# Product Speech

## Introduction:

Hello GovHack 2018 veiwers, my name is Luke Ginn and I am presenting on behalf of team 304. We are a team of data analysts in Brisbane whose membership is comprised of Brendan Sulivan, Mathew Taylor and myself. Our project is called Tax Help Helper and we believe this is the solution to ‘The Friendly ATO’ and ‘Tax Return Help Centers’ challenges.

## Problem:

Without previous experience or support, understanding how the tax system works can be a struggle for new users. The Tax Help Center program provided by the Australian Tax Office (ATO) acts as the vital assistance to those who require this support. However, the challenge facing the ATO is on where and who needs this help the most. This information is key to the most effective deployment of ATO resources to support the maximum amount of people possible.

## Vision:

Using a ‘Machine Learning’ approach, our vision is to provide the ATO the key information they need to utilize their resources to the best engagement of their clients.

## Data/resources:

To develop our product, we used the data sets provided to us by the ATO and additional information from the Australian Bureau of Statistics (ABS). The original intent of our research was to just find the best areas we can place the Tax Help Centers. But as we developed our project, we realized the potential extends beyond just finding these potential locations. We discovered the key demographics of the people who needed this support the most. With this new insight we further developed the project to support the ATO in their engagement with the Australian citizens.

## Minimum viable product:

We created an interactive dashboard to enable users to see the analysis result in a simple visual manner, with options to select model filters, inputs and display model results. It identifies regions that currently do not have a tax help center but most likely should and areas where the demand for tax help centers has decreased or increased. Type in any postal code and the model will return results in real time. The model has an accuracy of approximately 90%. This means it agrees with the location and number of ATO centers across Australia 90% of the time. The 10% of the time, the model is suggesting new locations to place Tax Help centers or decrease / increase the amount of centers in an area.

For example, 4069 and 4070. The model also lets us known the most important demographics are: Australian’s who are not married, Australia’s between 20-24 and foreigners to Australia. It also suggests those in lower economic areas need support.

## Next Steps:

The next step is work with the ATO to use this product for the benefit of Australian’s country wide. We’d like to have the chance to present this product to the volunteers in the Tax Help centers to improve the product and help the volunteers know they are going where the help is most needed. Furthermore the model could be used in other areas such as identifying regions in Australia more likely resulting in fraud or tax evasion.  
  
Thank you for giving us the chance to produce this product using openData and working with ATO mentors. We are excited for them to see this product and to be given the chance to see this produced used within the ATO. Thank you

Taxes can be hard to understand when you are not used to the system. The Australian government offers Help Center programs to assist individuals in person with their taxes. However, it can be difficult for the government to know where these help centers are needed. It can be difficult for the government to determine how the needs for tax help centers change in time as well.

A joint collaboration with mentors from the Australian Taxation Office and data analysts in Brisbane, a machine learning approach was taken to help address the needs of the goverment.

Using data provided by the ATO (Australian Taxation Office) and ABS (Australian Bureau of Statistics), our machine learning models predicts where a tax help center is needed and how many across Australia. It identifies regions that currently do not have a tax help center but most likely should and areas where the demand for tax help centers has decreased or increased.

To make this usable product, it is already published online with for public use and acessable via a tiny url, with a visually appealing user interface.

Using this work, we hope we can help assist Australian's country wide with their tax and help the volunteers of these places know they are going where the help is most need.

We'd now like to show the product.