

RESEARCH AI SUMMIT 2025

BRIDGING INNOVATION AND OPEN SCIENCE

Date: 9 - 10 June 2025, 9:00 to 17:30 IST

Venue: Auditorium, National Institute of Plant Genome Research (NIPGR)
Aruna Asaf Ali Marg, New Delhi, India 110067

Organized by

BRIC-National Institute of Plant Genome Research (NIPGR),
BRIC-National Institute of Immunology (NII),
Indian National Science Academy (INSA) National Cte for CODATA
and

Coalition for Advancing Research Assessment (CoARA)'s
Ethics and Research Integrity Policy for Responsible Research Assessment in Data and Artificial Intelligence
(ERIP) Working Group

in cooperation with

#SemanticClimate and
Indian Institute of Information Technology (IIIT) Una, Himachal Pradesh

Summit Mode: Hybrid (In-Person and on Cisco Webex)

JOINING LINK FOR DAY 1:

<https://nipgr.webex.com/nipgr/j.php?MTID=ma9ffb25f7718e23694bb93514b06c574>

Webinar number: 2511 695 9461

Webinar password: 4nyM2RbpMw5 (46962727 when dialing from phone/video System)

Access code: 251 169 59461

JOINING LINK FOR DAY 2:

<https://nipgr.webex.com/nipgr/j.php?MTID=m6a20a8dd17199b016f0b8a0c71fcfcbb>

Webinar number : 2518 643 1294

Webinar password: Yr35yh83WPk (97359483 when dialing from phone / video system)

Access code: 251 864 31294

Link To Register: <https://bit.ly/ifra2025>

Day 1: Monday 9 June 2025

9:30AM to 11:00AM (IST)	INAUGURAL SESSION
9:30 AM: Lamp Lighting	
9:40 AM: Welcome Address by Director, NIPGR	
9:45 AM: Introduction to the Summit by Dr. Gitanjali Yadav, NIPGR	
9:50 AM: Opening Remarks by Dr. Narinder Mehra, India CODATA President	
10:00 AM: Remarks by Dr. Debasisa Mohanty, Director, National Institute of Immunology (NII)	
10:00 AM: Inaugural Address (MultiLingual) "INDIA'S DATA LEADERSHIP" By Dr. Akhilesh Jha, Ministry of Rural Affairs, Govt of India	
10:30 Vote of Thanks by Francis Crawley, CODATA, CoARA ERIP	
10:35: GROUP PHOTOGRAPH	

HIGH TEA (10:40 AM - 11:00 AM)

SESSION 1: 11:00 AM - 12:00 PM (IST)

JUNE 9, 2025

Learning with Algorithms: India's NEP Policy and the Future of Data Literacy

SESSION OVERVIEW:

With NEP 2020 ushering in AI and data science into the higher education curriculum, India stands at the threshold of a transformative shift. This session explores how universities can equip students with the skills to navigate and ethically manage the data deluge shaping every industry. The Keynote will give an overview of the Data Deluge and address how India is addressing this with the Introduction to the Indian Biological Data Center. Panelists will discuss curriculum reforms, faculty readiness, and the infrastructure needed to build a future-ready workforce. From data literacy to algorithmic accountability, the conversation will focus on aligning academic goals with the demands of a rapidly evolving, data-driven economy—ensuring India's graduates are not just employable, but also responsible digital citizens.

11:00AM: KEYNOTE TALK (10 Min), followed by Q&A (5 Min)

Handling the Data Deluge: Introduction to the Indian Biological Data Center

Prof. Saurabh Raghuvanshi
University of Delhi South Campus (UDSC)

11:15 AM: PANEL DISCUSSION

Navigating the challenges of digital transformation: the government and the academic institutions

Moderators

Dr. Gitanjali Yadav, NIPGR New Delhi
and
Francis Crawley, International Data Policy Committee (IDPC), CODATA & CoARA-ERIP; Leuven Belgium

Panelists

Prof. Manish Gour, Director, IIIT Una, HP, India
Prof. Madhu Chopra, Ambedkar Center for Biomedical Research, University of Delhi
Dr. Manu Sikarwar, Dept of Higher Education, Govt of Rajasthan, Jaipur
Dr Vina Vaswani, Director, Center for Ethics, Yenepoya (Deemed to be University), Mangalore (online)
Prof. Saurabh Raghuvanshi, University of Delhi South Campus (UDSC)

Questions for Deliberation

1. Are we facing challenges in rolling out AI and data literacy programs across diverse linguistic and infrastructure landscapes in India?
2. How are state and central systems preparing institutions and educators to integrate data science and AI into the mainstream curricula following on the National Education Policy (NEP 2020)?
3. With the increased use of data and learning analytics, including the use of AI, how are governments, Research Performing Organizations (RPOs) (e.g., universities) and Research Funding Organization (RFOs) ensuring ethical data and AI governance within the education system?
4. Are current teacher training programs sufficient to equip educators with the skills to handle AI and data education? What reforms are planned?
5. How is the governance ecosystem supporting the development of localized and contextual learning materials for AI and data science?
6. With the increased use of student data and learning analytics, how are governments ensuring ethical data governance and privacy within the education system?
7. What frameworks are being considered to regulate algorithmic decision-making in education (e.g., adaptive learning platforms, automated assessments)?

SESSION 2: 12:00 PM - 1:00 PM (IST)

JUNE 9, 2025

Research Evaluation: Rethinking Data and AI in Science and Higher Education

SESSION OVERVIEW:

Research assessment must evolve beyond publication-centric and opaque systems toward holistic, inclusive, and mission-driven approaches that recognize diverse scholarly contributions and digital outputs. As AI becomes central to research—from data generation to hypothesis formation—assessment frameworks must incorporate AI explainability, usage transparency, and epistemic integrity. This panel explores how Governance Frameworks and Funders can lead this shift by investing in AI literacy for all stakeholders and aligning assessment tools with ethical and interdisciplinary goals. Fair, culturally sensitive evaluation in multilingual environments, alongside responsible AI integration, is crucial for credible, equitable, and future-ready research assessment systems.

12:00 PM: Keynote Speech (15 Min), followed by Q&A (5 Min)

Transforming Research Assessment Reforming Practices for Science and the University

By

Mihalis Kritikos, Secretary, European Group on Ethics in Science and New Technologies (EGE) Ethics and Integrity Sector, Directorate-General for Research and Innovation (DG-RTD), European Commission

12:20 PM: PANEL DISCUSSION

AI & Ethics in Governance, Research & Assessment: Challenges & Opportunities

Moderator

Francis P. Crawley
International Data Policy Committee (IDPC), CODATA & CoARA-ERIP; Leuven Belgium

Panelists

Dr. Jyoti Yadav, Head, Recruitment and Assessment Board, CSIR, Govt of India

Dr. Aashish Ranjan, Group Leader, NIPGR

Dr. Usha Munshi, India International Center, New Delhi

Dr. Suchith Anand, Ethical Data Initiative (EDI), and University of Exeter, United Kingdom

Dr. Angeliki Tzouganatou, CoARA-OI4RRA & OpenAIRE, Greece

Questions for Deliberation

1. How can we ensure accountability and transparency in the data and algorithms used for AI-driven research assessment in the Global South?
2. Are there successful models or frameworks for ethical research assessment that move beyond quantitative metrics?
3. How can national and institutional policies better balance data innovation with individual rights and academic freedom?
4. What are the ethical and practical implications of using AI-generated content or tools in research workflows—and how should these be assessed?
5. What strategies can protect the sovereignty of Indigenous and local knowledge systems in data governance and AI-based assessments?

LUNCH BREAK (1:00 PM - 2:00 PM)

SESSION 3: 2:00 PM - 3:00 PM (IST)

JUNE 9, 2025

Data without Borders: FAIR Journeys with Trains and Visitors

SESSION OVERVIEW:

As global data sharing faces growing restrictions, new models like Data Visitation and Data Trains offer promising, privacy-preserving alternatives to traditional transfer-based sharing. Anchored in the FAIR principles (Findable, Accessible, Interoperable, Reusable), this session explores how moving computation to data—rather than moving data itself—can unlock international collaboration, accelerate science, and ensure ethical governance. Experts will discuss technical, legal, and policy innovations enabling these models, and how they can reshape research ecosystems across borders. Join us to explore the future of data mobility and how “visiting” data may be the key to a truly global and FAIR data commons.

2:00 PM: Keynote Speech (10 Min), followed by Q&A (5 Min)

“Introduction to LIFES & The Concept of Data Mobility”

Barend Mons
Leiden University, Leiden, Netherlands

2:15 PM: PANEL DISCUSSION FAIR Data Applications; Climate Resilience & Agriculture

Moderator

Gitanjali Yadav, NIPGR New Delhi

Panelists

Prof. E. Jemmis, Indian Institute of Science, Bangalore, India (online)

Mr. Ameen Jauhar, Data Governance Lead, (CABI), London, U.K (online)

Prof. Shandar Ahmed, School of Computation & Information Science, Jawaharlal Nehru University

Dr. Debasisa Mohanty, Director National Institute of Immunology (NII)

Patricia Buendia, Lifetime Omics, DV4RDA (online tbc)

Mr. Mainak Chakraborty, Senior Solutions Architect · Amazon Web Services (AWS)

Questions for Deliberation

1. How do Data Trains and Data Visitation fundamentally shift our understanding of ‘data sharing’?
2. Can these approaches help level the playing field for Global South researchers who often face data access barriers?
3. How might data sharing without data transfer reshape global scientific collaboration over the next decade?
4. What are some early success stories or pilots that demonstrate the promises and challenges of this paradigm?
5. How do these models navigate issues of consent, ownership, and data sovereignty across jurisdictions?
6. Are Data Trains and Trusted Execution Environments enough to ensure privacy and trust? What are their limitations?

HIGH TEA (3 PM - 3:15 PM)

SESSION 4: 3:15 PM - 4:30 PM (IST)

JUNE 9, 2025

Uniting India's Data Landscape: The Strategic Role of CODATA National Committee

SESSION OVERVIEW:

This session explores the critical role of the CODATA National Committees all over the world in fostering data custodianship across diverse scientific and thematic domains. As data volumes grow exponentially, effective stewardship is essential to ensure data quality, interoperability, and ethical management. The Lead Talk will set the stage with an example for Data Stewardship in India mediated by CODATA India established within the auspices of Indian National Science Academy (INSA). Panelists will discuss strategies for bridging data silos, promoting FAIR principles, and enabling collaborative data ecosystems that drive innovation and informed policymaking. Join us to understand how individuals or organizations can associate with CODATA India to serve as a national catalyst for uniting India's fragmented data landscape and advancing responsible data governance.

3:15 PM: Keynote Speech (15 Min), followed by Q&A (5 Min)

Data Stewardship in India: Catalyzing Collaboration through CODATA

Dr. Debasisa Mohanty
Director, National Institute of Immunology (NII)

3:45 PM: PANEL DISCUSSION Diverse Datasets in India

Moderators

Prof. E Jemmis, IISc, Bangalore
and
Dr. Gitanjali Yadav, NIPGR New Delhi

Panelists

Prof. Venu Gopal Achanta, Director, National Physical Laboratory (NPL), New Delhi
Dr. Debasisa Mohanty, Director NII, New Delhi
Dr. Gautam Talukdar, Senior Scientist, Wildlife Institute of India (WII), Dehradun
Prof. Deepak Nair, Regional Center for Biotechnology (RCB), Faridabad
Dr. Simon Hodson, Executive Director, CODATA
(Committee on Data of the International Science Council [ISC])

Questions for Deliberation

1. What are the key challenges in establishing effective data custodianship across India's diverse scientific domains?
2. How can CODATA National Committee facilitate interoperability and FAIR compliance among fragmented data repositories?
3. What role can CODATA play in promoting ethical standards and responsible data governance across diverse National Committees?
4. How can National Committees bridge gaps between academic, governmental, and industry data stakeholders to foster collaboration?
5. What strategies are effective for capacity building and awareness around data stewardship in India's research ecosystem?
6. How can CODATA India support policy frameworks to strengthen data custodianship at institutional and national levels?

SESSION 5: 5:00 PM - 5:30 PM (IST)

JUNE 9, 2025

DIY SESSION

AI-Driven Open Innovations for Precision Research & Knowledge Discovery

SESSION OVERVIEW

This is an introduction to the DIY Session for research Scholars where we introduce the concept of AI assisted Automated Literature Retrieval and Analysis using our in-house toolkit developed in #semanticClimate. Dr. Yadav will give an overview of how we can Search the Scientific scholarly corpus for any query term from the publicly available databases and extract useful relevant information from the corpus using computational tools and techniques to reduce the time and effort required for traditional manual searches. The DIY Modules will cover three parts:

Session 1 : Fundamentals of AI and Natural Language Processing (NLP)

Session 2 : Workspace Demo: AI over NLP using our Semantic Toolkit

Session 3 : DIY! AI over Your Own Literature Metadata

*Overall Objectives of this session are to Introduce concept of AI, its Importance for Life Science Research; Introduce foundational methods that enable exploration of AI and Big Data; Set up Workspace in **Colab** Notebooks and **Github**; Introduce **HuggingFace**, a global open-source platform for AI; and finally, Create/Establish a network of trainers to build capacity for AI enabled scholarship in the Global South.*

4:30 PM: Keynote 1 (30 Min) followed by Q & A

AI-powered Enhanced Reviews with the Semantic Toolkit

Dr. Gitanjali Yadav

NIPGR New Delhi

Co-founder, #SemanticClimate

5:00 PM: Keynote 2 (30 Min) followed by Q & A

Demonstration of the AI-powered toolkit developed at NIPGR

INSTRUCTORS

Dr. Renu Kumari, NIPGR

Ms. Priti, NIPGR

Ms. Moobashara Jawed, NIPGR

Ms. Shabnam Bharbuiya, NIPGR

5:30 PM: Finalization of Teams for Hackathon on Day 02

Delegates who wish to follow the Demo and participate in the Hackathon will team up with other delegates. Each Team can have between 3 to 5 delegates who will choose a common theme of interest and perform AI- Assisted Literature review on that theme. Each team will make a short (5 minute) presentation on Day 02 of the Summit, that will be judged by a panel of AI and NLP experts.

Day 1 Closure

Day 2: Tuesday 10 June 2025

SESSION 6: 9:00 AM - 11:00 AM (IST)

JUNE 10, 2025

DIY SESSION : HACK THE LIBRARY!
EDUCATING IN THE AGE OF AI: AI ASSISTED LITERATURE REVIEW
Delegates Must have Wifi Enabled Devices

(This is a DIY Team Session. Delegates Require WiFi Enabled Devices)

9:30 AM: Introduction to The #SemanticClimate AI Toolkit
by
Dr. Renu Kumari

9:45 AM: "AI over NLP via Pygetpapers", By Ms Priti Chahal

10:00 AM: "AI for Named Entity Retrieval" By Ms. Moobashara Jawed

10:30 AM: "Enhanced Text Summarization using AI" by Ms. Shabnam Bharguiya

10:45 AM: Delegates Use the Toolkit to Hack in Teams

WORKING TEA BREAK! (11 AM - 11:30 AM)

(TEAMS WILL FINALISE RESULTS AND PREPARE PRESENTATIONS FOR THE NEXT SESSION)

SESSION 6 (Cont.): 11:30 AM to 1:00 PM (IST) Hack the Library

KEYNOTE 1 (15 MINUTES): 11:30 AM
VISUALISING WIKIPEDIA FOR CLIMATE
By

Dr. Giovanni Profeta
Dipartimento ambiente costruzioni e design (SUPSI), Switzerland

KEYNOTE 2 (15 MINUTES): 11:45 AM
CREATING YOUTH KNOWLEDGE CHAMPIONS AROUND THE GLOBE
By

Dr. Peter Murray-Rust
Reader Emeritus, Department of Chemistry, University of Cambridge, U.K

12:00 PM: Teams Present Results (5 Min Each)

Judges

Gitanjali Yadav, NIPGR New Delhi
Francis P. Crawley, IDPC CODATA, CoARA-ERIP; Leuven Belgium
Peter Murray-Rust, Cambridge, U.K
Narinder Mehra, CODATA India

LUNCH - 1:00 PM - 2:00 PM

SESSION 7: 2:00 PM - 3:00 PM (IST)

JUNE 10, 2025

Open Innovations for Academic Discovery & Research Assessment

SESSION OVERVIEW:

This panel explores how open innovation and AI are reshaping academic discovery and research assessment, in line with evolving global frameworks like COARA. As AI enables new forms of knowledge production—through automated data synthesis, hybrid authorship, and inclusive peer review—traditional evaluation metrics must give way to more holistic, transparent, and equitable approaches. The discussion will highlight the role of open infrastructures, such as OpenAIRE, in supporting FAIR principles, multilingual inclusivity, and responsible AI integration. Panelists will examine how funders, institutions, and researchers can collaboratively build assessment systems that foster innovation while upholding integrity, accountability, and diversity in academic contributions.

2:00 PM: Keynote Speech (10 Min), followed by Q&A (5 Min)

DEVELOPING INSTITUTIONAL, NATIONAL, AND INTERNATIONAL APPROACHES TO RESEARCH ASSESSMENT IN THE AGE OF AI

By

Francis P. Crawley

IDPC CODATA, CoARA-ERIP; Leuven Belgium

2:15 PM: PANEL DISCUSSION

The Road Ahead: Enabling AI for Research Assessment

Moderator

Francis P. Crawley, IDPC CODATA, CoARA-ERIP; Leuven Belgium

Panelists

Prof. GPS Raghava, IIIT Delhi

Dr. Nidhi Nagbhatla, United Nations University (UNU-CRIS), Belgium

Dr. Perihan Elif Ekmekçi, Co-chair, CoARA-ERIP & TOBB ETÜ

Dr. Gitanjali Yadav, Scientist, NIPGR, New Delhi

Dr. Jacintha Toohey, University of KwaZulu-Natal (UKZN), South Africa

Dr. Moumita Koley, San Francisco Declaration on Research Assessment (DORA)

Questions for Deliberation

1. How can open innovation ecosystems be leveraged to comprehensive and inclusive access to scientific and academic research while fostering interdisciplinary collaboration?
2. Can India's current research assessment frameworks be aligned with global movements like DORA and CoARA, and if so, how can they be adapted to local academic contexts?
3. What role can national digital infrastructures (e.g., Shodhganga, SWAYAM, NDLI) play in promoting open science and innovation-driven scientific and academic discovery in India?
4. How can research assessment frameworks account for multilingual, multicultural, and epistemologically diverse research environments—especially in AI-driven evaluations?
5. What assessment mechanisms can distinguish between AI use driven by innovation versus AI used out of necessity or lack of resources?

HIGH TEA (3 PM - 3:15 PM)

SESSION 8: 3:15 PM - 4:00 PM (IST)

JUNE 10, 2025

LAUNCH OF THE INDIAN RESEARCH ASSESSMENTS FORUM (IRAF)

3:15 PM: Keynote 1

“Genesis of an Indian Forum For Research Assessment”

By

Dr. Gitanjali Yadav

Scientist, NIPGR; Co-Founder #SemanticClimate

3:25 PM: Keynote 2

“The Need for a Forum like IRAF”

By

Dr. Usha Munshi,

India International Center (Former Member, India CODATA National Cte)

3:35 PM: Keynote 3

“Research Assessment in India: Making the World's knowledge Truly Open”

By

Subbiah Arunachalam,

Scholar, Philosopher & Thinker

Chennai

उद्घाटन भाषण: भारतीय अनुसंधान मूल्यांकन मंच (IRAF)

FORMAL LAUNCH OF THE INDIAN RESEARCH ASSESSMENTS FORUM (IRAF)

SESSION 9: 4:15 PM - 5:30 PM (IST)

JUNE 10, 2025

VALEDICTORY SESSION

4:15 PM: Certificate Distribution

Dr. Narinder Mehra, President, INDIA CODATA

(Also on Stage: Dr. G Yadav, Dr. D. Mohanty, and Francis P. Crawley)

4:30 PM: Keynote Address (10 Min), followed by Q&A (5 Min)

Empowering Data Custodians: CODATA National Committee's Vision for India

Dr. Narinder Mehra, Chair, INSA National Cte for CODATA

VOTE OF THANKS, FEEDBACK & SUMMIT CLOSURE

End of the Summit