I am attaching a paper entitled "Revolutionizing Aquatic Spheres: A Global Review of IoT Technologies in Fisheries and Aquaculturewith this mail.

To inform you, we had submitted this in a journal "Computers and Electronics in Agriculture". But the paper was not accepted and the comments from the reviewer were as follows.

While the current manuscript provides a comprehensive and well-written literature survey, it fails to provide in-depth syntheses, technical analyses, insights, and concomitant recommendations characteristic of a good Review Article. Typically, metrics or features or some other organizing/explanatory characterizations are used to distill important results and present those in tables and figures. Please see recently published Review Articles ([https://doi.org/10.1016/j.compag.2020.105895](https://urldefense.com/v3/__https:/doi.org/10.1016/j.compag.2020.105895__;!!HXCxUKc!3bv2YlK2RNryvJ9RTgixfDqDnD_HWLqqOpkXvOWdjPX9xZICglRfo_6NkdgxHVl_oI9d7jUQgzO9aPslVvhxCa_nEw$), [https://doi.org/10.1016/j.compag.2020.105908](https://urldefense.com/v3/__https:/doi.org/10.1016/j.compag.2020.105908__;!!HXCxUKc!3bv2YlK2RNryvJ9RTgixfDqDnD_HWLqqOpkXvOWdjPX9xZICglRfo_6NkdgxHVl_oI9d7jUQgzO9aPslVvhWSngx9A$)) as good examples of this type of contribution.

I feel you will be able to improvise the paper. If you agree to improvising this paper, please let me know.

I will be happy to add you as a co author in this paper.

Suggestions

Technological innovations in the recreational fishing sector: implications for fisheries management and policy

This paper finds studies for each technology and reviews it.

\*\*Summary of the Suggestion:\*\*

The suggestion is to conduct a text analysis using Latent Dirichlet Allocation (LDA) on the papers related to IoT technologies in fisheries and aquaculture. This involves preprocessing the text data, training an LDA model to identify topics, assigning papers to these topics, visualizing the results, and interpreting the findings.

\*\*Reason for Adoption:\*\*

1. \*\*Identifying Themes:\*\* LDA analysis is adopted to uncover hidden themes or topics within the collection of papers. This method allows for a data-driven approach to understand the diverse content present in the literature.

2. \*\*Organizing Information:\*\* The LDA analysis will help organize the papers into clusters or topics, providing a structured overview of the key themes present in the literature. This can enhance the clarity and organization of the research.

3. \*\*Insights into Research Landscape:\*\* By employing LDA, the team can gain insights into the prevalent topics, relationships between terms, and overarching patterns within the literature. This approach facilitates a deeper understanding of the research landscape.

\*\*How It Will Be Helpful for the Paper:\*\*

1. \*\*Enhanced Structure:\*\* LDA analysis will contribute to a more structured and organized presentation of the research findings. The identified topics can be used to categorize and group papers, creating a more coherent narrative.

2. \*\*Visual Representation:\*\* Visualizations derived from the LDA analysis, such as word clouds or bar charts, will offer a visually appealing representation of the relationships between topics and words. This aids in presenting complex information in an accessible manner.

3. \*\*Thematic Insights:\*\* The LDA analysis will provide thematic insights into the papers, allowing the team to discern the main areas of focus, trends, and connections within the literature. This can inform the writing process and highlight significant contributions.

4. \*\*Data-Driven Conclusions:\*\* By adopting LDA, the team can draw data-driven conclusions about the major themes in IoT technologies in fisheries and aquaculture. This strengthens the research by providing a rigorous and systematic analysis of the existing literature.

Performing a text analysis using Latent Dirichlet Allocation (LDA) is a great approach to identify themes and clusters in a collection of papers. LDA is a popular technique for topic modeling that helps uncover hidden topics within a set of documents.

Here's a step-by-step guide on how you might proceed with your LDA analysis:

**1. Data Preparation:**

* Gather all the papers related to IoT technologies in fisheries and aquaculture.

115 papers identified from the web of science database. This part can be modified, hence we can add/remove from this set of papers later as well, and check results again.

* Preprocess the text data by removing stop words, stemming, and lemmatization.
* Convert the text data into a format suitable for LDA analysis, such as a document-term matrix.

**2. LDA Model Training:**

* Choose the number of topics (clusters) you want the model to identify. This may require some experimentation.
* Train the LDA model on your preprocessed dataset.

**3. Explore Topics:**

* Examine the results of the LDA model to understand the distribution of topics across your papers.

Exploratory Analysis To verify whether the preprocessing, we’ll make a simple word cloud using the wordcloud package to get a visual representation of most common words. It is key to understanding the data and ensuring we are on the right track, and if any more preprocessing is necessary before training the model.

A close-up of words

Description automatically generated

* Identify the most significant words associated with each topic.

Major Themes in Papers Published between 2000 and 2023:

1. aquaponics: Occurrences = 33

2. aquaponic: Occurrences = 26

3. systems: Occurrences = 21

4. system: Occurrences = 19

5. production: Occurrences = 12

6. fish: Occurrences = 10

7. water: Occurrences = 9

8. nitrogen: Occurrences = 9

9. plant: Occurrences = 8

10. lettuce: Occurrences = 8

11. hydroponic: Occurrences = 8

12. effects: Occurrences = 7

13. commercial: Occurrences = 7

14. growth: Occurrences = 7

15. sustainability: Occurrences = 6

16. recirculating: Occurrences = 5

17. comparison: Occurrences = 5

18. use: Occurrences = 5

19. effect: Occurrences = 5

20. hydroponics: Occurrences = 5

In the first three steps of the LDA clustering process suggested above, the focus is on preparing and understanding the dataset. Step 1 involves collecting and organizing the relevant papers for analysis(115 papers identified). This includes ensuring that the dataset is comprehensive and representative of the topics you want to explore. Step 2 delves into pre-processing, where text data is cleaned and transformed to enhance analysis accuracy. This involves tasks such as removing irrelevant information, handling missing data, and standardizing formats. Step 3 introduces the concept of tokenization, breaking down text into smaller units like words or phrases, and creating a bag-of-words representation. These initial steps set the foundation for the subsequent stages of assigning topics, visualizing results, interpreting findings, refining the model, and ultimately documenting and presenting the insights gained from the LDA analysis.