Review of: "Tweeting AI: A Machine Learning Approach for Bird Species Detection and Classification"

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Potential competing interests: No potential competing interests to declare.

1. The abstract does not yet provide a summary of the contents of the paper as a whole. Suggestion: The abstract should describe the problems that occur, research contributions, methods used, results obtained, and analysis.
2. In the introduction, it is necessary to explain the relationship between the war of various kinds of birds as a regulator of ecological balance and the identification and recognition of various kinds of birds using AI. Apart from that, the link between bird behavior and the use of AI must also be clarified, because, as far as can be seen from the paper, there is no explanation related to the behavior of birds with the AI used.
3. The novelty of this paper is yet to be seen. As far as can be seen, the process of classifying bird species using the CNN algorithm with the commonly used Yolo5 architectureContribution 1: "Developing a new method for collecting comprehensive data on birds' behaviors that is more efficient than traditional survey methods." . In this paper, it has not been seen that the development of a comprehensive method for collecting data on bird species and their behavior.Contribution 2: Enabling researchers to monitor changes in bird populations over time more effectively through real-time insights generated via integrated AI-powered technologies from diverse sources such as acoustic signals, images/videos, etc." As in contribution 1, it is not seen in the paper that explains this.Contribution 3: "Providing an innovative tool that can be used to assess the impact of environmental factors such as climate change or habitat loss on avian biodiversity whereby providing advance warning signs enables proactive measures to be taken addressing issues raised by stakeholders involved." Similar to the statements in contributions 1 and 2, there is no detailed explanation in this paper. Suggestion: the article should contain a novelty resulting from research that contributes to the further development of the classification process, for example, the novelty of the architecture used in the form of architectural modifications, etc., so as to produce a model with better accuracy. Contribution in this case is within the scope of research, not a description of the benefits of research results.
4. Research methods:Preferably, it contains the stages of research:Starting from the acquisition of data sets, including dataset sources, the number of datasets, the amount of training data, and the number of valid data used as test data.Data pre-processing, how to deal with missing data, data balance, and data size both in training data and test data.Selection of CNN Architecture, why Yolo was chosen, how CNN-Yolo works, how many convolution layers, number and size of kernels, including Max-pooling and Average-pooling and their dropouts, number of Fully Connected layers with number and size of kernels, and function selection activationIt is better to make it in the form of a diagram with an explanation for how the CNN-Yolo-v5 used works.
5. Implementation can be explained by making screenshots for each of the stages of the research.

6. Testing the model obtained must be based on a measurement; for example, you can use the confusion matrix as a tool to calculate the precision, recall, F1-measure, and accuracy of the model.