**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 15.10.2022 |
| Team ID | B9-3A5E |
| Project Name | Digital Naturalist -AI Enable Tool For Biodiversity Researchers. |
| Maximum Marks | 2 |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| **S. No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | We investigated whether an AI plane species classifier could extract previously unexploited biodiversity data from over media photos .We found over 60,000 geolocated images tagged with the keyword “flower” across an unbar and rural location in the UK and classified these using AI, reviewing these identification and assessing the representativeness of images. Images were predominantly biodiversity focused, showing single species. Non-native garden plant 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 level even when images substantially deviated from this. We present a checklist of questions that should be considered when under. |
|  | Idea / Solution description | When venturing into the wood, field naturalist 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 and get the predication of the bird an image is been given. |
|  | Novelty / Uniqueness | Peering in on the microbial world of nectar in one lab and modelling government programs in protected portions of the Amazon in another, Stanford’s on biodiversity is, itself, diverse. Our researchers being to light fundamental discoveries that help us define biodiversity and explore why species disappear. They also offer unique perspectives on how to conserve the natural world, taking into account how it is now and how it will likely be in the decades and centuries to come. |
|  | Social Impact / Customer Satisfaction | Stanford undergraduates study links between human and natural system through an interdisciplinary seminar in palau. With abundant data on plant, large animals and their activity, and carbon soli levels in the amazon, Stanford research suggests that large animal diversity influences carbon stocks and contributes to climate mitigation. Stanford’s community ecology lab has found that microbes in nectar can affect and inset. Now, scientists have shown these genetic clues can be used as forensic markers to accurately and easily survey marine life in complex deep-water environments. Scientists used tree cover maps and on-the-ground observation to measure biodiversity in Costa Rica. The results generated a method of modelling biodiversity across tropical landscapes. |
|  | Business Model (Revenue Model) | Businesses are increasingly called upon to contribute to efforts to protect biodiversity and natural capital. Our article presents the results of an action research conducted with a major company in the environmental with innovative services dedicated to ecosystem management. We show the specific organizational and social challenges this strategy due to its path dependency to its historical value creation model, and to the collective action issues that characterize biodiversity management. We introduce a new interdisciplinary theoretical framework for the development of what we refer to as “business models for ecosystem management services. |
|  | Scalability of the Solution | Flickr searches returned a far greater number of images for central London (n= 55,176; 1,200 images/km) then for the peak District (n= 5,486;46 images/km) Images were taken between and April 26, 2003, and August 23, 2019 (Figure 1). By definition these are only the subset of images taken in these location that had location date available. To obtain an indication of the proportion of images that did not have location data, we searched for all images that contained the word “flower” taken in the first week of July 2019 regardless of location information. July was chosen because it is the month in which Flickr records the greatest number of uploads. 29 this search returned 23,140 images, 0f which 25% had location. |