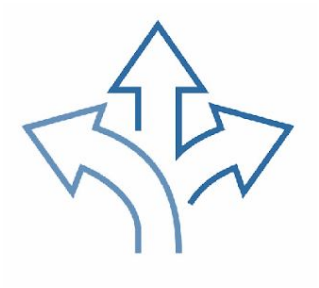
EchoBook

University of Kent

An Echo Parakeet tracking system in Mauritius

Due to the Echo Parakeet population declining to only 8-12 individuals by 1986, 'Mauritian Wildlife Foundation' and 'Mauritius National Parks and Conservation Services', have begun work to recover the Echo Parakeet population. To monitor progress, field observation is currently employed; this consists of 1-hour a day monitoring by field staff and manual data entry.

Our project aims to improve the data collected, by automating this labour intensive process. To do this, RFID enabled rings are being introduced to the parakeet population and feeders are to be equipped with readers. Are system collates information to a central database where processed and displayed on a web based user interface for the researcher to use.

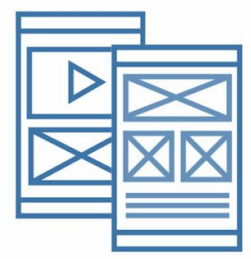


Approach

Our project puts the user at the center of system design and development. We were informed by User-Centered Design and developed the project using a waterfall software engineering approach.

User Requirements

We developed a deep understanding of the field-staff's everyday tasks, the research environment and the birds' behavior. This understanding was transferred into use cases and user stories.



Prototyping

A low-fi prototype was created to illustrate the system to the field-staff. It was then tested and reviewed to identify system flaws and develop new ways of improving system usability.

Continuous Feedback

At every stage of development we communicated with the field-staff via email and face-to-face meetings to ensure the project met their needs.

Back End

Our constructed solution uses a relational database (MySQL). This technology was chosen because of its long-history of use and because of its transactional design.

Front End

The user interface has been developed using the Sails.js web framework. We used a MVC model approach to clearly delineate the systems functionality.

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