CIONET

Oktober Cyber Fest 2024

How AI and Evolving Architectures are Shaping Predictive Threat Detection and Compliance-Driven Response Systems

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Data & Architecture

Data

Volume, Credibility, Movement
Costs, Value

Hosting

Hybrid: On-prem, Public Cloud,
WebApps, Mobile, IOT, Machine,
Long-lasting vs ephemeral

Convergence

Because the issue's source
matters less than the resolution.
Withstand and recover from
disruption
to digital systems

Regulation

Regulated resilience, use of AI,
data and cloud sovereignty, RAG

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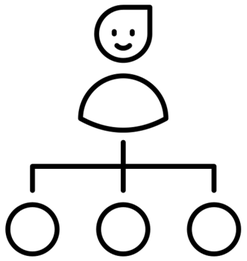
So what?

Vendor consortiums

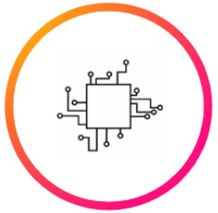


Federated Architectures

Standards (Composable Architectures)

Keep data where it belongs.

Not all data is equal. Treat it appropriately.



Use the most effective technology

Open & Extensible

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Generative AI is increasing the sophistication and effectiveness of spear phishing attacks

Generative AI is being used to deliver end-to-end capabilities to our adversaries

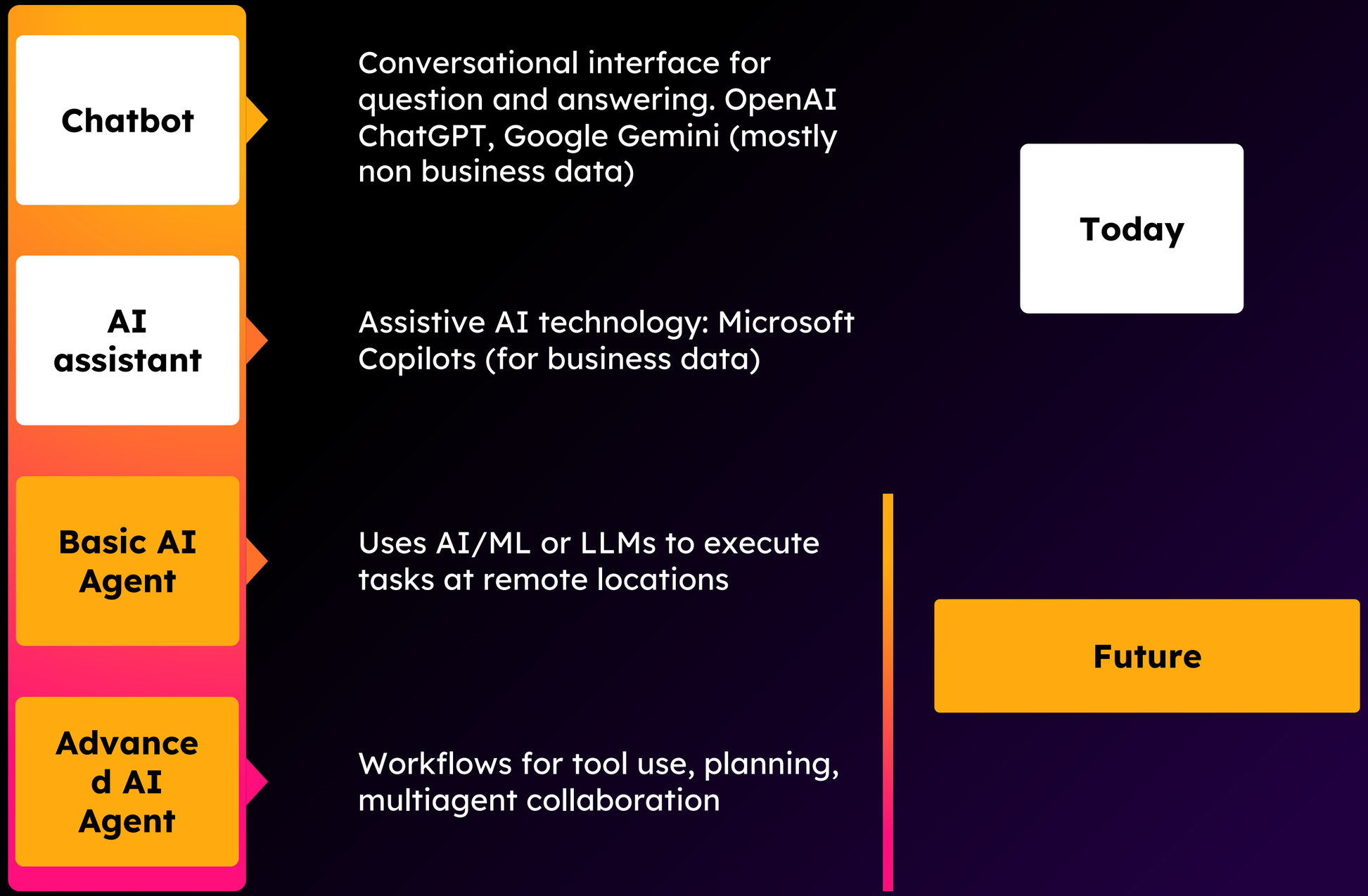
#RSAC

The wonderful world of underground chatbots

Real LLMs	Jailbreaks	Scams or 
• WormGPT	• EscapeGPT • BlackHatGPT • LoopGPT	• XXXGPT • WolfGPT • EvilGPT • DarkBARD • DarkBERT • DarkGPT • FraudGPT

TREND

RSAConference2024



Credits to Dennis Xu, Gartner

AI Futures: Now

AI Enabled Components

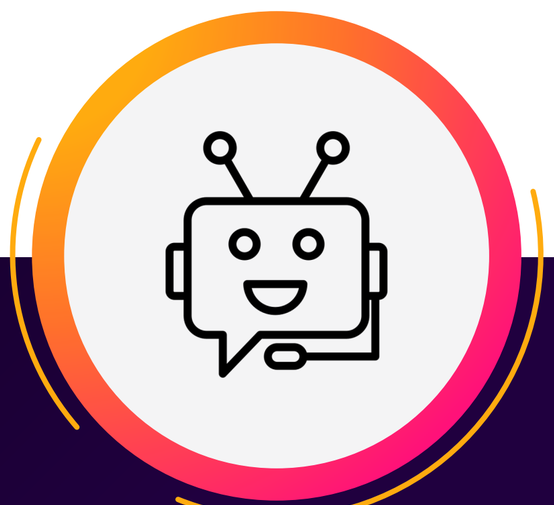
Social media analysis, phishing, AI-driven network reconnaissance to predict which systems are most vulnerable, password guessing

Multimodal Deep Fakes

Safe words, untrusted trusted partners, business email compromise

AI Evasion Techniques

Polymorphic Malware to bypass signature based detection systems



SecOps AI Assistants

NLP, Gen AI, Chat bots, guided/assisted workflows

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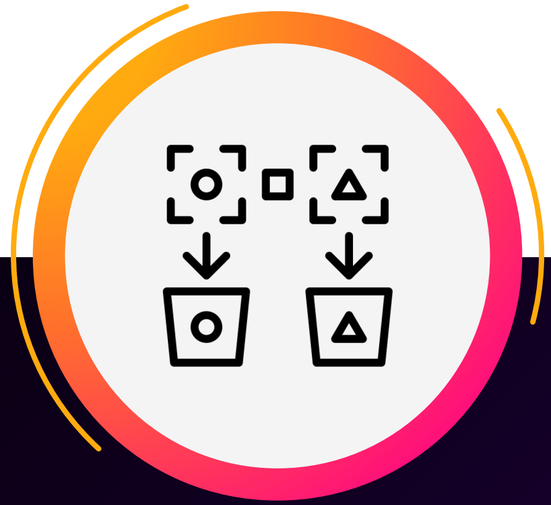
AI Futures: Next

AI enabled End-to-end



Adversarial Attacks on Machine Learning Models

Prompt Engineering!

Exponential Data Volumes

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So what?

CAUTION:

- **C**onsider your architecture – where is your data?
- **A**I Assistants to upskill staff and boost efficiency
- **U**se protection for your AI software and data
- **T**rain for "no trust," change processes, and introduce safe words
- **I**dentify and aggregate factors to balance risk
- **O**bserve behavioral analytics for abnormalities
- **N**ever forget the basics!

Thank you

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