
PROGRAM

SICSS Melbourne 2026

Summer Institute in Computational Social Science

22 June – 3 July 2026 · Melbourne, Australia



Venue Quick Reference

Week 1 (22–26 Jun)	RMIT Building 8 — Megaflex 3, 445 Swanston St (Mon–Wed); RMIT Activator, 102 Victoria St, Carlton (Thu–Fri)
Week 2 (29 Jun–3 Jul)	Deakin Downtown — 550 Bourke St, Melbourne
Social	Sat 27 Jun — Dights Falls Cultural Tour, 10:00–12:00

WEEK 1 — FOUNDATIONS, METHODS & THEORY · 22–26 June 2026

DAY 1 Monday, 22 June 2026

Introduction to Computational Social Science

RMIT Building 8 — Megaflex 3

All participants and speakers meet and get to know each other. The program begins with foundational discussions on CSS and its value for interdisciplinary research.

09:30–10:30 Arrivals & Morning Tea

10:30–11:00 | IN-PERSON

Welcome & Introduction to SICSS Melbourne

Organisers: Bogdan Mamaev, Kateryna Kasianenko

11:00–12:30 | IN-PERSON · KEYNOTE DIALOGUE

What is Computational Social Science and Why It Matters in Australia?

Speakers: Daniel Angus, Olga Boichak, Svetha Venkatesh

Explore the foundational principles of Computational Social Science (CSS) and its growth within the Australian context, and how CSS provides unique value for modern research. An interactive session.

LEARNING OUTCOMES

- Explain what CSS is.
 - Identify its value in HASS and interdisciplinary research.
 - Discuss opportunities for research in CSS across disciplines.
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12:30–13:30 Lunch

13:30–14:30 | IN-PERSON

Research Speed Dating

Get to know your fellow participants and the future of computational social science. You will speak with several participants for two minutes each, then share with the group your take on the tendencies and intersections in the research interests of the cohort you observed.

LEARNING OUTCOMES

- Practice delivering a short pitch about yourself as a CSS scholar and your interests.
- Practice asking questions that elicit your peers' research interests.
- Discover where your research interests intersect with other SICSS Melbourne participants.

14:30–15:15 Break

15:15–16:30 | HYBRID · KEYNOTE

Social Bias in Computational Social Science

Speaker: Ahrabhi Kathirgamalingam

Common sources of social bias in digital media data — from data collection strategies and computational methods to research designs incorporating digital data and methodologies.

LEARNING OUTCOMES

- Identify methodological bias.
- Recognise inherent limitations of CSS methods.
- Evaluate possible risks and opportunities of a chosen method.

Social Event — Trivia Night Oxford Scholar · ~17:30

DAY 2

Tuesday, 23 June 2026

Working with Data: Ethics and Practices

RMIT Building 8 — Megaflex 3

Ethical foundations and responsible data practices. Participants gain practical frameworks for ethical data workflows before choosing the right data collection methodology.

09:00–10:30 | IN-PERSON · TALK

Ethics in Computational Social Science

Speakers: Dominique Carlon, Ehsan Dehghan, Olga Boichak

A discussion on one of the most important issues when working with digital data — ethics, compliance with legislation and terms of service, consent when working with participant data, and HREC requirements.

LEARNING OUTCOMES

- Make sense of HREC requirements.
- Develop an ethical data collection strategy.
- Ensure compliance with FAIR and CARE principles.

10:30–11:00 Morning Tea

Data Donations and Participant-Centric Research

Speakers: Kellie Vella, Lauren Hayden, Michael Esteban

Approaches to data donation, including data download packages and screen capture using mobile phones and browser extensions, with a focus on ethical considerations, linked methods, and AIO tools.

LEARNING OUTCOMES

- Design data donation studies.
- Collect digital trace data ethically.
- Manage participants effectively.

12:30–13:30 Lunch

Demystifying Publishing in Computational Social Science

Speakers: Olga Boichak, Kateryna Kasianenko

CSS is a highly interdisciplinary field, but many academic publishing avenues are not — so findings from CSS studies must be translated in ways that persuade peer reviewers. The speakers draw on their experience to discuss how this challenge can be overcome.

LEARNING OUTCOMES

- Discover publishing avenues and approaches available to CSS scholars.
- Anticipate the objections “Reviewer 2” may raise about your CSS research.
- Develop approaches for translating CSS research into publications.

14:30–15:00 Break

Nectar: Australian Research Infrastructure for Computational Analysis

Speaker: Sonia Ramza

What cloud infrastructure is and how it can support research in the Australian context — accessing additional compute on demand and the benefits of working with remote infrastructure like Nectar.

LEARNING OUTCOMES

- Describe what cloud compute is (and how it differs from HPC).
- Learn how to access Nectar Cloud and the managed services available.
- Explore use cases from real-world research.

DAY 3 Wednesday, 24 June 2026

Data Collection and Working Across Disciplines

RMIT Building 8 — Megaflex 3

Existing and emerging data collection strategies and working in interdisciplinary teams. Attendees learn how to source and validate digital data responsibly.

Does Computational Social Science Lack Theory?

Speaker: Ehsan Dehghan

Critics argue that CSS lets the methodological tail wag the substantive dog. This session engages such critiques and examines what researchers can take from them when designing their own projects.

LEARNING OUTCOMES

- Justify methodological choices using a theoretical framework.
- Critically examine the use of CSS in theory building.
- Analyse the broader implications of computational methods.

10:30–11:00 Morning Tea

11:00–12:30 | IN-PERSON · TALK

The AIREd Platform for Australia-wide Social Media Discovery and Usage

Speaker: Richard Sinnott

The Australian Internet Research Dashboard (AIREd) — a platform of over 500 million posts across BlueSky, FlickrR, GDELT, Mastodon, YouTube and historic X/Twitter data — its capabilities, and how researchers can access and use it.

LEARNING OUTCOMES

- Describe the scope and capabilities of API-based platforms using AIREd.
- Discover datasets relevant to specific research questions.
- Identify appropriate use cases for AIREd data in social science.

12:30–13:30 Lunch

13:30–15:00 | IN-PERSON · WORKSHOP

Collecting and Analysing Data Download Packages

Speakers: Kellie Vella, Lauren Hayden, Michael Esteban, Dan Tran

Data download packages as an ethical, participant-centred approach to digital trace data. Set up a data donation project and explore donated datasets using computational tools supported by the AIO.

LEARNING OUTCOMES

- Evaluate the advantages and best use cases of data donation.
- Design protocols for data donation.
- Explore donated datasets.

15:00–15:30 Break

Working with Text Using Computational Techniques

Speakers: Kim Doyle, Daniel Russo-Batterham

How modern large language models lower the barrier to collecting and analysing text data. Use LLM-powered tools to scrape and extract text from real websites, then apply the same approach to tasks like sentiment analysis.

LEARNING OUTCOMES

- Use LLM-powered tools to scrape and extract text from websites.
- Apply LLM-assisted approaches to textual analysis.
- Evaluate the limitations of LLM-based text collection and analysis.

DAY 4

Thursday, 25 June 2026

Tools and Approaches to Data Analysis

RMIT Activator

Methods that bridge social science and computation — from screen capture and LLMs to RAG and large-scale image analysis.

Screen Capture for Data Collection

Speakers: Dan Tran, Daniel Angus

Using the AIO Mobile Screen Capture tools as an example — when and how to collect and analyse images, text and other data from users' screens, with the technical and ethical requirements and subsequent analysis.

LEARNING OUTCOMES

- Design data donation studies that involve screen capture.
- Use screen capture safely and effectively.
- Understand the steps in processing screen capture data.

10:30–11:00 Morning Tea

Using LLMs to Create Data Analysis Pipelines for Text-as-Data Research

Speaker: Seraphine F. Maerz

How LLMs streamline large-scale analysis and enable automated data analysis pipelines, put into practice using the Quallmer R package.

LEARNING OUTCOMES

- Integrate LLMs into research.
- Deploy LLMs for analysis.
- Analyse LLM output and suitability.

12:30–13:30 Lunch

RAG Systems in Research

Speakers: Futoon Abushaqra, Sachin Pathiyan Cherumanal

An introduction to Retrieval-Augmented Generation (RAG), a framework combining information retrieval with LLMs to produce more accurate, context-aware responses, with a high-level overview of how RAG systems work.

LEARNING OUTCOMES

- Understand the basic concept of a RAG system.
- Recognise how RAG integrates retrieval and generation.
- Identify applications and limitations of RAG in research workflows.

14:30–14:45 Break

Image Analysis for Qualitative and Quantitative Research

Speakers: Kunal Chand, Lauren Hayden

Large-scale image analysis using computational techniques — key concepts in machine vision, a manual image classification activity, the “Image Machine” clustering tool, and “2D UMAP” for plotting graphical similarities.

LEARNING OUTCOMES

- Apply large-scale image analysis techniques.
- Identify and visualise data patterns.
- Integrate image analysis in research.

DAY 5

Friday, 26 June 2026

Disciplines, Careers, and Industry

RMIT Activator

Real-world applications of CSS in research and career pathways. Participants get ready for teamwork and the research questions they will explore in Week 2.

Cross-Disciplinary Collaboration: Bringing Social Science and Computational Analysis Together

Speakers: Oleg Zendel, Johanne Trippas, Hiruni Kegalle, Oliver Eklund

What it means to be part of an interdisciplinary team and how to make collaboration work well, drawing on the panel members' individual experiences across different backgrounds.

LEARNING OUTCOMES

- Manage relationships with colleagues from different backgrounds.
- Identify personal goals in a team with competing priorities.
- Plan and structure interdisciplinary research projects.

10:30–11:00 Morning Tea

11:00–12:30 | IN-PERSON · PANEL

Working With and In the Industry

Speakers: Laura Gartry, Ariel Kuperman, Indigo Holcombe-James, Andrew McMahon, Stephen Wan

How newsrooms can collaborate with data scientists and AI specialists to develop responsible, editorially grounded uses of AI; how qualitative, audience-centred research is conducted in a cultural context; and Stephen Wan's experience leading a team of computational linguists at CSIRO who built an approach to extract information from scientific literature and worked to pitch it as a product to industry.

12:30–13:30 Lunch

13:30–15:00 | IN-PERSON · WORKSHOP

Career Success

Speaker: Johanne Trippas

Strategies for project planning, timeline management, supervisor communication, milestone navigation, and building a strong research profile suitable for different pathways in Australia.

15:00–15:15 Break

15:15–16:15 | IN-PERSON · WORKSHOP

Grant Writing in Computational Social Science

Speaker: Daniel Angus

Practical strategies for positioning interdisciplinary work so it resonates with reviewers, avoids falling between disciplinary boundaries, and builds a coherent funding trajectory over time.

WEEK 2 — COLLABORATIVE RESEARCH PROJECTS · 29 June – 3 July

2026

Saturday Social Event — Dights Falls Cultural Tour Sat 27 June · 10:00–12:00

DAYS 6–9

Mon 29 June – Thu 2 July 2026

Collaborative Research Projects

Deakin Downtown — 550 Bourke St, Melbourne

The week transitions from formal instruction to participant-led group research. Mornings feature advanced methodological workshops; the rest of each day is collaborative teamwork supported by drop-in experts and mentors.

MORNING SESSIONS (90 MIN) — ADVANCED WORKSHOPS

TUE 30 JUN · 10:00 | IN-PERSON · TALK

Music Score Analysis through Natural Language Interfaces

Speaker: Daniel Russo-Batterham

A natural language interface for analysing music scores encoded in the MEI format — querying encoded collections through plain-language questions translated into tool calls that retrieve and visualise results.

LEARNING OUTCOMES

- Understand how MEI encodes structured XML music data.
- Explain how MCP-based architectures connect language queries to analytical tools.
- Reflect on building computational tools for non-technical researchers.

WED 1 JUL · 09:00 | IN-PERSON · WORKSHOP

Validation in Computational Social Science

Speaker: Matteo Vergani

Rigorous validation techniques for trustworthy CSS research outputs — methods for validating findings, human evaluation, and strategies for addressing validity threats.

LEARNING OUTCOMES

- Find validation techniques to assess robustness.
- Mitigate common validity threats in CSS research designs.
- Produce transparent, reproducible research.

WED 1 JUL · 13:30–15:00 | IN-PERSON · WORKSHOP

How to use Wikibase for Mixed-Methods Research

Speaker: Francesco Bailo

How Wikibase, a collaborative platform for organising and linking structured data, can support interdisciplinary research that combines qualitative and quantitative methods. The session covers core concepts, includes a live demonstration, and references practical applications from the author's new book.

LEARNING OUTCOMES

- Describe Wikibase.
- Design a collaborative project.
- Use Wikibase to organise data.

MID-MORNING & AFTERNOON SESSIONS — TEAMWORK & PROJECT DEVELOPMENT

ONGOING ACROSS DAYS 6–9 | IN-PERSON

Collaborative Research Project Work

Support: Drop-in experts, organisers, and mentors

Participants work in their formed groups on their collaborative research projects. Drop-in experts, organisers and mentors provide technical assistance, theoretical guidance, and feedback throughout each day.

DAY 10

Friday, 3 July 2026

Project Presentations & Closing

Deakin Downtown — 550 Bourke St, Melbourne

Participants present preliminary findings, methodologies, and proposed solutions from their collaborative week-long projects, followed by final feedback, networking, and closing remarks.

MORNING & AFTERNOON | IN-PERSON

Group Presentations, Final Feedback & Closing

Participants present the preliminary findings, methodologies, and proposed solutions from their collaborative week-long projects. The program concludes with final feedback, networking, and closing remarks.



The Australian Internet Observatory (<https://doi.org/10.25956/twvn-ca19>) is a co-investment partnership with RMIT University, QUT, University of Queensland, University of Melbourne, Swinburne University, Deakin University and the Australian Research Data Commons (ARDC) through the HASS and Indigenous Research Data Commons (DOI: 10.3565/hjrp-b141). The ARDC is enabled by the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS).