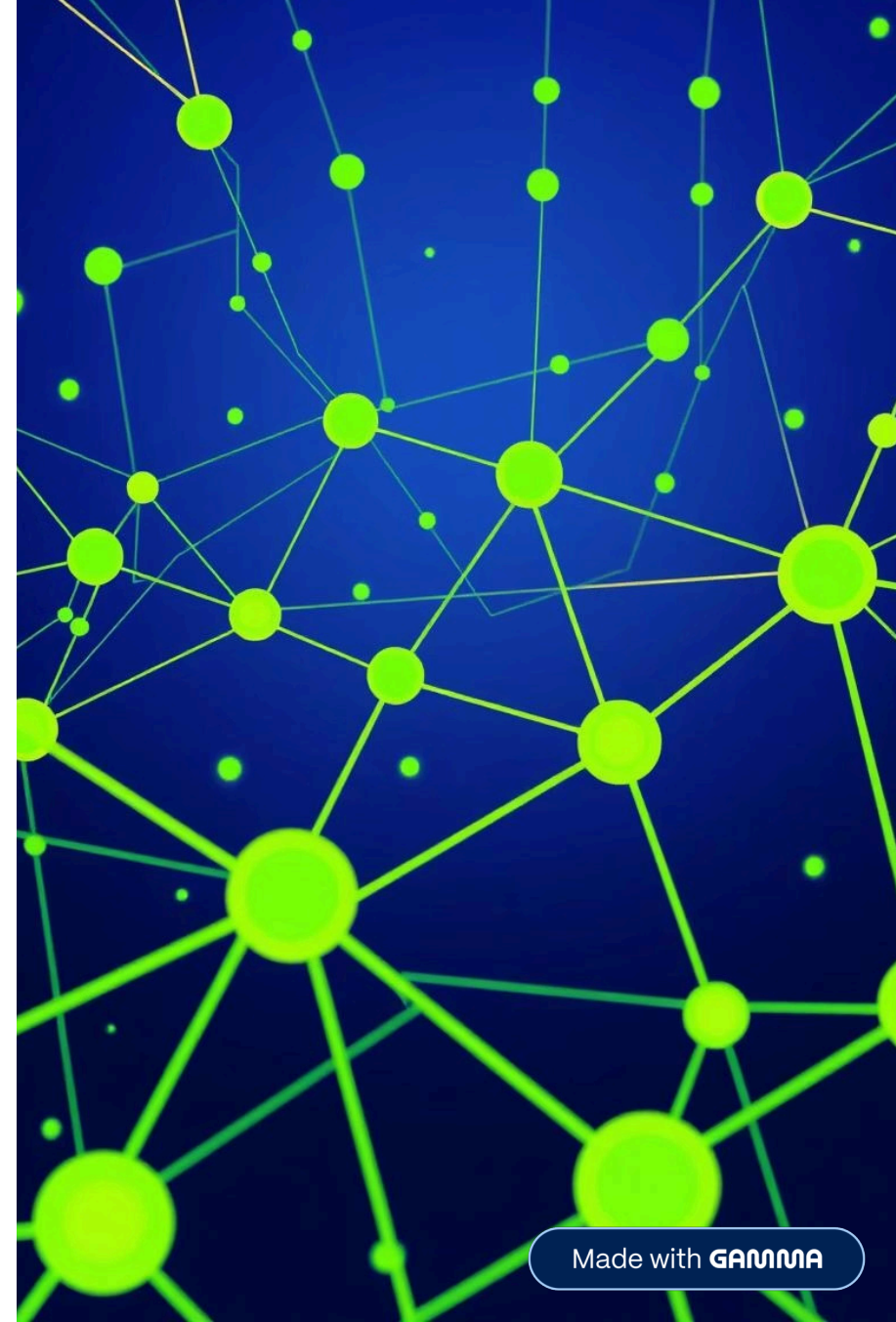# Autogen: A New Era of AI Agents

Core Concepts: Building Blocks of Autogen O'Y

Minidar

Eliminates human messages, representing interactions between agents and events within agent interactions.

Agents

Learns subgroups of agents that can interact, creating tools and database integrations.

Autogen Core: The Foundation

Agent Interaction Framework

A framework for managing interactions between diverse agents.

Agnostic to Agents' Abilities

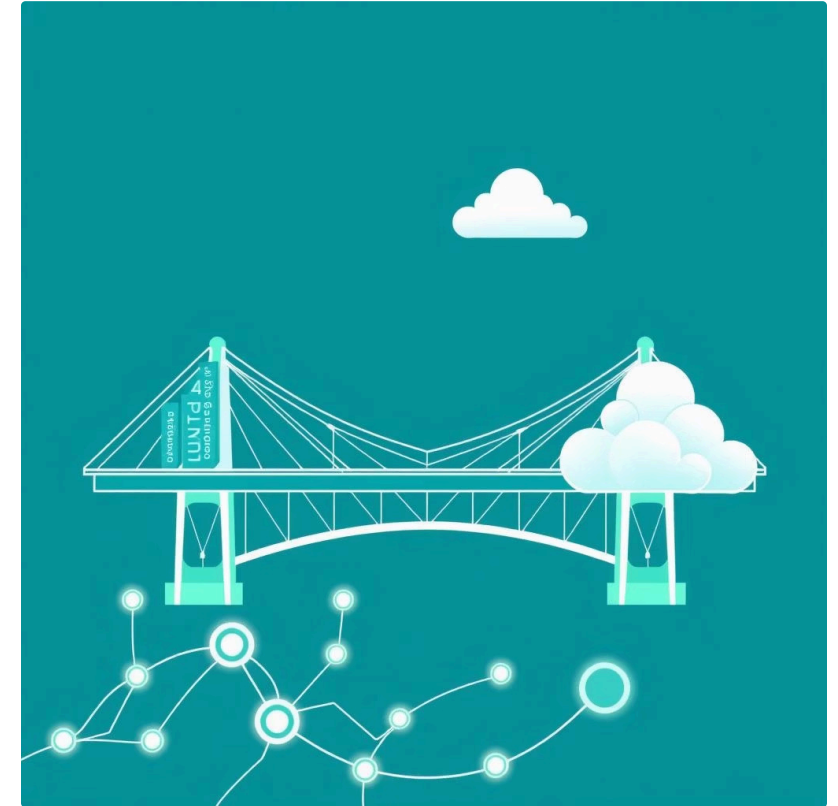Similar to LangGraph, but focused on interaction management.

Decoupled Logic

Separates agent logic from message delivery, making communication modular.

Semantic Kernel: The AI Bridge

An open-source SDK by Microsoft that helps build AI-powered applications.

It acts as a bridge between Azure OpenAI and your own code, data, and services.

Think of it as a toolkit that makes it easy to use OpenAI reasoning capabilities.

Key Features of Autogen O'Y

Multi-model Support

New concept for integrating various AI models.

Structured Output

VALA, IN 7 1006 from Langchain 21/2 Teams for semantic kind.

D-messaging

Messaging between agents, even if they are implemented in different places.

Agent Definition in Autogen Core

Agent ID

Each agent has a unique ID, describing its kind and identifier.

Message Handlers

The `@message-handlers` decorator defines how an agent processes incoming messages.

On-message

When an agent receives a message, it invokes its `on-message` method.

Made with GAMMA

Working with Messages and Agents

Message Objects

```python
from autogen_agentchat.messages import TextMessage
message = TextMessage(content="I'd like...", sources="")
```

Agent Creation

```python
from autogen_agentchat.agents import AssistantAgent
agent = AssistantAgent(
 name="Outline agent",
 model_client=model_client,
 system_message="You are...",
 model_client_stream=True
)
```

Distributed Runtime: An Experimental Feature

> "Distributed Runtime is regarded as experimental by Microsoft."

This feature allows agents to communicate and operate across different locations, enhancing scalability and flexibility for complex AI systems.

Key Takeaways

Next–Gen Architecture

Autogen O'Y is a complete rewrite for modern AI needs.

Modular Design

Decoupled agent logic and communication for flexibility.

Innovation

New concepts like Minidar and Multi-model support.