



EGUsphere, referee comment RC2
<https://doi.org/10.5194/egusphere-2022-84-RC2>, 2022
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Comment on egusphere-2022-84

Elsa Panciroli (Referee)

Referee comment on "The perception of palaeontology in commercial off-the-shelf video games and an assessment of their potential as educational tools" by Thomas Clements et al., EGU Sphere, <https://doi.org/10.5194/egusphere-2022-84-RC2>, 2022

The manuscript, *The perception of palaeontology in commercial off-the-shelf video games and an assessment of their potential as educational tools*, tackles an especially poorly-explored intersection of palaeontology and popular culture: the discipline's appearance in video games. With their wide reach, video games have an important influence on the wider public's perception of the topics/people they portray. This interdisciplinary paper is aimed predominantly at two groups of people: science communicators, who as the authors point out, ought to be aware of the usefulness and reach of video gaming for communicating to a wide audience, and the gaming industry, who the authors hope will consider avoiding negative stereotypes and unhelpful tropes when designing future products. It is currently one of the only pieces of research to focus succinctly on palaeontological depictions in gaming and their implications, and as such is an important contribution to the literature.

I recommend that this manuscript should be accepted pending some minor revisions. More detailed comments are given in the annotated PDF, including minor technical comments.

The manuscript is well referenced with appropriate references from interdisciplinary sources. The structure and layout of the manuscript is logical and well thought out, and provides a useful overview of the appearance of palaeontology (and aspects of the science) in video games. The authors make an argument for the need to address negative tropes in video gaming because they perpetuate some of the problems people are actively seeking to fix in science, including unethical practice and lack of diversity. They also argue that poor scientific depictions in gaming can effect scientific literacy among consumers.

The text is well written and clear in terms of purpose and aims. I raised a point about differentiating between 'we' the authors, versus 'we' the science communicators. I recommend changing the latter to the third person (see PDF for clarification on this) to maintain a clear distinction.

The authors have done an excellent job of surveying video games that include palaeontology, what they include, and how this relates to the perception of palaeontological practice and/or practitioners of the science. I have suggested a few places where additional clarification or references would be beneficial. For example in the sections on fieldwork and ethics, some readers may not be aware of best practice in palaeontology, and so be less aware of why the depictions in video games are not correct/ethical. There are a few instances where a reference would strengthen their statements – for example the use of ‘touchstones’ to convey concepts to the audience through familiarity, or referring to the depiction of science in the *Jurassic Park* franchise (which has a reasonably extensive literature that could be cited). Also it might be good if possible to find a way to refer to the origins and utility of terms such as ‘monsterification’ and ‘shrink-wrapping’ in science and popular culture.

Another suggestion is to add some statistics for number of gamers for the identified palaeontological games, to clarify the wide reach of these games among the general public, and number of games included in their survey, to get an idea of how extensive this overview is compared with the number of games out there. For the supplementary material, the authors should include some text explaining what the ‘score’ means, as some readers may require an explanation and it is good to be inclusive rather than assume the reader knows.

Overall, this paper will be a useful addition to the literature for science communicators who want to get an idea of the tropes they may need to combat, or if they are considering utilising gaming as part of their repertoire. It will also be useful for palaeontologists – making them aware of how their science is perceived by gamers and developers – and for game developers to ensure that new games avoid some of the lamentable pitfalls seen in many games to date. I look forward to ultimately seeing this manuscript published.

I am happy to be identified in this review.

Please also note the supplement to this comment:

<https://egusphere.copernicus.org/preprints/2022/egusphere-2022-84/egusphere-2022-84-RC2-supplement.pdf>