

Graph as The Foundation For Data, Analytics and AI

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What Do These Examples Have in Common?



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**Complex
and Varied
Data**



**Need to
Make
Connections
Quickly!**



**Innovation
Using Graph
+AI**

Insight Requires Relationships

By 2025, AI for video, audio, vibration, text, emotion and other content analytics will trigger major innovations and transformations in 75% of Fortune 500 companies.

New Solutions to Complex Problems

By 2025, graph technologies will be used in **80%** of D&A innovations, up from 10% in 2021, facilitating rapid decision making across the enterprise.

Real Answers Require Understanding the Relationships Between Objects

“People who bought this item also bought ...”

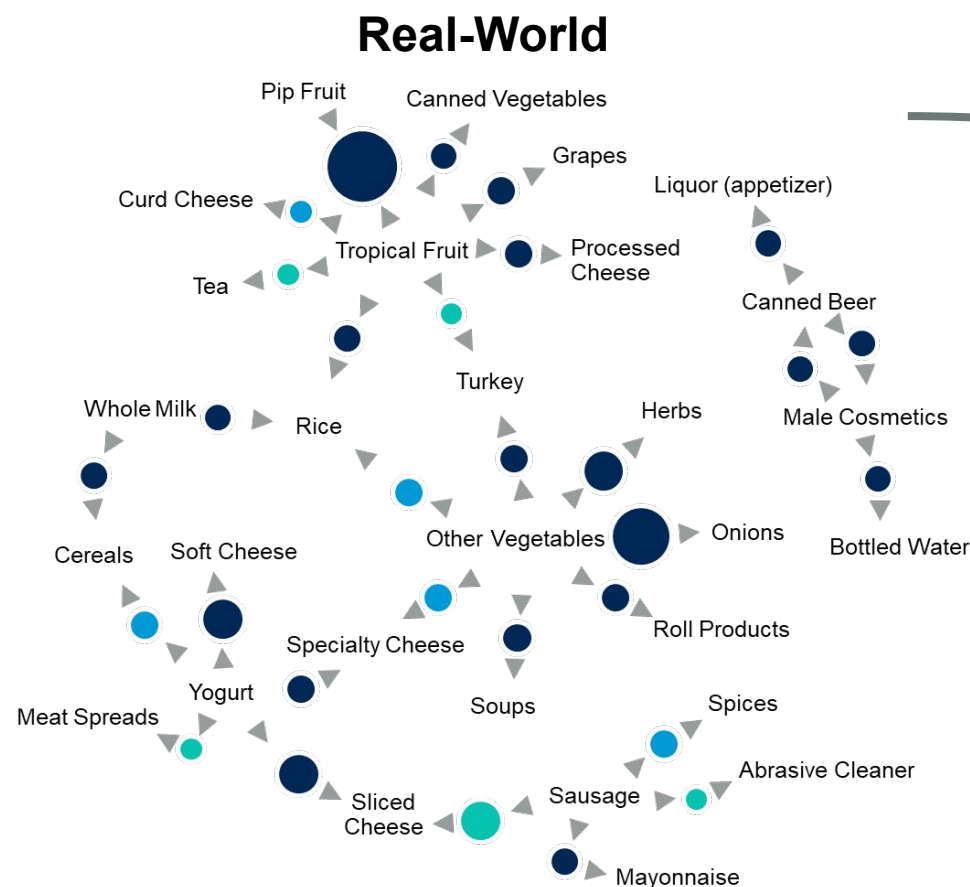
“This is the optimal height to place these items to maximize sales”

“These items are often bought together”

“Running low on this item, the new shipment is on the same palette as this item”

“Placing these items together results in higher cart sales”

Yet, Most Relationship Insights Are Lost When Using Traditional Data Storage Approaches



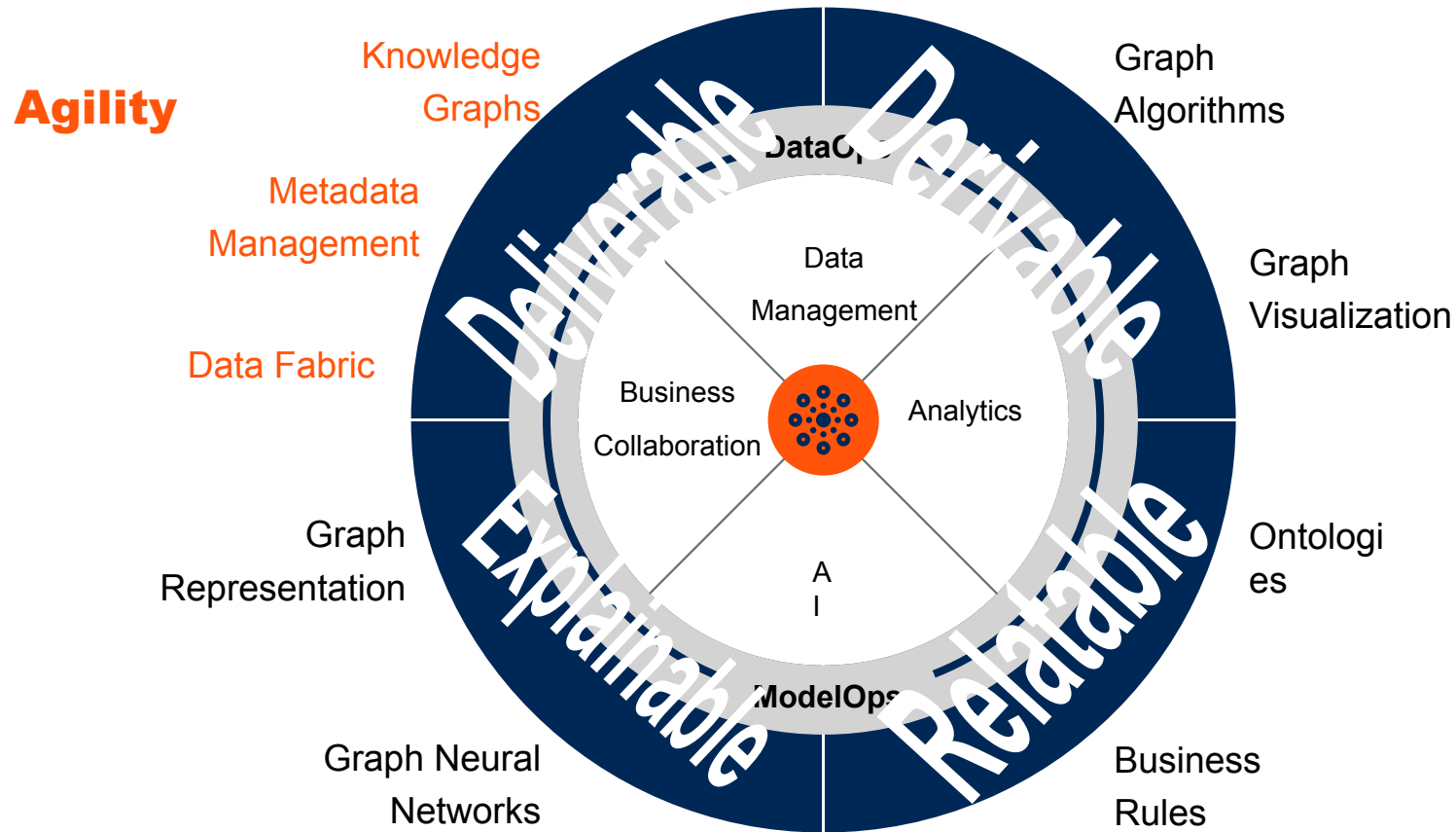
Relational Table

Transaction 1					
Transaction 2					
Transaction 3					
Transaction 4					
Transaction 5					
Transaction 6					
Transaction 7					
Transaction 8					

Multicontext Is Preserved With Graph Analytics

Graphs Increase Context for AI/ML Initiatives (and More)

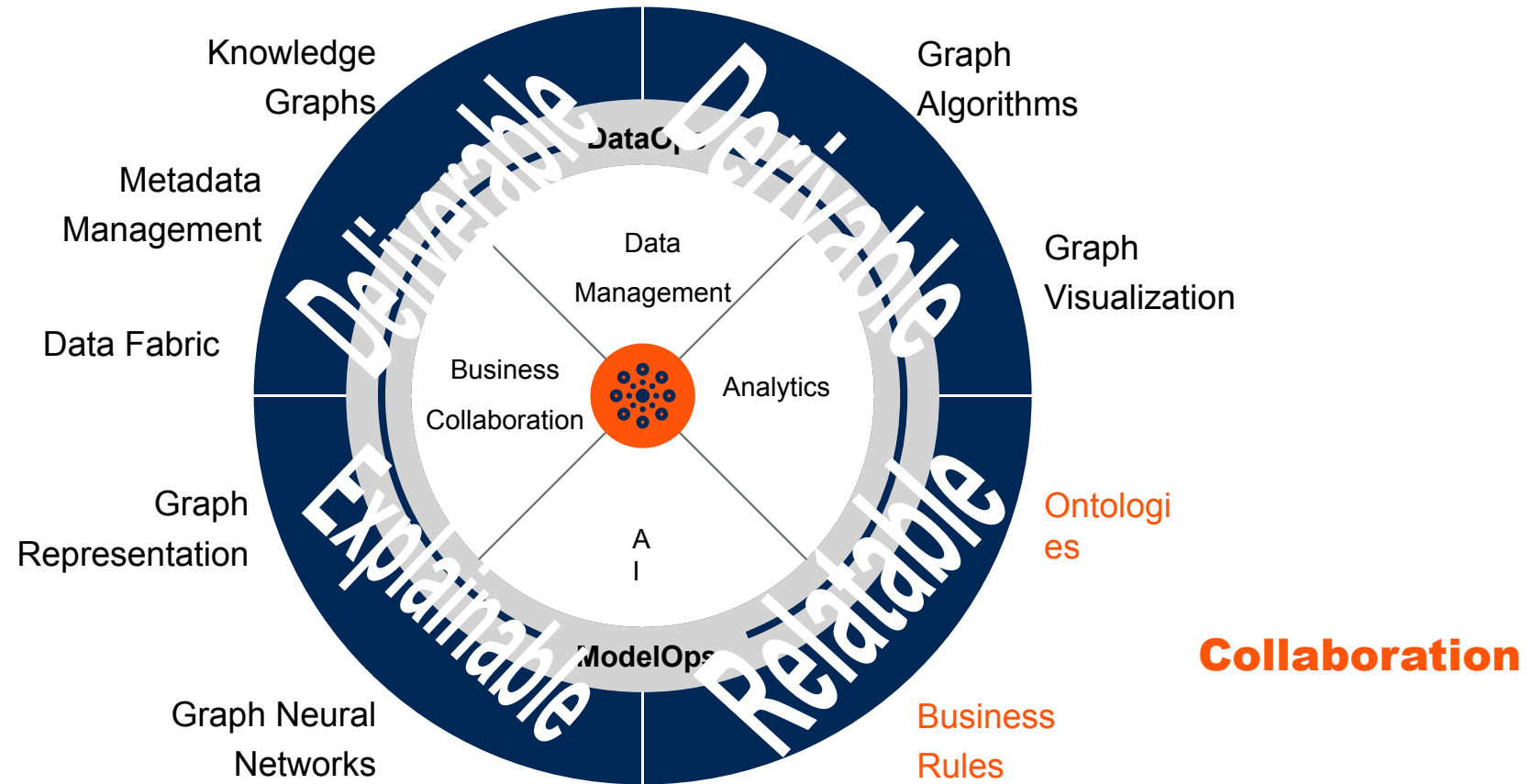
Graph Relates Everything



Source: Gartner

Graphs Increase Context for AI/ML Initiatives (and More)

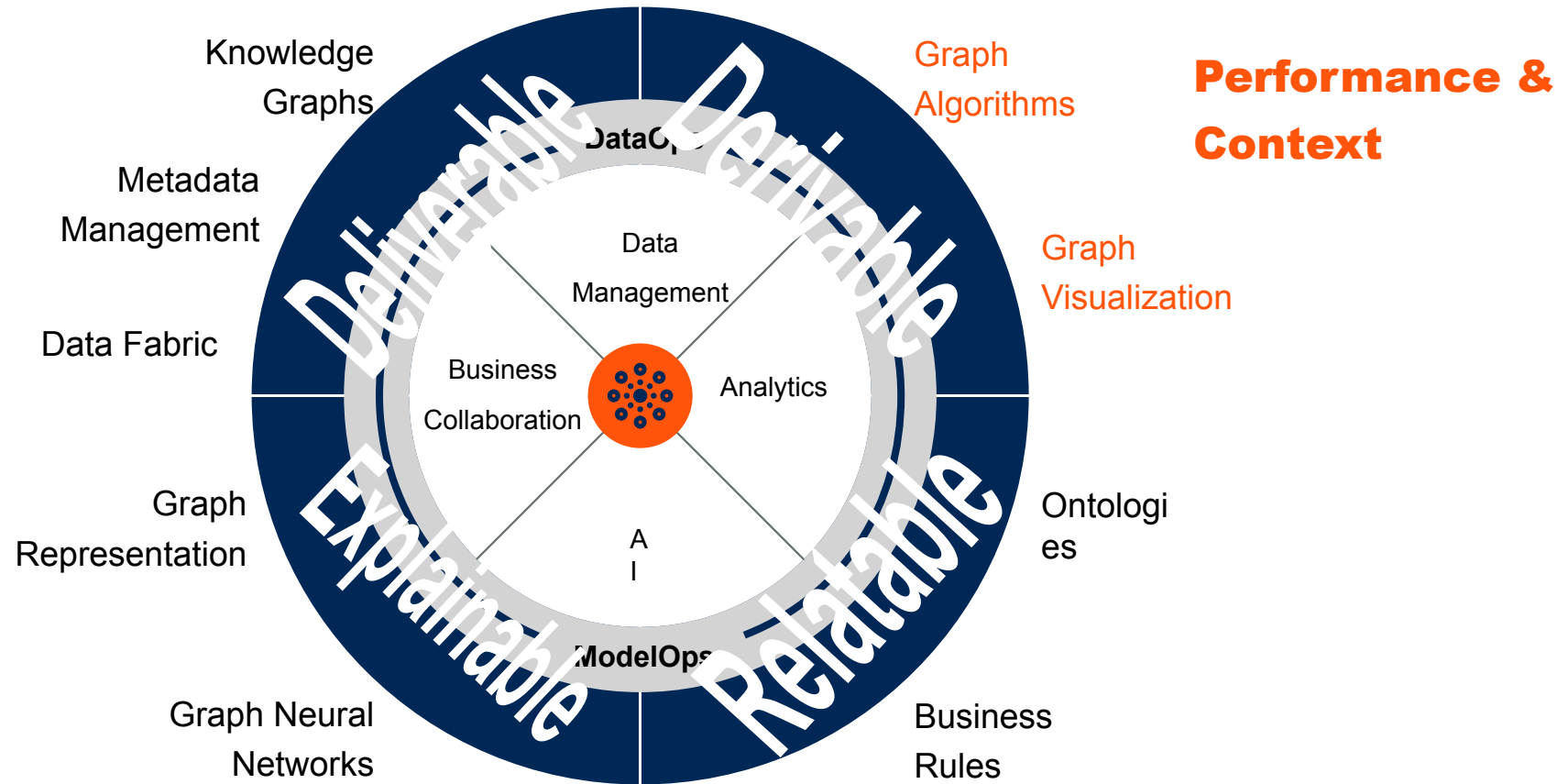
Graph Relates Everything



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Graphs Increase Context for AI/ML Initiatives (and More)

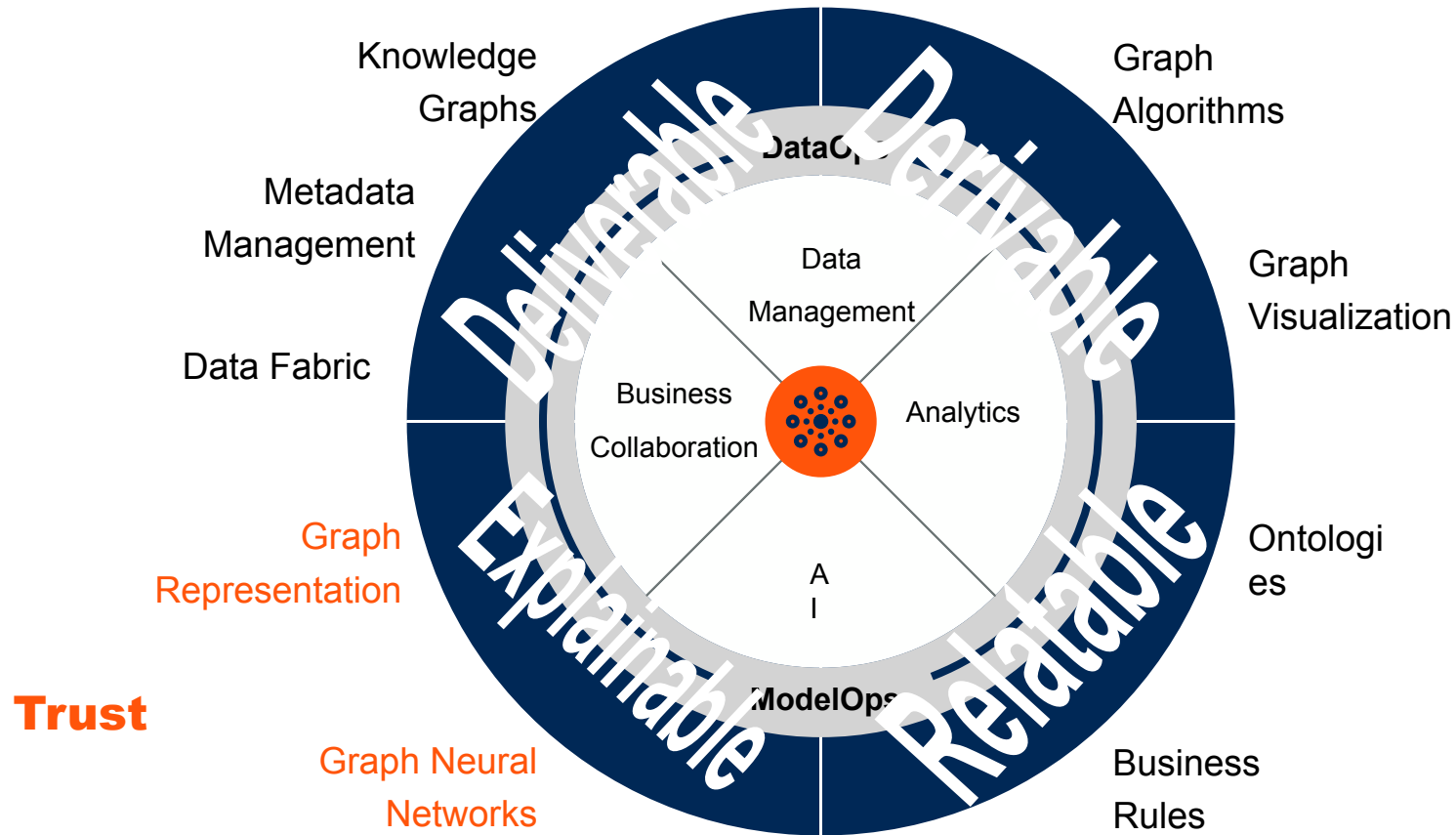
Graph Relates Everything



Source: Gartner

Graphs Increase Context for AI/ML Initiatives (and More)

Graph Relates Everything



Source: Gartner

Graph Technology, AI and Cloud Are Impacting Most Industries

Agriculture yield optimization



R&D



Graph Technology, AI and Cloud Are Impacting Most Industries

Virtual assistants/
Conversational
interfaces

Drug discovery

Virus tracking and
mitigation

Healthcare
advisors /
diagnosis



<https://www.techaheadcorp.com/blog/artificial-intelligence-in-healthcare/>

Graph Technology, AI and Cloud Are Impacting Most Industries

Telco/system
resource
optimization

Transportation and
logistics

Traffic
management



Graph Technology, AI and Cloud Are Impacting Most Industries

Customer 360/
Customer Journey

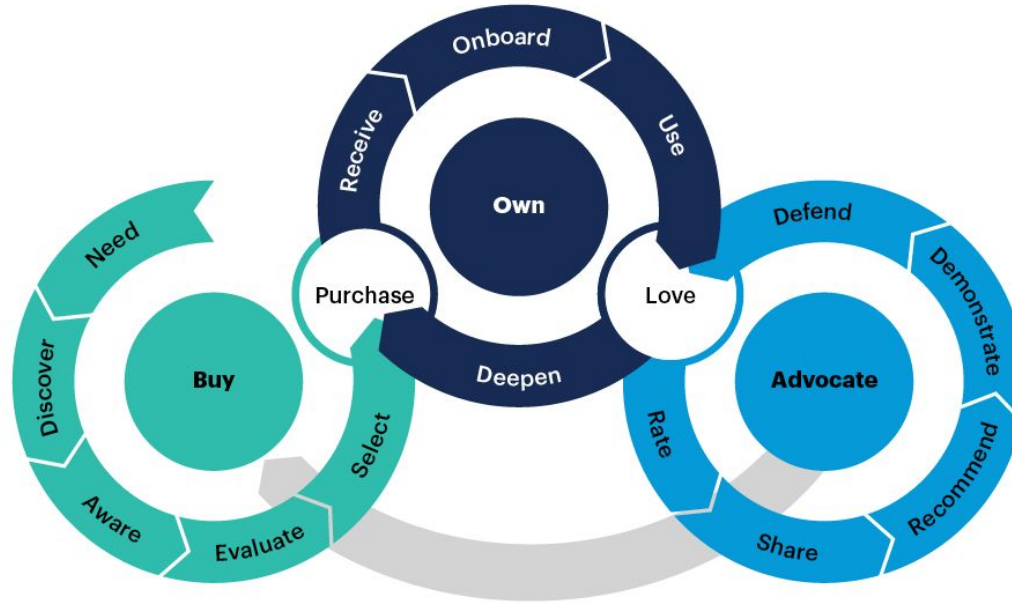
Customer service

Customer churn
prevention

Product
recommendations

Social networks

The Buy/Own/Advocate Journey



Source: Gartner
752661_C

Gartner

Graph Technology, AI and Cloud Are Impacting Most Industries

Regulatory insight

Improve
underwriting
operations

Fraud detection/
AML

Investment
management and
finance

Law enforcement/
investigative
analysis



Graphic source: <https://gcn.com/articles/2019/06/03/fraud-analytics.aspx>

Address Inhibitors to Adoption

- Identify high value use cases
- Think in GRAPHS
- Explore use of graph as part of your AI initiatives
- Enrich your data using data sharing and data marketplaces and exchanges
- Value storytelling
- Build on the skills you have
- Leverage low-code, no-code graph visual exploration tools
- Cloud to scale
- Use graph analytics as a complement to traditional analytics

Relationships Form the Foundation of Data and Analytics and AI

By 2023, graph technologies will facilitate rapid contextualization for decision making in 30% of organizations worldwide.

Tweet the year you think this will happen!

@rsallam #graphaisummit #GartnerDA Graph impact 202X!

How Will YOU Innovate Using Connections in Data?

**@rsallam #graphaisummit #GartnerDA #Innovation
[Your Idea]!**

A full-page background image showing a person standing on a rocky peak under a starry night sky with the Milky Way. The person is silhouetted against the bright, glowing band of the Milky Way. The sky is filled with stars and the nebulae of the Milky Way. The foreground shows dark, jagged rock formations.

Thank You