



# Master of Data Science and Innovation (MDSI) Innovation Lab (iLab)

## Data science – the career of the 21st century

Data science is becoming one of the most in demand skills in the workforce. **In 2020, data science was one of the top fifteen emerging jobs,**<sup>1</sup> according to business networking giant LinkedIn.

Data is, unequivocally, one of the most valuable commodities in the professional landscape. And organisations will need, increasingly, employees with the capabilities to extract, structure, analyse and draw meaningful insights for business decision-making.

The Master of Data Science and Innovation (MDSI) provides learners with adaptability, resilience, and creative thinking skills in a data science context. This postgraduate course is transdisciplinary in nature and develops graduates who are able to source, frame, analyse, visualise, and communicate business outcomes that generate creative data and human-centred design decisions.

In 2020, James Milligan, the global head of technology at Hays – an international recruitment organisation, stated “data science is the new corporate currency, as advancing digitisation sweeps every horizontal and vertical market the world over. The impact on the data science sector is far-reaching and, as a result, a range of new roles and skills sets are in demand.”<sup>2</sup>



<sup>1</sup> The Future of Data Science, James Cook University 2022.

<sup>2</sup> Is Data Science a Good Career Choice in 2022 & Beyond?, Medium 2022.

### iLab

Working on real world projects is a core part of the MDSI program, preparing graduates to utilise data science to devise data driven solutions for complex challenges. This engagement is an opportunity for organisations to partner with students in a data investigation across 12 weeks. Partner organisations are invited to set a data challenge for multiple teams of masters students to undertake, prompting collaborative problem-solving and mutual learning.

Focusing on exploration and experimentation, iLab is a testing ground to explore new ideas, examine hypotheses and tackle sector-wide issues. Across the Autumn semester, students work in small teams to unearth new approaches and discoveries in their partners' underutilised or unexplored data sets. Empowered by a supportive learning environment, the teams are encouraged to use out-of-the-box thinking, transdisciplinarity and creativity to tackle their partner organisations' challenges.

"I learnt so much from working with the students. They took a challenging and complex topic, and showed curiosity, passion and innovation in exploring possible tools, developing solutions and sharing their final prototype Overall, an incredibly enjoyable experience."

**Jennifer Lacy-Nichols,**  
**Research Fellow, Centre for Health Policy at**  
**University of Melbourne**

### What do students do with your challenge?

Student teams will be guided to use diverse technical approaches (e.g. visualisation, predictive modeling, deep learning and text mining) to come up with potential directions and solutions for your challenge. Students will;

- design investigations,
- explore new data sources,
- experiment with data analysis and modelling approaches,
- create new data visualisations and reports,
- generate solutions that can be communicated to technical and non-technical audiences, and
- produce a final report and code deliverables that are provided to their partner.

### Why should you be an iLab partner?

- **Attract the best minds** to work on your brief, collaborating with academics and students in an educational setting.
- **Get an injection of fresh ideas** for a challenge facing your organisation or sector.
- Receive new insights, solutions, prototypes and **recommendations that can be implemented.**
- **Collect multiple solutions**, with student teams taking different perspectives to your challenge.
- Access a **data science talent pipeline.**



### What's involved for partners?

iLab partners need to provide a data challenge for multiple teams of MDSI students to undertake.

Challenges should be open ended to encourage opportunities for new ideas and transdisciplinary thinking, ideally relevant across the entire sector or society more generally.

Partners will be asked to provide;

- a project brief,
- open or anonymised data,
- a nominated project lead to attend key project sessions during the engagement (see key dates), and
- provide feedback at key project stages to both students and TD School.

### Confidentiality, data considerations and intellectual property

Partners need to be able to provide students with open or anonymised data for their projects. Sensitive or confidential data cannot be shared for privacy reasons. However, where this is not feasible, data should be anonymised and sanitised by the partner before sharing with student teams.

Student teams can sign NDAs if needed to restrict data sharing beyond the purposes of the project, but they should have permission to share project information with the iLab subject student cohort and teaching team members for tracking progress, completing coursework and submitting assessments.

The iLab technical manager will be available to help determine suitability and guide partners with this process.

#### UTS intellectual property policy

In accordance with UTS Intellectual Property Policy, students own the intellectual property (IP) rights in the work they create throughout their students. MDSI students retain IP they generate during their projects. This includes their final report and any code created (unless these are released open source).

Partners who are keen to further explore students' solutions or continue to work on projects after iLab subjects are welcome to discuss options with their student team directly and could consider further engagement opportunities such as internships.

### Ready to submit a challenge?

**Application forms are open now.**

Please [submit an iLab 2023 application](#) before 2 June. (Applications will close early if maximum submissions received)

### Key dates

#### PREPARING TO ENGAGE

**2 Jun**

**iLab applications close**

1 – 30 Jun

Prospective partners invited to meet technical manager to scope project

7 Jul

Partners notified if project is proceeding

by 24 Jul

Partners to provide materials and sign iLab agreement letter

#### SUBJECT ENGAGEMENT

**14 Aug**

**Project leads attend first iLab session with student teams (in person)**

6 – 8pm

22 – 25 Aug

Check in with student teams (online 1 hour)

5 – 8 Sept

Check in with student teams (online 1 hour)

**18 Sept**

**Midpoint presentation (online)**

6 – 7.30pm

10 – 13 Oct

Check in with student teams (online 1 hour)

27 Oct

Students' final reports shared with partners

**30 Oct**

**Final presentations and demos with student teams (online)**

6 – 7.30pm

3 Nov

Partners submit final project and subject evaluations

### Contact TD School

**Beth Wilson** | Work integrated learning (WIL) partnerships manager

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### TD School (Transdisciplinary School)

A central, pan-university School bringing transdisciplinarity to UTS teaching/ learning, research and industry engagement.