

Geosci. Instrum. Method. Data Syst. Discuss., referee comment RC2
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Comment on gi-2021-32

Anonymous Referee #2

Referee comment on "GeoAI: a review of artificial intelligence approaches for the interpretation of complex geomatics data" by Roberto Pierdicca and Marina Paolanti, Geosci. Instrum. Method. Data Syst. Discuss., <https://doi.org/10.5194/gi-2021-32-RC2>, 2022

The authors present a review of Artificial Intelligence (AI) approaches to propose a state of the art based on the analysis of which type of data, methodology and applications geomatics data are used.

Global overview

Firstly, the authors are thanked for their work which is well structured and well explained. The objectives of the paper are clear and the reading is eased thanks to a good paper organization.

The authors have made an interesting analysis of the selected publications regarding many criteria that enlighten some trends.

As a consequence, their analysis is deeply linked to their selection of papers which seems to represent a tremendous task.

Even though such selection could be discussed and could lead to inconsistent trends, each topic is explained in detail.

However, the paper form needs to be reviewed.

1) Section 1.3 : Maybe the paper organization should come before Section 1.2? (particularly because Section 1.2 is cited in Section 1.3)

2) Figures : make the figures homogeneous to help the reader. Sometimes there is a title inside the figure, sometimes not.

Moreover, make sure you have your axes labelled and that labels are set accordingly among the different figures (e.g. Figure 6 VS Figure 8: data types are not in the same order, y-axis label on Figure 6 and not on Figure 8), etc.

Specific remarks / Questions

1) An introduction of Machine Learning (ML) and Deep Learning (DL) and their differences would make sense in this paper,

particularly because they are mentioned together many times.

2) Could you explain how you selected the pertinent papers (1.87)?

3) Also, have you been able to draw a quick history of the methods and data type/size used over the years that lead the community to this point?

This could answer the following question, inherent to your paper: Why researchers are using more and more DL?

4) In your research, how did you consider the papers that use the fusion of data and the combination of AI-based approaches?

5) In your conclusion, you make a comparison of the type of data used over the years (1.625-631). Is it based on Figure 3?

If so, it means that this conclusion is dependant on the paper selection criteria.

Did you try to compare your result with the number of matches of your queries based on the keyword and year among the different sources of information?