LITERATURE SURVEY ON THE SELECTED PROJECT & INFORMATION GATHERING

Artificial Intelligence(AI) techniques have profoundly transformed our ability to extract information from visual data.AI techniques have been applied for a long time in security and industrial domains,for example, in iris recognition or the detection of faulty objects in manufacturing.They were nevertheless only recently made more widely accessible after their use in smartphone apps for face recognition and song identification.Combined with increasing access to cloud-based computation, AI techniques can now automatically analyze hundreds of thousands of visual data every day. Applications of AI to biological recording have to date typically focused on active sampling,that is, images collected specifically for the purpose of recording wildlife (e.g., wildlife recording apps or camera traps). However, this has neglected large amounts of image data that are not collected for the purposes of biological recording, but which nonetheless may contain useful information about biodiversity.This includes social media imagery (e.g., Flickr and Instagram), CCTV, and imagery collected along linear infrastructure (e.g., Google StreetView).These unexploited image data could be rapidly analyzed using "AI naturalists" designed to locate potential images of biodiversity and classify what they see.

A naturalist is someone who studies the patterns of nature, identifies a different kind of flora and fauna in nature.Being able to identify the flora and fauna around us often leads to an interest in protecting wild spaces, and collecting and sharing information about the species we see on our travels is very useful for conservation groups like NCC.When venturing into the woods, field naturalists usually rely on common approaches like always carrying a guidebook around everywhere or seeking help from experienced ornithologists.There should be a handy tool for them to capture, identify and share the beauty to the outside world.Field naturalists can only use this web app from anywhere to identify the birds, flowers, mammals and other species they see on their hikes, canoe trips and other excursions.In this project, we are creating a web application which uses a deep learning model, trained on different species of birds, flowers and mammals (2 subclasses in each for a quick understanding)and get the prediction of the bird when an image is been given.