

SciDataCon 2025



Monday 13 October 2025 - Thursday 16 October 2025

Brisbane Convention & Exhibition Centre

Themes

SciDataCon2025 Specific Themes

These themes are specially designated as important themes for 2025. The first four themes align with the broader International Data Week plenary themes, and an additional two themes were introduced by the SciDataCon Program Committee.

CAREful Indigenous Data Governance

Data governance is the framework that provides accurate, secure, and ethically used data to drive informed decision-making. The concept of CAREful Indigenous Data Governance builds upon this and the CARE Principles—Collective Benefit, Authority to Control, Responsibility, and Ethics—to create a framework that promotes respectful, equitable, and culturally informed data practices for Indigenous communities. This approach prioritizes Indigenous peoples' rights, consistent with the UN Declaration on the Rights of Indigenous Peoples. This theme highlights an opportunity for proposals highlighting the CARE Principles and Indigenous engagement in data governance, data quality, regulatory compliance, data security and privacy, and related technological solutions.

Rigorous, responsible and reproducible science in the era of FAIR data and AI

Transformative technologies, including AI, and unprecedented volumes of data, present many challenges and opportunities for science. Among the challenges is that of maintaining the scientific principles of transparency and reproducibility. Data science has an important role to play. This theme provides an opportunity to discuss how science systems can accelerate discovery through the use of new technologies, while ensuring that data intensive science is rigorous, responsible, and reproducible. This theme includes approaches that aim to increase the transparency in the use of AI for science, and the role of initiatives to enhance the quality of data inputs. Submissions on the role of data science and data stewardship in relation to scientific responsibility and reproducibility are also in scope.

Open research through Interconnected, Interoperable, and Interdisciplinary Data

Research is becoming increasingly interdisciplinary and collaborative; open research enhances its visibility and maximizes the adoption of processes and outputs. The sessions under this theme will showcase the essential role sharing data openly plays in leveraging and mediating collaboration, knowledge production, and empowering multidisciplinary research networks. They will emphasize mechanisms that magnify sharing based on interoperability, harmonization, and integration across disciplines and research teams.

Empowering the global data community for impact, equity, and inclusion

Modern science is predicated upon the provision of a complex ecosystem of digital resources and the global community of research data professionals and researchers that make use of it. This theme covers how issues such as equitable access and inclusivity can be addressed and how impactful research can be enabled globally, without geographic, political, social, or cultural barriers.

Infrastructures to Support Data-Intensive Research - Local to Global

Data collection, distribution, analysis, and preservation rely on research infrastructures that span local, national, and international scales. Establishing effective infrastructures requires coordinating technical, organizational, and policy efforts. We invite sessions under this theme that demonstrate research infrastructure accomplishments as well as lessons learned and challenges overcome in the development and operation of such infrastructures. We also invite sessions that focus on approaches to scaling infrastructures across institutional and national boundaries, and sessions on evaluating the impacts of research infrastructure activities.

The Transformative Role of Data in Sustainable Development Goals and Disaster Resilience

Data is a powerful tool for tackling global challenges, achieving the Sustainable Development Goals, and strengthening disaster risk reduction. By harnessing innovative data sources, advanced analytics, and real-time monitoring, we can identify trends, target interventions, and evaluate progress effectively. This approach enables informed decision-making to address inequalities, mitigate climate impacts, and build resilience in vulnerable communities. Data-driven solutions are vital for disaster preparedness, response, and recovery, ensuring timely action and resource optimization. Collaboration across sectors and geographies is key to unlocking data's full potential for sustainable development and a safer, more equitable future for all.

SciDataCon Persistent Themes

These themes typically carry over from one SciDataCon to the next, with minor refinements to allow for changing expectations over time.

Data and Research

Data issues in relation to major research questions. This can include, for example, the availability, findability, accessibility, interoperability, and reusability of data in different fields of research; the challenges of collecting, combining, integrating, analyzing, and visualizing data. The discussion of such data issues should relate concretely and directly to specific research questions.

Data Science and Data Analysis

Frontier scientific, technical, and epistemological challenges associated with data in research. Topics relating to data science and data analysis in particular research domains, or across domains.

Data Stewardship

Advances in sustainable, high-quality, long-term data stewardship and data management. This could include good practice, organisational and institutional aspects, and topics related to the FAIR, TRUST, and CARE Principles, as well as good practices concerning interaction with data producers who want to deposit their data.

Policy and Practice of Data in Research

Data policies and practices, as well as the role of data in scholarly communications. Data policies and practices can include their development and harmonization, in addition to issues around legal interoperability, rights management, and privacy; the value and sustainability of research data infrastructure; and data publication, metrics, credit, and attribution. This includes the challenges of harmonising data policies in the context of international research.

Data and Education

Educational and training responses to the digital revolution. This can include mobilizing capacity in areas such as data engineering, data science, and data stewardship; addressing needs and gaps in data skills, especially for the modern workforce; as well as formal education and curricula development to increase data literacy. An important theme will be which aspects of data education are general to all research domains, and which are specific to a given domain or set of domains. Discussions on building a formalized career path for the fields mentioned are also welcomed.

Data, Society, Ethics, and Politics

The broader dimensions of data and data-driven research in relation to society. This can include any issues concerning the social, legal, and ethical dimensions of data and research; for example, data sovereignty, the Digital Divide, data openness and availability, misinformation and disinformation, digital empowerment, and cultural/context-sensitive questions.

Open Data, FAIR Data, Innovation, Industry and Development

The interactions among industry, innovation, open data, and FAIR data. While open data is usually associated with open science, it also brings value to industry, innovation, and the private sector as a whole. This could include collaborations and partnerships with the private sector around any of the topics already mentioned above, especially concerning data-driven innovation and development, with particular emphasis on the value of openness to ensuing results. Also in scope is collaboration with industry around FAIR data and the technologies that support FAIR when the data itself cannot be open.