Building Psychohistory: Harnessing Complexity Theory for Political Development
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Psychohistory is the name of the fictional science created by Prof. Isaac Asimov as the ultimate quantification of the human being. Nothing less than mankind’s fate could be predicted, steered and corrected through mathematics. It’s a powerful construct, although idealistic. The inherent indetermination of reality clashes with this dream of a time-independent machine. However, the ideal of “steering” the grand scheme of men might not be entirely out of reach. The distribution of power among humans is a matter of incredible complexity. Politics goes from Sweden to North Korea, with amazing diversity of models, concepts and tools. This paper builds on two fundamental ideas, a framework to apply complexity to that analysis. First, government can be simplified as a computational machine, to which the input is given on individuals preferences (either through voting or through direct action of restricted actors on non-democratic systems), bounded on its possible actions by hard restrictions (GNP, Population, etc) and soft ones (Cultural habits, etc), to which the output is given on policy results, which themselves iterate to the process. Laws and regulations can be treated as algorithms for the computation and allocation of output. This is based on the work of Prof Karl Deutsch, a researcher of Cybernetics and student of Prof Norbert Wiener. The second idea is that the different systems of government are distinct mainly by the range of individuals that give input, as well as the efficiency for computing that input in a way that is consistent, which can be modelled and evaluated using patterns drawn from the literature of complex systems and multi-agent interaction. Using those two concepts I intend to evaluate the main patterns of political arrangements, and point to the effectiveness in them, as well as the possibilities of leveraging transitions.

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SPEAKER BIOGRAPHY

Lucas da Silva Almeida is a researcher at the University of São Paulo on the program of Complex Systems Modelling. He holds a Bachelor in Political Science, and with four years of work on the federal government of Brasil. Inspired by science fiction, ancient history, oriental philosophy and other non- lienarities, he wants to insert complexity into the standard vocabulary for working on political problems, as well as find solutions to systemic problems that have been particularly persistent: inequality, bureaucracy, death and taxes.