

# AI-Powered Gamification for the Web

Courtney Yatteau



# Agenda

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**01** What is Gamification? 

**02** The Role of AI 

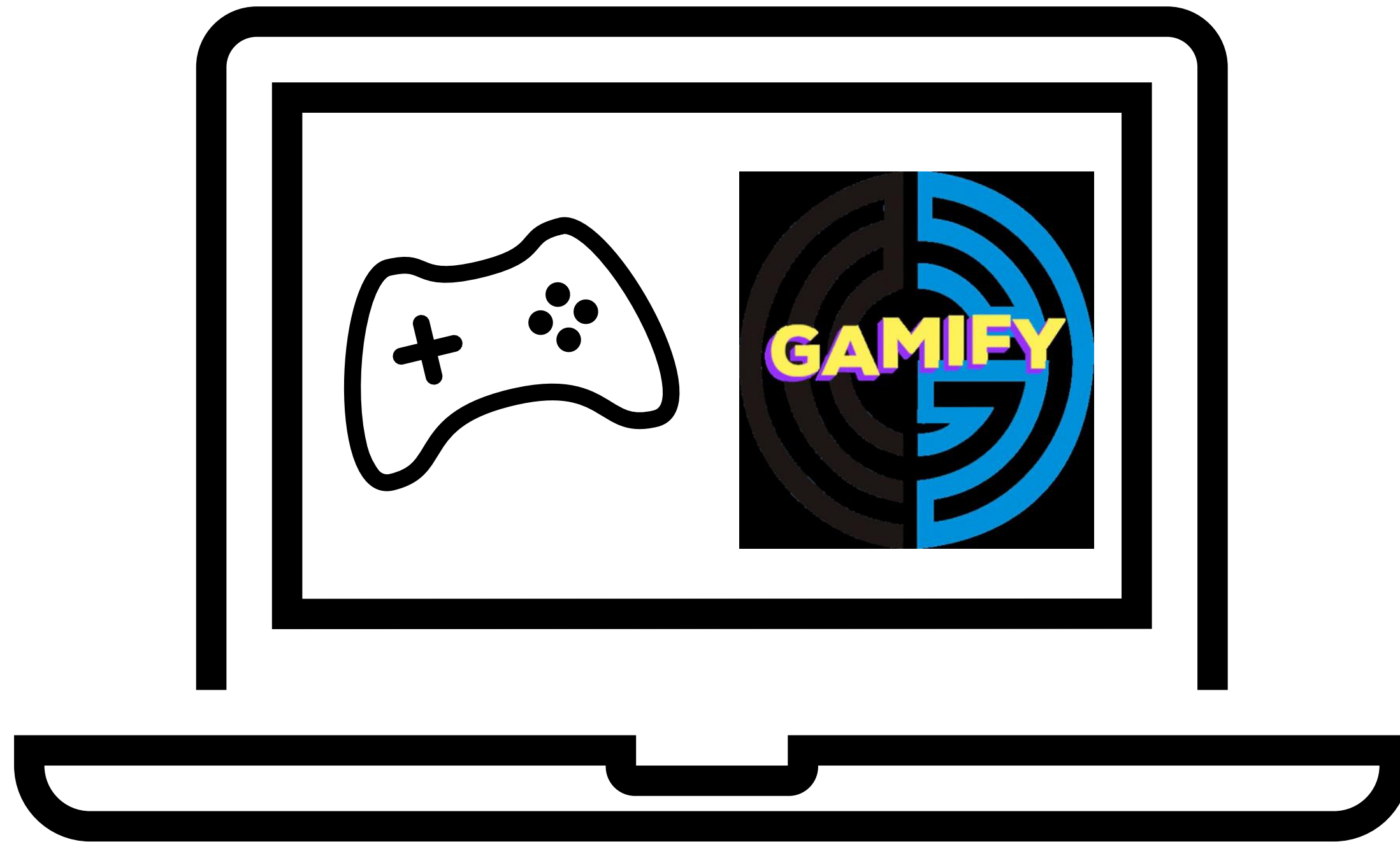
**03** Demos 

**04** Key Takeaways 



**Courtney Yatteau**  
Developer Advocate, Esri

# What is Gamification?



# Gamification Principles

**Progression &  
Rewards**

**Challenges &  
Goals**

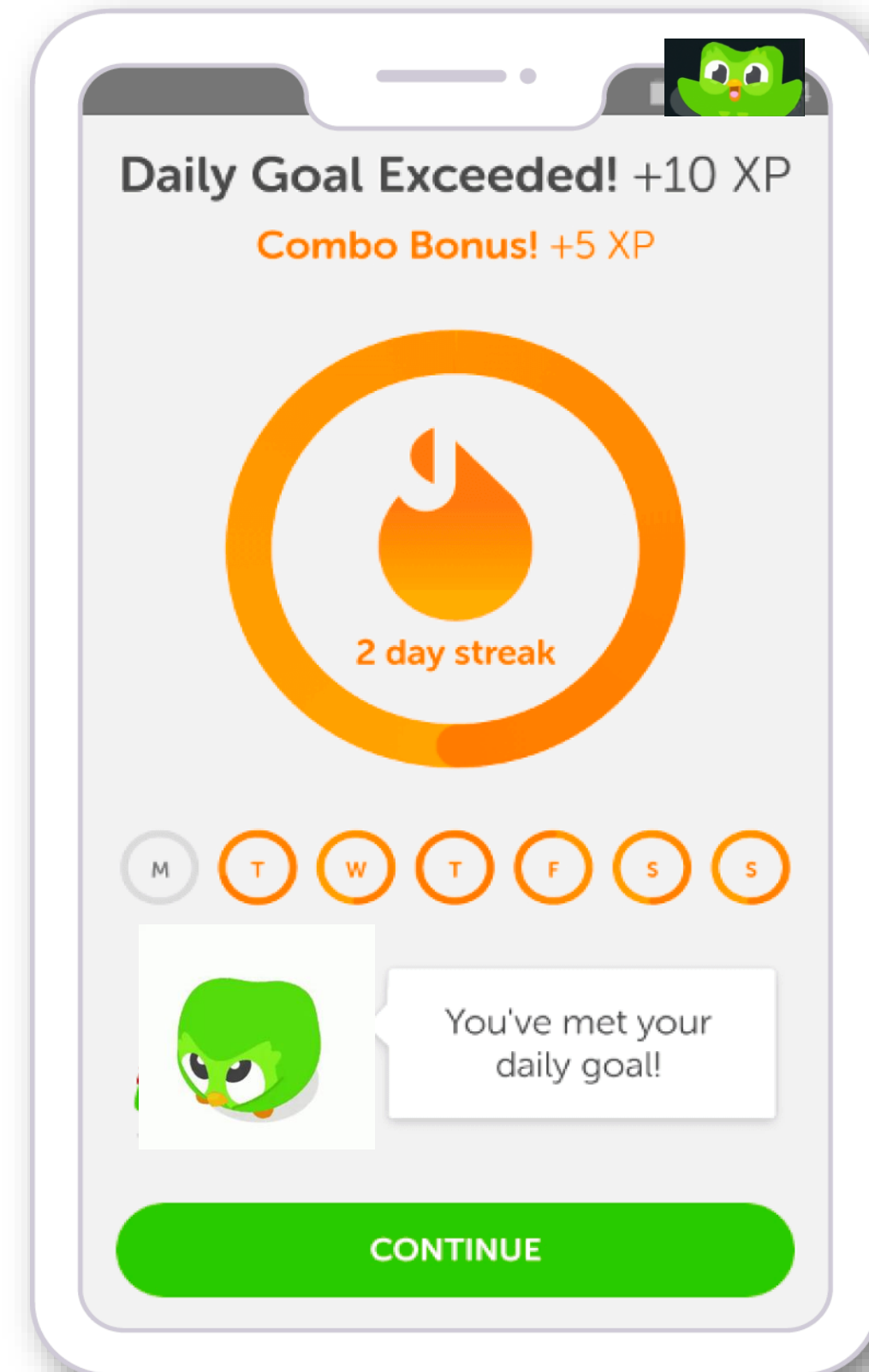
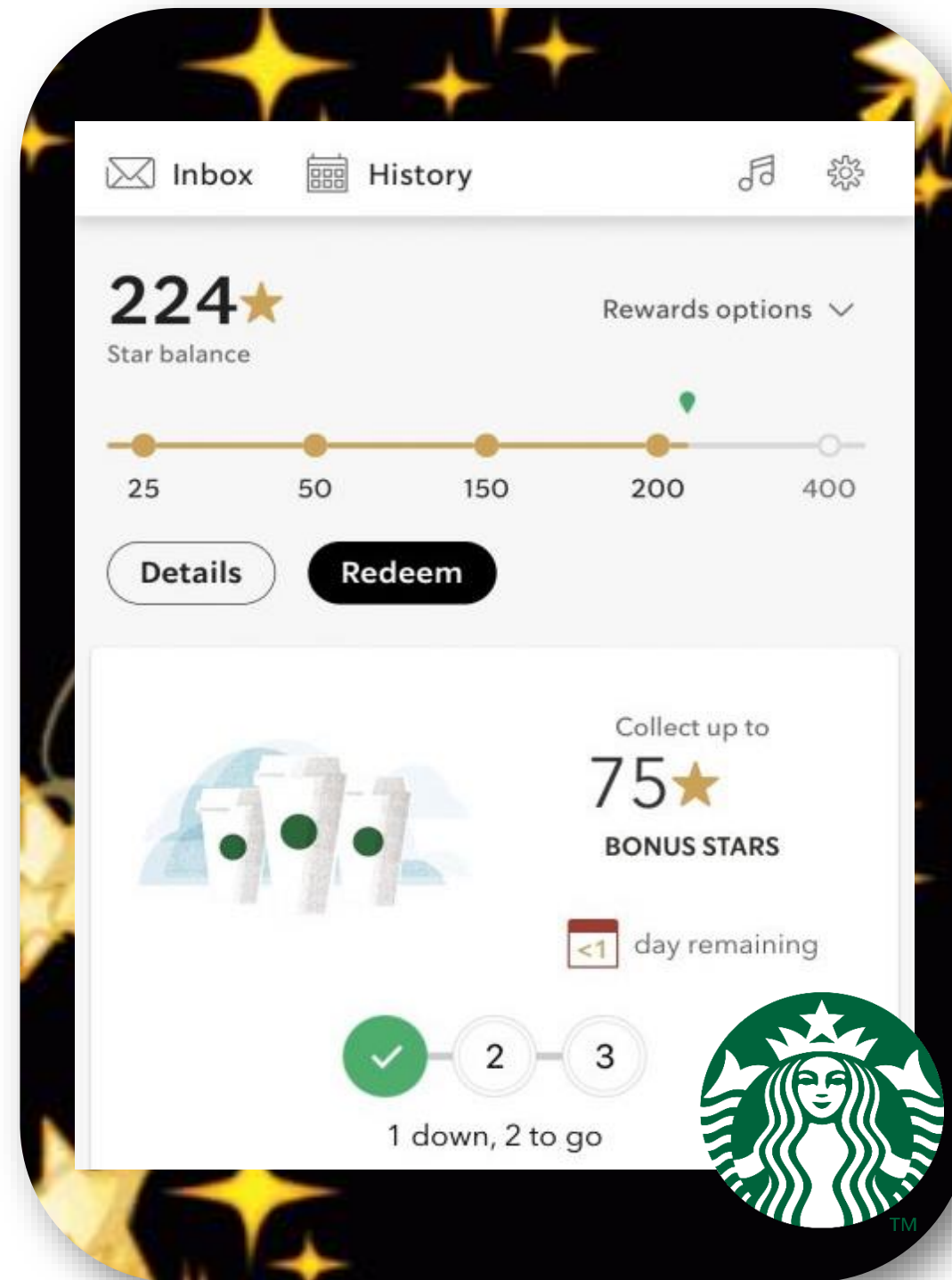
**Feedback &  
Reinforcement**

**Social Interaction &  
Competition**





# Gamification Examples



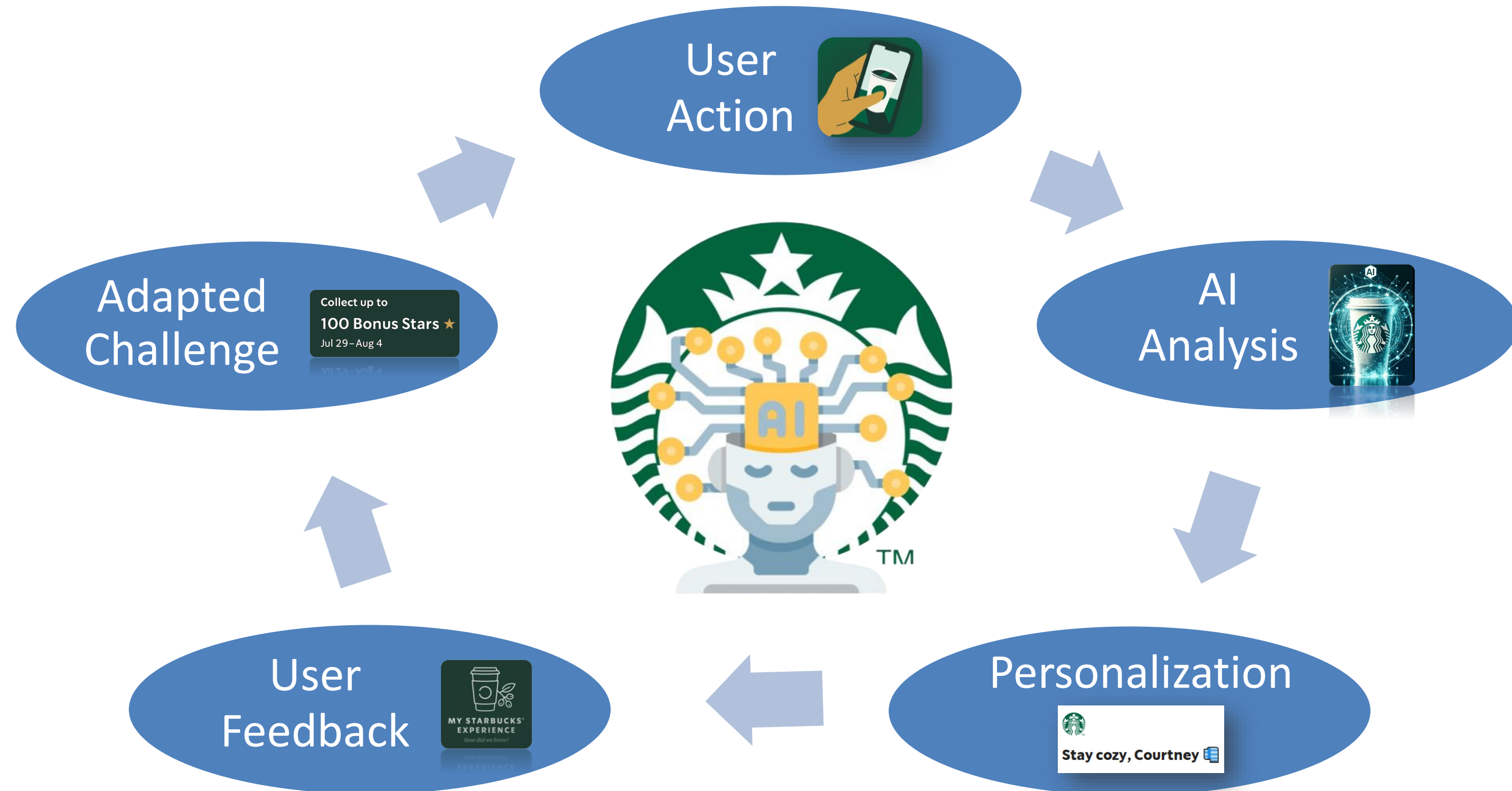
# The Role of AI in Gamification

*Personalization*

*Adaptation*



# AI-Driven Gamification Flow





# Deep Dive Example

## *Duolingo Max*



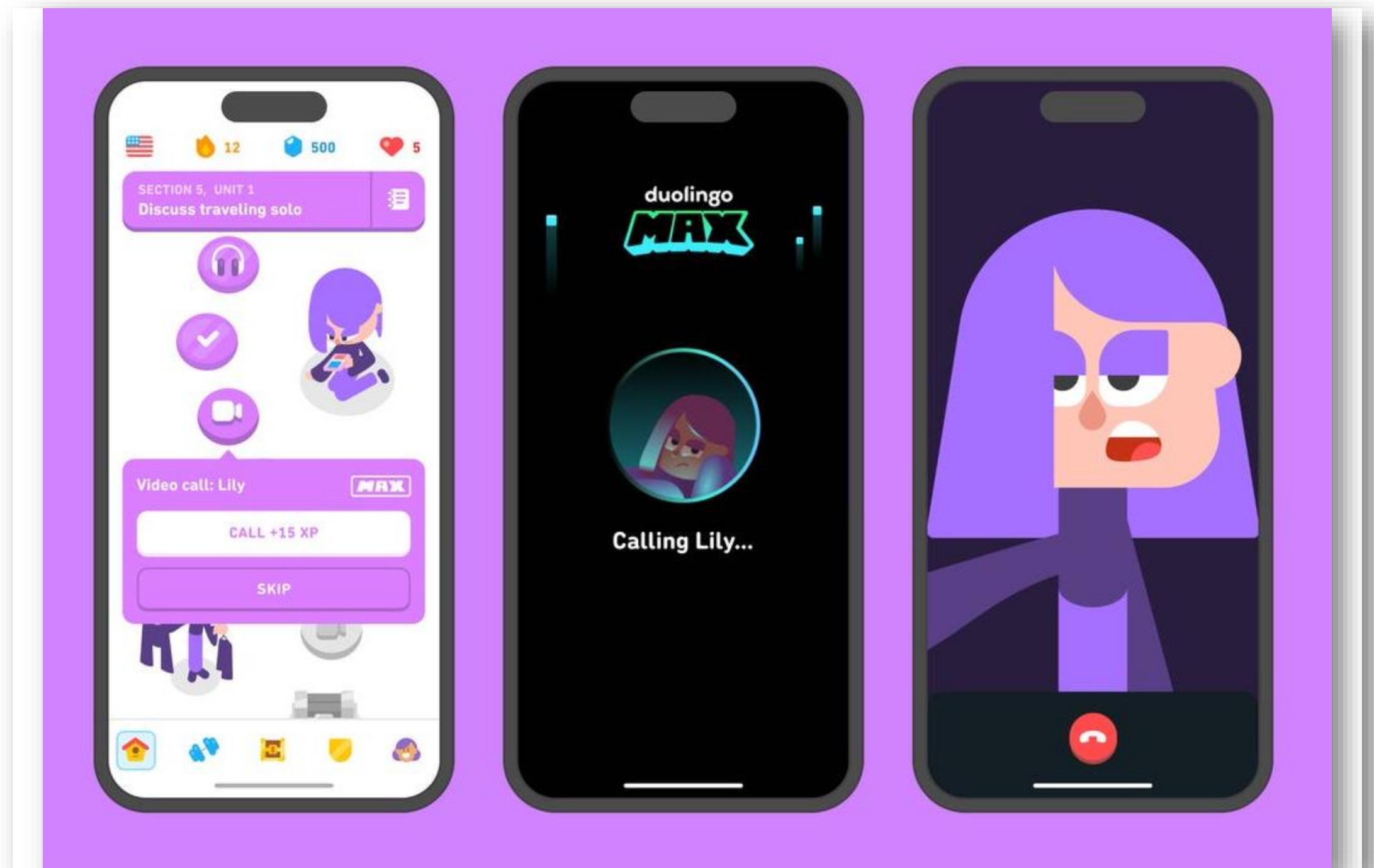
### Roleplay

Real-world language practice scenarios with AI characters.



### Video Call with Lily

Simulated conversations to build speaking skills.



# AI Gamified Web Demos



# Demo: Sentiment Analysis

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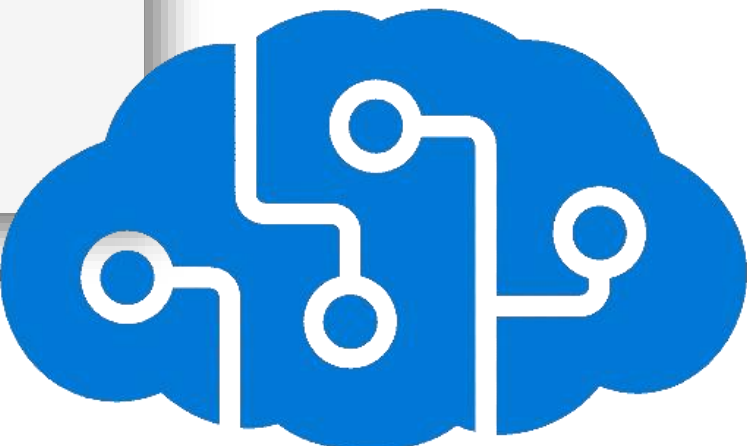
*Real-time mood detection to personalize user interactions*

Enter your response:

Nice!

Analyze

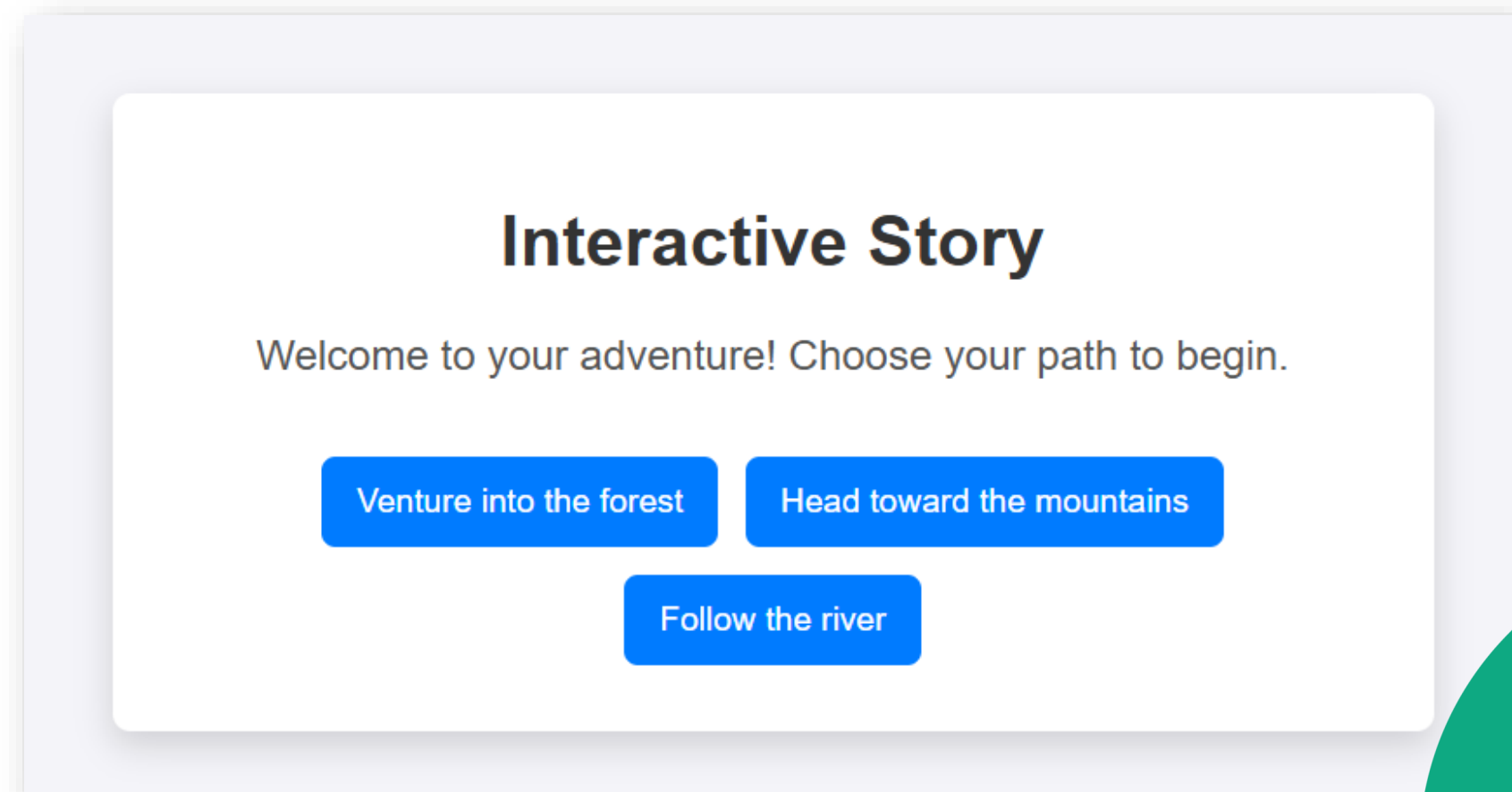
Sentiment: positive



# Demo: Storytelling

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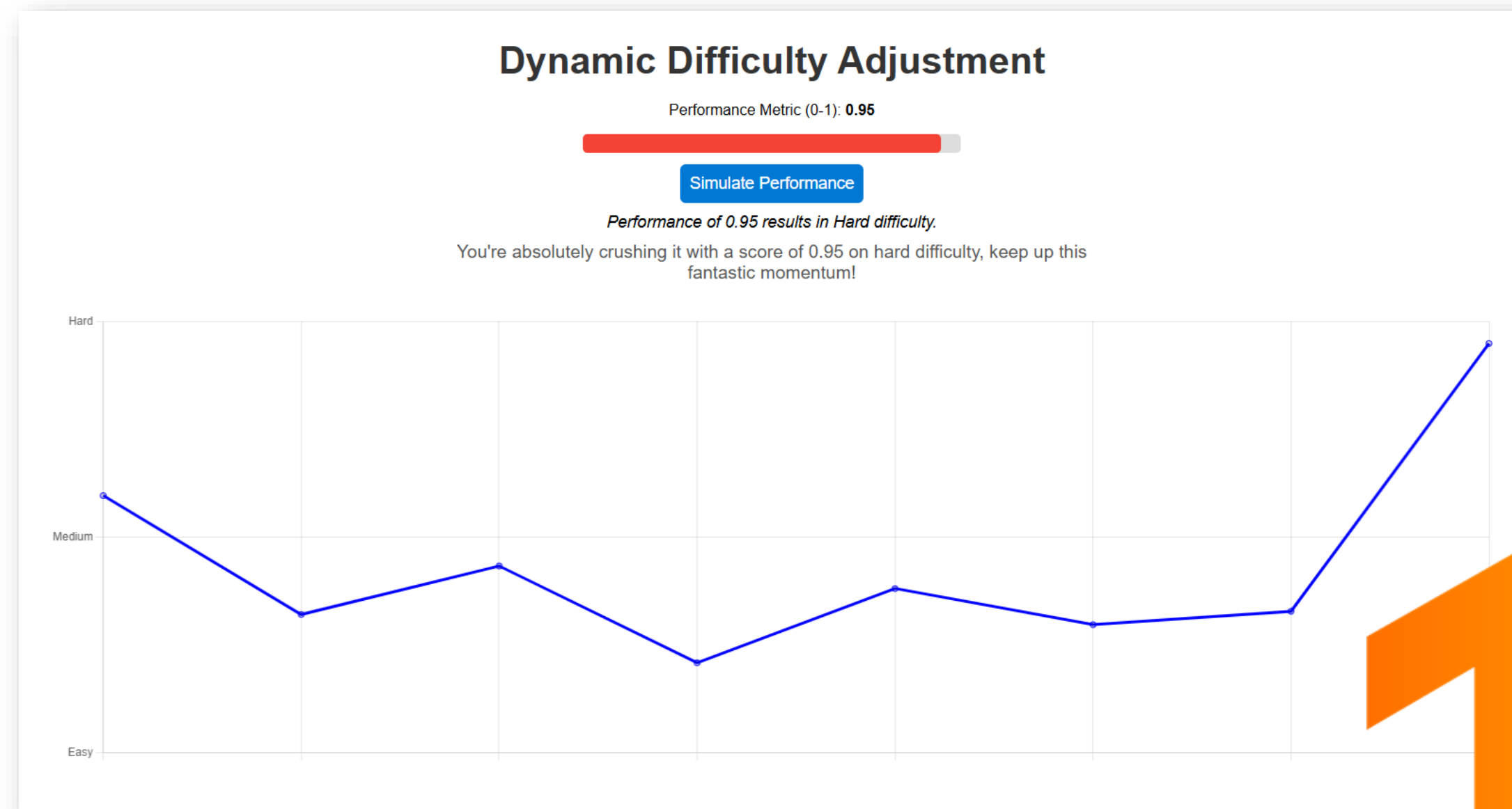
*Personalized and adaptive stories based on user choice*





# Demo: Dynamic Difficulty

*Adjusting difficulty in real-time for engagement and entertainment*



# Demo: Streak Recognition

*Recognizing patterns of user performance*


## AI Streak Recognition


Score (0-100):

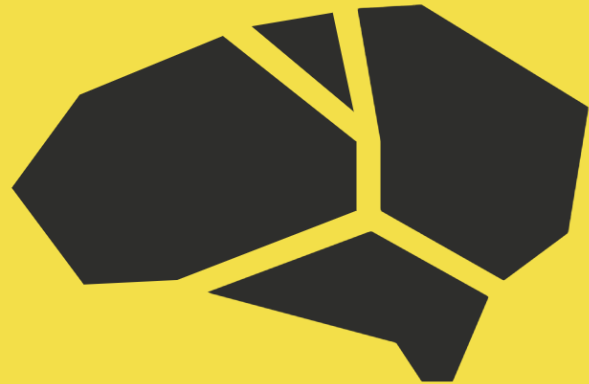
[Submit Score](#)

Nice! You're on a consistency streak!

Model Confidence: 92%

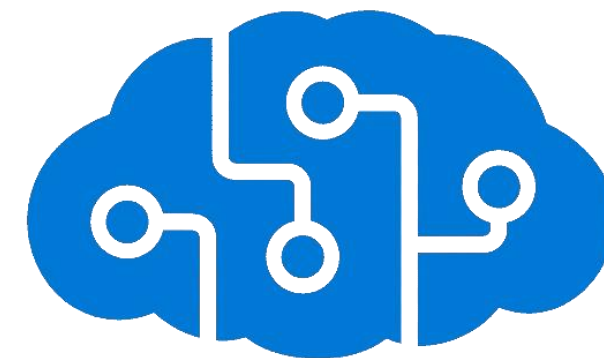
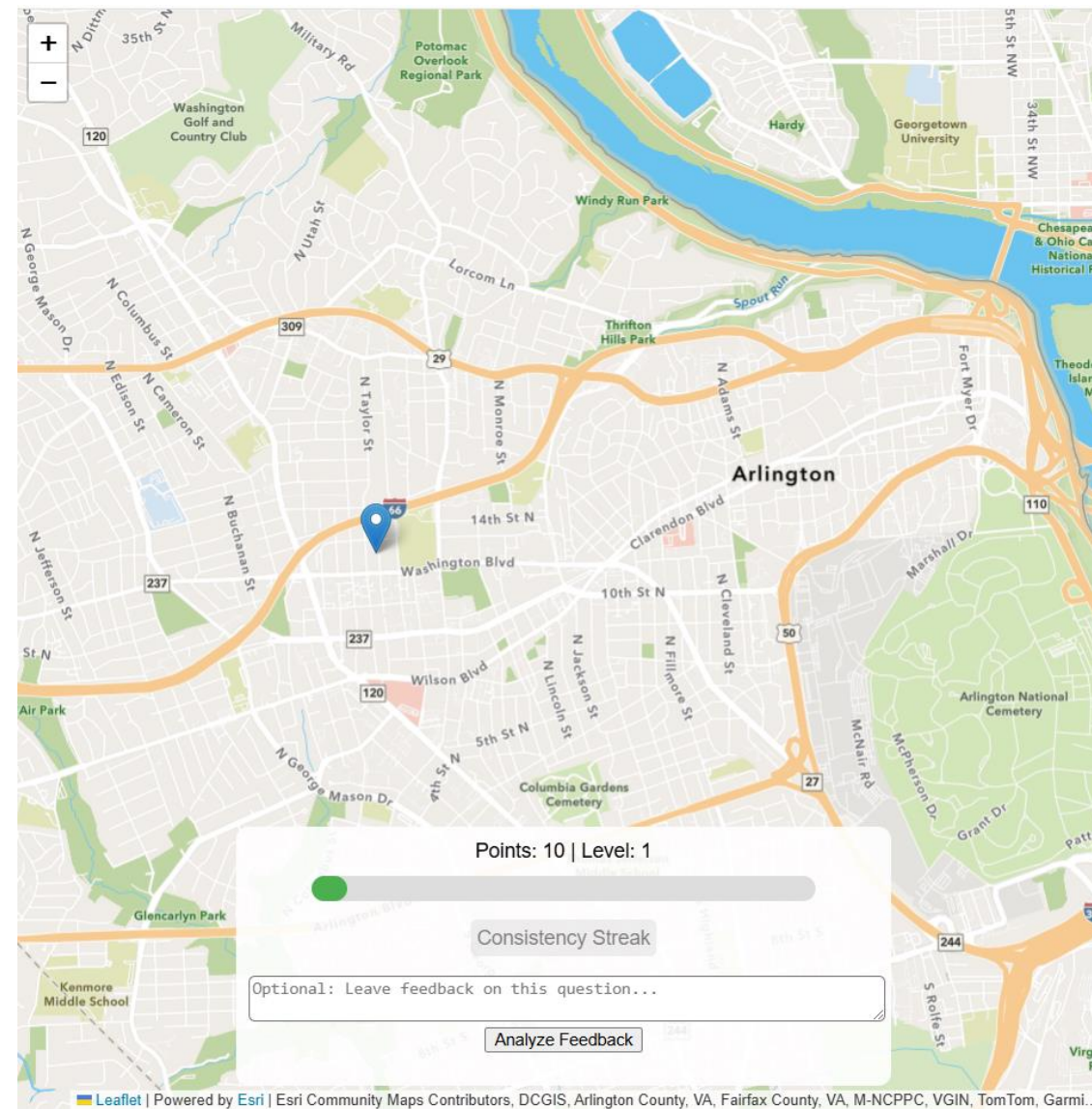
 Consistency Streak

 Improvement Streak



# Demo: Map App

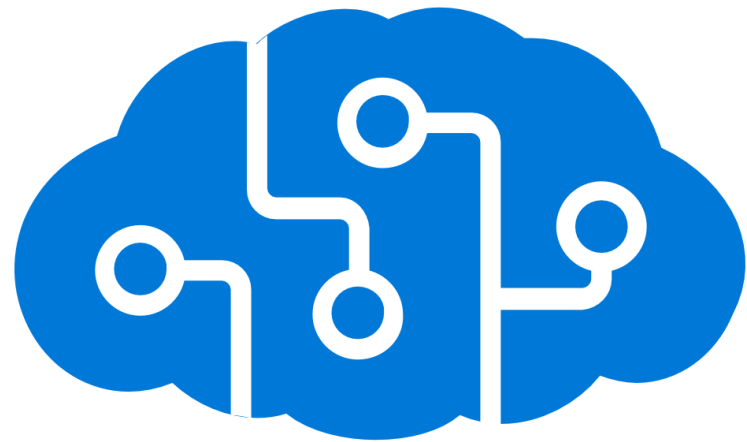
*Combining AI, Gamification, and Maps!*





# Key Takeaways

## *AI Tools for Gamification*



Microsoft Azure  
Cognitive Services



OpenAI



TensorFlow.js

Brain.js

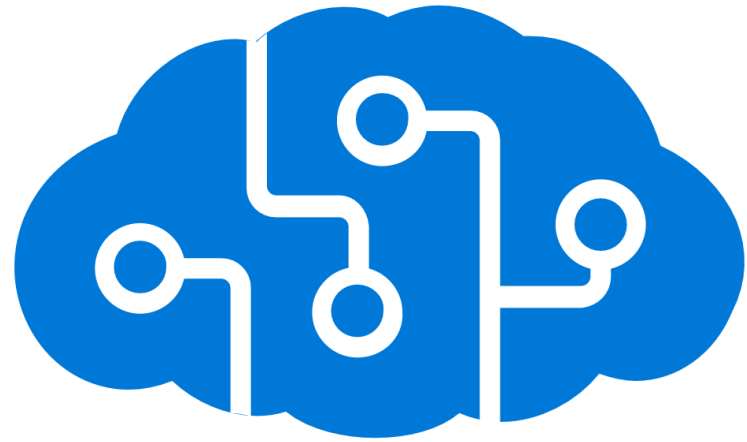






# Key Takeaways

## *AI Tools for Developers*



Microsoft Azure  
**Cognitive Services**

```
async function analyzeSentiment() {  
  const response = await fetch(  
    'https://eastus.api.cognitive.microsoft.com/text/analytics/v3.0/sentiment',  
    {  
      method: 'POST',  
      headers: { //api-key & content type (json) ...  
        body: JSON.stringify({  
          documents: [{ id: '1', language: 'en', text: userText }]  
        })  
      }  
    )  
  const result = await response.json()  
  const sentiment = result.documents[0].sentiment  
}
```



# Key Takeaways

## *Gamification's Lasting Impact*

Gamification Beyond Fun –  
Meaningful User Engagement

AI as a Personalization and  
Motivation Tool

# Thank you, DevIgnition!

**Courtney Yatteau**

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**[bit.ly/devignition-2024-ai-game](https://bit.ly/devignition-2024-ai-game)**