JoVI review snapshot created at Dec 03, 2025 19:43.

<u>Issue #13</u> (open): [DECISION] Minor Revision - May need more than 1 month and is somewhat dependent on other VISxAI papers & decisions

<u>@jsndyks</u> on Apr 25, 2025 10:35:

[opened]

<u>@jsndyks</u> on Apr 25, 2025 10:35:

Conflicts of interest

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

Reviewed version

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Reviews summarized

• #11 - R1 Review

R1 is very positive and comments on the clarity of explanations and the effective use of interaction, considering this to be $\hat{a} \in a$ great contribution to $IOVI\hat{a} \in a$.

They make some general recommendations to improve presentation: consistency, clarity.

They are not explicit about the degree to which knowledge is enhanced by the paper. **Recommendation** - MINOR revisions

• <u>#10</u> - R2 Review

R2 considers this to be an interesting domain with useful and interesting (and implicitly valuable) visual representations the work $\hat{a} \in a$ clear contribution to visualization $\hat{a} \in a$ and offers (reviewer $\hat{a} \in a$ emphasis) $\hat{a} \in a$ contribution $\hat{a} \in a$.

while this essay provides an interesting explainer for this class of models, in its current form this feels like a very good class project, rather than a full research contribution **Recommendation - REJECT**

• #12 - R3 review

R3 is positive about the paper as $\hat{a} \in \text{ce}$ the work delivers an interesting pedagogical experience, and thus I see the value for teaching and learning purposes $\hat{a} \in \text{indicating}$ that $\hat{a} \in \text{ce}$ indicating that $\hat{a} \in \text{ce}$ indicating experiences $\hat{a} \in \text{indicating}$ with the scope of the journal $\hat{a} \in \text{indicating}$ is the visual explanations and ask that the definition of time homogeneity is checked. **Recommendation** - **MINOR revisions**

Note that ...

Two reviewers did not complete the submission category checklist - perhaps because it was not clear where the contribution was or what kind of paper they were reviewing. See meta-review below.

R1 & R2 primarily have experience in visualization. R3 has expertise in Named Entity Recognition.

The paper does not have explicit claims, the reviewers agree on this, and in terms of JoVI criteria, itâ \in TMs hard to argue that there is much explicit and verifiable evidence of â \in eknowledge enhancementâ \in here.

But the reviewers, on the whole, quite like it. And if we take the JoVI objective that a successful contribution "expands the capacity of people to do useful things that were not previously possibleâ€, well this paper might do so through demonstration*. Given that this is an experimental track, a new way of doing things, some discomfort or unease about how things are done here, compared to how they have been done elsewhere, might be expected. I think we can accept and accommodate this *←editorial decision!

Really, the issue here is about: what on earth is this?* and *how do we judge it?

Given the helpful reviews, and my own reading of the paper (my notes follow for the record, the authors and the readers), I would summarize thus:

This paper is weak in terms of research contribution, with no explicit claims. Any evidence of novelty or knowledge enhancement is implicit and established (if that's the correct term) through demonstration.

While not a model of an Experimental Track research paper, and perhaps if published, this should be made very clear to the reader (but, see below), it is a $\hat{a} \in condended \in (R2)$, $\hat{a} \in condended \in (R3)$ piece of work that could make a $\hat{a} \in condended \in (R1)$ to JoVI.

 $R2\hat{a} \in \mathbb{T}^M$ s position on all of this is one that I would adhere to, but given the nature of the paper and the alternative interpretations in the other reviews, I am not so sure that judging this contribution in quite the same way as a traditional research paper is the best way forward - for a few reasons. As I understand it (I may well be wrong here):

- this is an invited paper that (as I understand it, I do not have access to other papers) is *part of a wider collection* and so perhaps some aspect of the contribution that this individual piece of work makes is that the paper is part of a wider set;
- the paper is an *explainer*, the VISxAI workshop that is was presented at valuers these exemplars of visualization or explanation, which are not traditional research papers;
- the paper is submitted to an *experimental track* that is by definition, finding its way and by implication willing to consider a range of contributions and contribution types;

So here is a suggestion, and this probably needs to go to a higher level of editorial decision-making to ensure alignment with other contributions in this set (sorry!) ←**uber-editor required!**

- 1. MUST*: Check the *definition of time homogeneity
- 2. **MUST*: *Improve the submission** in light of the excellent suggestions provided by the reviews authors to consider and decide.

Now, nobody wants an associate editor to say $\hat{a} \in accidented description of the reviewers suggest <math>\hat{a} \in accidented description of the suggestion of the excellent suggestions and act on those that are deemed to be improvements in exposition and achievable within the time allocated (and document these changes and decisions) so that we end up with in round 2 <math>\hat{a} \in accidented$

- 1. **MUST***: *a* (*somewhat*) *richer collection of visual explanations perhaps including a (novel?) summative visualization that allows the models to be compared (see R2 *authors please consider this and explain your approach to this suggestion*).
- 2. **MUST*: *Add a conclusion**. So what do we know, and how well do we know it and what do we need to do next? Ideally we would see some knowledge claims, but if there are no claims, this might be usefully stated explicitly instead. This should be considered, contemplative and realistic.

I would **recommend publication** is this is achieved, even if the updates are relatively minor (although if course I hope that the authors will take on board the excellent suggestions - these are valuable gifts - and use them to improve the work) as this would give us not a model of an experimental research paper, but part of a collection of (VISxAI) visual explainers that could be a useful resource. This paper could happily be part of that and R1 and R3 are positive in this context.

But, here is a rub*, and it's quite a challenge, and I am making some assumptions here (might be dangerous, feel free to push back uber-editors). To elevate this explainer to a research

contribution it would need to be part of an editorial cross-explainer synthesis / comparator / review article that would in a sense be a piece of original comparative meta-research. This proposed article could constitute a valid knowledge contribution by drawing upon this and other VISxAI exploratory track explainers to meet the overarching JoVI need to advance knowledge. But I have no idea whether this is planned, feasible, or how this particular contribution aligns with, is associated or separate from others that have been submitted. *-uber-editor comment would be useful!

RECOMMENDATION:* Whilst the updates may be relatively minor, they will involve some development and some thought and it feels fair to offer more than 1 month for this activity - so I suggest that we consider these to be *MINOR REVISIONS* to be completed in _3 months_. *-ubereditor to comment

Decision

Minor revisions: this paper requires some smaller changes, after which I am confident I would be able to endorse it.

<u>@jsndyks</u> on Apr 25, 2025 10:39:

I want to add here, that I have been a very poor editor for this paper - and to apologise for the time it has taken. Various issues are mitigating factors, including challenges in recruiting reviews, a new process for a new paper type, and some personal health problems and treatment complications ... none of which have been wholly independent. Anyhow, I take responsibility for all of this and thank the patient and helpful JoVI team and apologies profusely to the authors for this taking such a long time. I hope that the reviews are helpful in shaping the work, despite the wait.

<u>@chatchavan</u> on Apr 25, 2025 11:41:

As a JoVI organizer for this paper, I will assume the uber-editor role that the AE requested.

Due to the interactive nature of this article, it does a double-duty of both being (1) an interactive artifact and (2) a report claiming research contributions. R1 and R3 might have focused on the interactive artifact aspect, whereas R2 on the research contribution aspect.

Suggested improvement 1

I'd suggest that the authors adding a section at the end of the paper on the following points:

- A brief survey on other teaching materials for this topic, and an argument why they are ineffective. This part could clarify the gap in the knowledge for this work.
- An analysis of how (some or all of) the visualization used in this work may have specific pedagogical benefits (e.g., addressing common misunderstandings, visually clarifying complex concepts)

These points are the expansion of AE's "Add a conclusion" point.

This article may be helpful to inform the authors on the expectations of visualization research contributions <u>Process and Pitfalls in Writing Information Visualization Research Papers by Tamara Munzner</u>. Specifically, section 2 (especially subsections 2.3, 2.4, and 2.8) is especially relevant.

Potential improvement 2

Regarding AE's point on **"richer collection of visual explanations"**: It seems to me that this point asks the authors to make a contribution that they did not originally intend to make.

If the authors decide to develop additional visualizations, this could result in a valuable and stronger research contribution. However, it will also necessitate another round of review (at least from the visualization experts).

I'd like to invite the authors to share their thoughts on this point before making a revision. In this way, perhaps we are able to set realistic goals together.

@vuluongj20 on
Apr 27, 2025 22:09:

Hello @jsndyks and @chatchavan. Thank you for the thoughtful discussion and suggestions!

The original intent of this article was to explain and chart the development of linear-chain graphical models. The target audience is readers with college-level training in statistical modeling. It was not meant to further the body of visualization research. Rather, it serves as a *demonstration* of how visualizations can be effective tools for understanding and investigating the behavior of various statistical models.

With that context, here are our responses to the suggested improvements:

Reviewers' minor suggestions Having read through them, we find most to be fair and quite helpful, and can edit the article accordingly.

Add a conclusion We are happy to do this. As mentioned, the article is meant to cover the successive development of linear-chain graphical models — how each builds on and improves the one before. The conclusion can clarify that and provide further commentary on what's next.

Richer collection of novel visual explanations If we understand this suggestion correctly, it is meant to address the concern about research contribution, as raised by R2. Assuming that's correct, we are not sure how providing more visualizations would resolve the stated concern. We take that the operative word here is "novel", as the new visualizations themselves would constitute research contribution. We believe that any such visualization would be best presented in a separate research paper, perhaps as a "systems or design research article". The submitted article would be a poor vehicle for the presentation of such novel visualizations $\hat{a} \in \mathbb{C}$ at best it would serve only to demonstrate the visualizations' usefulness. This is similar to @chatchavan's point about the original intent of the article, and the necessity of another round of reviews.

That brings us back to the central question of what the experimental track is for. @jsndyks articulated it well. We understand that the experimental track is intentionally less well-defined, with room for evolution. The question, and the editorial decision to be made, is whether within that flexible definition there is still a *requirement of research contribution*. If it ends up being yes, then we accept that this article may be ineligible — additional visualizations would not cure that problem as explained above. If not, then that would obviate the need for novel visualizations (but we can still go ahead and take action on the other suggestions). We acknowledge that the answer may be somewhere in between, which would be a harder case.

We look forward to your decision on this. Thank you!

<u>@jsndyks</u> on May 08, 2025 09:52:

Cheers @vuluongj20 @chatchavan and thanks for this $\hat{a} \in l$ the intention of the summary review was to try to identify and strengthen the research contribution.

Richer was one suggestion (more innovative visual demonstrations) $\hat{a} \in \mathbb{R}$

But, I think that a clearer statement of what the article is intended to do (and perhaps even how it is going to do it) along with some commentary (conclusion) about the extent to which this is and is not achieved makes sense. This would certainly help the contribution $\hat{a} \in \$ but might not make it a research contribution. The more depth and rigor you can apply to the reflection on the extent to which this is and is not achieved the better!

So I would suggest that the authors: 1. *edit accordingly* as agreed, 2. *add a conclusion* as agreed, and furthermore 3. try to lead into this by *reframing a little* to improve the quality of the knowledge that (structured, comprehensive) *demonstration* allows us to develop.

Then there is an *editorial decision*, which is beyond me I am afraid, that should be made in light of the reviews and wider knowledge of other VISxAI and experimental articles and developing JoVI editorial policy. But for what it's worth @chatchavan:

- I am not at all against structured deep reflection on *demonstration* as research method (my PhD was a design concept!)
- having invited the contribution post VISxAI is seems a bit unreasonable to decide that the journal does not want this kind of thing now
- reviewers saw value in what we have here, even though the contribution was not clear and even though the JoVI review guidelines (as I read them, and the reviewers were in line here too) is not particularly kind to this form of contribution (and if JoVI wants this kind of thing, then this should

J.

@chatchavan on May 08, 2025 10:30:

I'm bringing this case to discuss with other JoVI organizers. I'll update latest on Monday evening.

@vuluongj20 on

May 09, 2025 23:30:

Got it â€" thank you!

@jsndyks on

May 12, 2025 09:41:

Thank for help and patience on this! @chatchavan @vuluongj20 . #experimentalTrack

@chatchavan on May 12, 2025 16:13:

@vuluongj20

JoVI Organizers discussed this case and decided that improving the paper framing would be enough for publication. I quote AE's suggestions above:

- 1. edit accordingly as agreed,
- 2. add a conclusion as agreed, and furthermore
- 3. try to lead into this by reframing a little to improve the quality of the knowledge that (structured, comprehensive) demonstration allows us to develop.

@chatchavan on May 12, 2025 16:14:

@jsndyks About a bigger picture (JoVI review guideline, scope of the journal), we will discuss with the advisory board in late June.

@vuluongj20 on May 15, 2025 16:17:

@chatchavan That's great to hear! We can begin the revision work promptly. Given the new list of suggestions, does a 6-week turnaround time (end of June) sound reasonable to you?

@chatchavan on May 16, 2025 11:46:

JoVI doesn't have revision deadline, so feel free to manage as you see fit.

However, Julyâ€"August are months that people in Europe are usually on vacation. Fro our experience, it is difficult to reach people during this period. (I don't know where the reviewers of your article is from.)

@vuluongj20 on Jul 09, 2025 04:12:

@chatchavan Hello! I've just finished editing the article according to reviewer feedback, added a conclusion, and revised the abstract to clarify the article's purpose. All of the changes were contained within the front-end code, so the OSF registration doesn't need to be updated. Tell me if I've missed anything!

@jsndyks on Aug 05, 2025 14:47:

@vuluongj20 Thanks for the revision.

See round 2 meta-review in #14

https://github.com/journalovi/2024-luong-graphical-models/issues/14

I appreciate the updates and am happy to endorse ... but do read the comments! Nice work, sorry that this has taken so long. New process, complicated times!

@isndyks on Aug 05, 2025 14:48:

[closed]