

Join us for

AGENT HACK



OFFICIAL ATTEMPT

Most participants in a Generative AI hackathon

Wednesday, October 29th

5:30pm – 9:30pm

MGM Grand, Las Vegas

Register at

aka.ms/AgentHackReg

Useful Power CAT Resources

Toolkits

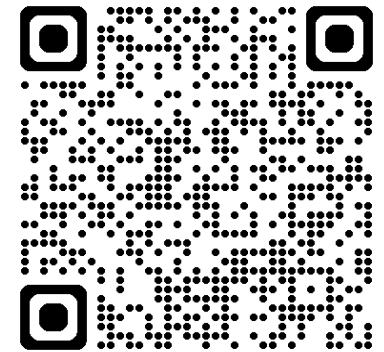
- Copilot Studio Kit
- CoE Starter Kit
- Creator Kit

Skilling

- Power Up
- Copilot Studio in a Day
- AI Webinars
- Agent Build-A-Thons
- Kickstarter workshops
- Architecture bootcamps

Guidance & Stories

- Architecture Center
- Power Platform Guidance
- Copilot Studio Guidance
- Adoption Center
- Case studies
- Nominate a story



aka.ms/CATResources

Dataverse, your enterprise-agent database

Julie Koesmarno

Principal Group Product Manager
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Principal Software Engineering Manager
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Rami Mounla

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“I have agents running in
production”



“I have agents running in production and I’m happy with them”



“I have agents running in production and **my users** are happy with them”





1.3 billion

AI Agents by 2028

Source: IDC Info Snapshot, 1.3 Billion AI Agents by 2028, doc #US53361825, May 2025

Data Repositories

Structured Data

CRM/ERP

Product Catalogs

Marketing Workflows

Unstructured Data

Knowledge Bases

Email & Comms

Web Data

Agent workflows

Capabilities

Orchestration

Agents

Describe

Diagnose

Predict

Prescribe

Reasoning

Autonomous
Action

Collaboration



Agent 1



Agent 2



Agent 3



Agent N

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**A very hard
problem!**

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 Agent 1

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A very hard
problem!

Why isn't data just plug-n-play with agents?

1. Traditional data platform for static productivity & biz apps, not for dynamic agents
2. Business context is hard
3. Trusted data and access for agents are new to most

Data Repositories

Structured Data

CRM/ERP

Product Catalogs

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Agents

Optimize for my
business data

Open & flexible
integration tools

Agent access
control

Describe

Diagnose

Predict

Prescribe


Reasoning

Autonomous Action

Collaboration

 Agent 1

 Agent 2

 Agent 3

 Agent N

system of records → system of actions

Dataverse is the trusted platform for your business data and optimized for enterprise-agent data platform



Built-in semantic optimization for your AI agents

Open & flexible tools for AI agents collaboration and workloads

Out-of box AI security & governance for Agentic access and control



Microsoft Dataverse

The trusted platform for your
business data and optimized for
enterprise-agent workflows

 Agents

Orchestrator

Vibe Coding

Coding Agents

Open and Flexible Tools

Dataverse MCP Server



MCP tools

Agent Interop

Triggers, Actions

Extensibility



Dataverse
Python SDK

Built-in semantic optimization

Indexes

Glossary

Prompt column

OOB AI Security & Governance

Access controls

Compliance

Network
security

Threat
Detection



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Let's focus on:

Built-in semantic optimization

Dataverse (AI) Search

Prompt column

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Dataverse (AI) Search

GA

Auto-indexed and glossary optimized for your business data

Ask questions about your **business data** with:

- Dataverse Knowledge in Copilot Studio
- App Copilot in Model Driven Apps
- Copilot in D365 Apps
- M365 Copilot
- (and more soon!)

Clients



Power Apps

Copilot Chat



Copilot Studio

Knowledge

Tool



M365

Declarative
Agent



MCP

Tool



Dataverse (AI) Search

Prompt Columns

Use generative AI to enrich your business (meta)data

Preview

Up to 5 prompt columns per table

Generated upon create/update record events

Quick summary, sentiment analysis, categorization, entity extraction

Indexable for Dataverse AI Search

The screenshot displays the Dataverse user interface. On the left, a table titled 'Product Review' is shown with columns for 'Title', 'Review Text', 'Sentiment', and 'Record ID'. The table contains several rows of customer reviews. On the right, the 'Edit column' dialog is open for a column named 'Sentiment'. The dialog includes fields for 'Display name', 'Description', 'Data type' (set to 'Prompt'), and 'Format' (set to 'Text'). It also has checkboxes for 'Searchable' and 'Allow form fill assistance (preview)'. The 'Prompt' field contains a detailed instruction: 'Evaluate the sentiment of the given [Product Review.Review Text] with [RecordID], taking into account its emotional tone, subtle language cues, and cultural or contextual factors. Classify the tone of the text into the categories 'positive', 'negative', or 'neutral'. Look for sarcasm, emoticons, or specialized terminology that could affect the sentiment reading. In cases of mixed emotions, identify the most dominant sentiment. Analyze neutral phrases that may have negative or positive undertones, and name the person's sentiment.' The dialog has 'Save' and 'Cancel' buttons at the bottom.

Demo

Built-in semantic optimization

Prompt Column and Dataverse Knowledge in Copilot Studio

Cooper Wynn

Dataverse (AI) Search

Auto-indexed and glossary optimized for your business data

GA

What's new?

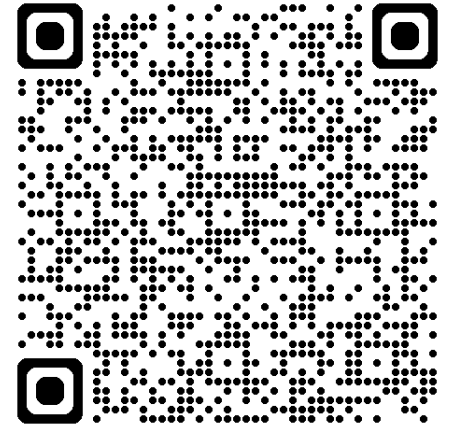
Support for multi-line text and file attachment columns

Image reasoning

Adaptive Search, e.g. "quiet neighborhood in Seattle under \$100K"

- Fuzzy matching,
- Semantic interpretation ("quiet" \approx "peaceful"),
- Composite queries (combines location + price + attributes without strict schema).

Agentic NL2SQL



Related session at 3pm

Dataverse AI Search

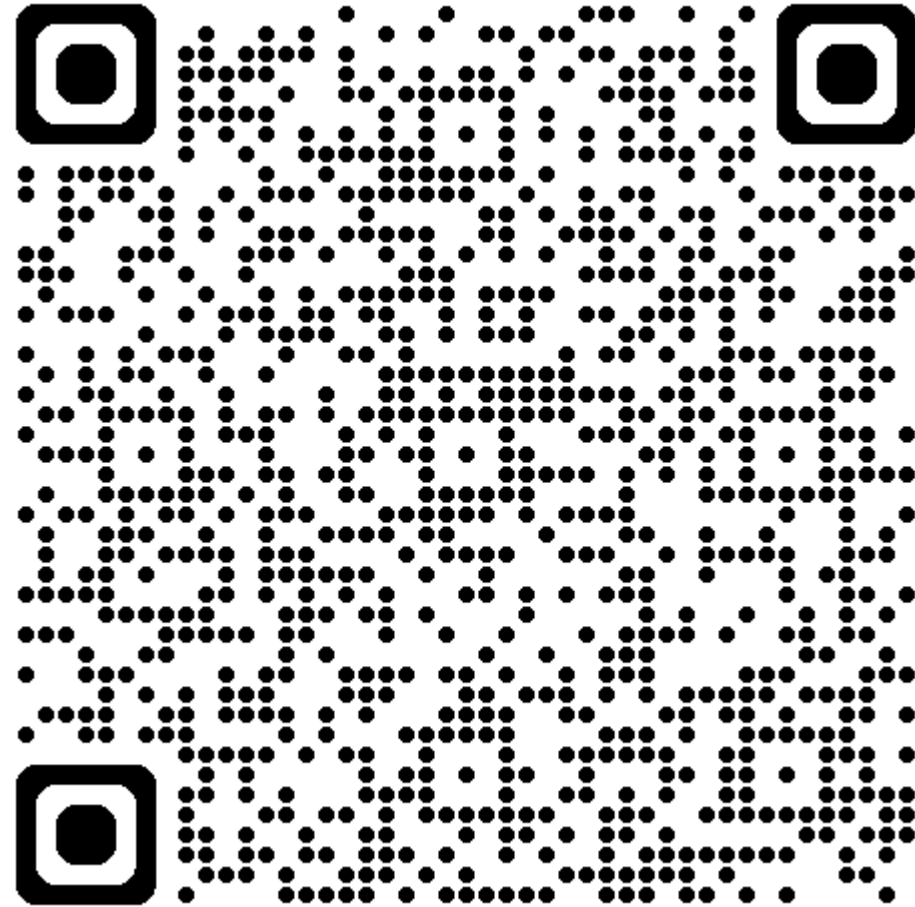
Deep dive session

Building Smarter Agents and Apps with Dataverse Knowledge

Wed Oct 29, 3pm – 4pm

Room: Boulevard 162

Speakers: Jason Huang, Mariana Araujo



Dataverse (AI) Search

Tips & Tricks – lessons learned from the field



A **generalization failure** results in inaccurate retrieval.

→ Every AI model fails when sales and marketing can't agree what 'customer' means.

Solution: Use glossary to provide context for your business

Example Prompt: "Show me the DPR for the Cold Brew"

Note: DPR is a term my organization use to refer to a domain-specific metric.


Glossary examples:

DPR: To calculate the Daily Positive Reviews (DPR), count the "Positive" sentiment reviews grouped by the review date.

Result:

Here's the **Daily Positive Reviews (DPR)** data for **Cold Brew** over the recent period:

| Date | Positive Reviews |
|--------------|------------------|
| Oct 21, 2024 | 1 |
| Oct 22, 2024 | 2 |
| Oct 23, 2024 | 4 |
| Oct 24, 2024 | 2 |
| Oct 26, 2024 | 4 |
| Oct 27, 2024 | 1 |
| Oct 28, 2024 | 1 |

This shows a consistent stream of positive feedback, with peak days on **Oct 23 and Oct 26**, each receiving **4 positive reviews** .

Dataverse (AI) Search

Tips & Tricks – lessons learned from the field



A [specification failure](#) results in inconsistent output:

→ Example: Show sentiment breakdown by Product -> should this be bulleted list or a paragraph?

Solution: Add agent instructions to improve this.

Example of an agent instruction:

Limit your use of emojis, and remain professional.

Each time you pull data from Dataverse, analyze the data for insights and actions to be taken.

Consider when to perform extra calculations like calculating percentages for quantitative insights.

Delegate acronyms and terms you do not understand to DATAVERSE as it understands the enterprises domain language

Result:

| 📊 Sentiment Breakdown by Product | | | | | |
|----------------------------------|----------|---------|----------|---------------|------------|
| Product | Positive | Neutral | Negative | Total Reviews | Positive % |
| Pumpkin Spice Cold Brew | 16 | 4 | 2 | 22 | 72.7% |
| Americano | 10 | 4 | 2 | 16 | 62.5% |
| Cappuccino | 16 | 2 | 1 | 19 | 84.2% |
| Espresso | 11 | 0 | 0 | 11 | 100% |
| Latte | 11 | 8 | 3 | 22 | 50.0% |

“I understand what evals
mean and why”



Evals for measurable, repeatable outcomes

Tips & Tricks – lessons learned from the field



Generalization Failure → Evals validate that the model understands your domain.

Specification Failure → Assertions in evals enforce structure, format, and intent.

Benefits: Configuration confidence, scalability & trust, and continuous improvement

Analytics > Evaluation results

| Name | Pass rate | Questions | Date | Created by | Status |
|----------------------|-----------------|-----------|-------------------|------------|------------------------|
| Evaluate Website Q&A | | | 9/30/25, 12:11 AM | | Running |
| Evaluate Website Q&A | 96% <div></div> | 10 | 9/29/25, 11:44 PM | | Completed |
| Evaluate Website Q&A | 96% <div></div> | 10 | 9/29/25, 11:36 PM | | Completed |
| Evaluate Website Q&A | 75% <div></div> | 10 | 9/13/25, 2:55 AM | | Completed |

Test run result

All Pass (6) Fail (3)

| Question | Agent response | Test method | Score |
|------------------------|----------------|-----------------|-------------------|
| What should I do if I | If you can't | Text similarity | Fail |
| Can you send me a rich | Here are | General quality | Pass |
| How does your website | The | Partial match | Fail |
| What are the steps to | Looks like | General quality | Fail |
| Can you send me a | Here is a | General quality | Pass |

Evals related session

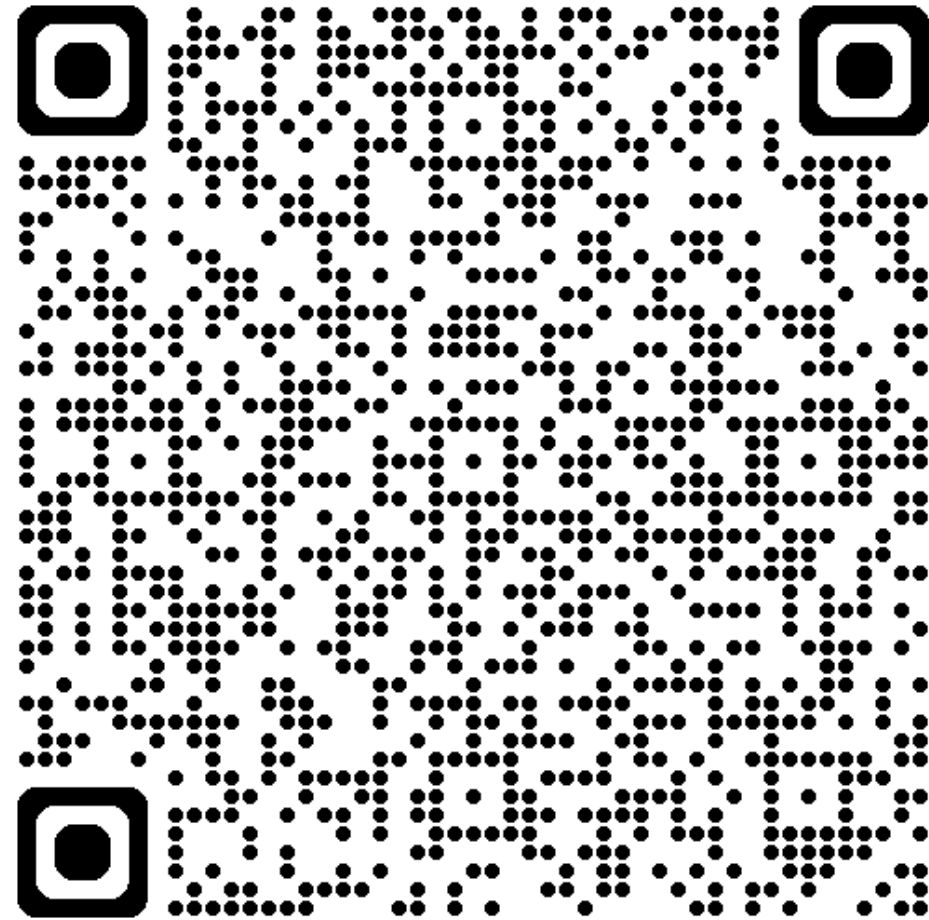
Concepts worth learning

Build to Brilliance: Elevate your Agents with Microsoft MCP Servers and Evals

Thu Oct 30, Noon – 1pm

Room: Chairman's 370

Speakers: Aarthi Saravanakumar,
Rashmi Mansur





Orchestrator

Vibe Coding

Coding Agents

Open and Flexible Tools

Dataverse MCP Server



Agent Interop

Triggers, Actions

Extensibility



Dataverse
Python SDK

Built-in semantic optimization

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Prompt column

OOB AI Security & Governance

Access controls

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Recap



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Dataverse MCP Server

Preview

Unlock data operation tools and agentic-tools for your agents

MCP Clients



Dataverse MCP Server

Dataverse MCP tools:

- Query via `read_query`
- Knowledge & Search via `list_knowledgesources`, `retrieve_knowledge`
- Upload (Create/Update records) via `create_record`, `update_record`
- Generate with grounding prompts via `list_prompts`, `execute_prompt`
- Table operations:
`ListTables`, `DescribeTable`

Triggers: Dataverse

GA

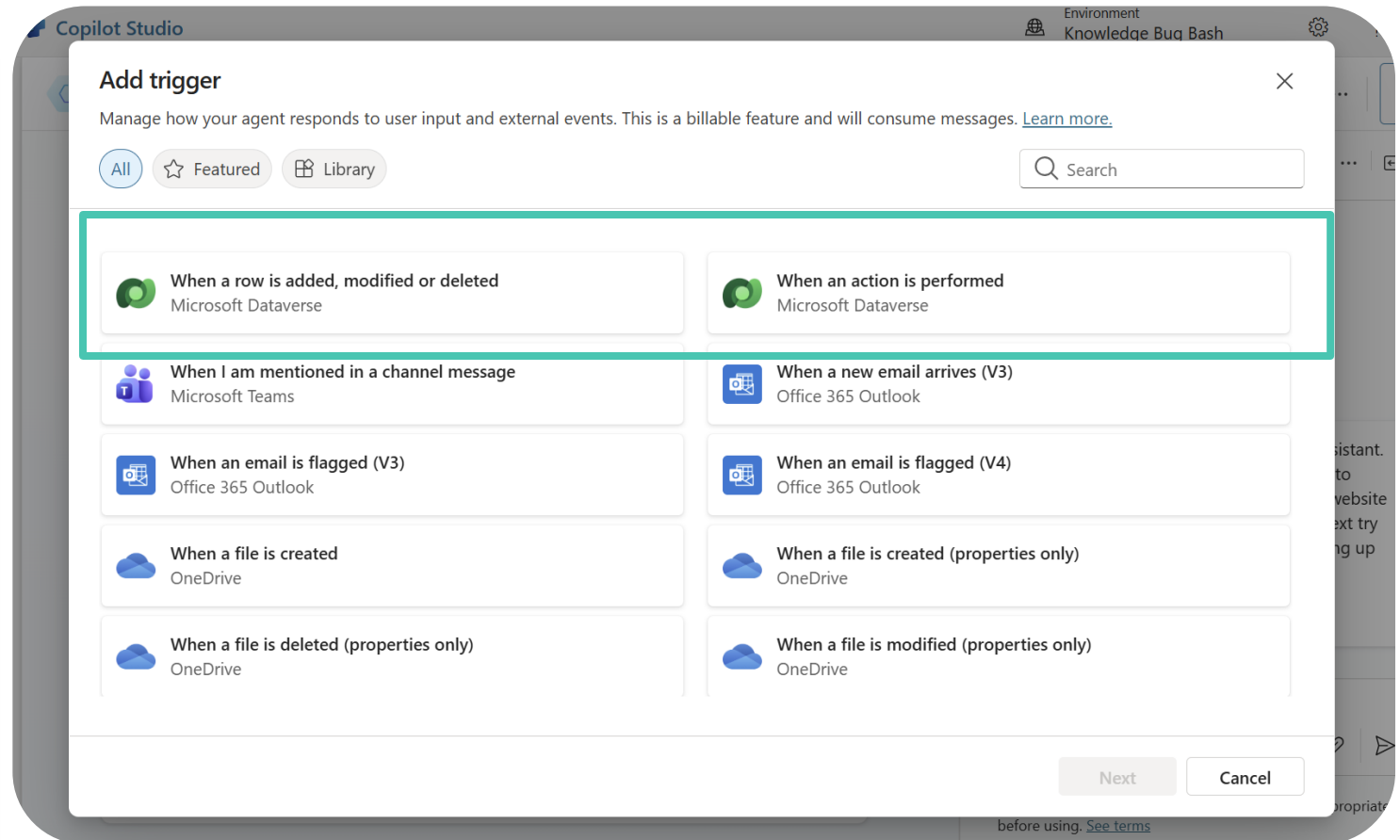
Your path to autonomous agents based on operations on business data

Triggers leverages Power Automate

Understands Dataverse events:

- When a row is added, modified, deleted rows
- When an action is performed.

Agent > Trigger > search for
Dataverse





Rami Mounla

Principal Architect, Capgemini

Customer Story

Not For Profit – Customer Success Story

Funding Obligations - Metrics - Agentic AI


Scenarios

- Extract KPM data from meeting minutes
- Identify support needs and connect with experts
- Generate reports based on instructions

Key capabilities

- Prompt columns
- Dataverse knowledge
- Dataverse MCP
- Autonomous agents
- Team of human/agents interaction

Details

 Name
MCP Agent

Description
Agent to display a meeting summary

Orchestration
Use generative AI to determine how best to respond to users and events. [Learn more](#)

Agent's model
GPT-4o (default)

Edit


Instructions

1. Use the MCP tools to answer questions. 2. When asked about meetings associated with a family, first get the family (account) GUID 3. Then retrieve all meeting names associated (ai_meeting) associated with a specific account (ai_family) ordered by createdon from the oldest to the newest. 4. For each meeting, after the name display the Education Sentiment (ai_EducationSentiment) as an emoji 🤗 for positive, 😐 for Neutral, and 🤨 for negative

Edit

Knowledge

Add data, files, and other resources to inform and improve AI-generated responses.


 Expertise

+ Add knowledge

Ready

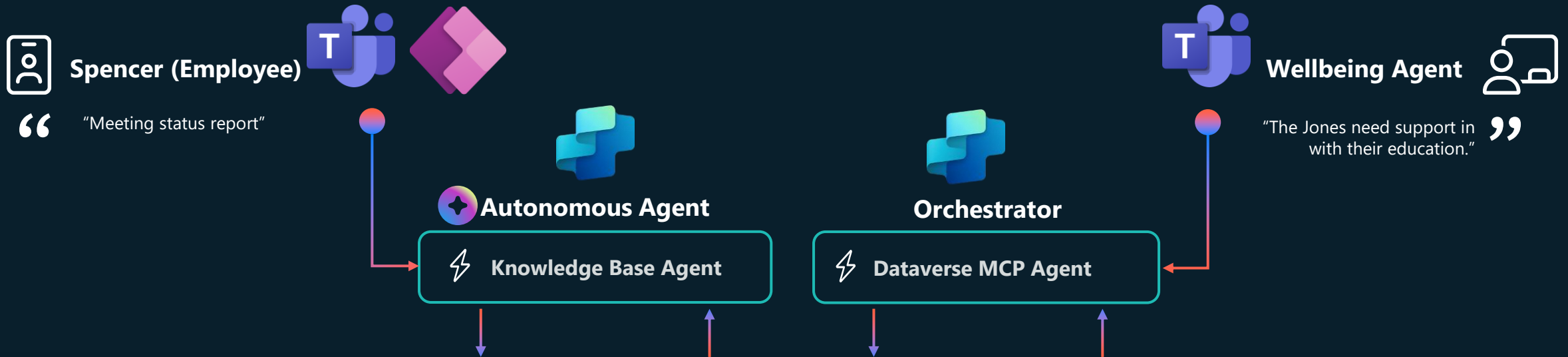
Tools

Add tools to empower the AI to complete specific tasks for improved engagement. [Learn more](#).

 Dataverse MCP Server

+ Add tool

Not For Profit - Enterprise Agents



Team of Agents



Find an Expert Agent

- Search list of experts
- Match expertise
- Pick the highest rating

Tier 1 Knowledge Sources



Family Progression Agent

- Find family account
- Retrieve associated meetings
- Track sentiment progression

MCP Dataverse Tool



Dataverse MCP Server

Preview

Unlock data operation tools and agentic-tools for your agents

Coming Soon

1. Enhanced governance framework

Enable or disable Microsoft clients (e.g., Copilot Studio, VSCode GitHub Copilot) and non-Microsoft clients (Claude, etc), accessing MCP Server

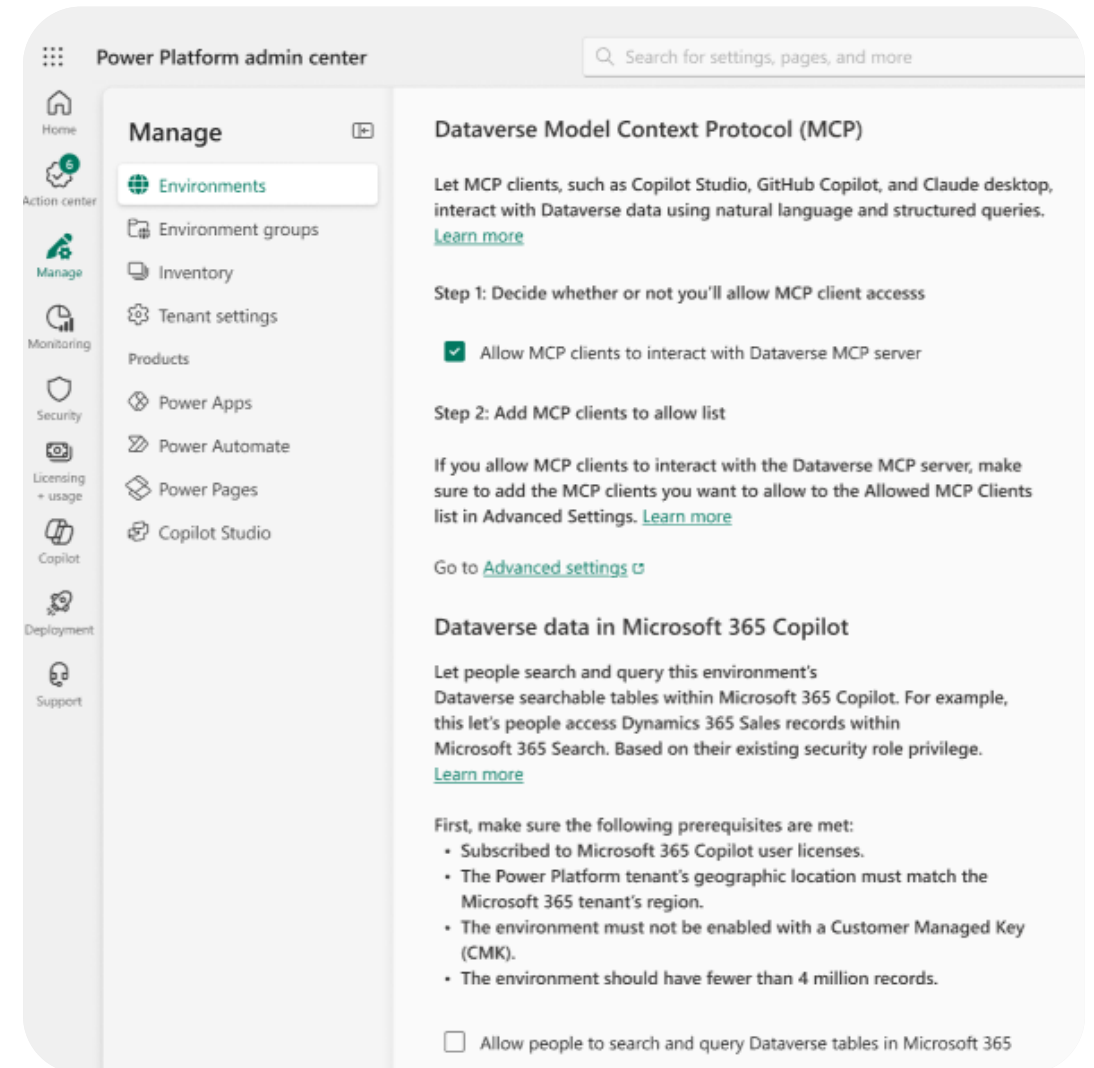
2. More advanced MCP tools in data discovery and management functions

CreateTable, UpdateTable, DeleteTable, DeleteRecord, SearchTool, and FetchTool.

3. Support for Remote MCP in VSCode

4. Enable/disable tools in Copilot Studio

5. Experience upcoming tools in Preview mode and help shape the final product with your feedback and influence on future releases. (Support coming in soon)



Dataverse MCP Server

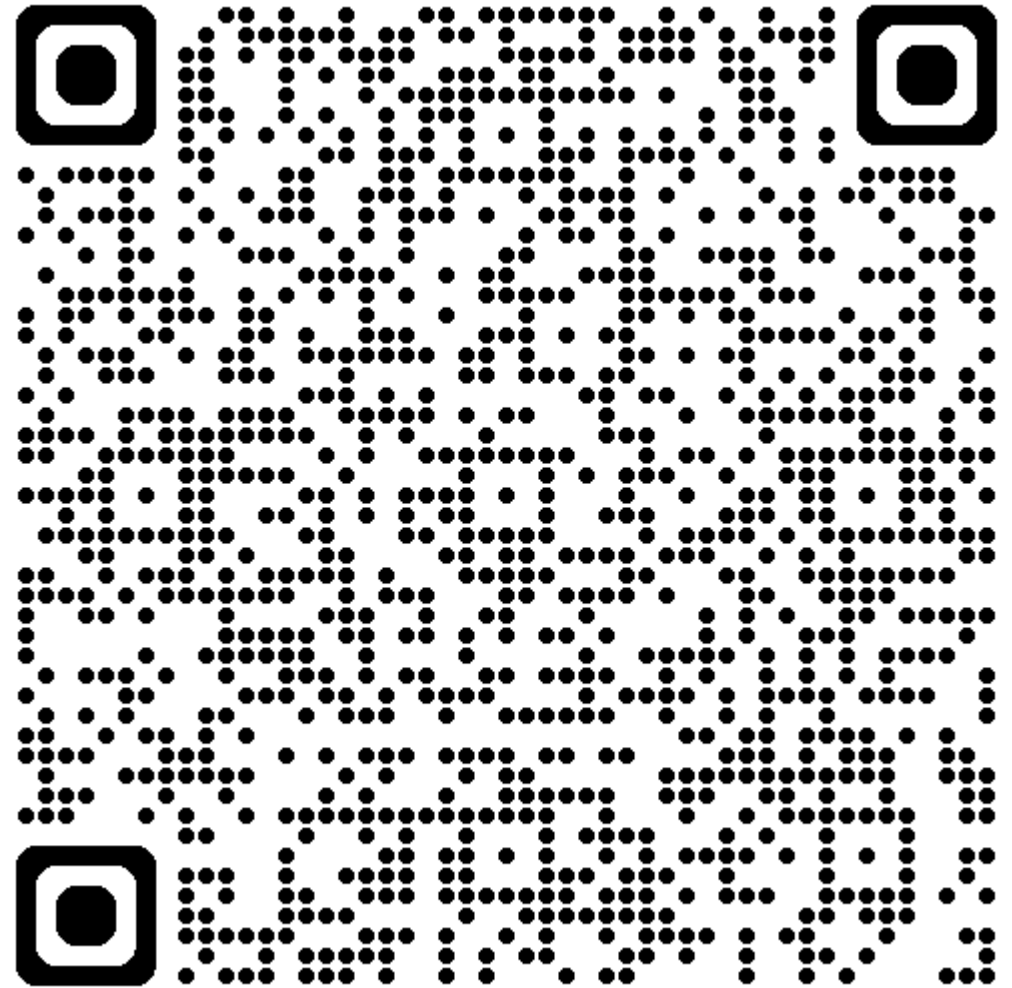
Deep dive session

Unleashing the Power of Business Data With Dataverse MCP Server

Wed Oct 29, 1:30pm – 2:30pm

Room: Grand 115

Speakers: Paul Liew, Prithvi
Khosla



Recap:

 Agents

Orchestrator

Vibe Coding

Coding Agents

Open and Flexible Tools

Dataverse MCP Server



MCP tools

Agent Interop

Triggers, Actions

Extensibility



Dataverse
Python SDK

Built-in semantic optimization

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Let's focus on:

AI Security & Governance

Built on Dataverse existing security, strengthened for agentic workflows

Two scenarios:

- End-user primary identity, agent inherits scoped delegation and acts on behalf of user.
- Agent is a distinct principal with its own identity, credentials, and lifecycle.

Consider how you want to track your agents and scenarios for transparency and compliance

Example: autonomous agent with agent identity

Using Service Principal to create agent own identity

- Use Service Principal for your agent identity.
- Define and assign the Service Principal for certain tables or conditional
- Service Principal Conditional access via Entra

A new row tracked with agent identity

Platform Environment Settings

Search

Show ChartView DetailDeleteEmail a LinkFlow

Audit Summary View*

| Changed Date | Event | Changed By |
|---------------------|-----------|------------------------|
| 10/24/2025 1:41 ... | Create | Autonomous Sales Agent |
| 10/24/2025 1:40 ... | User A... | SYSTEM |
| 10/24/2025 1:40 ... | User A... | SYSTEM |
| 10/24/2025 1:40 ... | User A... | SYSTEM |
| 10/24/2025 1:40 ... | User A... | SYSTEM |
| 10/24/2025 1:40 ... | User A... | SYSTEM |
| 10/24/2025 1:40 ... | User A... | SYSTEM |
| 10/24/2025 1:38 ... | User A... | SYSTEM |
| 10/24/2025 1:38 ... | User A... | SYSTEM |

Rows: 353Selected: 1

Audit Details

Create - Account by Autonomous agent

Changed ByAutonomous Sales Agent

EntityAccount

Changed Date10/24/2025 1:41 PM

The record was created with the following field values

| Field Name | Value |
|----------------------------|-----------------------------|
| Account Name | Account by Autonomous agent |
| Account Rating | Default Value |
| Address 2: Address Type | Default Value |
| Address 2: Freight Terms | Default Value |
| Address 2: Shipping Method | Default Value |
| Business Type | Default Value |
| Classification | Default Value |

Recap.. and the **take-a-pic** 📷 slides



Microsoft Dataverse

The trusted platform for your
business data and optimized for
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Roadmap – Dataverse for agents

Dataverse is the trusted platform for your business data and optimized for **enterprise-agent** data platform

What's available

Built-in semantic optimization

- Dataverse Knowledge in Copilot Studio: standard tables including multi-line text and file columns, glossary. (GA)
- Prompt Columns (Preview)

Open & flexible tools:

- Dataverse MCP Server (Preview)
- Triggers in Copilot Studio (GA)

AI security and governance

- Use Service Principal to track your agent workflows (GA)

CY2025 Q4

- More quality improvements in Dataverse (AI) Search
- Prompt Columns (GA)

- Dataverse as MCP Server (GA)
- Python SDK (Preview)

- Stay tuned 🙌

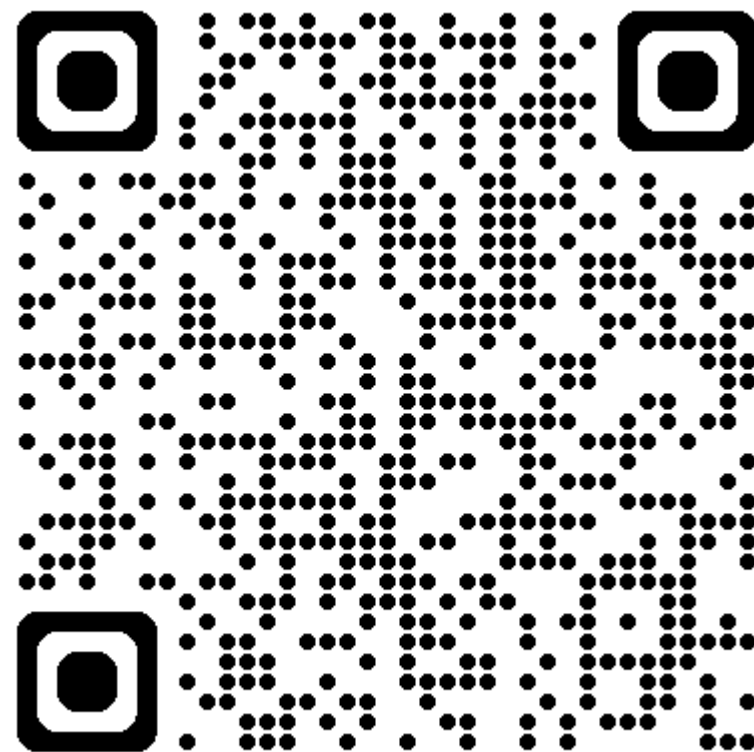
Other Dataverse or related sessions

Latest schedule
& location:

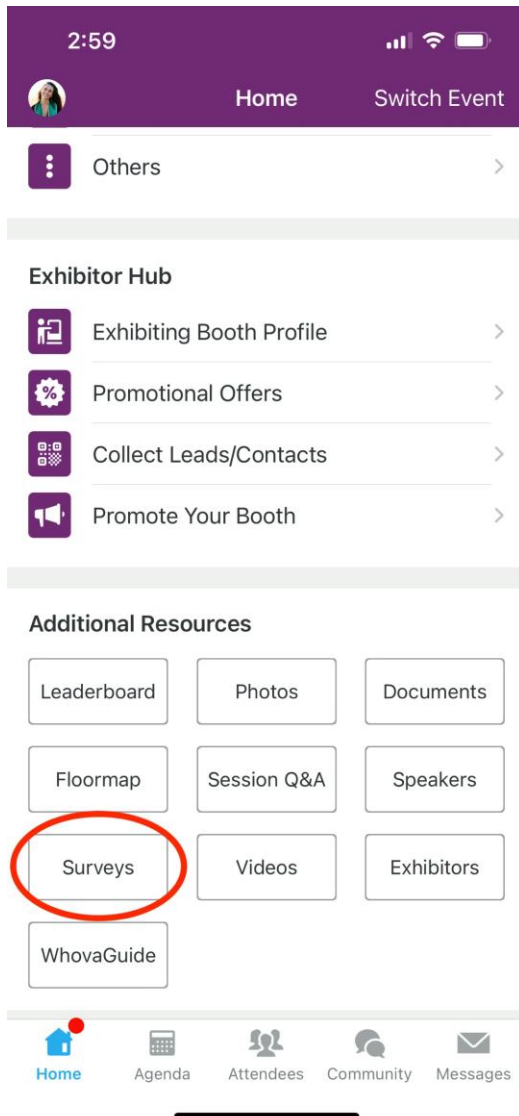


| Title | When | Room | Speakers |
|---|-------------------------|----------------|---|
| Dataverse Search Roundtable: Share Insights, Drive Product Roadmap | Oct 28, 2:15pm – 3:15pm | Chairman's 353 | Ambrita Nand, Mariana Araujo, Julie Koesmarno |
| Unleashing the Power of Business Data with Dataverse MCP Server | Oct 29 1:30pm – 2:30pm | Grand 115 | Paul Liew Prithvi Khosla |
| Building Smarter Agents and Apps with Dataverse Knowledge | Oct 29 3pm- 4pm | Boulevard 162 | Jason Huang Mariana Araujo |
| Architecture Internals | Oct 30 10:45-11:45 | Grand 122 | Mauktik Gandhi Ilya Grebnov |
| Build to Brilliance: Elevate your Agents with Microsoft MCP Servers and Evals | Oct 30 Noon – 1pm | Chairman's 370 | Aarthi Saravanakumar, Rashmi Mansur |
| Custom MCP Servers: Unlock Enterprise Data from Anywhere for Smarter, Safer AI Agents | Oct 30 3:45pm – 4:45pm | Grand 122 | Sabin Nair, Ramya Subramanya |

<https://aka.ms/juliek>



Thank you!



Session Feedback Surveys

We really want to hear from YOU!

In the pursuit of making next year's Power Platform Community Conference even better, we want to hear your feedback about this session.

Here's How -

- Simply go to the Whova App on your smartphone
- Scroll down on the Power Platform Community Conference Homepage to 'Additional Resources' to click "Surveys".
- Click Session Feedback.
- Scroll down to find this session title.
- Complete the session feedback survey.
- Finally, click 'Submit'

It's just that easy!