

## BOOK REVIEWS

**Mapping and the citizen sensor**, edited by Giles Foody, Linda See, Steffen Fritz, Peter Mooney, Ana-Maria Olteanu-Raimond, Cidália Costa Fonte and Vyron Antoniou, London, Ubiquity Press, 2017, 398 pp. GBP44.99 (hardback), ISBN 978-1-911529-16-3, full text available for free <http://eprints.nottingham.ac.uk/47183/1/mapping-and-the-citizen-sensor.pdf>

The book *Mapping and the Citizen Sensor* presents research that has been part of the COST Action TD1202 of the same name (full disclosure: I am co-editor of a compendium from the thematically related COST Action IC1203). It is available as a competitively priced hardcover, or for free as an e-book. Edited by renowned researchers in this field, it contains 16 peer-reviewed chapters from a diverse group of authors. The chapters focus on different aspects of crowdsourced or volunteered geographic information (VGI), from expected topics such as data quality to more original chapters on actual mapping issues resulting from the underlying heterogeneous data structures. Although every chapter stands on its own, I will refrain from a strict chapter-by-chapter review, instead trying to describe commonalities and highlights where possible.

The first chapter intends to set the scene and introduce the content. Unfortunately, it does not provide much context or objectives, e.g. it does not clarify who the intended target audience of this book is, or how the chapters relate to the history and current state of research on VGI. The choice on how to approach the book is mostly left to the interested reader.

The next two chapters provide exhaustive reviews of VGI sources, and tools and services of the biggest VGI project, OpenStreetMap (OSM). While providing rich and dense content, such lists of resources often have a short half-life, especially in the domain of crowdsourcing and social media, e.g. Instagram has restricted access to its Application Programming Interface (API) to commercial app development a while ago. Analyzing the developments over time and synthesizing the contents would have been great to contextualize the presented information, and would have provided a lot of added value.

Chapter 4 is an excellent core chapter of the entire book that truly focuses on the title: How to map VGI. It gives many important insights, including state-of-the-art recent research, and is certainly of interest and benefit for cartographers and geodata scientists alike.

Chapters 5 and 6 move on to the contributors of VGI, examining the important issues of how to motivate volunteers for continuing engagement, while preserving their or other's privacy, and consider ethical issues while staying clear of licensing issues. Providing a lot of valuable food for thought (and future research possibilities), these additional highlights of the book are also unfortunately among the shorter chapters.

The next four chapters focus on different aspects of VGI quality. Although some VGI-specific quality measures are developed from the literature, ISO quality standards continue to be featured prominently, despite VGI having matured considerably in the past years. In my humble opinion, the continued impetus to view VGI through the lens of traditional GI and to make it more similar sometimes obscures the view of opportunities. As the authors note: 'there is no global-scale authoritative dataset that could play the role of the reference data [for assuring VGI quality]'. This is spot-on, but the implications are not explored. Although the chapters contain much relevant and important information on OSM quality, I also missed a discussion of the impacts of the varying quality of background remote-sensing imagery used for mapping.


Chapter 11 addresses the important aspect of reusability and investigates protocols, techniques, and examples on how to connect with other datasets or projects, and how to ensure that VGI follows FAIR principles.

The next two chapters examine the roles of national mapping agencies (NMA) and strategies to better integrate VGI and GI from spatial data infrastructures (SDI). Unfortunately, the issue is approached entirely from the point of view of how VGI could be made to fit existing SDI's. However, much geographic information that individual citizens currently use (with the exception of OSM) is in private hands. At least it seems like a missed opportunity not to explore more options of opening up SDI's for general use (and no, just publishing the dataset on a geportal is not enough). Although the reader finds a long list of recommendations on how to approach the integration issue, given the massive accumulated expertise and experience of the authors, either a prioritization or fewer but more concrete strategic tips might have been more useful for researchers, citizen scientists, and NMA's from developing countries (which are not represented).

Chapter 14 addresses the important aspect of what constitutes true citizen participation and their rights to their city, using the Geodesign paradigm as a framework. I have to admit that I was not convinced of it although I like pragmatic approaches. However, the positivistic roots of Geodesign can prevent it from supporting normative approaches and strategic decisions: as it puts strong emphasis on what is available, it limits planning options to managing the feasible instead of aiming for the desirable.

The penultimate chapter on citizen science and citizen observatories is another 'list' chapter with similar advantages and disadvantages as the mentioned ones. The book concludes with a short chapter on future use of VGI.

In summary, the lack of stated purpose, structure, and sometimes context is probably the biggest drawback of this type of loosely edited book. Although it covers a lot of ground on the core topics related to citizen sensing and VGI, it raises the entry barrier especially for newcomers to the field (researchers from different disciplines, or undergraduate students), who might otherwise benefit more from the many positive aspects of this volume. However, the book provides introductory level summaries of recent research by prominent authors of the field. There is a rich and exhaustive list of projects, tools, and other resources, and the diverse combined experiences within the European research and NMA ecosystem, all of this available for free as searchable e-book. This makes the compendium a valuable resource for researchers from many different disciplines, who very likely find at least one or more chapters of interest.

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**Yes, we can (do GIS): a review of new lines: critical GIS and the trouble of the map**, by Matthew W. Wilson, Minneapolis, MN, University of Minnesota Press, 2017, 224 pp., \$25.00 paper, ISBN 978-0-8166-9853-0; \$100.00 cloth, ISBN 978-0-8166-9852-3

From its first page to its concluding sentence, Matt Wilson's *New Lines* attempts to 'walk the path between practice and theory' in order to answer the question of what constitutes