2018

DataLand NZ Info Packet

INFORMATION FOR PARTICIPANTS OF DATALAND NZ 2018

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Orientation

Introduction

Hey all, and welcome to DataLand NZ! A lot of work has gone into this event, from our end and yours, so this information packet will try and give all the information needed for your DataLand experience to be as smooth as possible.

Where, when, and how to get there

Where: Level One DIA Building, 45 Pipitea Street

When: 8:30 to 5:00, Friday 31st August and Saturday 1st September

How: The building can be approached from Pipitea Street or from Molesworth Street. We will have staff directing participants towards both entrances, who will be identifiable by their DataLand T-Shirts. Once inside, walk up one floor and you will find yourself at DataLand basecamp.

How to access WiFi

We will be providing 5 different routers, which will be located around the floor to provide full coverage. The routers will be labelled with their respective names, and password for all routers will be **DATALANDNZ**. Choose the router closest to you, and we'll attempt to ensure everyone is split evenly across them.

How to submit work

We will be using a shared Google Drive folder for our presentations and project submissions (link here). We won't prescribe any work-storage requirements, but we recommend using GitHub as a project space for consistency.

Itinerary for the day

Our rough schedule:

Friday

- 0830
  - Doors open
  - Orientation
- 0900
  - Opening talk
  - Team formation begins
- 1000
  - (Optional) Hack 101 Workshop – Learn the basics of Lean Canvasing and hacking with Cam Findlay
- 1030
  - Morning Tea
- 1200
  - Lunch
  - DataLand NZ Guest Speaker Christina Leung – Enjoy lunch while listening to Christina from NZIER talk about how data is used in economic forecasting
- 1430
  - Afternoon Tea
- 1630
  - Pack-down of Day 1 begins
- 1700
  - Doors close on Day 1

Saturday

- 0830
  - Doors open
- 1100
  - Morning Tea
- 1300
  - Lunch
- 1530
  - Afternoon Tea
- 1600
  - Final submissions open
- 1700
  - Final submissions close
  - End of work Day 2
  - Presentation order released
- After 1700
  - Presentations/judging begins
- 1900
  - Doors close Day 2
  - Prizegiving begins (Backbenchers)

Team formation information

When you arrive on the day you will see banners and posters around the main room. These will contain information about every question you and your team can tackle. Once you have decided, make sure to congregate near the question problem you want to solve.

For anyone arriving with a full team of 6, no team formation will be necessary.

For smaller teams (3-5), feel free to set-up, and we will ferry individuals towards you based on question interests or skillset shortages. If you have a small team, it may help to think about where your skill gaps are or what questions you're interested in. Let one of the DataLand Team know these details when you arrive, and we will be sure to set you up with a great team!

For individuals or pairs, our volunteers and mentors will be working together to ensure you get put with a team you can work effectively. We will be both filling up existing teams and creating teams from scratch, based on seems to work best and what problems you are keen to work on. Try to have a think about what questions you want to work on beforehand; you can also use the hashtag #DataLandNZ on Twitter or Facebook to search for teams before the date.

Where to look for help

Our staff are here to support teams, and make sure nothing gets in the way. If you're having trouble, come find us and we will get you moving as soon as possible!

For technical problems, your first port of call should be the Stats NZ help desk. If you have a volunteer helping you, it might be good to ask the volunteer to chase up the mentors and experts: this will let you continue to work while waiting for help, and reduce lines and crowds around help desks.

For non-technical problems, find a volunteer or staff-member for assistance. We will be wearing 'DataLand' T-Shirts, so should be easy to find!

Problem Statements

Over the 48 hours you will have a selection of challenges to solve. These problems come from across government, ranging from Accident Compensation Corporation, to Ministry for Primary Industries, to Statistics NZ. Have a read through the outline below before you arrive to get an idea on what you want to contribute to DataLand NZ!

Remember: these problems are to give you an idea of what to work on, but if you're working with Open Data we are open to any hacks, ideas or challenges achieved. If you'd rather work on your own problems, or approach a suggested problem in a different way feel free to do so!

Similarly, the data provided below will be recommendations based on how our team would approach the problem: if you think the problems supplied can be answered better or supported with different data sets, go right ahead!

Accident Compensation Corporation (ACC)

ACC is promoting three different challenges to this year's DataLand participants

1. Visualise Online ACC Treatment Injury Data

Background:
In 2016/17, ACC accepted 9,900 claims for injury caused by medical treatments. Each of these claims represents a person who was harmed during the course of treatment. Most of these injuries are considered preventable. Health professionals and clinical teams also need support to understand what happened and try to prevent the same harm from occurring again.

Outcome: Visualisation of treatment injury data to help inform and educate New Zealanders about the types and costs of treatment injuries. This could include infographics, art pieces, data journalism or other solutions.

The all-important Data:

https://drive.google.com/file/d/1KTscztl4YjTWpEeOVvDToGq4e_s71DwV/view?usp=sharing

https://www.acc.co.nz/assets/provider/supporting-patient-safety-report-2018.pdf

2. Create a hack based on injury prevention and management guidelines

Background:
Pressure injuries (also known as 'pressure ulcers' or 'bedsores') cause pain, disability, hospitalisation and sometimes even death for those affected – as well as financial strain for all involved. Most cases of pressure injuries are preventable – and preventing them before they develop or progress is a high priority for New Zealand's healthcare system.

ACC, Ministry of Health and Health Quality & Safety Commission are working together with other health sector partners on national and local improvement initiatives to prevent pressure injuries.

ACC has seen treatment injury claims increase in numbers and cost. Between 2009 and 2016 the number of accepted treatment injury claims has increased by 63%. Each treatment injury represents a person accidentally harmed. This has significant cost implications for ACC and a huge impact for New Zealanders quality of life.

Outcome: A Hack that uses pressure injury (bedsores + ulcers) guide to make access easier to use and consume in the work environment while incorporating Treatment Injury data.

The Data:

- ACC Treatment Injury Data Spreadsheet
- https://www.acc.co.nz/assets/provider/acc7758-pressure-injury-prevention.pdf

3. Create a hack aimed at DHBs and Health Professionals based on the Claim Lodgement Guide

Background:

This guide is to help District Health Boards (DHBs) and Registered Health Professionals (RHPs) advise patients on whether to lodge a Treatment Injury Claim.

On average, a third of Treatment Injury Claims are declined each year. Giving DHBs and Registered Health Professionals clearer guidance on when to lodge a Treatment Injury Claim will lead to:

- more appropriate claim lodgement, leading to greater confidence that a claim will be accepted
- improved patient experience as expectations are managed more effectively
- more time and resources within DHBs that can be focused on patient care and successful claims

Outcome: Hack that uses the Claim Lodgement Guide and ACC Treatment Injury data to help facilitate claim lodgement for DHBs and RHPs.

The Data:

ACC Treatment Injury Spreadsheet

Ministry for Primary Industries
Manatū Ahu Matua

Ministry for Primary Industries (MPI)

MPI is promoting three different challenges to this year's DataLand participants

1. Biosecurity

Background:

The primary sector drives New Zealand's economy and provides employment to over 350,000 people. Therefore, we must protect our natural resources from overseas threats. New Zealand's biosecurity system must constantly respond to emerging threats, and adopt new technologies to combat them. Learn about the policy and strategy that guides our biosecurity system. https://www.mpi.govt.nz/biosecuritynz/

Outcome: Design a tool (online or offline) that can help inform New Zealanders on how to locate and identify pests and invasive species. This could also link to resources on how to manage them after identification.

Data:

- Biosecurity Import Register (data.gov)
- Biosecurity Registers (data.gov)
- Marine Biosecurity Porthole (data.gov)
- Biosecurity Pest and Disease list (mpi.govt)

2. Desensitising Data

Background:

MPI often works with sensitive data that carries the risk of compromising the privacy of New Zealanders, in accordance with the Privacy Act (1993). As an example, this could include identifying methods of pest control employed by an individual, such as fruit fly traps. When opening data to the public, MPI (and many government agencies) must balance keeping data useful while ensuring the protection and safety of New Zealanders.

Outcome: Using **either** MPI data (such as Pastoral Monitoring) or any other anonymised data as a guide, design a tool, infographic or data process to assist in sensibly protecting data or to automatically protect data.

The Data:

- Pastoral Monitoring (data.gov)
- 12 Principles of the Privacy Act (privacy.org)

MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Ministry of Education (MoE)

MoE is promoting three different challenges to this year's DataLand participants

1. Charity and Philanthropy tool

Background:

The philanthropic community in New Zealand donate large sums of money to the education sector every year. These donations help support children in diverse ways, depending on the charity or area targeted, but it can be difficult and time-consuming to predict what areas require funding the most, and asking where money is most needed can be a sensitive question to ask.

Outcome: Tool (online or offline) that helps inform philanthropists of financial scenarios across New Zealand education, to help properly inform charitable donations.

Data:

- Charities Register (Charities.gov)
- Finance Indicators (data.gov)
- Indicators (education counts)
- MBIE economic mesh block data (MBIE.govt)
- Communities of Learning [Kāhui Ako] (edu.govt)

2. Data literacy tool

Background:

Education Counts is MoE's main data portal for public consumption. This data concerns a diverse range of people, including students, principals, teachers and Trustees. These groups involve users with widely different levels of technical expertise and data literacy, but often those on the lower end of the scale are those who would benefit most from understanding and consuming the available data.

Outcome: Tool (online or offline) that helps users understand and consume Education Counts data easily and improves accessibility. Teams may consider collaborating with teams completing the Stats NZ accessibility problem.

Data:

- Education counts home (education counts)

3. Policy-making assistance

Background:

The OECD (Organisation for Economic Co-operation and Development) publishes international studies on various education systems, such as *Education at a Glance*. These studies allow for comparisons between New Zealand's performance in the OECD, attendance rates, and NEET (Not in Education, Employment or Training) rates. When combined with other agency data sets, this can help shape the future of New Zealand's education policy.

Outcome: Tool (online or offline) that can cross-reference separate datasets and identify key data correlations, and present this data in a readily-consumable way to assist policy decision-making.

Data:

- Education at a glance 2017 (education counts)
- Attendance rates (2017) (education counts)
- Retention Rates (2017) (education counts)
- Labour market statistics (including NEET rates) (stats.govt)

NZTA

NZTA is offering one problem this year, but this problem will involve a wide range of targetable areas. The problem is based off NZTA's recent 'save one more life' hackathon.

1. Save One More Life

Background:

NZTA's hackathon was based around the theme of saving lives by targeting specific areas of the road toll to see where simple changes could make a difference to reducing the road toll. As the title suggests, the aim was to make an impact on niche areas rather than targeting the road toll at large. The six main problem areas included seatbelt use, speed reduction, mental impairment, rural roads, older vehicle use, and motorcyclists.

Outcome: Design a mobile app or online tool with the goal of reducing the road toll. This solution should be targeted at improving the chances of saving specific lives, rather than trying to minimise the road toll.

Data:

- Save One More Life data and challenges (from the S1ML hackathon) https://www.saveonemorelife.co.nz/data/ (S1ML.co.nz)
- http://data-kiwirail.opendata.arcgis.com/datasets (kiwirail data)

Stats NZ

Stats NZ is offering one problem for DataLand's participants this year.

1. InfoShare Accessibility

Background:

New Zealanders want to understand the change in prices/inflation between certain periods. The data sits in Infoshare but is too hard to access and use for the average customer. Household Living-Cost Price Index (HLPC) is a tool used to understand how inflation impacts living costs for different income brackets.

Outcome: Using any solution format, make the Household Living-Cost Price Index on InfoShare easier to read, cleaner or in any way more accessible, bringing together multiple data sources to help gauge area affordability. This tool might be used for people planning a move to a new area, or those evaluating the affordability of their current area.

Data:

- Export from link

DataLand NZ

We'll be offering 1 problem statement to participants, along with 6 prize categories.

1. Increasing youth participation: voting and census

Outcome: Use any solution format to make data about issues of interest to youth more accessible and easier to understand? These issues may include (but are not limited to) voting, the census, or business queries. Solutions can also be integrated into solutions to previous problem statements.

Data:

- 2013 and earlier census data (stats.govt)
- 2013 census counts by Urban/Rural (data.gov)
- 2014 voting and political participation (stats.govt)
- https://www.nzbn.govt.nz/ (NZBN)

Prize Categories

- Best data visualisation
- Data used for art
- Policy paper
- Research
- News story - criteria based on use of data
- Hack of the year

We will also be announcing problems from MoH closer to the event: stay tuned!