

Review of: "Measuring Complexity using Information"

Walter Legnani¹

¹ Universidad Tecnológica Nacional

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Infodynamics is undoubtedly a very interesting topic in science. The paper presents different views of the concept of complexity and links it to information. There are aspects that must be taken into account and whose effect on the result of the work is not minor. For example, when speaking of free energy, it is not indicated whether the system is in thermodynamic equilibrium; in general, this concept is applied to the calculation of the useful work of thermodynamic systems in equilibrium. Similarly, when talking about the evolution of a system, it is not clear under what conditions such dynamics is considered, a very important aspect in the dynamics of systems is precisely their evolution outside the state of equilibrium and the contribution of irreversibility in the sense of Prigogine. The relationship between entropy and complexity has been widely studied, and entropy, being a measure of the information or lack of it to predict the next value of a time series, the work has a high potential use.

The assumption that information has a linear relationship with the other variables is not supported, as it is known that the relationship with complexity, for example, is not.

In general terms, it can be considered an interesting essay on a very complicated concept such as complexity, but it does not reach to be an exhaustive review of the state of the art.

It is a document that can be a starting point to deepen the concept of complexity in science; there have been in the XXI century other works that made a more detailed survey, but in the present work, it is linked to the evolution of systems in a more or less original way. By substantiating some of the strongest assumptions and extending the concept of complexity in some scientific fields, the paper may become a relevant document for researchers in many disciplines.