

Think or Be Damned

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Some researchers think mathematical laws can explain how societies stop working. We should find out if they're right.

Note. The American government shutdown referred to in the first paragraph occurred when one minority group of politicians refused to allow essential spending bills to pass, shutting down some parts of the US government for some time.

IF HISTORY really is, in the famous dictum, just one damned thing after another, the shutdown of the US government this week must rank as one of the damndest things in recent memory. A minority faction is holding the most powerful government in the world to ransom. This is not just theatrics: the attendant risks range from financial crisis to a cholera epidemic (see “The maths that saw the US shutdown coming”). We are getting an object lesson in why societies need effective governments.

The US isn't the only nominally democratic government that is dysfunctional, paralysed or deemed irrelevant by many of its citizens: consider Greece or Egypt, whose current plight is difficult to square with conventional political theory. Can science help?

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Government is not traditionally the domain of natural science. But a growing body of researchers think it should be. In their view, rather than being one damned thing after another, human history is just as much in thrall to natural laws as anthills or oceans. If so, the mathematics developed to understand such systems might also help explain how human societies work – and why they sometimes don't.

For example, some complexity theorists say that many civic institutions, built for a minimally networked world, are unfit for purpose. Our more populous and connected societies can't be governed via traditional hierarchies: these need to be displaced by more decentralised networks. In this regard, industry may be faster on the uptake, since many companies are already making that transition.

Other researchers discern a pattern in human affairs that, far from being unique to the modern world, goes back to the Romans and beyond. As societies evolve, predictable inequalities set in, which can rip those societies apart if allowed to run their course – as they could be doing right now in Egypt and Syria, the Eurozone, or even the US. Today's extremists are behaving much as their forebears did at this stage in their societies' development: carving out positions of power in the battle between powerful elites.

We don't yet know which of these theories, if any, is correct. But unlike the political ideologies of the past, they are based on data about how societies actually work: they can be tested and falsified. FuturICT, a Swiss-led consortium of complexity analysts, wants to do that on a grand scale, by building a billion-euro model of global systems. It hopes this might shed light on the causes and potential remedies of stagnation.

Projects like this could provide a test bed for alternative models of governance. But they will have a hard time gaining acceptance in the corridors of power. Few politicians are familiar with this emerging science, and many will be constitutionally disinclined to embrace it. That poses obstacles from the off: FuturICT's first bid for funding was rejected in favour of the Human Brain Project, which kicked off this week.

A billion euros is a lot of money, and the HBP is, on the whole, a deserving recipient. But it's a fraction of the sums being frittered away due to the deadlock on Capitol Hill. Funding a social test bed would be money well spent, if it helps us develop better governance – and stops us having to endure one damned thing after another.