Dear editor, dear reviewers,

We would like to take this chance to thank you all very much for the valuable feedback and appreciate that you found the time to evaluate our manuscript. We took your advices at heart to improve, refine, and polish our work and the manuscript. With this reply we like to address your comments and point-out how we have reflected them in a refined version which we hope will find your approval now.

Response to Reviewer 2

In consultation with the editor, all changes to our manuscript in response to the reviews are highlighted with a red color directly in the manuscript.

Point 1:

Methodology needs to be clearly specified such as how the research was conducted and why.

1. The authors should explain how to determine the value of confidence.

   Response: On the one hand, the confidence value of a fusion method's input is calculated by the respective recognizer providing the input, e.g., obtained from the activation value of output layer neurons of a neural network. We revised the first paragraph of section 2.2.1. Input to better introduce probabilistic input. On the other hand, the fusion method provides probabilistic output. The confidence value of a fusion method's output is based on the confidence value of its input as we describe at the end of the first paragraph in section 3.1. Concurrent Cursors

2. The authors should explain how to determine the value of n for n-best guesses.

   Response: N denotes the number of alternatives a recognizer provides and is determined by the recognizer. We included this in our revision of the first paragraph of section 2.2.1. Input.

Point 2:

The practical experimental results should be given and discussed in details.

1. The authors should give some evaluation factors to evaluate the proposed method.

   Response: We conducted a comparative performance benchmark described and discussed in section 3.4. Benchmark and 4. Discussion. We compare our method with a
state of the art ATN approach in terms of processing and run time. The results validate the fundamental practicability of our method.

2. The authors should give some practical experimental results to evaluate the proposed method.

   Response: We conducted a comparative benchmark described in section 3.4. Benchmark (see below 3.). We present a series of proof of concept demonstrations that utilize the present method in section 4. Discussion. Additionally, at the end of section 4. Discussion we included a discussion about potential limitations and indicate canonical future research.

3. The proposed method should be compared with other methods.

   Response: At the end of section 4. Discussion we added a paragraph which details limitations of the cursor concept and our overall system, as well as, elaborates on performance optimizations we already apply in several of our demonstrations to handle high frequency data sources. Additionally, we designed and conducted a comparative performance benchmark. We compare our method with a state of the art ATN approach in section 3.4. Benchmark. The results validate the fulfillment of the principle performance characteristics which are needed for highly interactive systems. The benchmarks also highlights a beneficial run-time behavior of the proposed concurrent cursor implementation when it comes to handling an increasing number of hypotheses. As pointed out in [1], quantitative evaluations of fusion methods are not straight forward and general issues remain hence we here decided to compare our proposed method to typical procedural approaches. The comparisons to methods as in [2] currently lacks available methods which we would like to pursue in the future.

Point 3:

Literature review section needs to be further conducted to discuss more references used and how they support the design of the method. The authors should cite more refereed international journal articles which were published in the recent three years. The advantages and limitations of these studies should be discussed.

Response: We did another thorough research cycle and could include more related work to extend our literature review in Section 1. Introduction. However, works on semantic fusion for multimodal interactive fusion have become relatively sparse these past years. This circumstance has also been pointed-out by reviewer one, who was very positive about seeing some progress in this domain given the sparse publications in the recent years. Hence, we did our best to reflect on the related work as much as possible but could not find any more recent approaches to reflect on. If this reviewer does have information on any significant recent papers we missed, we would be very grateful if he/she would be willing to point us at the right direction. We really do not want to cause any more work load or inconveniences for the reviewer here but really do not know what else we
might have overseen and comments by the other review seems to support this lack of recent approaches.

Point 4:

The introduction section needs to be rewritten with much better motivation and providing the context for this work. It should include:

- **Response:** We revised our paper to include the following points.

  1. Contextualization
    - **Response:** The contextualization is provided in the first three paragraphs of section 1. *Introduction*. We were cautious to make larger changes in this section due to the strongly contradictory reviews.

  2. Importance/Relevance of the Theme
    - **Response:** The importance/relevance of the theme is also provided in the first three paragraphs of section 1. *Introduction*. We were cautious to make larger changes in this section due to the strongly contradictory reviews.

  3. Research Question
    - **Response:** We added a research question in section 1.1 *Research question*.

  4. Objectives
    - **Response:** We detailed our objectives in section 1.2. *Contribution*

  5. Structure of the Paper
    - **Response:** We added a description of the structure of the paper in section 1.3 *Structure of the Paper*.

Point 5:

In the last section, please focus on “Discussion, Implication, and Conclusion” to include:

- **Response:** We revised our paper to include the following points. We would like to add that the structure of our paper, in particular section 4. *Discussion* and section 5. *Conclusion*, is a mandatory requirement of the journal which we had to follow.

  1. Discussion, Implication, and Conclusion
Response: We performed major revisions on section 4. Discussion to detail implications and limitations.

2. Discussion why the authors found out these results and how they comply (or not) with the Literature Review?

Response: The results presented and discussed in the newly added section 3.4. Benchmark comply with the literature review. Our method compares to state of the art ATN approaches in terms of performance.

3. Conclusions

Response: Section 5. Conclusion concludes our paper. We cautiously and sensibly polished this section to reflect on this comment but also to not generate any contradictions between the reviews which were not easily combined concerning this point. We hope to have optimized it for all parties but in any case, we tried to avoid to make changes according to one review which then would cause the other reviewer to disagree and criticize us for changing too much.

4. Managerial and Academic Implications

Response: We performed major revisions on section 4. Discussion to detail implications.

5. Limitations of the paper

Response: The last paragraph of section 4. Discussion has been revised to discuss limitations.

6. Future Studies and Recommendations

Response: The last paragraph of section 5. Conclusion has been revised to better describe future work.

Point 6:

The English of this paper should be polished and revised carefully, from the reviewer's point of view, the work should be written more objective and professional, things such as “we identify” should be avoided.

Response: We polished the paper in several rounds and also corrected several typos and flaws. Additionally, we checked the manuscript for spelling mistakes and grammar. Still, we were a bit cautious to incorporate too general or large changes for two reasons and hope this reviewer will acknowledge our willingness here but also sees the difficult situation we see ourselves here: 1) the reviews we received are a bit contradicting here in terms of the pros/cons of the chosen writing style (e.g., the usage of the first person form) and do not clearly mandate one solution/style to prefer. 2) The journal itself does not mandate the use of certain language patterns (as discussed...
with the editor) and such phrases are in line with the *EASE Guidelines for Authors and Translators of Scientific Articles to be Published in English*. Hence, we are aware of different styles as proposed by different scientific fields but here would like to follow the editor’s advice hoping that the reviewer would agree with this decision.

**Point 7:**

The full name of abbreviation words should be given.

1. “SDKs” in Line 133
2. “SGIM” in Line 225

Response: We provided the full names of the abbreviation words.

**References:**