COMPLEXITY
LIMITED RATIONALITY
DIFFERENT VALUE FRAMES -- "WHERE YOU STAND DEPENDS ON WHERE YOU SIT"
EQUITY
<table>
<thead>
<tr>
<th>MODELS/ FRAMEWORKS</th>
<th>DOMAIN</th>
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<td><strong>BLOCK 2</strong></td>
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<tr>
<td>• Architecture</td>
<td>Intellectual Property</td>
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<td><strong>BLOCK 3</strong></td>
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<tr>
<td>• Cost/ Benefit Analysis</td>
<td>Large Civil Systems/ Environment/ Energy</td>
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<td><strong>BLOCK 4</strong></td>
<td></td>
</tr>
<tr>
<td>• Probabilistic Risk Assessment/ Game Theory</td>
<td>National Missile/ Defense</td>
</tr>
</tbody>
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**BLOCK 2**

INTELLECTUAL PROPERTY

ARCHITECTURE
KINDS OF ARCHITECTURE

ARCHITECTURE AS PER LESSIG

SYSTEM ARCHITECTURE

ITS ARCHITECTURE
  NATIONAL
  REGIONAL

ARCHITECTURE: JUST “DOES THE JOB” UNTIL SOMEONE STOPS IT

LAW

NORMS/CULTURE

HUMAN AGENCY INVOLVED

MARKETS
BLOCK 3

LARGE CIVIL SYSTEMS

CBA

SNAKE RIVER

BLOCK 4

SPACE / AEROSPACE SYSTEMS

PROBABILISTIC RISK ASSESSMENT/
GAME THEORY
COALITIONS

COMPROMISE

DYNAMICS OF GROUPS

“SYSTEM DEVELOPMENT IN THE FEDERAL GOVERNMENT: HOW TECHNOLOGY INFLUENCES OUTCOMES”

HANS K. KLEIN
TPP, TMP
FACULTY, SCHOOL OF PUBLIC POLICY
GEORGIA INSTITUTE OF TECHNOLOGY

COALITIONAL POLITICS VS. PROGRAM ADMINISTRATION

COALITIONS -- POLITICAL SUPPORT REQUIRES SATISFYING A BROAD SET OF ACTORS

PROGRAM ADMINISTRATION -- REQUIRES FLEXIBILITY FOR TECHNOCAL EXPLORATION
HOW TO MAKE PROGRAMS ROBUST

RAMIFICATIONS -- EXPAND IN NEW DIRECTIONS, NEW FUNCTIONS

AGGREGATION -- NEW ACTORS CAN EASILY JOIN

GRANULARITY -- To respond to budgetary instability -- not all or nothing -- scale up or scale down

MODULARITY -- Dysfunctional subsystems should not undermine entire system

SYSTEMS THAT DO ALL OF THESE ARE COALITIONAL SYSTEMS

INTelligent TRANSPORTATION SYSTEMS (ITS) HAD ALL OF THESE FEATURES

SPACE SHUTTLE HAD SOME

SUPER-CONDUCTING SUPER COLLIDER (SSC) HAD SOME

WHERE ARE WE GOING IN THE REST OF ESD.10?

POLITICAL ECONOMY

COMPLEX POLICY ANALYSIS

MEXICO CITY

NEGOTIATIONS
NESTED COMPLEXITY

POLICY SYSTEM

PHYSICAL SYSTEM