



International Journal of Geographical Information Science >

Volume 32, 2018 - Issue 5

716 | 24
Views | CrossRef citations to date | Altmetric

Research Article

Volunteered geographic information quality assessment using trust and reputation modelling in land administration systems in developing countries

Kealeboga K. Moreri , David Fairbairn & Philip James

Pages 931-959 | Received 31 Jul 2017, Accepted 21 Nov 2017, Published online: 25 Jan 2018

Cite this article <https://doi.org/10.1080/13658816.2017.1409353>

Sample our
Geography
Journals
**>> Sign in here to start your access
to the latest two volumes for 14 days**

Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

Share

ABSTRACT

This article presents an innovative approach to establish the quality and credibility of Volunteered Geographic Information (VGI) such that it can be considered in Land Administration Systems (LAS) on a Fit for Purpose (FFP) basis. A participatory land information system can provide affordable and timely FFP information about land and its resources. However, the establishment of such a system involves more than just technical solutions and administrative procedures: many social, economic and political aspects must be considered. Innovative approaches like VGI can help address the lack of accurate, reliable and FFP land information for LAS, but integration of such sources

relies on the quality and credibility of VGI. Verifying volunteer efforts can be difficult without reference to ground truth: a novel Trust and Reputation Modelling methodology is proposed as a suitable technique to effect such VGI data set validation. This method has been applied to successfully demonstrate that VGI can produce accurate and reliable data sets which can be used to conduct regular systematic updates of geographic information in official systems. It relies on a view that the public can police themselves in establishing proxy measures of VGI quality thus facilitating VGI to be used on a FFP basis in LAS.

KEYWORDS:

Volunteered geographic information

trust and reputation modelling

thematic accuracy

semantic accuracy

volunteer reputation

Disclosure statement

No potential conflict of interest was reported by the authors.

Related research

People also read

Recommended articles

Cited by
24

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources
by email

 Sign me up

  

  

Copyright © 2026 Informa UK Limited Privacy policy Cookies Terms & conditions

Accessibility

 Taylor and Francis Group

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG