Towards a revised model of Code and social regulation

Dr Richard Jones
School of Law, University of Edinburgh
richard.jones@ed.ac.uk
Some suggested revisions to Lessig's model

1) Distinction between Code, ‘architecture’ and technology (Code is a subset of ‘architecture’)
2) Intentional regulation v. unintended consequences
3) Possibility of ‘regulatory dissonance’
4) Difference between what is (positive; social forces), what can be (future regulation), and what should be (political theory; ethics)
5) Comparing Lessig’s and Bottoms’ models
6) Add a fifth dimension of regulation?
Some suggested revisions (cont.)

7) Need to model resistance to regulation
8) Assumption of regulatory desire, and the case for modelling regulators as themselves being within a social forces model
9) Architecture (and hence Code) has varying degrees of ‘fixity’
1. Distinction between Code, Architecture and technology

- From the perspective of IP/IT it makes sense to use Code, architecture and technology as synonyms.
- But from a wider perspective of social regulation it makes more sense to regard Code as a subset of Architecture – viz. Code is the Architectural mode within the area of the Internet.
- Within crime prevention, SCP is Architectural mode.
- Not all technology is regulatory (or if it is it is only weakly, unintentionally so).
2. Intentional regulation v. unintended consequences

- Lessig conflates two different meanings of terms like ‘regulation’ and ‘control’
- First meaning = measures deliberately intended to regulate or control – e.g. DRM technologies
- Second meaning = effective ‘structural’ constraints of a technology or system, which may well be unintended consequences
- Big difference between the two: political, moral, legal
- So, distinguish between regulation and social forces
- (Unintended outcome could ‘become’ deliberate regulation through omission, but still makes sense to separate 1 from 2.)
3. Possibility of ‘regulatory dissonance’

• Just as a technology may unintentionally constrain action, the opposite is also possible: an intentional regulatory measure may fail to work properly.

• Code doesn’t always work as intended. Why not?

• Within Lessig’s broad meaning of ‘regulation’, we can think of this as regulatory dissonance: conflicting pressures from different regulatory modes (Lessig mentions some of these in book & articles – e.g. between norms and law, or economy and Code).

• In my formulation, failure is explicable in terms of social forces being more powerful than regulatory measure.
4. Difference between is, can, and should

- So my argument is that we can use Lessig’s regulatory model not only to model how regulation can be brought about, but also to model social forces at play (is) (= sociological description)
- In fact, we need a model that accounts for existing social forces at play in addition to regulation
- Why? Because modelling social forces increases our understanding of social processes, and hence increases likelihood of regulatory effectiveness
- (All of which is separate from questions of ‘should’ - privacy, liberty, morality, fairness etc.)
5. Comparing Lessig’s and Bottoms’ models

• In context of trying to understand (non-) compliance in prisons and with community penalties, Bottoms (1999; 2001) develops a model of ‘Principal mechanisms underpinning compliant behaviour’
• Developed entirely independently, model nonetheless has certain similarities to Lessig’s
5. (cont.) Bottoms’ model (2001: 90):

A. Instrumental/prudential compliance
   1) Incentives
   2) Disincentives

B. Normative compliance
   1) Acceptance of/belief in norm
   2) Attachment leading to compliance
   3) Legitimacy

C. Constraint-based compliance
   1) Physical restrictions (a) Natural or (b) Imposed
   2) Restrictions on access to target
   3) Structural constraints

D. Compliance based on habit or routine
5. Comparing Lessig’s and Bottoms’ models

• Certain striking similarities
• A. Instrumental seems similar to Economy and Law
• C. (1) (a), C. (3), and D seem to describe unintended, structural factors (social forces)
• So both Lessig’s and Bottoms’ models cover many of the same dimensions
• And both conflate (Lessig) or mix (Bottoms) intended measures with unintended (emergent) outcomes
6. Add ‘Psychology’ as a fifth dimension?

- A ‘regulating’ dimension to social life not accounted for by Lessig’s original model is ‘Psychology’
- Psychology regulates individual and group activities, and can be manipulated to effect (marketing, advertising, desire, like/dislike, status...)
- It’s important in relation to Internet (anonymity, group dynamics, interactions, loyalty, desire, hostility...)
- Add Psychology as fifth? Or use it to replace Norms?
- Or move Norms to a separate social forces model, because actually Norms aren’t directly regulable?
7. Need to model resistance

- Resistance, including resistance to Code, is not always futile.
- Like some criminals, the regulated may be strongly motivated (and have techniques) to resist regulation. Code doesn’t always work.
- Software, hardware manufacturers: market dominance; profits
- Code: borrow from R.V. Clarke’s Situational Crime Prevention sociology/psychology?: SCP is not perfect, but a well-designed SCP measure is effective for most people most of the time (because of thresholds, difficulty, commitment)
- Useful in distinguishing crackers from lay users?
- Distinguish criminals from the regulated
- Resistance can be modelled along same modes as Lessig’s original model, including Code
- Bottoms: Perceived legitimacy is crucial for compliance
8. Assumption of regulatory desire, and the case for modelling regulators as themselves regulated

- Lessig assumes regulators want to regulate
- Yet research on police, for instance, suggests this assumption is not always correct – police officers may be influenced by economics, norms, not just law
- We can think of regulators as themselves subject to regulation and social forces
- We then get multiple ‘nesting’, ‘tiering’ or ‘levels’ of regulation and of forces
- (Within this, Code (and other forms of Architecture) has varying degrees of effectiveness)
9. Architecture (and hence Code) has varying degrees of ‘fixity’

- Think of Architecture as being comprised of a spectrum of fixity, from fixed to instantly-changeable
- Since Code is a subset of Architecture, this applies to Code too
- Hardware is more ‘fixed’ than software (usually)
- Some software is more ‘fixed’ than other software
- Thinking of Code in this way helps show that in some ways Code is simply another variant of Architecture
- However, it also identifies an aspect special to Code (and Law), namely the rapidity with which it can (sometimes) be changed
- Degree of fixity has important implications regarding longevity, compatibility, adaptability, competition.
Conclusion

Lessig’s notion of Code-as-a-means-of-regulating has much to commend it. From a sociological point of view, there are various ways, identified in this presentation, by which his model can be augmented:

- Regulatory strategies vs. structural constraints (forces)
- Degree of fixity along a spectrum
- Modelling the implementers of Code as themselves subject to regulatory strategies and social forces

Re. Architecture (incl. Code), most significantly:

The University of Edinburgh