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

Mudita Uppal[1]

1 Chitkara University

Potential competing interests: No potential competing interests to declare.

1. The abstract currently lacks a comprehensive overview of the paper's content. It is advisable to enhance the abstract by encompassing the addressed issues, research contributions, methodologies employed, attained outcomes, and subsequent analysis.
2. The introduction necessitates elucidation on the interplay between avian interspecies conflicts as ecological regulators, AI-enabled bird categorization, and behavioral analysis. The paper lacks correlation between bird conduct and AI application, warranting a deeper exploration.
3. The novelty of the study remains elusive. Notably, the utilization of the CNN algorithm, specifically Yolo5 architecture, for bird classification emerges as a novel approach. The contributions entail three aspects: firstly, devising an efficient method for data collection on bird behavior surpassing traditional approaches. Secondly, facilitating real-time monitoring of avian population changes through integrated AI technologies from diverse sources. Lastly, furnishing an innovative tool to assess environmental impacts on avian diversity, permitting proactive measures.
4. The article would greatly benefit from a distinct innovation achieved through architectural modifications, thereby refining model accuracy. The novelty should focus on research progression rather than result benefits.
5. Research methods should ideally encompass: data set acquisition with sources, dataset volume, training and test data statistics; data preprocessing addressing missing data and balance; CNN Architecture selection with rationale behind Yolo choice, architecture details; schematic representation of CNN-Yolo-v5 function; a step-by-step implementation walkthrough using screenshots; model assessment through metrics like confusion matrix, encompassing precision, recall, F1-score, and accuracy.