



Image: European Space Agency

Information and Communications Technology and Environmental Regulation: Critical Perspectives

Rónán Kennedy

Disclosure as a Regulatory Tool

- * Public distribution of information as a driver for change ('reflexive' regulation)
- * History:
 - * 1930s: financial regulation
 - * 1960s/70s: environmental law, health and safety
 - * Now: widely used

Rationales for Disclosure

- * Signal to stock markets
- * Social impact ('naming and shaming')
- * Benchmarking against peers
- * Faster regulatory response
- * Overcoming individual bounded rationality

Difficulties with Disclosure

- * Replicating the weaknesses of command-and-control
- * Strategic reporting and gaming the system
- * Accuracy of information
- * Intractable individual habits
- * Unpredictable results
- * Difficulties in analysing cost/benefit
- * Muddying the rule of law

Improving Disclosure Based Regimes

- ✱ Standardised methods and metrics
- ✱ Making behaviour change a norm
- ✱ Use as an element of or alternative to conventional regulation?

Information in Environmental Regulation

- * Often flawed and incomplete
- * ICT expanding the scope and span of control?
 - * Measurement often imprecise
 - * Costs difficult to estimate
 - * Methodologies rarely produce useful figures
- * More information is not necessarily better

Science in the Regulatory Process

- * Contested role:
 - * Objective truth or uncertain knowledge?
 - * Challenged as product of ideology
 - * 'Post-normal science'
- * Law and science: incompatible cultures?

Models in the Policy Making Process

- * Fundamental to constructing policy context:
 - * Catalyst for policy
 - * Structure for regulatory decision-making
 - * Mechanism for collaboration
- * Often codified in software

Difficulties with Models

- ✱ Scientific literacy of audience?
- ✱ Accuracy and currency of models?
- ✱ Data: Accurate? Verifiable? Consistent?
- ✱ Over-optimistic or over-simplistic use
- ✱ Models as proxy for real debate
- ✱ Risk of manipulation

E-government Perspectives

- * Focus on the citizens as consumer
- * Sees government activity as single step decision-making
- * Significant gap in research on “e-regulation”

E-Regulation

- * “The use of ICT *within* regulators and those who deal with them, such as NGOs, as an integral part of the process of measurement, assessment and feedback which is central to regulation.”
- * Cannot simply re-use private sector experiences

ICT and Regulation

- * Benefits: cheaper, more, quicker, better, new
- * Improvements:
 - * Better informed
 - * More targeted
 - * More iterative
 - * More transparent and democratic

Difficulties with Regulation

- * ICT not neutral or deterministic
- * Impact on existing imbalances?
- * Disempowering external actors
- * Brake on change:
 - * Institutional
 - * Organisational
 - * Procedural

ICT and Legal Processes

- * Legal processes neither simple nor linear
- * Not easily modelled by logic or expert systems
- * Risk of destructive feedback cycle
- * ICT as embedded and entrenched infrastructure

Recommendations

- ✱ Design principles:
 - ✱ Flexibility
 - ✱ Rule of law
 - ✱ Human rights
 - ✱ Open, re-usable data