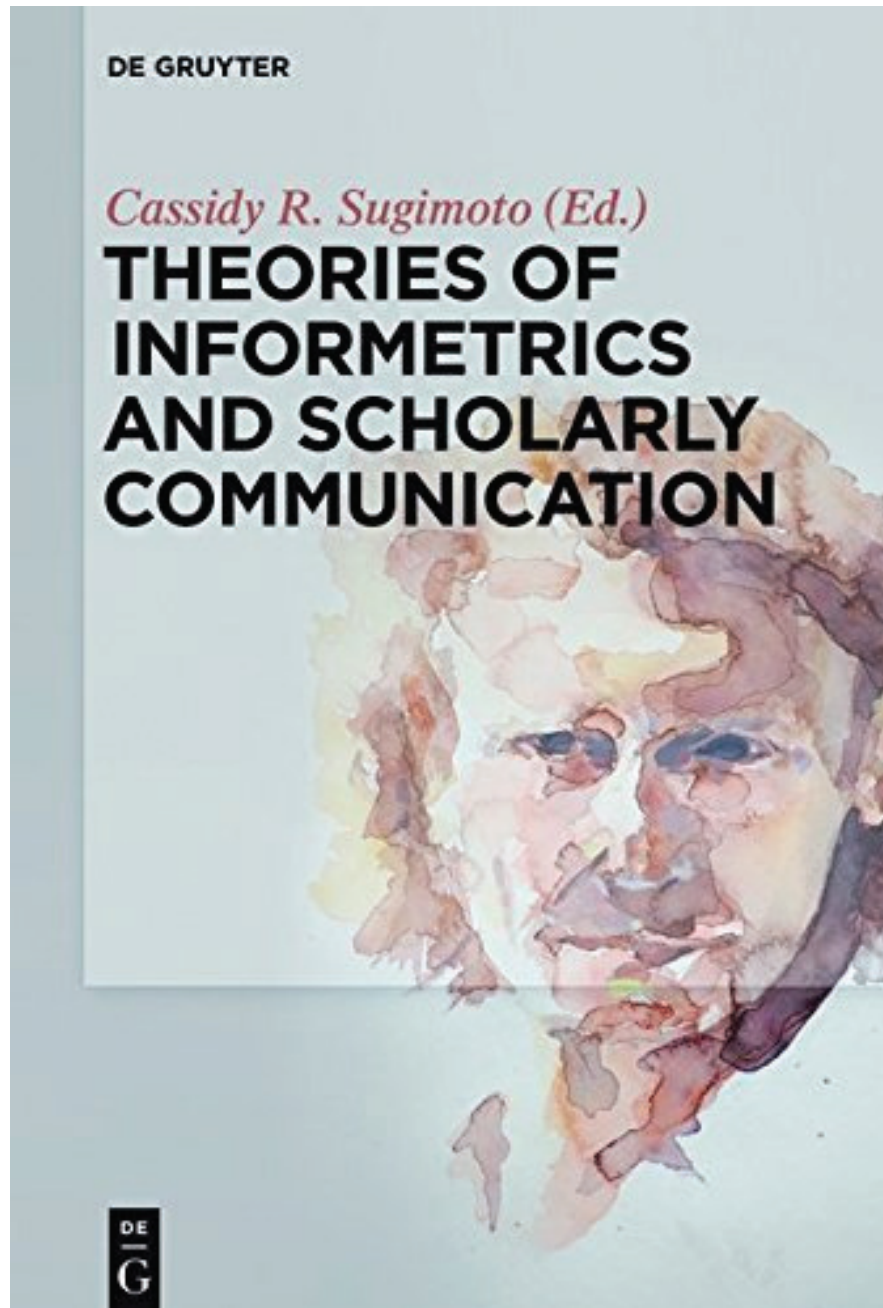


## Understanding Informetrics and Scholarly Communications in a Nutshell

Book Review:

*Theories of Informetrics and Scholarly Communication*, edited by Cassidy R Sugimoto. De Gruyter, Berlin, Germany, 2016, 426 pages, € 79.95 (Hardback), ISBN: 9783110298031.



The book titled “Theories of Informetrics and Scholarly Communication” is another gem from Cassidy R Sugimoto. She brought in this volume as an editor to honor Professor Blaise Cronin, an awardee of 2013 Derek de Solla Price Award and Medal for “outstanding contributions to the fields of quantitative studies of science”. Earlier, Sugimoto and Cronin jointly edited and published seminal books titled “Scholarly Metrics under the Microscope: From Citation Analysis to Academic Auditing” (2015, ISBN: 9781573874991) and “Beyond Bibliometrics: Harnessing Multidimensional Indicators of Scholarly Impact” (2014, ISBN: 9780262525510).

In the Foreword of the book, Eugene Garfield recognizes the contribution of Cronin: “There are few very theoreticians that I have known and admired amongst the community of citationists. Blaise is one of them. However, I believe that this volume contains contributions from most if not all of those living scholars who deserve similar recognition”. This book contains a collection of 19 essays written by the well-known scholars in informetrics and research communications. The advancement of knowledge is well reflected in this present volume as this one is to make an appraisal of the theoretical framework in informetrics where Blaise Cronin had an in-depth contribution. Thus, this book becomes a fitting tribute to Blaise Cronin.

Sugimoto curated the contents of the book in six parts, namely, (i) Critical informetrics, (ii) Citation Theories, (iii) Statistical Theories, (iv) Authorship Theories, (v) Knowledge Organization Theories, and (vi) Altmetric Theories. Part I begins with an essay “The Incessant Chattering of Texts” written by Blaise Cronin, where he initiates by saying “Citation attracts metaphors as flame attracts moths” (p. 13). Besides many metaphors on citations, he earlier described citations as paratextual baubles (Cronin, 2014), or, verging on the poetic as frozen footprints on the landscape of scholarly achievement (Cronin, 1981). Cronin (2005) also delved into understanding ‘epistemic cultures’ and their importance for informetrics and information science, as reflected from this quote, “The texts we write and texts we cite bear the marks of the epistemic cultures, socio-cognitive networks and physical places to which we belong at the different stages of our professional lives” (p. 42).

In a chapter titled “Informetrics needs a foundation in the theory of science”, Birger Hjørland illustrates how paradigm shifts in the meta-sciences happened after the interventions by Thomas Kuhn (1962) through his much-discussed book “The Structure of Scientific Revolutions”.

Hjørland then discusses post-Kuhnian perspectives on informetrics, where he argues the fruitfulness of a social and epistemological basis for the field from the writings of Cronin. He identifies two most important implications of a post-Kuhnian view of informetrics, namely: “(1) Bibliometric researchers need to consider domain-knowledge and its theoretical foundation: they have to stand in relation to different views on the domain being investigated; and, (2) The objects of bibliometric studies – the documents – must be understood in relation to the broader contexts in which they are produced, used and cited” (p. 42). As he suggests, the bibliometric inquiries need to be broad-based and contextual before inferring the public policy imperatives.

In a chapter titled “Data citation as a bibliometric oxymoron”, Christine L Borgman introduces the conceptual framework of data citation, which is getting popular amongst researchers due to increased instances of online availability of research data. The CODATA and ICSTI offered a Status Principle, which states “Data citations should be accorded as the same importance in the scholarly record as the citations of other objects” (p. 93). Borgman then discusses in details on theoretical problems of data citation. She feels, “Data are much different entities than publications, introducing many new features and requirements for citations. In turn, these different characteristics require a new set of theoretical premises for bibliometrics” (p. 98). As citations help in locating sources in a library or online, data citations require much stable approaches such as assigning a unique and persistent identification, e.g., digital object identifiers (DOI). The researchers often get confused over crediting a data source, while in many fields the individuals responsible for creating the data may be invisible, anonymous, or departed. Then she argues how the attribution of sources of data in the digital domain that ensures data released under open licensing, e.g., Creative Commons, to facilitate re-use and share.

Altmetrics, or alternative metrics, or article level metrics has gained importance in the scholarly world in recent time. In Part Six, the readers get four essays on the new area of research, i.e., altmetric theories. In a chapter titled “Webometrics and altmetrics: Home birth vs. hospital birth”, Michael Thelwall briefly describes the birth of webometrics and altmetrics. Online availability of scientific publications helps us to assess their impact not only by citations count, but also through an altmetric score that captures other dimensions of popularity, acceptance, and usefulness of published research. Altmetrics tools are being used for generating an altmetric score for each

published article having an online presence. An altmetric score captures various parts of impact a scientific paper or work can have, viz., the number of times one paper is viewed, discussed, saved, cited and recommended. The other papers in this part discuss the challenges in the standardization of altmetric score and altmetric tools to make it acceptable to the academia and research funding agencies.

The book, thus, helps us in understanding informetrics in a new light and its inter-connectedness with the new conceptual frameworks. This book is recommended to

scholars and practitioners engage in research in the frontier areas of bibliometrics, altmetrics, scholarly communications, and science policy.

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