COSC310 – Group Assignment – Team Cassowary - Client Questions

* General
  + What is the client supplying? Servers, cameras, machine learning algorithm, internet costs, data costs, server costs

*All traps supplied – 12 total*

*Servers are to be cloud servers - AWS required. We need to provide a costing for this within the first 3 months.*

*Tensorflow predictive model provided to us by Client*

*Interest, data, hosting costs are covered by client and not included in development budget. 3 years of hosting funding has been granted to the client.*

* + Conversely, what are we supplying?

*We are to build a prototype cloud base system that can receive raw data (images), store that data and run predictions on the data. Additionally, if predictions indicate dropbear activity, we need to update our webpage and app accordingly.*

* + How many users is the system expected to cater for?

*5 max during prototype. Main user is Dr Client.*

* + Do you require an API, so that third party applications can interface with this product?

*No*

* + The project is looking to move to a commercial product. Are there any software licencing issues with your machine learning algorithm and associated software?

*Yes it will eventually be commericalised, therefore any software we add needs to consider software licensing implications (we will need to avoid any libraries that stipulate the finished product must be released as open source). The clients ML model has already considered this.*

* + Given it’s moving to a commercial product, do you need any specific prototyping completed for apps or websites?

*This project is the prototype. However, ensure your code documentation is adequate considering this will eventually move to a commercial product.*

* + Further, is the software project we’re undertaking needing to accommodate the expansion of this software into a commercial product, or are we simply prototyping?

*Simply prototyping.*

* + Do you have any product development timelines? Any specific dates for deliverables, or hard deadlines etc.

*12 months project life.*

*3 month Milestone reporting sessions with Dr Client. Showing current functionality.*

*Last 3 Months – Field trial – All 12 cameras in field, working with prototype system we built.*

* Machine Learning
  + You’ve told us that you have trained machine learning algorithms, but also that once the images are forwarded from cameras to the website that we need to identify if drop bears are present. Could you please clarify if you have a working machine learning algorithm that can identify drop bears?

*Yes it can. It will localise and classify the dropbear – in other words, it will identify and draw a box around a dropbear if one is present in the image.*

* + If you don't:
    - Are we responsible for building one?

*No, client provides one*

* + Further, are there any accuracy requirements for the detection of drop bears?

*Client tells us that the model they are providing is 95% accurate.*

* + Are there any tolerances you can specify for false positives, or failure to identify?

*Outside the scope for us, we don’t need to deal with the ML Model, only implement it.*

* + Do we have raw access to the algorithms?

*No.*

* + If we don't have access:
    - Is the client responsible for the servers running the algorithms to identify the images?

*No, we are responsible for running the given model on an AWS hosting platform. The client is covering the costs. (James adds here, a GPU instance is recommended for the amount of processing required).*

* + - Is the client responsible for scaling it out if required?

*We need to ensure that we have given adequate resources to the running of the model on AWS. (James adds, a low to mid tier GPU instance should suffice, but goes on to add that we would need to specify in our report that testing would need to be conducted through the development process to ensure that adequate resources have been allocated.*

* + - Is the client meeting the associated costs for the servers?

*Yes, client covers all cost for hosting on AWS. After 3 months, we need to provide the client with a rough monthy estimate of hosting costs.*

* + Does the client have an API endpoint that we can access?

*We will be given a Tensorflow model, and we need to implement that, and make it work with out system. We are assured by the client that it is simple to use. Raw image goes in, prediction output comes out.*

* + If we do have access:
    - Are we responsible for sourcing the server hardware?

*AWS Cloud hardware to be used.*

* + - Are we responsible for ongoing costs for the server?

*No, client is covering hosting costs.*

* Website
  + Who do you believe will be using the website?

*2 groups of users, general public who are interesting in the alert/notification system, and Researchers who may be interested in looking at the raw data.*

* + Does the website have any accessibility requirements, being a government funded project?

*Considering it is a prototype, not really, just needs to work for now.*

* + Does the website have any browser compatibility requirements?

*Work in Chrome is a minimum requirement of this prototype phase*

* + Does the website have any additional language requirements?

*No, English only, for prototype phase.*

* + What vision do you have for the website? Is it simply alerting users of identified locations, or will there be additional requirements? News, Blogs, About etc.

*Functional prototype.  
A page for the general public where they can input a postcode and get a total number of sightings for their area. They do not need to see the exact locations of the traps, or any specific details. A sign up by email for the public, where they will receive notifications of any new sightings.   
For researchers, there needs to be a webform that allows researcher users to request data. Dr Client will be responsible for granting permission on a case-by-case basis. When a particular researcher has been given access, they will be able to see the following information on the website: time/date the image was taken, the image itself, the GPS location of the trap that took the image, the classification output and the confidence level.*

* + Do you want different functionality, for different users? For example, researchers may have a research portal, whereas tourists only see information and warnings.

*See above.*

* + Do you have appropriate servers to host the website on, and are you responsible for meeting the ongoing costs?

*No, we need to organise this, but the client will pay for it.*

* Mobile application
  + What platforms does the client want supported?

*IOS and Android – current versions only*

* + What compatibility with older devices does the client want?

*None needed*

* + How do they want users to be notified? In-app notifications, SMS message, email?

*For the app, push notifications (that can be turned off and on).   
No SMS  
Email notifications for webpage users only*

* + Does the client want any user registration or signup?

*Client does not need to register for the app, only download the app, and enter their postcode for which they’d like to receive sighting notifications for.*

* Cameras
  + You said that images are sent via SMS / Email. Could you please clarify how the images are sent, specifically?

*Images are sent via email using SMTP.  
Each trap has 3G.   
Sends 3 images per email – each trap will have its own destination email address that it sends its files to.*

* + Do the cameras have satellite / cellular data access or capabilities? If yes, who is responsible for meeting those ongoing costs?

*Yes, 3G. Client covers costs.*

* + Do the cameras require maintenance? If yes, who is responsible for the maintenance?

*Client does this*

* + Do the cameras run any software / OS that we can interface with?

*They’re off the shelf cameras. Dealing with the cameras is outside of scope.*

* + Do the cameras store any EXIF data for GPS / timestamps?

*Client will provide us the GPS locations of the traps.*

* + What information do you require that the cameras are able to provide? GPS coordinates, timestamps, date etc.

*Time/Date  
The Image*

* + How many cameras are there, and where are they located?

*12 cameras over 2 locations (6 in each). One location is New England, the other is an area within Northern NSW.*

* + How often should the cameras send an update to the website to be processed?

*Depends on the dropbear activity in the area.*

* + Is the number of cameras fixed, or varied? Are they adding new cameras?

*Fixed at 12 during this phase.*

* + With the image storage, how do you want them to be sorted, and where? By what category or attributes should they be stored and classified?

*Stored on AWS database.   
Store every image, and organise by camera trap.   
Should be able to search the database for specifics, such as positive sightings.*

* Stakeholders (Federal, State, Community Organisations)
  + Have any stakeholders placed any requirements on you, the client, in terms of deliverables (i.e. Funding contingent on functionality)? If so, what are they?

*Dr Client will liaise with other Stakeholders, so we only need to deal with him.*

* + How do you want the stakeholders to access their information? Will it be something that you will manage manually, or something automated through the website?

*We will not speak with Stakeholders. Dr Client only.   
Dr Client is also responsible for demo-ing the system to the other Stakeholders.*