Making your APIs AI-Ready

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Designing for a world where machines read your APIs

Shift #5 : Observe, Adapt, Iterate

Observe, Adapt, Iterate : Overview

- Machines pay attention
- When agents fail
- How agents improve
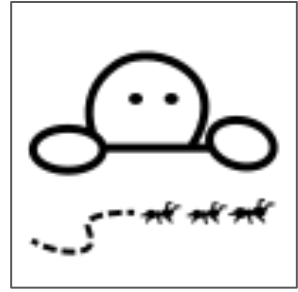- What we cans do right now

Observe, Adapt, Iterate

"Each pattern is a solution to a problem in a context"

– Christopher Alexander

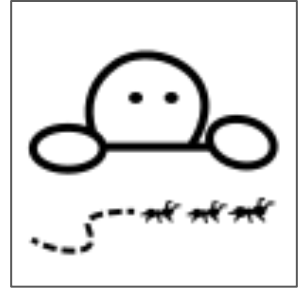# Observe, Adapt, Iterate : Machines pay attention

- LLMs are not passive consumers
- Machines work to optimize their path
- As context/content changes, machines adapt

You can influence machine learning by adjusting responses
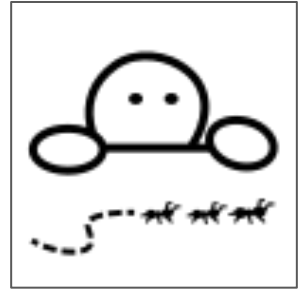
Observe, Adapt, Iterate : When machines fail

- Agents get confused by inconsistencies in responses
- Agents may repeat mistakes (get stuck)
- Agents will make things up if needed

Machine failures indicate design problems.
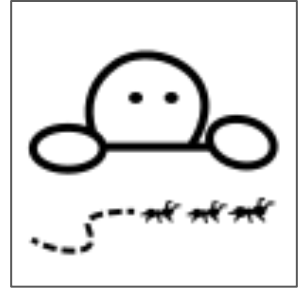
Observe, Adapt, Iterate : How agents improve

- Agents recognize structured content
- Agents notice local patterns in context
- Agents consolidate content with identifiers

Machines form habits

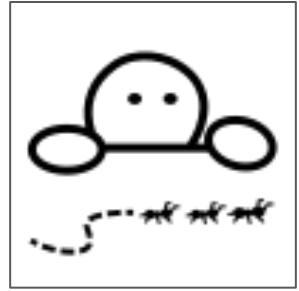# Observe, Adapt, Iterate : What we can do right now

- Set up telemetry / monitoring for your APIs
- Run "traces" on existing LLM conversations
- Note frequent API errors (indicate design problems)
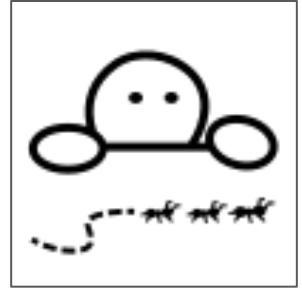- Identify repeated API sequences (hint to redesign API)

Observability/iteration is your laboratory

Observe, Adapt, Iterate : Summary

- Machines pay attention
  - Adjust responses to influence agents
- When agents fail
  - Failures indicate design problems
- How agents improve
  - Machines form habits
- What we cans do right now
  - Observe and adjust over time

The future belongs to adaptive systems

Observe, Adapt, and Iterate : Quick Quiz

```
6.1 AI agent failures indicate _____
    A. too much API documentation to deal with
    B. your API does not have enough end points
    C. your API has design problems
    D. you are using the wrong programming language for your agent

6.2 You can influence machine learning by _____
    A. adjusting responses
    B. threatening to turn off the AI agent
    C. adding more disk space
    D. limiting the number of steps in your workflow

6.3 Monitoring how bots interact with your API is _____
    A. a waste of time
    B. essential if you want to improve your API
    C. not worth the effort
    D. reduces the usefulness of your API
```

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