Data Study Group Principal Investigator Supplementary information

Working with Industry

How does a researcher engage with industry? How can one take research and apply it to the real world? By becoming a DSG Principal Investigator (DSG PI) you can gain first-hand experience of what it is like to lead an industry-led research project supported by the Alan Turing Institute.

DSG Challenge

At the heart of the DSG PI's involvement is the preparation of the DSG Challenge. The DSG challenge should present itself to participants as a multi method, multi approach frame work that allows participants the freedom to explore the Challenge Owner's (CO) data in any which way they choose, whilst answering questions that will give some insight into the CO problem.

The challenge needs to be prepared so that:

- It is achievable in the time allowed for the event
- Is an open, multiple approach challenge
- Publishable, with as little redaction as possible
- (Ideally) it leads on to further research

Great care is taken to ensure that the work is not consultancy – the CO cannot dictate how the academic challenge is shaped. Whilst the CO will be seeking specific answers to their problems, the DSG PI counterbalances their needs with those of an academic audience. The challenge should promote an exploratory mindset. Positive results are not guaranteed to the CO.

The CO understands that part of doing a DSG is to have the report from the challenge published, and the generalised results shared in the open.

Time taken

There are three phases of a DSG:

- Preparation – Challenge scoping (spread out over three to four months)
- The event itself (one week for in person, three weeks for online)
- Wrap up – finalising the report (spread out over two months max)

Sometimes a challenge will take longer to prepare, sometimes shorter - however the number of hours will stay roughly the same.

A detailed breakdown of the estimated time and key tasks is below that is required for each of the stages:

Preparation - scoping

Weekly catch up with CO, plus a few hours (per week) of offline work in preparation. About 70 hours 10 - 11 working days spread out over the preparation phase. Distribution of weekly hours may vary.

- Turn a CO challenge into a data study group challenge, with clearly formulated scientific/academic questions that are realistic for a four day event (over five days), or nine days for online; while still offering ample learning opportunity for participants

- Feedback and advise on the data to be used for the challenge (you will not be responsible for acquiring, cleaning or preparing the data): is it feasible to address the scientific questions posed with the data provided?
- Complete an ethics submission on the project
- Complete a project sensitivity assessment

During DSG week - supporting

To attend the opening and closing sessions and being available to your group at minimum 2 hours per day throughout the event. Ideally present for the majority of the event, but this can be quite flexible.

During the event, primary focus will be to feedback on the content of the report that is written by the DSG participants also ensuring there are no obvious errors in code or invalidated results; and support on any academic discussions and questions that come up. Academic supervision.

- In person: Event's full day can be up to 10 -12 hours per day, specifically Tuesday – Thursday.
    - Minimal involvement is about 15 hours in total
    - Max full time involvement about 45 hours over 5 days.

- Online: 1st week is part time; the 2nd and 3rd week kept to business hours only.
    - Minimal involvement is about 30 hour in total
    - Max full time involvement about 70 hours over 1 week part time, 2 weeks full time.

Wrap up - reporting

This should be completable within 10 hours/2 days, however we give the DSG PI about 8 weeks to complete the wrap up, including requested changes to the report based on confidentiality. If the project has been classified as sensitive, then a project outputs sensitivity assessment will also be conducted too.

Training

Attending an additional 6 hours of training will help prepare you for the engagement. This will happen at the beginning of the preparation phase.

- Ethics 2 h
- Project Management 2 h
- Communicating with non-academic stakeholders2 h (TBD)

DSG PIs will be expected to keep a log of hours through the HR portal, and work done throughout this engagement for monitoring and payment purposes.

More information about the DSG, and detailed guide on the role:

Read about the DSG here https://www.turing.ac.uk/collaborate-turing/data-study-groups

An in-depth guide is here https://www.turing.ac.uk/sites/default/files/2021-10/dsg-pi-guide_print_2021_final.pdf including all deliverables, considerations and guidance.

Apply:

Register to be notified of upcoming DSG PI opportunities https://www.turing.ac.uk/collaborate-turing/data-study-groups/get-involved-pi

Selection criteria will be based on your CV and cover letter.

The cover letter (up to 2 pages) should demonstrate your ability to suggest multiple potential methodological approaches to the challenge being applied for, as well as demonstrate:

- Experience in applied data science
- Willingness for multi-disciplinary collaborative work
- Enthusiasm for working with industry, government and third sector to take their business problems and convert into data science research projects.