Team ID: B9-A35E

Project Name: Digital Naturalist –AI Enabled tool for Biodiversity Researchers

LITERATURE SURVEY

1.1 SUMMARY OF LITERATURE SURVEY :

The increasing availability of digital image, coupled with sophisticated artificial intelligence (AI) techniques for image classification, presents an exciting opportunity for biodiversity researchers to create new datasets of species observations. We investigated whether an AI plant species classifier could extract previously unexploited biodiversity data from social media photos (Flickr). We found over 60,000 geo located images tagged with the keyword “flower” across an urban and rural location in the UK and classified these using AI, reviewing these identifications and assessing the representativeness of images. Images were predominantly biodiversity focused, showing single species. Non-native garden plants dominated, particularly in the urban setting . The AI classifier performed best when photos were focused on single native species in wild situations but also performed well at higher taxonomic levels (genus and family) , even when images substantially deviated from this.

1.2 A CAREER PATH RECOMMENDATION FRAMEWORK :

In North East India’s biodiversity hotspots that are flora and fauna such as the Hoolock Gibbon and the Phayre’s leaf Monkey, a Bengaluru-based research organisation has been gathering data on plant diversity and animal groups as well as mapping the ecosystem.

This article was published in Feb 19, 2019 02:45pm

1.3 JOB RECOMMENDATION BASED ON JOB SEEKER SKILLS: EMPIRICAL STUDY

IBM, too, has jumped on to the bandwagon and is aiming to reach out to as many as 3.5 million farmers through its agri Tech apps. “We see Agri Tech as a Rs 5000-crore opportunity in the

next five years. We are also working with Niti Aayog to develop a crop-yield prediction model using AI to provide real-time advisories to farmers in backward districts," says Himanshu goyal, india business leader, the Weather company, IBM.

This article was published in Feb 19, 2019 02:45pm

1.4 RECOMMENDER SYSTEMS: A SURVEY

Says Mam ta sharma of ICRISAT, "Our project is a combination of better surveillance powerd by satellite images, better forecasts powered by machine learing, ans a robust decision-support system for farmers through a cloud-enabled app. Advanced pest forecasting models and GIS maps are having a significants in crop production and to assess the impacts of climate change in the near future."

This article was published in Feb 19,2019 02:45pm

1.5 JOB RECOMMEBDATION SYSTEM USING MACHINLEARNING AND NATURAL LANUAGE PROCESSING:

Business are increasingly called upon to contribute to efforts to protect biodiversity and natural capital. Our article presents the results of on action research conducted with a major company in the environmental sector that has been experimenting with innovative services dedicated to ecosystem management. We show the specific organizational and social challenges the company faced in upscaling this strategy due to its path dependency to its historical value creation model , and to the collective action issues that characterize biodiversity management.

First published online August 6, 2020.

1.6 JOB RECOMMENDATION SYSTEM IN PHP:

We introduce a new interdisciplinary theoretical framework for the development of what we refer to as "business models for ecosystem management service," defined by the very central place they give to the achievement of measurable biodiversity performance. We then propose four such new business models designed through participatory methods that combine in a unique way a corporate value creation model with an ecological value cocreation model at the ecosystem level.

First published online August 6, 2020.