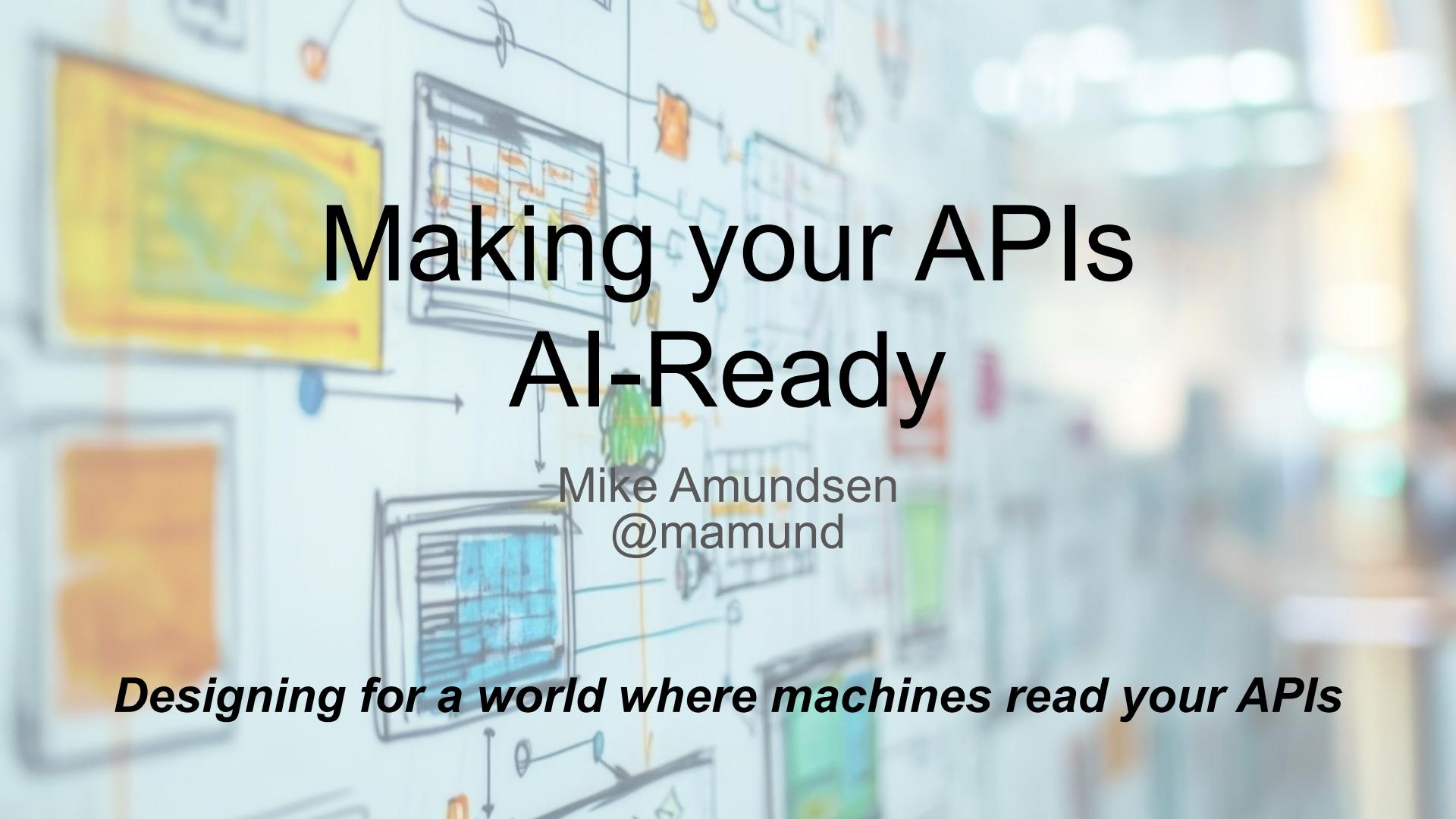# Making your APIs AI-Ready

Mike Amundsen
@mamund

Designing for a world where machines read your APIs

Shift #3 : Standardize Interactions

Standardize Interactions : Overview

- Consistency is power
- The benefits of consistency
- The downsides of inconsistent designs
- What we can do right now

Standardize Interactions

"A good architecture is not created in a vacuum."

– Roy Fielding

Standardize Interactions : Consistency is power

- Predictability is the cornerstone of autonomy
- Machines rely on patterns, not exceptions
- Consistency reduces overhead for agents

Agents recognize previous patterns

Standardize Interactions : The benefits of consistency

- Uniform patterns allow reuse of ai-agent strategies
- Reduce "surprise" to increase predictability
- Fewer design exceptions means fewer runtime errors

Consistent interactions means better results

Standardize Interactions : The downsides of inconsistency

- Inconsistent application of patterns confuses bots
- Irregular error responses increased overhead for agents
- Unexpected requirements (e.g. inputs) can lead to bugs

Inconsistency encourages bugs

Standardize Interactions : What we can do right now

- Adopt consistent error reports (RFC 9457 - Problem Details)
- Make retries possible and explicitly defined
- Use idempotent change operations (HTTP PUT)
- Avoid novel approaches (HTTP PATCH for all changes)
- Develop (and share) your company's API Style Guide

```json
{
  "type": "https://example.com/errors/invalid-input",
  "title": "Invalid input",
  "status": 400,
  "detail": "The submitted data is missing one or more required fields.",
  "instance": "/registrations/12345",
  "invalidFields": [
    {
      "name": "givenName",
      "reason": "This field is required."
    }
  ]
}
```
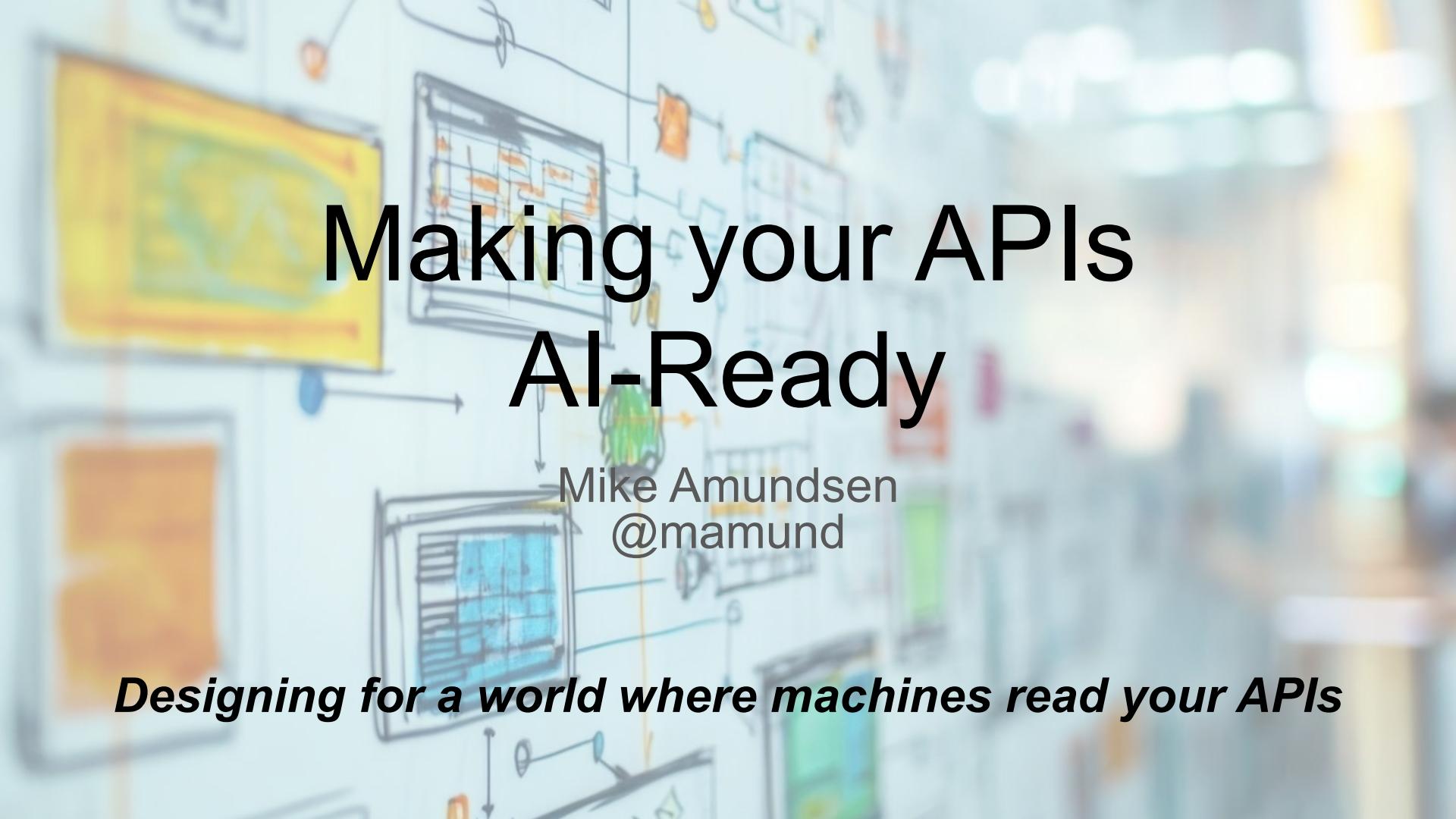
Agents don't appreciate creative solutions

Standardize Interactions : Summary

- Consistency is power
  - Machines rely on patterns
- The benefits of consistency
  - Reduce "surprise" to increase predictability
- The downsides of inconsistent designs
  - Inconsistency encourages bugs
- What we can do right now
  - Avoid novel approaches

Machines rely on patterns, not exceptions

Shift #3 : Standardize Interactions

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