

1. Cover page

Steven Landry

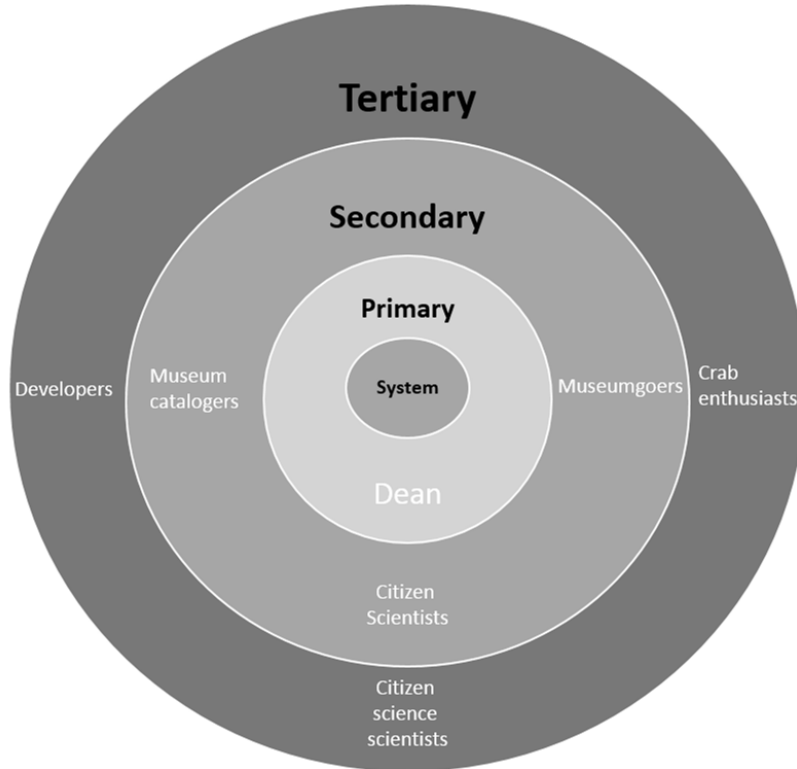
Evaluation Assignment 1 – Website and Stakeholders, Goals and Task Analysis

2. Undergraduate system description: Crab Shack App

Team Crab Shack App is a desktop application to present citizen science data of crab specimen label transcripts to Dean Pentcheff. The primary goal of the application is to allow the scientist to validate, select, and change label fields to digitize his museum's specimen catalog. A secondary goal is to provide a framework for future scientists to leverage the power of citizen scientists to accomplish time consuming tasks that do not require domain expertise to advance scientific research.

3. Stakeholder Onion Diagram

Onion Model for Stakeholders



4. Stakeholders' short descriptions

Primary User

Dean Pentcheff- The product owner and the sole target user for the application. He will be the one actually using the app to view citizen science data to validate and digitize the specimen catalog for the Natural History Museum of Los Angeles County.

Secondary Users

Museum Catalogers – The museum staff that maintain the specimen catalog. They will be viewing the consolidated digital catalog after Dean validates the citizen science data.

Museumgoers – Anyone that visits the museum and appreciates the accurate labels of specimens. They could also view the museums website to view the catalog of specimens from the privacy of their own home.

Citizen Scientists – The lay people that contributed to transcribing the pictures of specimen labels.

Tertiary Users

Developers – The undergraduate students involved in designing, creating, and supporting the application.

Citizen scientist scientists – The hypothetical scientists wishing to leverage citizen science data for their own projects. After the hypothetical success of the Crab Shack App application, it's functionality was expanded to consolidate and display future citizen science data for the citizen science scientists.

Crab enthusiasts – Anyone that appreciates accurate and accessible data of crab specimen databases.

5. Stakeholder Goal Influence Table

System	Primary	Secondary	Tertiary
<u>Goals:</u> To exist	Dean	Museum catalogers	Developers
<u>Influences:</u> Grades for students	<u>Goals:</u> To leverage citizen science data to digitize specimen records efficiently and accurately. <u>Influences:</u> The overall design and functionality of the app	<u>Goals:</u> To maintain accurate records of the specimen inventory. <u>Influences:</u> Decides how to display and keep aggregated labeling data for museumgoers and scientists	<u>Goals:</u> To provide the most functional and usable software to assist Dean <u>Influences:</u> How the application looks and functions
		Museumgoers	Citizen science scientists
		<u>Goals:</u> To learn about crabs. <u>Influences:</u> Pressures Dean and museum catalogers to maintain accurate and usable labeling data.	<u>Goals:</u> To establish a method to better leverage citizen science data to accomplish a variety of scientific tasks <u>Influences:</u> Pressures developers to develop a robust, generalizable application
		Citizen Scientists	Crab enthusiasts
		<u>Goals:</u> To assist scientists in digitizing specimen labels <u>Influences:</u> How difficult of a task digitizing the records are for Dean	<u>Goals:</u> To learn about crabs <u>Influences:</u> Pressures Dean and museum catalogers to maintain accurate and usable labeling data.

6. Summary of the Stakeholder Goal Influence Table

The System's goals is to simply exist. It influences the grades for the undergraduate student developers of team Crab Shack App.

The primary stakeholder is Dean. His goals is to leverage citizen science data to digitize specimen records efficiently and accurately. He influences the overall design and functionality of the app.

The secondary stakeholders are the museum catalogers. Their goals are to maintain accurate records of the specimen inventory. They influence how to display and keep aggregated labeling data for museumgoers and marine biologists. Museumgoers are type of secondary stakeholders. Their goals are to learn about crabs. They pressure the scientist, Dean, and the museum catalogers to maintain accurate and usable labeling data. A third type of secondary stakeholders are the citizen scientists. They want to assist scientists in digitizing these specimen labels. They influence how difficult of a task it is to digitize the specimen catalog by the scientist Dean.

The Tertiary stakeholders are the developers. Their goal is to pass the class, and to provide te most functional and usable software to assist Dean, the scientist, in digitizing the museum's specimen catalog by leveraging the power of the citizen science data. They influence how the application looks and functions. Another type of tertiary stakeholders are the citizen science scientists. Their goals are to establish a method to better leverage citizen science data to accomplish a variety of scientific tasks. They influence the developers to develop a robust and generalizable application that could be applied to a variety of citizen science data collections. Any crab enthusiasts are also tertiary stakeholders. Their goals are to learn about crabs, and to find out what specimens this particular museum has in stock at any given day and time. They pressure Dean, the scientist, and other museum catalogers to maintain accurate and usable records of specimens.

7. Personas

Primary user:



Hypothetical name: Dean Pentcheff

Age: 50~

Residence: Natural History Museum of Los Angeles County

Goals: To digitize specimen records of the Natural History Museum of Los Angeles County

Behavior: To validate citizen science data for accuracy

Relationship to other people: The product owner. Tells developers what to make.

Has a doctorate degree in Marine Biology. He now works at a museum and has significant experience cataloging crab specimens.

Secondary users:



Hypothetical name: Henry Denry

Age: 18

Residence: The greater Los Angeles area

Goals: To learn about marine biology and to just get out of the house for a few hours.

Behavior: Visits the Natural History Museum of Los Angeles County, explores the displays, and reads the labels.

Relationship to other people: Pays an entrance fee which funds the entire museum operations and personnel. Pressures staff to have interesting displays, and accurate display labels. He is just a curious guy.



Hypothetical name: Emily Dunken

Age: 17

Residence: Baton Rouge, LA

Goals: To assist scientific researchers, advance science, and relieve boredom

Behavior: Reads sloppy hand written notes and transcribes them into text fields

Relationship to other people: Provides the grunt-work for researchers and specimen catalogers.



Hypothetical name: Chet Dudermeister

Age: 27

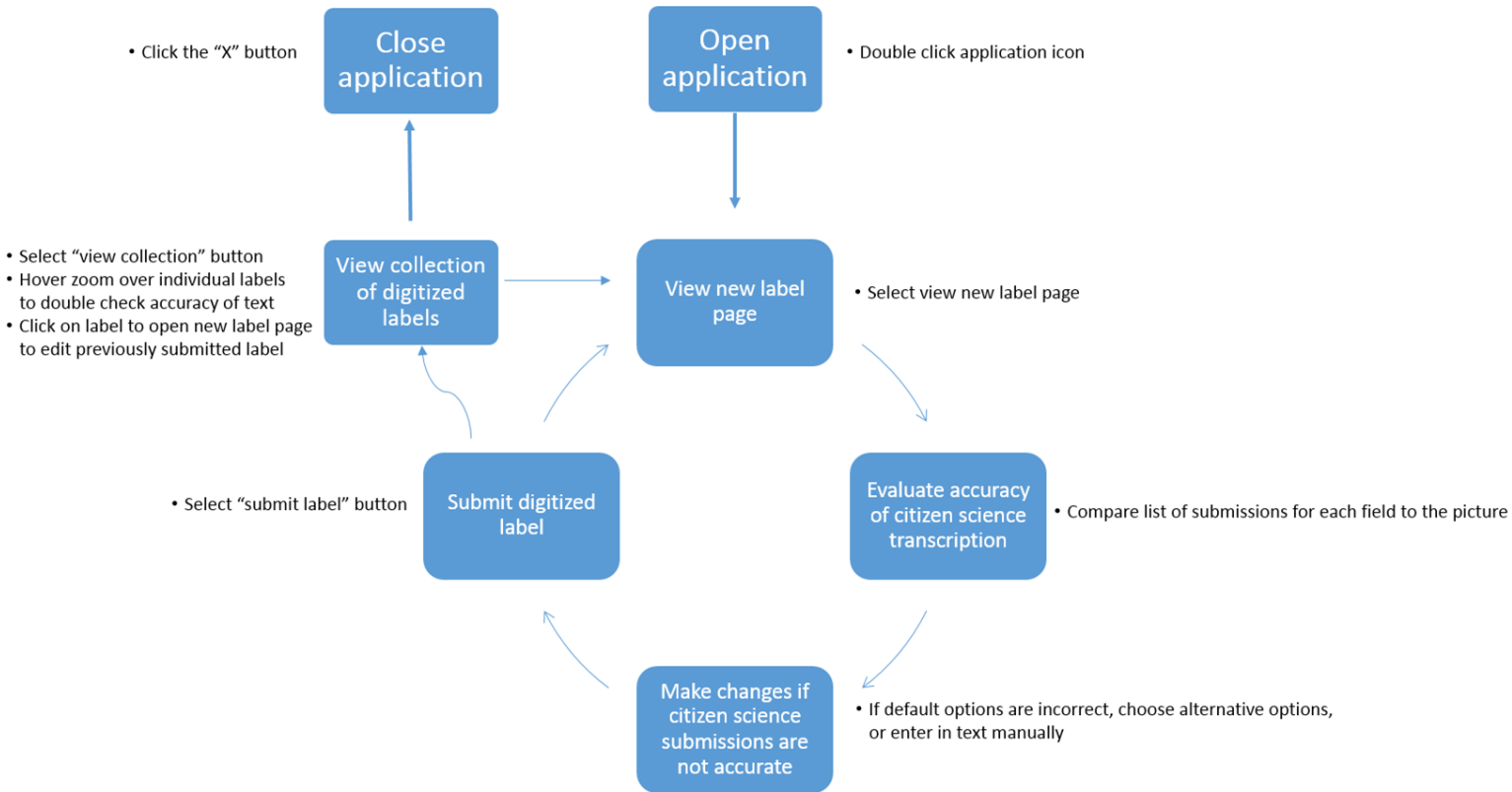
Residence: Los Angeles, CA

Goals: To learn as much as possible about crabs

Behavior: Attempts to woo women with his hard shell and knowledge of crustaceans. Visits the Natural History Museum of Los Angeles County three times a week minimum and reads every single label in the building.

Relationship: Trusts the museum staff to provide accurate and legible labels for specimen

8. Simplified HTA

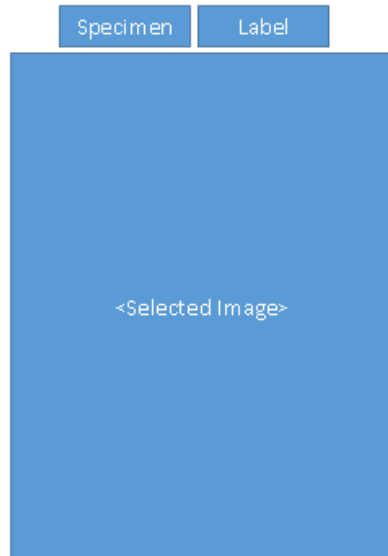


9. Summary of the simplified HTA

There should be 3 main pages. The start page, where the user (Dean) can select to view a new label page, or to view the collection of previously submitted digitized labels. The second page is the view a new label page. This page should include pictures of the specimen and the handwritten label. Options for digitized fields should be positioned next to the picture of the label field, arranged by "most likely" to "least likely", determined by the frequency of citizen science label entries. The most likely option should be selected by default for each of the label fields, so if all fields are correct, all the scientist (Dean) has to do is view the options to ensure accuracy, and click the "submit" button. A new view new label page should immediately be presented to the user (scientist, Dean) upon submission. Repeat this process as many times as the user wishes. There should be a small shortcut menu on all pages that will bring the user to the "view collection of digitized labels" page. This will be the third main page. It should be small thumbnails of each of the previously submitted labels. The user can hover over the thumbnails to zoom in on the picture and newly digitized label. This will allow the user to view the full scope of their work, and double check for accuracy.

10. Appendix

View new label page mockup:



Location San Pedro, CA San Pedro, CO

Identifier Name Verne Williams

Latitude

Longitude

Scientific Name Cancer Antennarius Verne Williams

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DISCUSSION:

- Mobile vs Desktop usage
- Viewing, searching, editing completed items
- Concurrent users