The “Business” of Authentication

From Iron Cage to Silicon Enclosure?

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This research aims at relating the currently distant research domains of planning and distributed systems of authentication. The connection addressed here are the so called “smart contracts” and it is approached from an organizational studies perspective.

The multifaceted relations between data, cities, planning and everything that falls under the umbrella term “Smartcities” have become matter of considerable interest across diverse disciplines. All kinds of infrastructures like roads or telephony have always been tense between public and private interests. Traditionally, states had a paramount role in their regulation, by posing conditions to concessions to private actors or by owning them directly. International trade and relations have always posed challenges to state authorities, and this has become particularly evident with digital infrastructures. States find difficult to regulate and provide rights on open-ended crowds rather than a defined body politic.

Openendedness of digital infrastructures and non scarcity of information goods posed peculiar constraints to the possibilities of purely digital currencies. Indeed, if money were just data, its nearly zero replicability and distribution costs would allow immediate infinite inflation. Probably the main innovation brought about by Bitcoin is an architecture that allows authentication (by impeding double-spending) without having to rely on an external organization like a central bank. The same authentication architecture is being tried out beyond money, to automatize contracts. The promise here is to create buildings, cities, physical infrastructures if not whole territories, that self-regulate, extending a cybernetic utopia.

Far-fetched consequences are as interesting as unpredictable: authentication may be taken for granted in societies in which state regulation and rule of law have been perceived as reliable for decades or centuries. But this is not a universal condition. In prospect, reliable records may provide a basis for automatic contracts that exclude unreliable authentication authorities, thus reallocating elsewhere some traditional functions of bureaucracies. It is noteworthy that if smart contracts might sideline bureaucracy, they may still create something resembling the Iron Cage that Weber warned bureaucracy could have become. Such emerging “silicon enclosures” would be executing instructions designed at different points in time and space, thus displacing and translating political and social processes.

Saying more about future development of smart contracts would be pure speculation. This research would follow organizing processes related to automation of authentication and understand what novel forms of ‘sociation’ smart contracts entangle with. Studying those phenomena would help understanding the scope of non-state multiagent systems and their relevance for issues of ethics in contemporary societies.