

Geosci. Commun. Discuss., referee comment RC2
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Comment on gc-2021-6

Rachel Bosch (Referee)

Referee comment on "Teaching with digital geology in the high Arctic: opportunities and challenges" by Kim Senger et al., Geosci. Commun. Discuss.,
<https://doi.org/10.5194/gc-2021-6-RC2>, 2021

Referee#2 comments on Senger et al.: Teaching with digital geology in the high Arctic: opportunities and challenges

Geoscience Communication instruction to referees:

'Generally, a referee comment should be structured as follows: an initial paragraph or section evaluating the overall quality of the preprint ("general comments"), followed by a section addressing individual scientific questions/issues ("specific comments"), and by a compact listing of purely technical corrections at the very end ("technical corrections": typing errors, etc.).'

General Comments

This manuscript presents a unique undergraduate geology course curriculum, as the instructor(s) have been implementing digital field technologies for several years to account for extreme latitude conditions that make it hard to provide in-person field instruction during the winter. When the covid-19 pandemic forced instructors to pivot to teaching virtually, Senger et al. already had the structure in place to make this transition. Sharing these resources with the geoscience community is a great contribution and provides others with the opportunity to enhance their teaching. This manuscript is well-suited for the Geoscience Communication special issue Virtual geoscience education resources upon revision.

Specific Comments

If Virtual Reality is routinely used in the AG222 course, it should be introduced and its implementation described earlier in the manuscript. It seems out of place to bring additional technology into the manuscript in the Discussion in its whole own section.

This manuscript seems entirely focused on the course AG222. I suggest eliminating the paragraph on AG-209 that begins on line 402. It does not add new or different information.

Technical Corrections

Three of the figures were not referred to in the text of the manuscript: Fig. 2, Fig. 5, and Fig. 7. Add references where appropriate or eliminate those figures if they are not relevant to the text.

Please review your Tables and Table numbering. The tables are referred to in this order in the text: Table 2 (line 156), Table 3 (line 161), and Table 1 (line 414). Tables 4 and 5 are not referred to in the text. Electronic Appendix Supplementary Table 1 and Electronic Appendix Supplementary Table 2 are confusing names since they reuse the terms Table 1 and Table 2, respectively. If they are appendices, consider renaming them A and B instead of 1 and 2? These two supplemental tables are also not referred to in the text. As with the figures, please add references where appropriate or eliminate those tables if they are not relevant to the text.

Throughout: When using the abbreviation "e.g.," it is always followed by a comma (e.g., like this).

Throughout: When citing multiple sources parenthetically, insert a space after each semicolon.

In the section, "Future perspectives," you state that you are building on FAIR data principles (line 421). On line 214, you write you "have adopted the online ArcGIS StoryMaps approach." As far as I am aware, this is commercially licensed software. Have you considered an open-source approach such as using Google Earth Projects?

Line 23: "spectacular" is subjective and unscientific—replace with a more objective, descriptive adjective.

Line 28: Please rephrase the first sentence so it better conveys your meaning.

Line 54: LiDAR is an acronym and needs to be defined on first usage. On line 54, it was spelled, "lidar," and on line 514, it was spelled, "Lidar."

Line 57: Change "as" to "has".

Line 135: Change "that" to "who".

Line 149: I suggest you change "component" to "emphasis".

Line 177: Change "own image" to "own-image".

Line 195: Add a comma after "imagery".

Line 222: "an excellent" is unnecessarily subjective—recommend changing it to a more objective, descriptive adjective (why is it excellent?), or remove and replace with "a".

Line 254: "company geologist" should not be hyphenated.

Line 266: Change "allow" to "allows".

Line 302: Regarding the software examples in parenthesis, please choose either the word, "or," or the comma and use it in both sets of examples.

Line 373: The sentence that begins "Although geological guides . . ." needs to be reworded for parallel structure. Here is a suggestion, "Although geological guides are handed out, presentations are given in the evening of what to see the next day and are repeated the next morning, it is. . . ."

Line 402: Should the hyphen be removed from "AG-209" for consistency with "AG222"?