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An information analysis of the 'Celestial Object' concept in Copernican Revolution.

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The concept of information was introduced in the middle of the last century by Shannon and since then an entire branch of research has been developing into what is called Mathematical Theory of Communication which deals with studying the amount of information exchanged in a communication channel.
In this presentation we want to use the concept of information to analyze the conceptual change that occurred with the Copernican Revolution, limiting ourselves to the concept of Celestial Object. The taxonomy associated with this concept underwent a drastic change in the transition from Aristotelian philosophy to modern science. The concepts of star and planet were revised and the concept of satellite and comet were introduced. The familiar objects of astronomy were redistributed into these categories in hitherto unaccepted ways. The concept of comet also introduced a category of celestial bodies that was not admissible in Aristotelian Cosmology: a celestial object that is not permanent.
In the history of science, a tool used to study conceptual changes is that of dynamic frames - introduced by Barsalou in Cognitive Science - which allows us to identify the salient attributes of concepts and the relationships between them. Through it, we will try to analyze the dynamic frame associated with the concept of Celestial Object from an information point of view - before and after the Copernican Revolution - and we will highlight how it gradually lost the existing constraints between the attributes that characterized it, while requiring more information.

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