



Journal of Visualization and Interaction

Reviews for 2024-cretaio-greetings-round1

Review #1

Completed: 06-08-2024 00:09

Recommendation: Revisions Required

Conflict Declaration

I declare that I have no known conflicts of interest with the authors.

Review

In the spirit of transparency, I'll preface my review by stating that I was one of the original reviewers of this submission's association Info+ 2023 talk abstract and was supportive of its inclusion in the conference program.

This JoVI submission presents an approach to teaching data visualization design with an assignment to collect and record phenomena or characteristics associated with a common urban environment. Once the observations are collected, students are tasked with representing their findings succinctly and creatively on a postcard with a specific persona in mind as the recipient. A set of postcards forms a "databook", offering multiple perspectives on the urban environment that are each grounded in data, an artifact that affords subsequent analysis of potential multidimensional and possibly multimodal relationships in the environment.

The submission is relevant to the fields of HCI and InfoVis and especially to the field of information design. It would also likely be of interest to the EduVis subcommunity (<https://iee-eduvis.github.io/>), who have hosted several workshops in recent years devoted to the topic of visualization pedagogy.

With respect to determining if and how this submission advances our knowledge of InfoVis and HCI, I do believe that the proposed visualization design activity is replicable and has the potential to help the research community understand how novices from varied backgrounds and levels of data (visualization) literacy learn how to collect and visualize data as a means to communicate observations succinctly and creatively. I also appreciate being introduced to Gaiardo et al's systemic innovation design methodology and Remondino et al's visualization method toolkit, though despite the amount of explanation in this manuscript devoted to both, they cannot be considered novel research contributions of this submission. Readers will learn, however, about the outcomes of two iterations of the design activity (one for Naples and a second for Parma) and witness the variation within and between participants' postcards.

However, I admittedly struggle to identify how the results are novel research contributions that advance the field. Part of this struggle is due to the absence of participants' voices alongside the presentation of the results: their own thoughts, frustrations, and perceived benefits associated with performing the activity. The other part of this struggle is that there is no report of a holistic analysis of the completed databooks; in other words, the claimed benefits of the databooks set up in the submission's abstract and introduction remain untested. For instance, how does the analysis of a databook reveal the unexpected? Or how does the analysis of a databook result in new awareness, knowledge, or wisdom? A case study demonstration of correlation between entries in a databook to identify relationships would satisfy the promise established in the paper's introduction. Similarly, the claims that the activity can result in an impactful, sustainable, or innovative outcome, or that the activity results "for design insights with a significant impact" would also benefit from supporting evidence.

Part of the appeal of this submission is that the literature it cites is notably different from the typical references on visualization design found on the STEM side of visualization research (and I certainly appreciate Info+ as a venue for bringing together visualization researchers and practitioners having both STEM and humanities and design backgrounds). Of the work cited, I am most familiar with Lupi and Posavec's "Dear Data" project, parts of which could arguably be considered "Greetings from London" and "Greetings from New York" databooks, as many of their weekly themes were devoted to observing their respective urban surroundings. I also appreciate the brief foray into the history of postcards. Beyond the work cited, there is an opportunity to further situate this work with prior research published in the STEM side of visualization research (e.g., IEEE TVCG, Eurographics' Computer Graphics Forum). For instance, Walny et al's "An Exploratory Study of Data Sketching for Visual Representation" (CGF, 2015) seems relevant here.

The results of the design activity and the reflection on its replication in a second urban area are useful to visualization educators. It does appear as though both iterations of the activity were hosted by the same researchers. It would be particularly interesting to learn about the results of additional iterations hosted by educators / researchers others than the authors. However, I don't expect to see this in a revision.

Finally, with respect to the writing, I'll admit that I struggled at times, although I expect that the writing style is not typical for someone like me who has more of a STEM background, with less experience reading the humanities and design literature. In other words, the writing could be simpler and more concrete. For instance, I don't have a clear sense of what the "opportunities", "criticalities", "new meanings", and "potentialities" are that the authors are referring to.

Openness

I don't have any concerns with respect to the replicability of the activity, especially since it integrates existing resources (namely Gaiardo et al's systemic innovation design methodology and Remondino et al's visualization method toolkit).

Beyond Figures 7 and 8, the complete databooks would be useful to see as supplemental

material.

Any additional lesson guides for educators considering use of the activity would also be useful to include in supplemental material.

Should my recommendation of reflecting on the analysis of a completed databook be included, said analysis should also be documented and provided as supplemental material.

Classification

Empirical Research - Qualitative

Classification

Systems or design research

Recommendation

Major Revisions

Revisions Requested

Provide evidence for claims (or downplay claims) regarding the utility of a databook as currently stated in introduction and conclusion.

Report on a holistic analysis of a completed databook, describing, for instance, the identification of relationships between entries in a databook

Report and reflect on first-hand experiences of those who participated in the activities.

Situate the work with respect to prior visualization research (e.g., Walny et al, and those associated with the EduVis workshop community).

Streamline the writing to be more succinct, with concrete examples.

Reviewer Name

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Review #2

Completed: 09-08-2024 17:02

Recommendation: Revisions Required

Conflict Declaration

I declare that I have no known conflicts of interest with the authors.

Review

Contribution: This manuscript advances our understanding of InfoVis and design by demonstrating how individual territorial explorations of an urban context can be synthesized into a collective databook, providing a unique and visually compelling way to analyse and represent complex territorial data. The work enriches our ability to understand and communicate urban environments through creative visualization techniques. The key insights presented in Section 5.1 showcase the diverse and visually engaging representations of urban data from the Naples territory Quartieri Spagnoli, reflecting the unique perspectives of the participants.

Credibility: The manuscript's claims are well-supported by the methodology and results. The databook is convincingly presented as a tool for critical analysis and knowledge generation, demonstrating its utility in synthesizing diverse perspectives on an urban territory.

Clarity of evidence: The evidence is presented clearly, particularly in how the postcards are used to visualize data and generate a collective understanding of the territory. Section 4.1 effectively contextualizes the postcard as a medium, along with the discussion of its use in other projects. However, some areas could benefit from clarification. For example, the process of territorial exploration and data collection (Section 4.2) could be made clearer by frontloading a more detailed explanation or providing a visual timeline to guide the reader through the sequence of activities.

Areas beyond reviewer expertise: I was not previously familiar with the Systemic Innovation Design Methodology, a key component of this work. Nevertheless, the manuscript does a great job of explaining the methodology, making it accessible even to those are not familiar with it. The paper clearly outlines the main steps of their methodology—holistic analysis and the creation of the databook—and breaks down the holistic analysis into four component steps.

Openness

The manuscript generally does a good job of documenting the process and tools used. However, there are some areas where transparency could be improved to facilitate future research:

Workshop structure (Section 4.2): It would be beneficial to make the subsequent steps of the workshop across the three days more explicit. Consider frontloading this information to clarify the process from the outset, making it easier to replicate. A visual overview or timeline could also enhance clarity.

Supplementary material: Including an enlargement of workshop materials, such as the Explorative Map (Figure 3), as supplementary material would greatly benefit other researchers.

Second workshop: The second workshop is briefly mentioned but not elaborated upon. I would suggest either providing more detail about this workshop or focusing solely on the first workshop to maintain clarity and coherence. The discussion in Section 6 seems to

reference both workshops, so it would be helpful to either expand on the second workshop or limit the discussion to the first.

Classification

Empirical Research - Qualitative

Classification

Systems or design research

Recommendation

Minor Revisions

Revisions Requested

Figure 1: It wasn't immediately clear from the figure that the focus of this work is on the initial phase of the systemic innovation design methodology (highlighted in green). I would recommend making this focus more explicit both textually and visually. Additionally, I would clarify how this work potentially feeds into the later stages of the methodology or adjust the emphasis accordingly.

Clarify workshop structure (Section 4.2): Frontload information about how participants were guided through the different steps. For instance, only after reading 4.3 and 4.4 it became clear that defining the personas happened prior to the exploration phase. Consider adding a visual overview or timeline of the process to help readers follow the sequence of activities (e.g. showing 3 days with: brief introduction to data visualization & databook, create personas, territorial exploration using Explorative Map, analyze data, design content/dataviz using the Visualization Method Toolkit, etc.).

Details second workshop: If possible, include more detail about the second workshop. If this requires significant expansion, consider focusing the discussion and reflection solely on the first workshop to maintain clarity.

Discussion: Revisit sentence structures to clarify the arguments and reflections, for instance "The results consolidate the role of the databook as a tool with high emotional involvement, which amplifies the ability to learn and reason, (improves) communication skills, and (promotes) multidirectional thinking". The reasoning behind the requirement for participants to create at least five postcards is somewhat unclear. I don't see an issue with participants creating only 2 postcards, as the progression from initial to later postcards could be viewed as an interesting evolution rather than a weakness. This evolution may reflect varying degrees of abstraction and distance from the collected data.

Supplementary Material: Provide an enlargement of the Explorative Map as supplementary material to allow readers to appreciate the full detail and potentially replicate the workshop.

Minor comments: * Section 3.1: The first reference on 'databook' [22] seems to refer to another visualization toolkit, rather than the databook referenced in [3].

- Figure 2: Clarify the sources of the images and provide attribution where needed.
- Section 4.4: There is a missing reference ‘[?]’ for personas.
- Section 5: The phrase “On the third day, they completed the postcards ‘for ten different ones’ describing different aspects of the city” is a bit ambiguous. Please clarify whether this refers to ten different visualizations.
- ‘Quantum-qualitative aspect’ (Sections 4 & 5): Provide a brief definition or description the first time this term is used to ensure that readers unfamiliar with it can easily understand its meaning.
- Section 5.1: Consider rephrasing to something like “impact of ingenuity” to avoid unintended implications about intelligence.

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Review #3

Completed: 27-11-2024 01:09

Recommendation: Revisions Required

Conflict Declaration

I declare that I have no known conflicts of interest with the authors.

Review

This work advances our knowledge by proposing a visualization workshop to explore stories of places through the design of data postcards. To demonstrate the potential of the “Greetings From...”, the paper describes the experience of conducting the workshop in Naples. During the workshop, participants collected data through visual research and created data postcards about the perceptions and sensations that they experienced in the city. The resulting outcome was a collective databook combining individual postcards about topics such as the city’s sociality, light, profane, sound, and intellect. The generated visualizations revealed unexpected meanings of the city’s geography. Additionally, the findings support the assumption that the “Greetings From...” method can help designers to reflect on how different people perceive the city.

The paper’s approach of collecting data about unusual aspects of the city and visualizing this data through postcards brings an interesting example of how we can use data visualizations for non-pragmatic purposes. Although the visual research approach and data postcards have

been used in other contexts, this paper combines those design strategies and describes the experience of using them in practice to generate insights. This paper has great potential, but there are some issues that need to be addressed before accepting it. I describe them in the Requested Changes field.

Openness

The paper does not provide any supplementary materials that could enrich its openness/transparency. Since the paper encourages the reader to reproduce a “Greetings from...” in their own city, I would expect resources such as: - An accompanying document explaining in more detail how to conduct the workshop - An editable version (e.g., SVG) of the Explorative Map - High-resolution images of all the postcards

The resources should have a copyleft license (e.g., Creative Commons) when possible.

Classification

Systems or design research

Classification

Art

Recommendation

Minor Revisions

Revisions Requested

TITLE The current title does not describe what the paper is about. I recommend the authors to carefully choose the terms used in the title to ensure they reflect the paper’s goal and contributions. A tentative title could be “Greetings From...: A Workshop to Unveil Unexpected and Personal Stories of a Place Through Data Postcards”

CONTRIBUTIONS It is not clear in the text (especially in the introduction) the paper contributions. Are the methodology, the data postcards, or the overall experience contributions? I recommend the authors to clearly state in the introduction the contributions. It should also be reflected in the conclusion.

METHODOLOGY Up until the middle of the paper, I had a hard time to understand that it would not address all the phases of the Systemic Innovation Design Methodology (SIDM) but only the holistic analysis. I recommend the authors to clarify the rationale behind limiting the work to the holistic analysis phase.

SUPPLEMENTARY MATERIALS This paper must provide supplementary materials to help the reader reproduce the workshop. This would enrich the paper’s value because other designers could easily use this work as a reference to conduct other Greetings From... workshops.

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Metareview

Completed: [2025-03-21 17:30]

Recommendation: [Major Revision]

Conflict Declaration

I declare that I have no known conflicts of interest with the authors.

Review

I want to start this summary review with an apology for the long reviewing turn around of this submission. As most journals, we struggle at JoVI to recruit expert reviewers, and it can take time to fill all three external reviewer slots. However, the final three month delay is entirely my fault: the last review arrived at a time when my duties as general chair for the TEI'25 conference ramped up to take up most of my time. I sincerely apologize for making the authors wait three more months.

The article received reviews from three external expert reviewers, one of whom was a reviewer of the original Info+ 2023 talk abstract. All reviewers appreciate the postcard based databook activity described in the article and recommend either major or minor revisions. Given the diverse suggestions for improvements of the submission, I believe a major revision cycle should give the authors a better opportunity to strengthen the clarity and contribution of the article.

I provide a summary of the requested changes below. Please refer to the individual reviews for further details on each point. I'm looking forward to receiving a revised version of the article.

Revisions Requested

The individual reviewers suggested a diverse list of revisions. Some are truly minor while others will require a bit more work from the authors.

Major changes requested:

[R1] Provide evidence for claims concerning the utility of databooks or tone them down

[R3] Be more clear about the concrete contributions of the article

[R1] Consider a more holistic analysis of a complete databook

[R3] Be more clear about the methodology early on in the article

[R1] Report on first-hand experiences from participants (if such data was collected)

[R1] Improve/streamline writing

[R2] Either provide details/results or remove the mention of the second workshop

Minor changes:

[R1] Better situate the work with respect to prior work in visualization

[R2] Provide more details on the workshop structure over the three days

[R1+R2+R3] Provide more detailed supplementary material to facilitate the reuse and adaptation of the workshop concepts in other contexts

[R1+R2] Provide the complete databooks / all postcards in supplementary material

[R2] Specific comments on certain figures and sections which should be taken into account

[R3] Reconsider the choice of the title and if it reflects well the contributions of the article

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