Can Legal Theory Handle Complexity?

The marriage between mobile communication and internet breeds strange social creatures – often called complex, adaptive, networked systems. The types of system that interest legal theory are formed by collections of deliberative agents who somehow share interests and dependencies. Such systems – lets call them complexes – tend to produce emergent behaviors. Eisenhower's notion of the USA Military-Industrial Complex is an excellent real-life example.

To us, complexes of interest feed on mixtures of techno-innovations and socially appealing services. They produce emergent waves of innovation that sweep through business, political and cultural architectures. Web-mediated media (Youtube, BitTorrent), trade (Amazon, Alibaba), socialisation (Facebook, RenRen), information (Wikipedia) and publishing/profiling (Google, Baidu) are example services that make new complexes emerge. The users (both active and passive) of such services form them. Some complexes are economically disruptive in a very visible manner, e.g. when we look around us and wonder what happened to the shops in Main Street.

Disruptive complexes put more and more pressures on individual agents' capacities to comprehend, to decide autonomously and to be responsible (in the traditional sense) for their complex-related behaviors. Such is reinforced by the exploding popularity and use of Apps and Apps' updating practices. For the service provider, Apps combine customer-profiling with use-herding potential. For the customer, Apps reduce transaction costs to the verge of making the transactions themselves invisible to the user. In this complex, personal data become the currency with which the customer pays for using the App, while these very data become the commodity that the service provider cashes in on, either by herding user behavior or by selling user profiles.

As legal theorists we have some questions here. The foundation of our trade is a conception of individual freedom that supports liability for deliberative behaviors. Thus: pressures on individual agents' capacities to comprehend, to decide autonomously and to be responsible may disrupt the basic paradigms of our discipline. This is worthy of investigation, when we value informed regulation in our society.

Investigating the potential and mechanisms of complexes that disrupt our legal system surely is not an issue for legal theory in isolation. It most likely requires "blended research" by a whole gamut of disciplines, including legal theory. But the condition of making cross-disciplinary teams available for research projects is very hard to realise.

First, blending the results of different disciplinary efforts is notoriously difficult, as each discipline tends to develop its own technical language for its own specific specialisations. 'Tort' is a different concept for legal and for non-legal specialists, as 'rational choice' rings differently to economic and non-economic specialists, as 'culture' is a different concept for anthropologists and non-anthropologists and as 'inflation' is a different concept for cosmologists and non-cosmologists. These differences are tricky, as they tend to nurse specialist identity.

Secondly, for authentically blending cross-disciplinary perspectives on complex problems we need something that is remarkably analogous to what is needed for public choice: informed consent (about consequences to be expected), and trust (in the models designed and in the techniques applied by specialists that compute the probabilities of these consequences to occur).

Third, complexes are complex adaptive systems as studied by complexity theorists. Complexity theory is quickly becoming quite presentable since Steven Hawking replied that in his opinion the twenty-first century would be the "century of complexity" (when asked what he thought of the suggestion it would become the "century of physics.") Research institutes and platforms for studying complexes are multiplying rapidly. But one thing sticks out. Almost nowhere is legal theory taking part.

We find this disturbing. That is why we have invested in participating with the SFI to organise a Satellite Session on Complexity and the Law at the coming Conference on Complex Systems in September, in Amsterdam.