Manuscript Number: **FGCS-D-24-03467**    
  
DiSIF: Distributed Semantic Information Fusion Framework for Smart City Applications  
  
Dear Prof. Kahani,  
  
Thank you for submitting your manuscript to Future Generation Computer Systems.  
  
I regret to inform you that the reviewers recommend against publishing your manuscript, and I must therefore reject it.  
  
The Rejected manuscript would not be reconsidered again. Due to the high-volume of papers that the journal receives, kindly note that any request to reconsider the rejected manuscript will not be responded by the editorial team.  
  
My comments, and any reviewer comments, are below.     
  
We appreciate you submitting your manuscript to Future Generation Computer Systems and thank you for giving us the opportunity to consider your work.   
  
Kind regards,    
Michela Taufer, Ph.D.    
Editor-in-Chief    
  
Future Generation Computer Systems   
  
Editor and Reviewer comments:    
  
Although your manuscript falls within the aim and scope of this journal, it is being declined due to lack of sufficient novelty. We receive a much larger number of papers than we are able to accept.  
  
  
Reviewer #1: "DiSIF: Distributed Semantic Information Fusion Framework for Smart City Applications"  
Before re-reviewing, I recommend the following important revisions:  
\* Innovations and contributions are so weak!  
\* The need for a native English review is obvious!  
\* The quality of some figures is not telling! The results are completely insufficient and inconclusive!  
\* Formulations and mathematical foundations are not acceptable and sufficient!  
\* It relies entirely on simulation! It's Non-operational!!!  
- The effect of generative artificial intelligence (GAI) approaches in this field should be investigated!  
- Report full detailed software/hardware systems used in simulations and implementations.  
- Present a general graphical abstract separately.  
- Compare final achievements to at least 5 - 10 related works.  
- The abstract should be specially summarized!  
- The abstract should contain the final achievements of the work!  
  
  
  
Reviewer #2: The authors implemented horizontal and vertical data fusion using the DiSIF framework for smart city applications. Further, the proposed approach implemented a distributed query execution model to reduce query execution time and minimize the required memory for query execution. The comments are addressed below.  
  
In section 1, the authors presented an introduction. I can suggest that the authors need to expand the problem statement.  
  
In section 2, grammatical mistakes are there. So, I can recommend that rewrite it.  
  
In Section 1, the authors said that 3 innovations were presented in the proposed work (Section 3). However, the authors did not present more about horizontal fusion and vertical fusion models in section 3.  
  
The authors showed Figures 2 and 3 in section 3. However, the authors did not explain anywhere in the article. So, I suggest explaining it in the article.  
  
Further, Figure 9 was shown and not used anywhere in the article. So, I suggest that explain it in the article.  
  
In section 4, the experimental results can be expanded further.  
  
Further, the authors did not compare their experimental results with literature work.  
  
In Section 5, the authors presented a conclusion and future works. The presented content is satisfactory.  
  
  
  
Reviewer #3: SUMMARY:  
The paper presents the Distributed Semantic Information Fusion Framework for Smart City Applications, DiSIF. DiSIF expands the JDL fusion model to be distributed across Edge, Fog, and Cloud. Additionally, the fusion method is split into horizontal and vertical to enable optimization toward execution time and saving bandwidth.  
  
STRENGTHS OF THE PAPER:  
+ Relevant topic.  
  
WEAKNESSES OF THE PAPER:  
- Unclear motivation.  
- Limited evaluation.  
- Hard to follow.  
  
COMMENTS:  
The paper addresses a relevant and interesting problem and provides a good rationale for splitting the fusion into horizontal and vertical. However, it lacks a technical discussion about the target use cases, challenges, RSP, RDF, and infrastructure requirements, making it hard to completely understand the target solution. Additionally, the lack of pattern while writing makes the reading unpleasant.  
  
Although some examples are included in the Introduction, the target infrastructure is still unclear. The authors do not describe the edge, fog and cloud infrastructure. Moreover, the authors should have given an end-to-end example to motivate all the challenges. They should have clarified who issued the query and where it was issued. Additionally, the authors briefly touch on the existing limitations. The authors should have discussed key points such as network latency and bandwidth, computing limitations, etc. Those limitations, along with the target use cases, would back up the horizontal and vertical fusion methods. If one considers an application that transfers a low amount of data, and this data is consumed in the cloud. The application that does the fusion is CPU-intensive. It makes sense to run entirely in the cloud. The authors must be verbose concerning their targets.  
  
The Related Work section also presents some background. Hence, it should be called Background and Related Work. The references used in the Related Work section are quite outdated. The authors should have considered more updated works for JDL and RSP. For instance:  
KRIOTA: A framework for Knowledge-management of dynamic Reference Information and Optimal Task Assignment in hybrid edge-cloud environments to support situation-aware robot-assisted operations.  
Real-time data fusion for intrusion detection in industrial control systems based on cloud computing and big data techniques  
  
The Evaluation section is unclear. The experimental setup and methodology should have been detailed. Considering the lack of information, it is impossible to analyze the results. The authors should have described the utilized device configurations; they should be heterogeneous to mimic the target edge, fog, and cloud infrastructure. Similarly, the authors should have detailed the network configuration's capacity in all links. Moreover, it is impossible to know whether the experiments were conducted in a real-world platform or simulations.  
  
The methodology should have been clarified. The authors should have mentioned how many times they executed each experiment and included the deviations in the results. They should have generalized the experiments by including multiple experimental setups as well, and they should have better discussed the queries and their requirements. The discussion would have supported the assumption they are realistic.  
  
The related work comparison is weak. The authors should have used more recent work.  
  
NITs:  
- JDL (Abstract) -> spell the acronym.  
- dependent -> Dependent.  
- The DiSIF efficiently supports the dynamic execution of complex queries -> "The DiSIF efficiently supports the dynamic execution of complex queries.".  
- The innovation list in the Introduction lacks standardization. Some are in caps, while others are in lowercase.  
- Related works -> Related Work.  
- The image (Fig. 1) is low-quality. The authors should have redrawn it. C&P is not a good approach.  
- Section 2 has several unspelled acronyms, e.g., SSN, LSM. If an acronym is used once, it is not needed.  
- RDF stream Processing appoaches -> RDF Stream Processing Appoaches.  
- Within the master node, the NodePlatform ... -> orphan sentence.  
- In the master node ... -> orphan sentence.  
- In Fig 7 some labels are unreadable due to their font size.  
   
  
  
  
FAQ: How can I reset a forgotten password?  
https://service.elsevier.com/app/answers/detail/a\_id/28452/supporthub/publishing/kw/editorial+manager/  
  
For further assistance, please visit our customer service site: https://service.elsevier.com/app/home/supporthub/publishing/. Here you can search for solutions on a range of topics, find answers to frequently asked questions, and learn more about Editorial Manager via interactive tutorials. You can also talk 24/7 to our customer support team by phone and 24/7 by live chat and email.  
  
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