

A word from the editors

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To all authors

This foreword aims to highlight the importance of good publication practice. This issue affects everyone (researchers, i.e. authors) who publishes in scientific journals. Plagiarism is a serious problem. There are known different types of plagiarism (direct, self-plagiarism, accidental...). As editors we want to emphasize what the responsible authorship means, what the submitted paper must contain, and what the ethical behaviour stands for to prevent damage to someone's reputation, i.e. journal's reputation. We publish this paper to avoid serious problems in the future. GeoScience Engineering has guidelines for authors regarding how they should submit a manuscript to the publication, and ethical guidelines regarding conflicts of interests and work. Read these terms and conditions before publishing.

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COUNTERSTATEMENT TO ARTICLE ENTITLED "A FRAMEWORK FOR EVALUATION OF MARINE SPATIAL DATA GEOPORTALS USING CASE STUDIES"

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Abstract

In December 2014 in volume 60 issue 4 a paper was published entitled "A Framework for Evaluation of Marine Spatial Data Geoportals Using Case Studies" by Marina Tavra, Vlado Cetl and Tea Duplancic Leder which is suspected to constitute academic misconduct. This comment reasons that the core of the paper was taken from another source and thus does not offer new and original scientific work and therefore does not add knowledge to the body of science. Furthermore it argues that apart from the plagiarism the paper shows major weaknesses and thus should have not been published even it was not plagiarized.

Key words: Plagiarism, Counterstatement, MSDI, Marine Spatial Data Infrastructures, Evaluation

Introduction

The article entitled "A Framework for Evaluation of Marine Spatial Data Geoportals Using Case Studies" by Marina Tavra, Vlado Cetl and Tea Duplancic Leder that was published in GeoScience Engineering volume 60, issue 4 (pp. 9–18, DOI: 10.1515/gse-2015-0002) violates good scientific practice. It passes the work I did for my dissertation thesis and the marine spatial data infrastructure of Germany (MDI-DE) project off as original work by the above mentioned three authors.

Germany developed a spatial data infrastructure (SDI) for marine data and metadata – called MDI-DE – from 2010 to 2013. Other countries developed marine spatial data infrastructures (MSDIs) well before the year 2010 (and thus before Germany) which opened up the opportunity for us to learn from these approaches. In order to have a rather objective and comparable base an evaluation framework was needed. This implies equal procedures for each MSDI assessment which means that one cannot lose track of things. Furthermore the goal of this procedure is that the evaluations will result in elaborations of the pros and cons (potential pitfalls and things done well) of the MSDIs. Existing approaches ([2] and [8] mainly) were examined, composed and – if needed – adjusted to the needs of an MSDI. The evaluation framework was then used to assess the MSDIs of Ireland, the UK, the USA, Canada and Australia. How the framework was set up and some of the exemplary evaluations were published by Christian Rüh (now Seip), Ralf Bill and Peter Korduan in 2012 ([4], [5] and [6]) culminating in the dissertation thesis by the author published in 2014 [3].

Plagiarism in the paper

The citation for the first paragraph of 1.1 (Marine Spatial Data Infrastructure) is wrong. It seems to be based on [6] which cites [7] but the citation given is neither of those two. The two paragraphs of section 1.3 (Croatian MSDI status and development of MSDI Geoportal) are copied from [6] basically with "Germany"

replaced by “Croatia” and one own sentence added as first sentence of the second paragraph. In section 1.4 (Methodology) the 1st paragraph is taken word-for-word from the abstract of [6]. Source is mentioned at the end but quotation marks indicating a literal citation are missing.

The first of the most problematic sections is section 2.2 where even the heading title is taken word-for-word from [6] (“Compiling the framework”). The second paragraph in this section is taken word-for-word from [6]. The source is mentioned at the beginning but quotation marks indicating a literal citation are missing. Table 2 (Indicators for comparing SDIs on the basis of web services and data management) is copied completely from [2] and this source is not mentioned. The third paragraph (between table 2 and table 3) is taken word-for-word from [6]. The source is mentioned at the end but quotation marks indicating a literal citation are missing. Table 3 (Indicators for evaluating marine spatial data infrastructures) is copied as a whole from [6] (with the addition of one new area – F) and the source is not mentioned. The fourth paragraph (after table 3) is taken partly from [4] with some subtle changes (but the parts that are copied are copied word-for-word) and the source is not mentioned. The fifth paragraph is a shortened word-for-word version found in [4] with some subtle changes and the source is not mentioned. The sixth paragraph is taken word-for-word from [4] but even if the source is mentioned at the end quotation marks indicating a literal citation are missing. Paragraphs 7 and 8 are taken partly word-for-word from my paper [4] with some subtle changes and the source is not mentioned.

In section 3.1 (German GeoSeaPortal) the second paragraph (below figure 2) is taken word-for-word from [4]. The source is mentioned at the end but quotation marks indicating a literal citation are missing. The second of the two most problematic sections is 3.2 (Australian Marine Spatial Information System (AMSIS)) where the second paragraph is taken word-for-word from [6]. The source is mentioned at the end but quotation marks indicating a literal citation are missing. The third paragraph is taken word-for-word from [6] and the source is not mentioned. The fourth paragraph (below figure 3) is taken word-for-word from [6]. The source is mentioned at the end but quotation marks indicating a literal citation are missing. The original source should have been mentioned here ([1]). The fifth paragraph (after table 5) is a shortened word-for-word version from [4] with some subtle changes. The source is mentioned at the end but quotation marks indicating a literal citation are missing. The sixth paragraph is a shortened word-for-word version from [4] and the source is not mentioned. The seventh paragraph is taken word-for-word from [6]. The source is mentioned at the end but quotation marks indicating a literal citation are missing. The eighth paragraph is taken from [6] with some changes but the source is not mentioned. In the ninth paragraph the second sentence (“According to [...] federal government.”) is taken word-for-word from [6] and the source is not mentioned.

In 4 (Conclusions) the sentence “build a reference model, develop models to support common workflows in marine applications, and evaluate meta-information systems and MSDIs of other countries.” is copied from [6] without citation.

These explanations show that close to none original work went into the sections 2.2 and 3.1 which are the core of the paper. In the Publication Ethics and Publication Malpractice Statement of the journal it is stated that “Editors should guard the integrity of the published record by issuing corrections and retractions when needed and pursuing suspected or alleged research and publication misconduct.” Thus, this counterstatement is needed to guard the journal’s integrity and to publicly denounce such scientific misconduct.

Review of the paper’s contents

The goal of the Introduction (1) is unclear, it is a mix of various considerations on SDIs, coastal zones and the evaluation of geoportals. Section 1.1 (Marine Spatial Data Infrastructure) states that “A Marine Spatial Data Infrastructure (MSDI) is a component of an SDI [...]” which is misleading because an MSDI can be a component of a national SDI, i.e. the SDI of a country, but is not a component of an SDI in general. Speaking of SDI components: these should have been outlined at the beginning of section 2 (these can be found inter alia in [9]) because these components are the base of the evaluation framework. How section 1.2 (Who is responsible for development of marine components?) fits into this paper is unclear as well, what role does the IHO play in evaluating MSDIs? Thus, the whole introduction lacks a proper structure and aims.

The second chapter begins with “The Internet is the de facto a standard of today’s global communications” (in 2.1 Geoportals). Apart from a superfluous article in this sentence such a sentence is not needed today. The whole first paragraph is disposable because the reader knows about the internet. Moreover it is absolutely unclear why “spatial database vendors” get into the picture all of a sudden. In the second paragraph it is unclear how geoportals are connected with SDIs and the sentence “Advancement of technology helped the development of geoportal services” does not make sense at all. What are geoportal services? A geoportal relies on services and uses them to search and visualize spatial data. The last paragraph follows suit and is no help in making the role of a geoportal inside an SDI clear. The worst phrase is “The premium version of this national geoportal [...]” because it is unclear what *this* national geoportal is and what a premium version constitutes. Because section 2.2 (Compiling the framework – evaluation methodology) is plagiarized as already outlined it is not commented further at this point.

At the beginning of the third chapter there should be an introduction (between “3 Evaluation of case studies” and “3.1 German GeoSeaPortal”) that states why these cases studies were chosen and why only a

portion of a country's marine SDI was selected (Germany offers more than the GeoSeaPortal and Australia more than AMSIS). In the first paragraph of 3.1 (German GeoSeaPortal) the link between Germany-Online Geo-Data and the German SDI initiative GDI-DE is unclear. Furthermore INSPIRE should have been mentioned here at latest, better before, because it is the main driver for GDI-DE (as well as other national SDIs). As already outlined the second paragraph (under figure 2) is plagiarized but what is also crucial to point out is that the whole paragraph is about the marine spatial data infrastructure of Germany (MDI-DE) and not about the GeoSeaPortal which is going to be evaluated here. In the evaluation I doubt the conclusion that the availability of services is bad "because of lacking services" as there are many services available through the GeoSeaPortal. On top of that it was argued that the rating for C1 was so low because of "bad web page navigation" but this is actually evaluated with indicator C3 (clearinghouse and geoportal) and reveals another core problem with the paper: the authors are not able to fully apply the evaluation framework to the case studies. Thus, while the authors are giving grades for every indicator in table 4 they fail to address all these indicators in the text below the table and always just comment on the first indicator of each area – apart from area E which is not addressed at all. The same is the case for the next evaluation, however, sometimes more than one indicator for each area was addressed in the text. The reason for this might be that this evaluation was already done in [6] and thus seems pointless as these results were already published.

Apart from not making sense most of the time (chapter 4 Conclusions) when even the outlook is plagiarized ("[...] need to build a reference model, develop models to support common workflows in marine applications, and evaluate meta-information systems and MSDIs of other countries") you really have to ask yourself if you are doing any original work at all. Furthermore INSPIRE is mentioned here for the first time but should have been considered more deeply and earlier.

Overall the paper is hard to understand most of the time because of the language, thus the English of the paper should be improved to be really valuable. If I were a reviewer of this journal I would have recommended to not published such a paper, i.e. reject it or only accept it after a major revision but I would doubt that that would help as the paper lacks scientific substance, background and relevance.

References

- [1] NAIRN, A. D. The Development of an Australian Marine Spatial Information System (AMSIS) to Support Australian Government Ocean Policy and Multi-Use Marine Activities. In: *Coastal and Marine Geospatial Technologies*. Springer Netherlands. 2010. p. 17-27. ISBN 978-1-4020-9719-5.
- [2] NAJAR, C.; RAJABIFARD, A.; WILLIAMSON, I. GIGER, C. A Framework for Comparing Spatial Data Infrastructures on the basis of Web Services and Metadata Management: An Australian-Swiss Case Study", In: *Research and Theory in Advancing Spatial Data Infrastructure Concepts*. ESRI Press, Redlands, California, 2007. p. 201-213. ISBN 978-1-58948-162-6.
- [3] RÜH, CH. *Marine spatial data infrastructures – Approaches on evaluation, design and implementation*. Munich, 2014. Dissertation. Faculty of Agricultural and Environmental Sciences, University of Rostock. ISBN 978-3-7696-5144-7.
- [4] RÜH C., BILL, R. Concepts, Models and Implementation of the Marine Spatial Data Infrastructure in Germany (MDI-DE). *Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*. 2012, 1-4:29-34.
- [5] RÜH, C.; BILL., R. A framework for evaluation of marine spatial data infrastructures - Accompanied by an international case-study. In: *Proceedings of the 15th AGILE International Conference on Geographic Information Science*, Avignon (France), April, 24-27, 2012, ISBN 978-90-816960-0-5. S. 360 - 364.
- [6] RÜH C., KORDUAN, P., BILL, R. A framework for the evaluation of marine spatial data infrastructures to assist the development of the marine spatial data infrastructure in Germany (MDI-DE) - Accompanied by international case-studies. In. *GSDI World Conference 2012*, 14 – 17 May 2012, Québec City, Canada.
- [7] RUSSELL, I. (2009). Hydrography and Marine Spatial Data Infrastructure - Programme and Presentation Abstracts. Southern Region of the Hydrographic Society UK: Bradfield College – 27 October 2009.
- [8] STEUDLER, D., RAJABIFARD, A., WILLIAMSON, I. Evaluation and Performance Indicators to Assess Spatial Data Infrastructure Initiatives, In: *A Multi-View Framework to Assess Spatial Data Infrastructures*. Wageningen: Space for Geo-Information (RGI), 2008. p. 193-210. ISBN 978-0-7325-1623-9.
- [9] STRAIN, L., RAJABIFARD, A., WILLIAMSON, I. Marine administration and spatial data infrastructure. *Marine Policy*, 2006, 30(4): 431-441.