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Book Reviews, Notes and Comments

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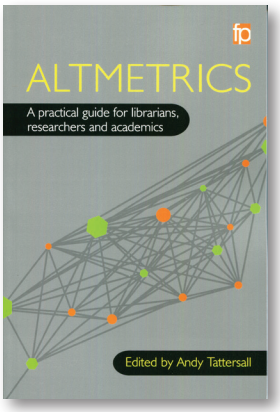

ALTMETRICS
A practical guide for librarians, researchers and academics
Andy Tattersall (Ed.)
London: Facet publishing; 2016.
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Scientific communication and the research process is being changed in striking ways by new technologies like Web 2.0 and social media; among the responses to this is the emerging field of altmetrics, an attempt to measure the online conversations and discussions (tweets, blog posts, likes, media coverage, etc.) surrounding research outputs in order to convey additional information about research impact that isn't captured by traditional metrics. Traditional citation metrics are increasingly considered to be unable to adapt to the new research ecosystem as they do not take into account the different forms of scholarly output, such as datasets, software, videos or posters, and the new ways of disseminating content rapidly through social media.

The term "altmetrics" is relatively new: it was coined in 2010 by Jason Priem, then a doctoral student in Information Science at the University of North Carolina and now CEO of ImpactStory, one of the best-known companies in this field. As a sign that altmetrics are quickly coming of age, more and more publishers are now adding the Altmetric.com "donut" in their websites to visualize the online attention related to the whole or a part of their published articles. As Euan Adie notes (p. 68), by mid-2015 there were around 6500 journals that have adopted some form of altmetric display for authors or readers, including well-known titles such as *Nature, Cell* and *Science*.

Altmetrics. A practical guide for librarians, researchers and academics, edited by Andy Tattersall, collects texts by various experts intended to provide an overview of the field with an aim towards encouraging and facilitating the use of existing tools. For those who are already following the discussions around altmetrics, the list of contributors includes several familiar names such as Euan Adie (founder and CEO of Altmetric.com) and William Gunn (Head of Academic Outreach for Mendeley). The book presents a very readable overview of the topic and provides practical advice on using the increasing number of tools available for librarians and researchers to measure, share, connect and communicate research. It is organized as a guide, presenting a list of key points to underline the most important findings, a list of references and a list of further readings at the end of every chapter. Although the subtitle of the volume also refers to researchers and academics, the content is explicitly written with librarians and other Library and Information Science (LIS) professionals as the intended audience.

The first half of the book presents a historical and theoretical overview of the subject, at a level which should also be helpful for those unfamiliar with research metrics. Following the introduction, chapters 2-4 give an overview of the background to the emergence of altmetrics, reviewing the main existing methods in bibliometrics and laying out the criticisms of traditional metrics. Euan Adie, in chapter 5 on *The rise of altmetrics*, identifies four external forces driving the rapid uptake of altmetrics: the shift of scholarship to the digital world, the engagements of researchers with the new possibilities of the Web 2.0, the interest of research funders in non traditional research outputs, and the wider changes in scholarly communication. Chapter 6, by William Gunn, describes the data collected by Mendeley (where Gunn is Head of Academic Outreach) as an example of the sort of raw material used by altmetrics algorithms.

The second half is focused more on giving practical support to LIS professionals (and, indirectly, researchers and academics) who want to engage with or spread the knowledge of altmetrics and social media, starting with chapters 7-9, contributed by the editor, Andy Tattersall. Chapter 7, *Considerations for implementing new technologies*, presents an account of various issues considered by researchers when applying new technologies, and making informed decisions about whether or not use them, so as to suggest an approach LIS professionals might take in advocating them to researchers and facilitating their use. Chapter 8, *Resources and tools*, develops this theme by describing in detail a number of tools and resources available to promote, share and measure scholarly output. Chapter 9, *The connected academic: implementing altmetrics within your organization*, is devoted to laying out strategies LIS professionals could use to persuade researchers to use altmetrics. This is followed by a chapter by Claire Beecroft suggesting mobile devices and apps that LIS professionals might recommend to their users. Chapter 11, by Tattersall, on open peer reviewing, seems somewhat out of place in this volume, as this area is even more immature than the others discussed, and consequently this chapter does not lead towards any particular recommendations.

Some comments are in order about the general picture this volume presents. It is clear that the altmetrics program has yet to solve most of the challenges posed by criticisms of traditional metrics. As Tattersall ac-

knowledges on p. 9, the field can be expected to change significantly (perhaps completely) in the future. Furthermore, the concrete altmetrics available are limited, so that for example the chapter on *Resources and Tools* relegates them to a section titled "Altmetrics and other metrics". In general, most of the advice in the book is a prescriptive discussion of social media (*i.e.* strategies for communication); although there is a close relationship between social media and altmetrics, what seems missing here is a descriptive discussion of social media which explains exactly what kind of knowledge one should expect to extract by studying them, parallel to the discussion of the role of citation data in traditional metrics. Booth points out that citation is heavily influenced by social factors such as the region of origin of the authors and their personal prominence (p. 30) and can be manipulated (pp. 31-6), but both of these problems could well be present (or indeed worse) in data originating from social network activity (likes, mentions, etc.) which are in general more a result of preexisting relationships and less a result of reflection compared to citation in published works. It is also striking that the authors do not seem to have a common vision of what exactly altmetrics is; so for example downloads are mentioned as a traditional metric (and criticized as "a metric of computer activity, not scholarship") by Booth (p. 41), but Gunn describes them as a "type of altmetric" (p. 85). This lack of consensus may well reflect a widespread lack of clarity in definitions (the subject of an ongoing project by the National Information Standards Organization) which makes it difficult to make a convincing argument for or against the utility of altmetrics, particularly when the audience to be convinced are working scientists.

This adds to the impression of a field in a state of flux, which Tattersall conveys admirably in his concluding remarks (p. 210): "Like two tectonic plates coming together, it would be conceivable that the old and the new can come together to create a new academic landscape… How academics and LIS professionals chart that new landscape we can only wait to see".

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XV ITALIAN-HUNGARIAN SYMPOSIUM ON SPECTROCHEMISTRY PHARMACOLOGICAL RESEARCH AND ANALYTICAL APPROACHES
Book of abstracts
Bottoni P, Caroli S, Fuoco R, Gábor Mihucz V, Záray G (Eds). Pisa: Pisa University Press; 2016. (Italian-Hungarian Symposium on Spectrochemistry, 15).
ISBN 978-88-6741-659-2

The XV Edition of the *Italian-Hungarian Symposium on Spectrochemistry – Pharmacological Research and Analytical Approaches* was held at the Department of Chemistry and Industrial Chemistry of the University of Pisa (June 12-16, 2016).

This well consolidated series of biennial Symposia was launched in 1983 by S. Caroli as a part of the official bilateral governmental programme for scientific and technical cooperation between Italy and Hungary in order to provide scientists from both countries with a permanent forum to discuss, assess and promote studies primarily in the field of human health and environmental protection with a special focus on the forefront of research.

The Symposium was structured on eight oral sessions, centered respectively on new trends in pharmacological research, regulatory aspects, advanced analytical approaches, medical devices, personalized medicine, environmental contamination by pharmaceuticals, metabolomics and nutraceuticals, and four poster sessions, basically concerned with the same topics as the oral sessions. Two round tables, devoted in their turn to the quest for quality in pharmacological investigations and the environmental impact of the misuse of medicinal products, provided the audience with additional opportunities to further discuss issues of mutual interest within the scope of this event.

From a general viewpoint, three aspects were considered to have priority, namely:

1) the high costs associated with research, development and marketing of new pharmacologically active molecules in a context of increasing competitiveness, costs that in the ultimate primarily contribute to the price of medicinal products;

2) the legal framework characterized by regulatory requirements definitely inescapable to guarantee the safety of pharmaceuticals, but greatly demanding in terms of human, economic and organizational resources;

3) the adverse consequences of the undue presence of residues and metabolites of pharmaceuticals in environmental compartments, food commodities and workplaces which can be correctly approached only when adequate funds are available.

By means of 90 contributions (55 oral presentations and 35 poster presentations), this edition of the Symposium gave a complete, detailed and updated survey of the most recent priorities in pharmacology from the

standpoint of innovative research, regulatory activities and the powerful support that advances in experimental methodologies can offer to this end.

About one hundred participants mostly coming from Italian and Hungarian public institutions and private companies attended the conference which, on the other hand, also featured several representatives of other countries (Argentina, Austria, India, Poland, Turkey and United Kingdom).

The Book of abstracts as well as detailed information on the Symposium can be accessed through the link https://www1.dcci.unipi.it/ihss2016/index.html. Full papers based on the presentations given at the Symposium are being submitted for publication in a Special Issue of *The Microchemical Journal* (Elsevier BV) and will go through the regular peer-review process. The release of this Special Issue is tentatively planned by the end of the current year. Such Special Issues are a long-standing tradition for this series of Symposia. In this respect, it is definitely not out of place to recall that the peer-reviewed manuscripts pertaining to the I IHSS (ISS Rome, September 1983) were hosted by a Special Issue of the *Annali dell'Istituto Superiore di Sanità* (retrievable through the link http://www.iss.it/publ/index.php?lang=1&id=1886&tipo=3).

The XVI Edition of the IHSS is being planned for 2018 in Hungary.

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