Two of the three basic laws that influenced bibliometrics/scientometrics/informetrics in the early 20th century are power laws. We discuss these laws and, in general, power laws as probability distributions.

We then turn to a description of a model for the accumulation of citations that predicts a power law. It has been studied for more than 50 years. The most recent popularization via graphs is known as preferential attachment. This model has been used as a possible explanation of power laws in a wide variety of contexts from distributions of cities to distributions of web links. We discuss its limitations and competitors in the context of citation analysis and the examination by Smolinsky-Lercher-McDaniel using Markov chains.