Reviewer A:

The paper is a nice overview of common graphics used mainly by news media during the COVID-19 pandemic. It's descriptive in nature, and its scope is quite limited. I see the following challenges with it that the authors may wish to consider:

SAMPLE

How was the sample of publications selected? Under what criteria?

As it stands, the selection seems arbitrary and very limited. Why the Financial Times and The New York Times and not others? Why not analyzing visualizations from non-Western countries? If the authors want to talk about a "global narrative", the selection of graphics should also be global. A comparative cross-cultural study would be pretty productive, as it might reveal similarities and differences of graphics from different regions.

PRINCIPLES

The authors say that Edward Tufte's optimization of data-to-ink ratio is a "general principle of visualization". That's quite an overstatement. Tufte's data-to-ink ratio is more of a very subjective, highly flexible guideline that is extremely dependent on factors such as the type of audience, culture, publication, etc.

To begin with, empirical evidence doesn't support at all that highly stripped-down, high data-to-ink graphics support understanding in any way. As long as the non-data ink in a visualization doesn't grossly obscure the representation of the data itself, it's harmless. Moreover, it can even be beneficial, as it might help attract a reader's attention to the information —in some studies, readers expressed their dislike for the highly sanitized, modernist/minimalist visual style Tufte is an advocate for.

I'd eliminate the reference to this non-principle and I'd stick to the other principle, which is truly advisable and normative; from the paper itself: "ensuring clear understanding by organising the graphics in such a way that the story of the data is told most effectively."

This would need to be extended, though, and more clearly explained. Making a visualization understandable doesn't depend just on organization. It also involves making choices about encodings, types of charts and maps and, more importantly (something that I think this paper overlooks) actually testing that the graphic actually conveys the intended information to the audience it's supposed to inform. Anyone who works in visualization will tell you that simply applying "good design practices" to a visualization will never guarantee for certain that it is understood.

GRAPHICS COMMENTARY

I believe that the commentary on the graphics the authors chose would need to be more extensive and detailed. Just to give an example, they compare choropleth maps to proportional symbol maps, but they don't reflect on the many shortcomings of the latter, such as the usual overlap between the scaled symbols. This might be related to space limits in the journal, but I think that this is a paper that deserves to be at least double its length to be truly comprehensive and detailed enough.

The authors also make too many assumptions about how a graphic will be interpreted. This is a direct quote: "The advantage of these displays is that they are very simple and allow for viewers to gain an intuitive understanding of the data". Where is the evidence for such an assertion? The fact that the authors —likely professionals who are very familiar with statistics and visualization— find a graphic intuitive doesn't make that graphic intuitive to other audiences. (The authors themselves actually address this in the following section, about log scales, arguably the best one in the paper.)

Recommendation: Resubmit for Review

Reviewer B:

This is clearly an article by researchers for whom English is likely a second language. While fluent, the wording is often obtuse and clunky. I have made a number of changes in the text to show where it might be improved.

More importantly, there is a mass of data here and a failure of organization. The whole requires a rewrite that distinguishes with one example for each the use of chloropleth, dot maps, tables, annimations, etc. In the chloropleth section and dot map one can distiguish between raw numbers and those that are, for example, cases/per 1000 persons. The use of sliders and annimation would be a separate section.

The goal is simple. A better abstract would say: Maps and graphs have been extensively used in presenting the evolving state of the Covid-19 pandemic globally, nationally, and locally. This article seeks to review the types of maps and graphs employed by major news media and to assess the degree to which they served as communicative arguments useful both as a basis of public understanding of the pandemic and, at different stages, the rationale behind policies implimented to reduce its impact.

As is, it reads badly and the organization is such that its points get lost. Keep the illustrations to the points you wish to make. Distinguish betwen map types and their uses. Use A, B-heads as you reorder your argument.

And in the discussion … what have we learned? Well, there are static and dynamic maps, the former most common in news presentations, the latter in web-based. A trivial but useful point. Sliders are a good example how the latter expands what is in the traditional news map.

Recommendation: Resubmit for Review