Combining citizen science and machine learning techniques to address the two main issues of user engagement and data validation in citizen science projects

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Introduction

Expert-only data validation:

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- > Time consuming
- Complex
- Not feasible
- No communication with the volunteers (demotivation)



Combining human and machine power:

- Automatic validation
- Real-time feedback to the participants

Methodology Valid Invalid Request for more information Feedback 2

- Filters include : photo, date, and location of observations
- User will receive feedback with information about the species (e.g. period of visibility, habitat characteristics, etc.)

Conclusions

- ✓ Simplifying data validation
- ✓ Speeding validation task
- ✓ Sustaining participation
- ✓ Learning about species through Informative feedback





BioSentier-CS Application, V1: https://biosentiers-cs.heig-vd.ch/home/



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