

# **Women in Data Hackathon**

**Kick-off Presentation** 





# **AGENDA**

# Order of events for the kick-off



1	Welcome - Bingqian Gao	17:00 - 17:10 (10min)
2	Hackathon overview - Sophie Hiscock	17:10 — 17:40 <i>(30min)</i>
3	Inspirational speakers - Rachel Keane, Razzia Gafur, Kristine Baekgaard	17:40 — 18:00 <i>(20min)</i>
4	Getting started – Tools and resources - Mingyang Tham, Melissa Robinson	18:00 — 18:40 <i>(40min)</i>
5	Q&A	18:40 — 19:00 <i>(20min)</i>
6	End of session	19:00



# Only 16% of tech roles in the UK are filled by women

 $\cdots$  and this ratio has not improved in 10 years

Women may have to wait 250 years to achieve economic parity

So... it's not good enough right now

# But...

# What does good looks like?

- Increase participation from underrepresented talent
- Access to information, opportunities and support
  - Diverse and relatable role models

# What does diversity and inclusivity mean?

- It's broader than gender
- Acknowledge that there is no "one-size-fit-all"
- Have equal opportunity to thrive even if you are different

# And do we need to do?

- Strategic and structured initiatives
- Improve systems and processes to reduce bias
  - Ongoing commitment



# **HACKATHON PURPOSE**

# Women in Data Hackathon

in Partnership with Women in Data



"...part of a campaign to provide information, advice and upskilling opportunities to encourage women to seek careers in the tech industry"



# THE ORGANISING TEAM

# Meet the (ever-growing) team behind this initiative!



Bingqian



Rasa



Sophie



Luke



Darshan



Joe



Mingyang



Weelin

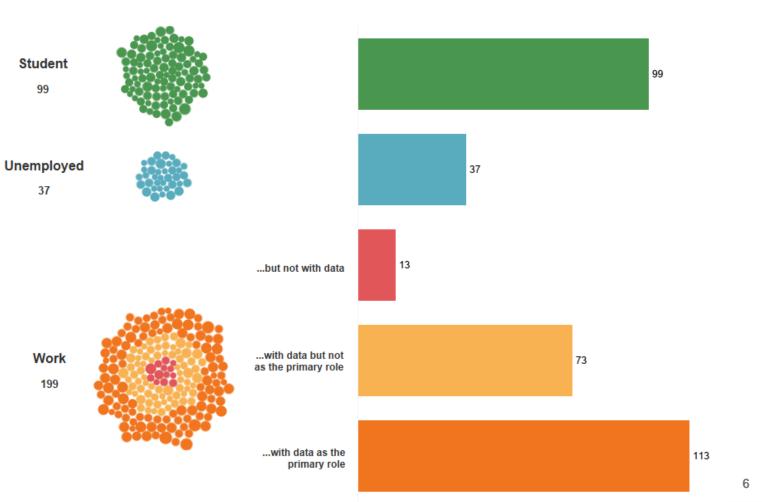


# **PARTICIPANTS**

# Meet your peers and fellow participants



...at various stages of their career





# **PARTICIPANTS**

# Meet your peers and fellow participants

# ...from 41 countries



# **Global distribution:**

UK	213
Americas	40
Asia	37
Europe (ex-UK)	30
Africa	10
Australia	4





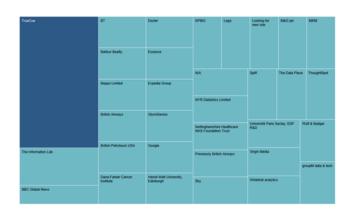
# **FACILITATORS**

# Meet your facilitators

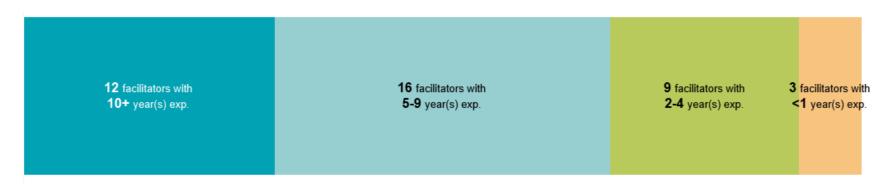


...supported by 40 amazing facilitators

...from 33 different organisations



# with collectively 200+ years' experience!





# **PARTNERS**

We received incredible support from professional networks, universities and tech partners; Our hackathon was broadcasted in social media, newsletters, blogs, and career hubs





























# WHAT TO WALK AWAY WITH

# What's in it for you? – **It's up to you!**



# Your reasons might include:

- Learn or practice using various analytics tools
- Gain project experience working with real life data
- Work with a diverse team
- Practice business and soft skills
- Contribute knowledge to a pressing global issue
- Joining a community of like-minded people
- Network with and learn from industry experts

# Hackathon overview

Introducing the hackathon, your dataset and deliverables



# **TIMELINE**

# Some key dates to note over the next 3 weeks



- Instructions to the hackathon
- Data released at the link provided (<u>click here</u>).
- Opportunity for the teams to ask questions related to the task.
- Female role models sharing their experience in the industry.
- TrueCue team showcasing our take on the challenge

- All submissions must be uploaded to a link that will be provided.
- Cut-off for submissions at 17:00 (GMT+0).

- 5 teams will be shortlisted for live presentations.
- Finalists will be informed by 30<sup>th</sup> October.
- Live (albeit remote)
   presentations with
   Q&A will be
   conducted at 16:00
   (GMT+0).
- 3 prize winners will be selected from the 5 finalists.



# DATASET

# The focus of this hackathon will be on the current Covid-19 pandemic



# **Covid-19 Dataset**

211 countries from 31 Dec 19





Tourism
Government
Smoking prevalence



Obesity rate



Healthcare spend

- Data can be accessed at the following link: <a href="https://concentra.box.com/v/WiDHackathon-DataDownload">https://concentra.box.com/v/WiDHackathon-DataDownload</a>
- While Covid-19 data is recorded daily,
   most other data provided is recorded
   annually resulting in repeated values
- Fields may be empty as some fields may not be recorded for some countries
- ➤ Teams are encouraged to source additional data to enrich the provided dataset (and be creative!)



# THE ASK

# Teams are free to craft their own research questions around Covid-19 and can focus on any of the following approaches



- Which countries / regions are the hardest hit?
- When did the pandemic spike in each region?
- How are population age and cases related?

- What type of restrictions proved the most effective (or costly)?
- How does a country's economic integration impact their experience with the pandemic?





- Can we use economic trade patterns to model the spread of a pandemic?
- Given the current policies, where will the next hotspot be?

- What are the optimal triggers to introduce social restrictions?
- How long would different levels of restrictions have to be put in place to hit specific targets?





# **REQUIRED OUTPUT**

All teams will have to submit a 4 to 6 minute video recording of a presentation of their main project output

# **Recorded Presentations**

(4 - 6 minutes)



Details for the submission will be provided to teams through your facilitators

# Teams are free to structure the presentation as they like, but we recommend:

- Including a brief overview of additionally sourced data if applicable
- Focusing on the findings, insights and recommendations over methodology
- Using easily interpretable visualisations to support insights



You may provide other supplementary materials such as workflows, scripts and dashboards but we **will not** be using it in the judging unless absolutely necessary.



# **JUDGING CRITERIA**

Video submissions will be reviewed on a judging criteria centred on 4 main pillars to shortlist 5 teams that will present in the final presentations



# Creative use of data

- Interesting use cases and questions
- Novel approach to dataset enrichment



# Effective visualisation

- Clear and easily understood visualisations
- Effective use of, or combination of visualisations to support the narrative



# Actionable insight

- Findings are clearly articulated
- Relevant and achievable recommendations



# Impactful story-telling

- A well structured and coherent narrative
- Succinct arguments with the correct focus



Some bonus points will be awarded to submissions deemed to have a high level of **sophistication** – in either the problem being solved, or the approaches being used.





# **SUCCESS CRITERIA**

There are 3 additional behaviours that we value strongly and view as being integral to being a successful team



# Time management

- Set realistic expectations
- Determine project milestones
- Keep to plan



# Collaboration

- Stay in touch
- Help each other learn
- Keep discussions open and constructive



# **Technical rigour**

- Maintain best practice
- Present results accurately
- Use the appropriate analytical techniques and tools



# **AWARDS**

# After the final presentations, the judging panel will select 3 winning teams

# We will have 3 Awards...

# 'III: Winner – Best Overall

...and based on submissions and final presentations, we will also pick **2 category winners**.

Some examples are:

- III Most Insightful Analysis
- 'III' Best Visualisation
- 'III Best Advanced Analytics / Predictive Modelling
- 'III Most Creative Use of Data
- 'III Most Impactful Story-telling

# ...and a handful of Prizes

- 'III' Bragging Rights!
- **'III:** Featured on the TrueCue website to help build your professional profile in Analytics
- 'III: Featured Podcast Interview with Lean Further
- 'III: Speaking slot at the next Tiny Viz Talks
- **III.** £150 Amazon voucher for the winning teams
- 'III: An extended 6 month trial of Tableau

# Guest Speakers



**GUEST SPEAKER** 



# **Rachel Keane**

Co-Founder, Women in Data UK

https://womenindata.co.uk/



**GUEST SPEAKER** 



# Razzia Gafur

Associate Solutions Engineer, Alteryx





# **GUEST SPEAKER**



# **Kristine Baekgaard**

Founding Member, Lean Further Consultant, Media House International

# Getting started



# PROJECT LIFECYCLE

# A typical data-driven project life cycle may involve several iterative stages

Recommen-

**Modelling** 

dations

**Problem** 

**Analytics** 

Cycle

**Project Life** 

Visual /

statistical

analysis

definition

Data

management

# 5. Recommendations

- Distil results into actionable next steps
- Communicate findings to stakeholders
- · Action plans for improvement or implementation

# 4. Modelling (optional)

- Scenario and/or predictive modelling
- Model performance evaluation

# 1. Problem definition

- Designing problem statement
- Define objectives of project
- Building hypotheses and measurement metrics

# 2. Data management

- Identify, gather and scrape required data
- Join disparate datasets for analysis
- Create new features and calculated metrics
- Handle inconsistencies or missing values in data

Parameter and methodology review

# 3. Visual / statistical analysis

- Interactive visualisations to investigate data
- Identify relationships in your data
- Statistical models and hypothesis testing



# **TOOLKIT**

Selecting the right tool for each stage can be difficult













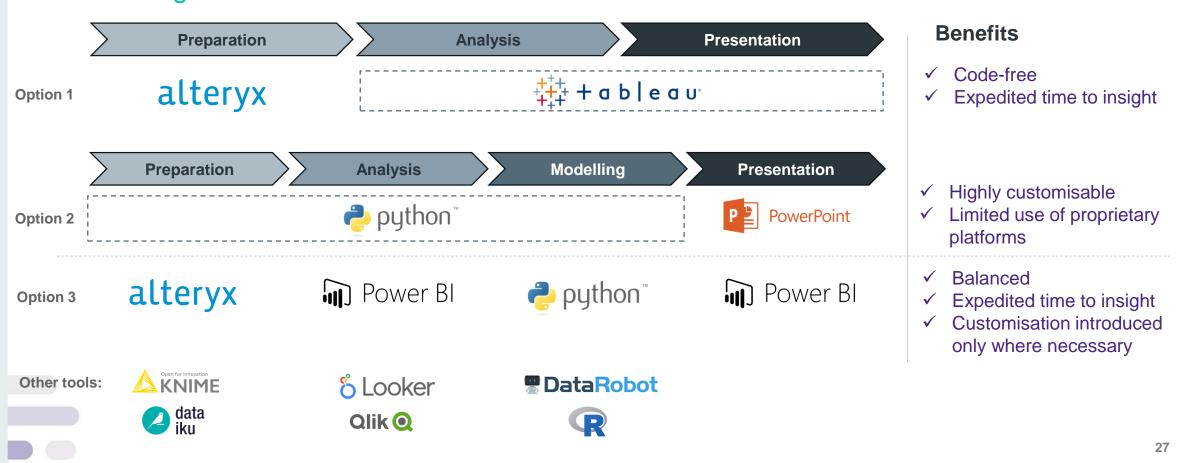






# **EXAMPLE TOOLKITS**

Tooling choices depend on the needs of each project, but some typical examples include the following combinations





# Tableau and Power BI are two examples of powerful data visualisation software that vastly expedite time to insight

- ✓ Speed up and democratise access to datadriven insights using a no-code visualisation platform
- ✓ Wide range of attractive pre-built visualisations
- ✓ Quickly create interactive charts and customised dashboards
- Built-in query language for user-defined functions and aggregations
- ✓ Automated 'ask your data' functionality



Power Bl

# Access:

Included in Office 365 distribution

# Click here to...

- Get inspired at the Data Stories Gallery
- Get started with Microsoft's Power BI Resource Centre



# Access:

Free 14-day trial and download on Tableau website

# Click here to...

- Get inspired at Tableau's public gallery
- Get started with Tableau Help's step-bystep tutorial guide

# Alteryx Intro and Resources

Melissa Robinson



# ALTERYX

MELISSA ROBINSON, SALES ENGINEERING MANAGER, IRVINE, CA



# THE ALTERYX APATM PLATFORM ADVANTAGE

ONE UNIFIED PLATFORM

SELF-SERVICE, HUMAN-CENTERED EXPERIENCE

**AUTOMATING INPUTS** 

ANALYTICS + DATA SCIENCE + AUTOMATED PROCESSES

LARGE, ACTIVE COMMUNITY

PROVEN GLOBALLY

# COMMUNITY + CULTURE



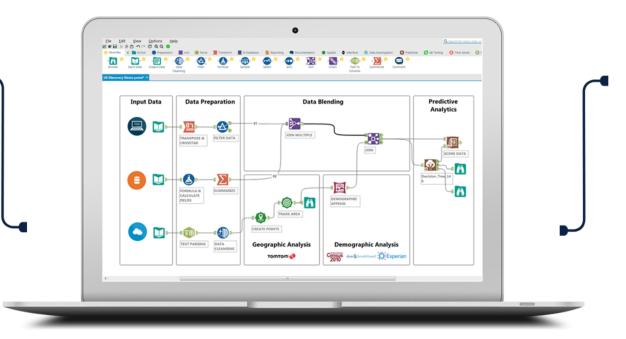


# **DATA AGNOSTIC**



**PREP + BLEND DATA** 

# alteryx**DESIGNER**



# OUTPUT















SHARE INSIGHTS



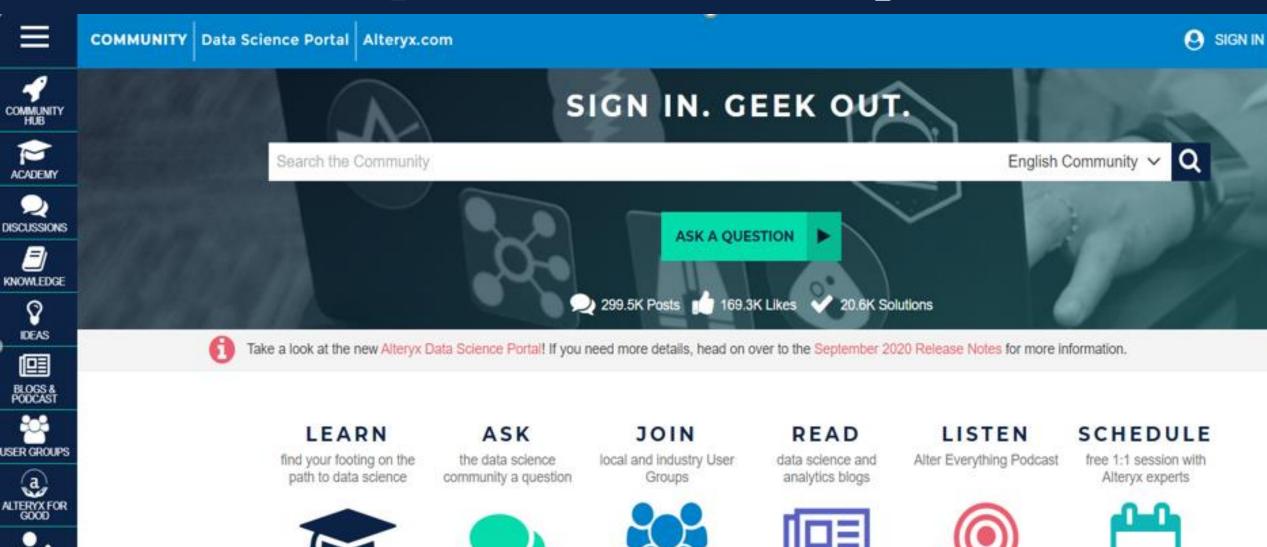
AUTOMATION + PREDICTIVE + SPATIAL ANALYTICS .^\/







# ■ COMMUNITY + CULTURE ▶





USE CASES

**PROGRAMS** 

a

# ALTERYX SOLUTION CENTER

Stuck on a technical Alteryx query to get your team to the next part of your analysis?

Book time as a group to speak to a specialist at Alteryx who can support you.



Scheduling a 30-minute virtual working session with an Alteryx team member!

# Website:

https://outlook.office365.com/owa/calendar/AlteryxSolutionsCenterWIDHackathon@alteryx.com/bookings/





# Next Steps



# **GETTING STARTED**

# Start your hackathon right by reaching out to your team and doing your research early

# **Connect with team**

# **Establish expectations**

**Desk research** 

# **Objectives**

- Get to know the rest of the team
- Understand strengths and experience of each member

- Establish expectations of each other early
- Organise team to take advantage of each team members individual strengths

- Be able to create an action plan and approach
- Understand the available toolkit to make informed decisions on which to use



# **FACILITATORS**

# Each team will have a facilitator who will be able to help provide some clarity and direction along the way

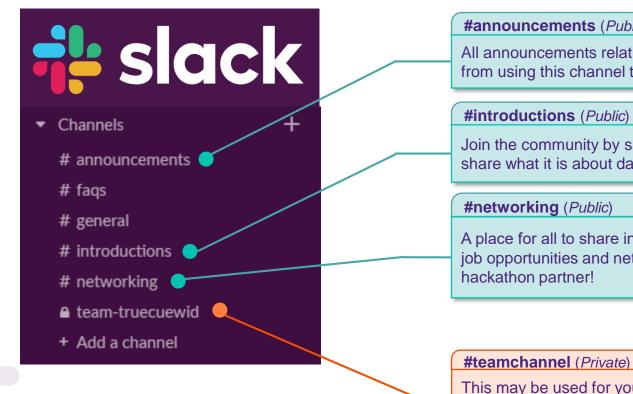
- Asking for guidance on interpreting the assignment and choosing the right tools
- Discussing analysis ideas
- Asking for advice when you feel stuck
- Leveraging your facilitator's background and experience to guide process
- Understanding that facilitators might not always be able to help



- Asking to fix your code
- Asking to work on your project
- Expecting to get all questions answered
- Depending on facilitator's input



# A Slack workspace has been set up for the hackathon (and beyond)



# #announcements (Public)

All announcements relating to the hackathon would be made here. Please refrain from using this channel to contact the organising committee.

Join the community by saying hi and introducing yourself. We love when people share what it is about data that interests them!

A place for all to share interesting opportunities with others. We aren't just looking for job opportunities and networking events - you may even use this to find your next

This may be used for your team to organise work during the hackathon. You should have been invited to this channel by your facilitator.



# CONTACT

If you have further questions, there are several avenues for you to get help

# Have a question on...

- getting started?
- > which tool to use?
- usage of specific tools?

hackathon organisation or any other enquiries?

# You might find help through...

...your facilitators

...your facilitators, team discussion, or the Slack channel

...additional resources, Alteryx sessions, the Slack channel, Google...

...womenindata@truecue.com



# Additional Resources

# **Need technical help?**

TrueCue's Analytics Bootcamp provides an introduction to analytics and the platforms you may wish to consider.

- Episode 1 https://truecue.com/resources/webinars/free-analytics-bootcamp-an-introduction-to-analytics-the-art-of-the-possible
- Episode 2 <a href="https://truecue.com/resources/webinars/free-analytics-bootcamp-getting-started-with-tableau">https://truecue.com/resources/webinars/free-analytics-bootcamp-getting-started-with-tableau</a>
- Episode 3 <a href="https://truecue.com/resources/webinars/free-analytics-bootcamp-getting-started-with-microsoft-power-bi">https://truecue.com/resources/webinars/free-analytics-bootcamp-getting-started-with-microsoft-power-bi</a>
- Episode 4 https://truecue.com/resources/webinars/free-analytics-bootcamp-getting-started-with-alteryx

The Alteryx Academy is a great place to get started and learn to build your first workflows

https://community.alteryx.com/t5/Alteryx-Academy/ct-p/alteryx-academy

# Looking for inspiration?

Tiny Viz Talks is a committee of London-based community sharing ideas around data visualisation.

http://tinyviztalks.com/

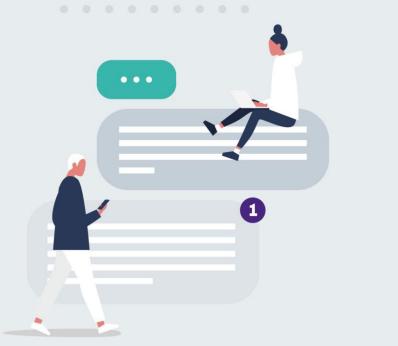
The Pudding is a digital publication that explains ideas debated in culture with visual essays.

https://pudding.cool/



# truecue.com

# **HAPPY HACKING!**









# TrueCue

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