

Summary of Revisions

We thank the reviewers for their detailed and constructive reviews! We outline the revisions made and reply to general comments, as applicable.

- In reference to the paper being a combination of a "design study" and "model" (p4Qi), we added a brief explanation in the introduction relating our approach to Munzner's Process and Pitfalls paper [A].
- To improve the clarity and flow of the paper, we now mention that the framework is in the form of a Venn diagram earlier on in the Introduction (p4Qi).
- To illustrate the meaning of the arrows in Figure 2 (pqQi), Section 3.3.1 includes an example of how the arrow from User Intent to Environment could work: because the object is a personal cabinet, the visualization designer might want to assume that the location is an office. We made minor clarifications to Section 3 to clarify that the arrows in Figure 2 do not refer to one factor directly changing another, but that they can influence or inform the design or effect of factors or properties.
- We added a brief explanation to Section 4.2 to explain why 18 exemplar applications were created, and clarified why the 7 were chosen to focus on in the paper (p4Qi).
- To improve clarity of the exemplar applications (Sections 4.2.1 – 4.2.7), we moved the explanations of how each exemplar application relates to the framework into a new paragraph (p4Qi).
- The paper integrates explanations of future work as part of the discussion section (Section 5). To Section 5.4, we added that our SAR InfoVis exemplar applications could be evaluated with people with different demographics and abilities (Gius).
- We agree that our framework may also extend to other types of AR, which we explain in Section 5.3 (JGQj).
- We believe we have corrected all the reference format errors (p4Qi).
- While we do extend existing models and frameworks and leverage concepts from other areas, we believe that having one encompassing framework is still beneficial as it places higher priority on factors that are important to SAR, like concepts from ubicomp and the importance of Objects (JGQj).
- Cameras do not always have to be used with SAR, they are only required to calibrate a space. In practice, a SAR visualization could exist as an always-available public display without environmental sensing, in which case considering the Level of Abstraction and People is important (p4Qi).
- We created a webpage to host the videos and added a link as a footnote.

[A] https://link.springer.com/chapter/10.1007/978-3-540-70956-5_6