



RDA & Microsoft Collaboration

Global Community Priorities for Agentic AI in Research

Connie Clare, Research Data Alliance
connie.clare@rda-foundation.org

Thursday 13 November 2025, 16:00-16:45 UTC

RDA's Global Community Consultation on AI in Research: Information Session 3



RDA Values



Vision

Researchers and innovators openly share and reuse data across technologies, disciplines, and countries to address the grand challenges of society.

Mission

The RDA builds the social and technical bridges that enable open sharing and reuse of data.



[How the RDA works](#)

Guiding Principles



Openness



Consensus



Inclusivity



Harmonisation



Community-driven



Non-profit &
technology-neutral



Microsoft

Welcome and Housekeeping

Time (UTC)	Agenda Item	Lead
16:00 - 16:05	An introduction to the consultation	Connie Clare (RDA)
16:05 – 16:15	The Prospect of Agentic AI in Crop Image Analysis	Assoc. Prof. Ugochi Okengwu (University Port Harcourt)
16:15 – 16:25	Agentic AI in the Research Lifecycle	Ryan Payton (Microsoft)
16:25 – 16:40	Menti Feedback Session	All participants
16:40 – 16:45	Closing remarks and next steps	Connie Clare (RDA)



Recording in Progress

This session is being recorded and presentations will be published online.



Keep Your Mic Muted

Please mute yourself to minimise background noise.



Cameras On Appreciated

We'd love to see your face! Please keep your camera on if possible.



Respectful Dialogue – [RDA's Code of Conduct](#)

Listen openly and respect all perspectives shared. Adhere to the scope of the session.



Questions or comments? Use [our collaborative notes](#) and contact hilary.hanahoe@rda-foundation.org



RDA's Public-Private Partnership Framework



- Facilitates **high-impact community activities** on **topics of mutual interest**
- Bridges **industry innovation** with research **infrastructure needs**
- Organisations **collaborate with data experts**, **gain global visibility** and **shape open science** and **research**
- Brings **professional facilitation support**, **accelerated timelines**, **real-world adoption** and **implementation perspectives**
- Adheres to **RDA Guiding Principles** and **processes**



Microsoft

RDA-Microsoft Expert Roundtables



- Open white papers
- Recommendation: 'investing in automated data preparation tools' and agentic AI emerged as 'top skilling need'

- How researchers **prepare data for AI** and **develop skills** for AI-driven research
- How **technologies** like **HPC** and **QC** transform research capabilities





Microsoft

Agentic AI in support of Science and Research

- New community consultation on **agentic AI in research**
 - Autonomously assist with research tasks from data analysis to publication
 - Accelerate research, lower costs and democratise access to tools
- **November 2025: Survey and online information sessions**
- **December 2025: Open report**
- **2026 onwards: Open technology-agnostic blueprint for priority agent**

How is the research community currently using agentic AI?

What needs and challenges exist?

Where could agentic AI have the greatest impact?



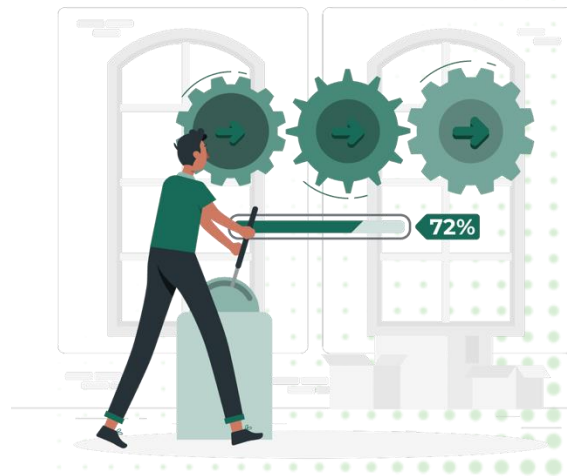
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RESEARCH DATA ALLIANCE

What is Agentic AI*?

Agentic AI refers to artificial intelligence systems that possess autonomy, goal-directed reasoning, and the ability to **act independently with minimal human oversight**. In contrast, traditional AI typically responds to direct prompts.

*This definition is used for the purposes of this initiative. We recognise that the broader community may hold different definitions, perceptions, and understandings of Agentic AI.





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The Prospect of Agentic AI for Crop Image Analysis

Assoc. Prof. Ugochi Okengwu





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Agentic AI in the Research Lifecycle

Dr Ryan Payton



Topic = Cat

Sentiment = Negative



“Oh *great*, the *cat* *knocked over my*
coffee again—just what I needed
this morning.”

Researchers at Google discovered how to not just look at the text itself but enable the model to **understand the importance of each part of the sequence in context** and do this very quickly.

They can also **generate text** by predicting the next words in the sequence

(Transformers)



But LLMs only respond with the data they are trained on, so we needed a way to give them data that they didn't have access to before.

We'd need to build an app around the LLM that **passes it information it could reference when answering a question.**

This is known as Retrieval Augment Generation (RAG) and providing the data is **known as 'grounding'**

This lets the LLM give accurate answers using real-time or private data



Use Tool <Hammer> to hit Nails

Now what if we need to get that app to do something like completing a task or calling another system.

These would be tools that our new app could call when asked to do something.

If we describe what the **tool** did and give it some **instructions**, then the LLM could be used to determine when the app should call it and then also understand the result.

(AI Agent Tools)

Plan:

Step 1: Place Nail

Step 2: Hit with Hammer



But completing a task may require additional steps

We need to be able to give our app the **ability to determine a plan** for how it's going to complete a task.

Our LLM can generate text so let's use it to generate a plan based on the problem too

(Generative Orchestration)

Plan:



Step 1: Place Nail



Step 2: Hit with Hammer



Eval: Task Complete? No

Step 3: Hit with Hammer Again

...



In reality, things rarely go to plan, so we need a way to **reason over our previous steps and check if it got us closer to finishing our plan.**

If not, we should be able to change the plan and come up with new steps from our available tools.

That will need a way to have **memory** on what changes have worked before.

And now we have a generative AI agent that can adapt autonomously!

(Generative AI Agent)



LLMs can also understand machine language like those coming from systems inside enterprises.

And, what if we didn't prompt our new agents into action by asking them but **plugging them into events from our emails, our CRMs or Service Desks.**

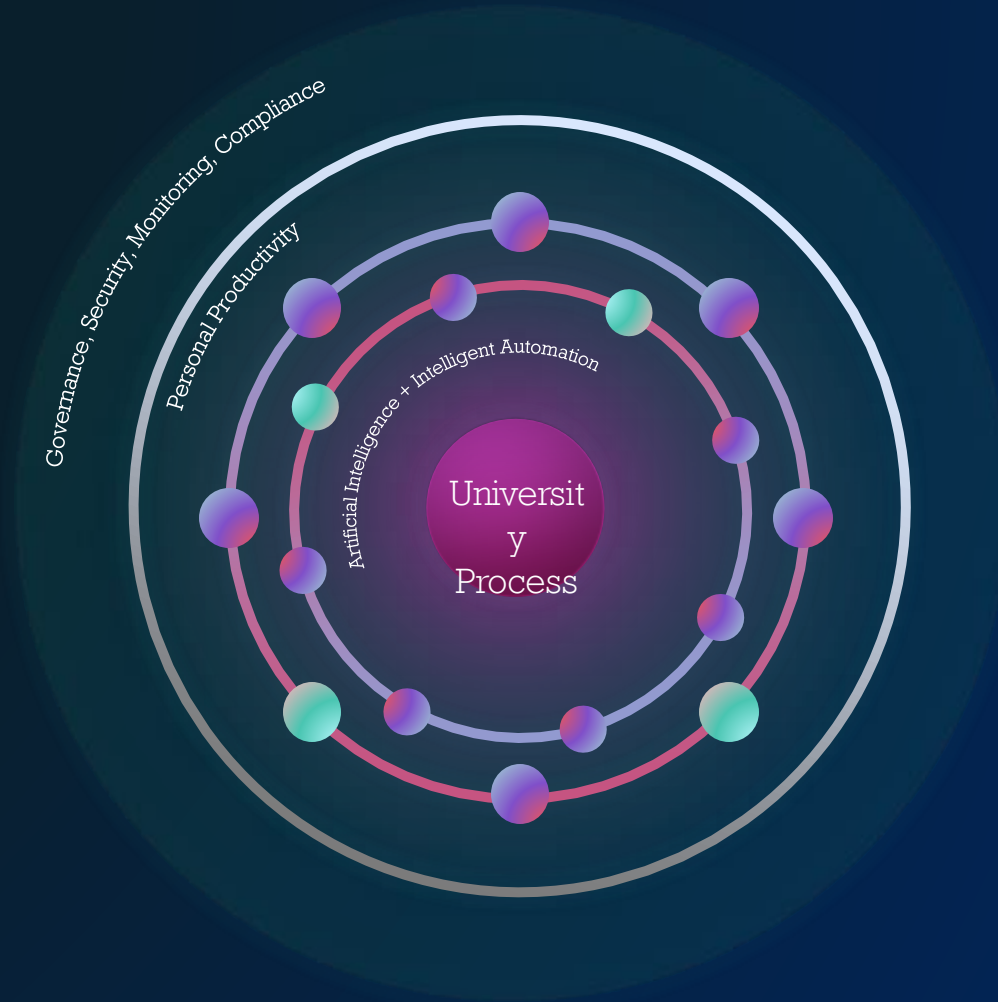
Now they could trigger automatically and work autonomously

(Autonomous Agents)

University and research processes are complicated and involve lots of moving parts, so we **need lots of agents that are built to so specific tasks** that can run autonomously

We can also have **agents talk to other agents** so that they can hand over tasks to more suitable agents.

And we'll need a way to **govern and monitor all these agents** as they complete tasks



The Research Lifecycle

New research idea

Apply for funding

Carry out research activities

Publish findings in academic journal

Share findings at academic conferences

Report on research output and impact

Realise new questions based on research outputs

Literature/Data Wrangler

- Scan the literature for gaps in knowledge/research
- Identify overlap of ideas with the literature to avoid repetition/encourage reuse of existing data
- Identify internal datasets which could be relevant and useful for a new project

Literature Librarian

- Natural language literature searching
- Integration with library subscriptions to access articles both OA and behind paywalls

Funding Finder

- Scan funding databases to match calls with your ideas
- Provides the template for your application and ensures you meet the guidelines
- Improvements/critiquing based on prior successful applications from the university

Ethics Reviewer

- Offers potential ethical issues for project proposals
- Provides guidance on meeting ethics requirements based on guidelines and prior ethics board decisions

Resource Finder

- Takes a researcher's goals and surfaces university services available to help
- Linked to lab facilities, IT infrastructure, RSEs, seminar groups, internal funding, etc...

Collaboration Catalyst

- Suggests internal colleagues to work with on specific challenges based on their profiles
- Surfaces dataset and facility owners who could collaborate on a project idea

Publication Preparer

- Identifies appropriate journals and special collections for your work
- Ensures your work is in scope, reducing rejection rate
- Provides appropriate journal templates and rewrites content to meet guidelines
- Generate evidenced novelty statements for editors

REF Support

- Researchers: taking information and preparing it into an appropriate format template
- Institution: collecting information from researchers and preparing it to a REF template

Research Reporter

- Population of Researchfish/new solution based on provided information

Research Refiner

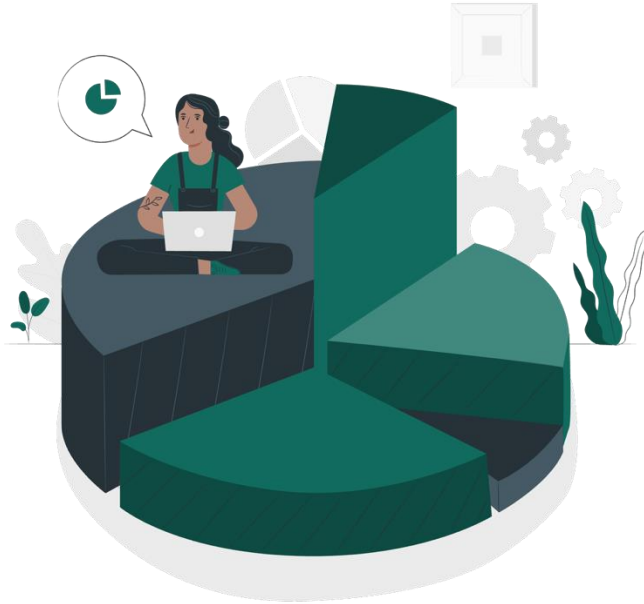
- Critical discussion of data presentation to improve communication quality
- Translation of research literature and figures for a specified audience – domain researcher, broad researcher or public

Data Director

- Automatic metadata creation, ensuring **FAIR** and **FAIR2** principles are followed
- DOI minting
- Provides guidance on where the data should be stored to be compliant



Menti Discussion



menti.com
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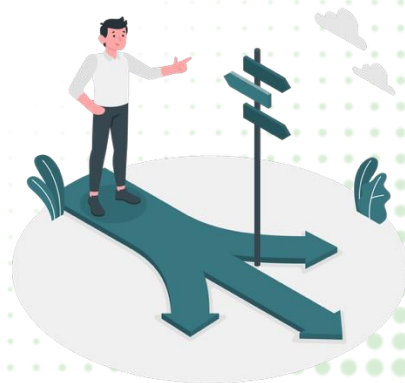
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Closing Remarks and Next Steps

1. Complete the [15-minute anonymous survey](#) to share your perspectives on agentic AI
Tangible Output: Open community report (Dec 2025)
2. Phase 2: Open technology-agnostic blueprint (Jan-March 2026)
Do you want to get involved in the next steps?
Email connie.clare@rda-foundation.org



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RESEARCH DATA ANALYTICS

Information Sessions



United States

Harang Ju

Assistant Professor
at the Johns
Hopkins Carey
Business School

Tuesday 11
November



Recording coming soon



Australia

Moji Ghadimi

Head of AI &
Quantum
Algorithms,
Queensland Cyber
Infrastructure
Foundation (QCIF)

Wednesday 12
November



Recording coming soon



Nigeria

**Ugochi
Okengwu**

Associate Professor
at University Port
Harcourt

Wednesday 13
November



Recording coming soon



Singapore

**Mukkesh
Kumar**

Head of Data
Management at
A*STAR

Thursday 27
November



[Register](#)



Thank you for your attention