Bibliometric mapping as a science policy and research management tool

Noyons, E.C.M.

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Ed C.M. Noyons

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Everard Christiaan Marie Noyons

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Promotor:	Prof. Dr. A.F.J. van Raan
Referent:	Dr. H.E. Roosendaal (Universiteit Twente)
Overige Leden:	Prof. Dr. G.A.M. Kempen
	Prof. Dr. M.H. van IJzendoorn
	Prof. Dr. J. C. Stoof (Universiteit Utrecht)

Voor Susanne, Guus en Joep
In herinnering aan Betty Noyons-Luszczek

Preface

Bibliometric maps of science are landscapes of scientific research fields created by quantitative analysis of bibliographic data. In such maps the 'cities' are, for instance, research topics. Topics with a strong cognitive relation are in each other's vicinity and topics with a weak relation are distant from each other. These maps have several domains of application. As a policy supportive tool they can be applied to overview the structure of a research field and to monitor its evolution. This book contributes to the development of this application of bibliometric maps.

There has been much discussion about the trustworthiness and utility of these landscapes ("What does the map show?") since their birth in the 1960s. In this book, a methodology and procedure is proposed to allow both expert (trustworthiness) and user (utility) to evaluate and validate the maps. Furthermore, a procedure is designed to extract field-specific keywords from publication data,used to create the maps. Thus, the method becomes independent from database-specific classification schemes and thesauri. As a result, a research field may be delineated and mapped on the basis of more than one publication database.

The proposed method opens new doors for 'evaluative bibliometrics' and is prepared for the advent of electronic publishing in science.

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