

**OpenACS and Tcl/Tk Conference 2024**

# Introducing XoOpenAI

**An XOTcl-based interface to the OpenAI API**

**WU**

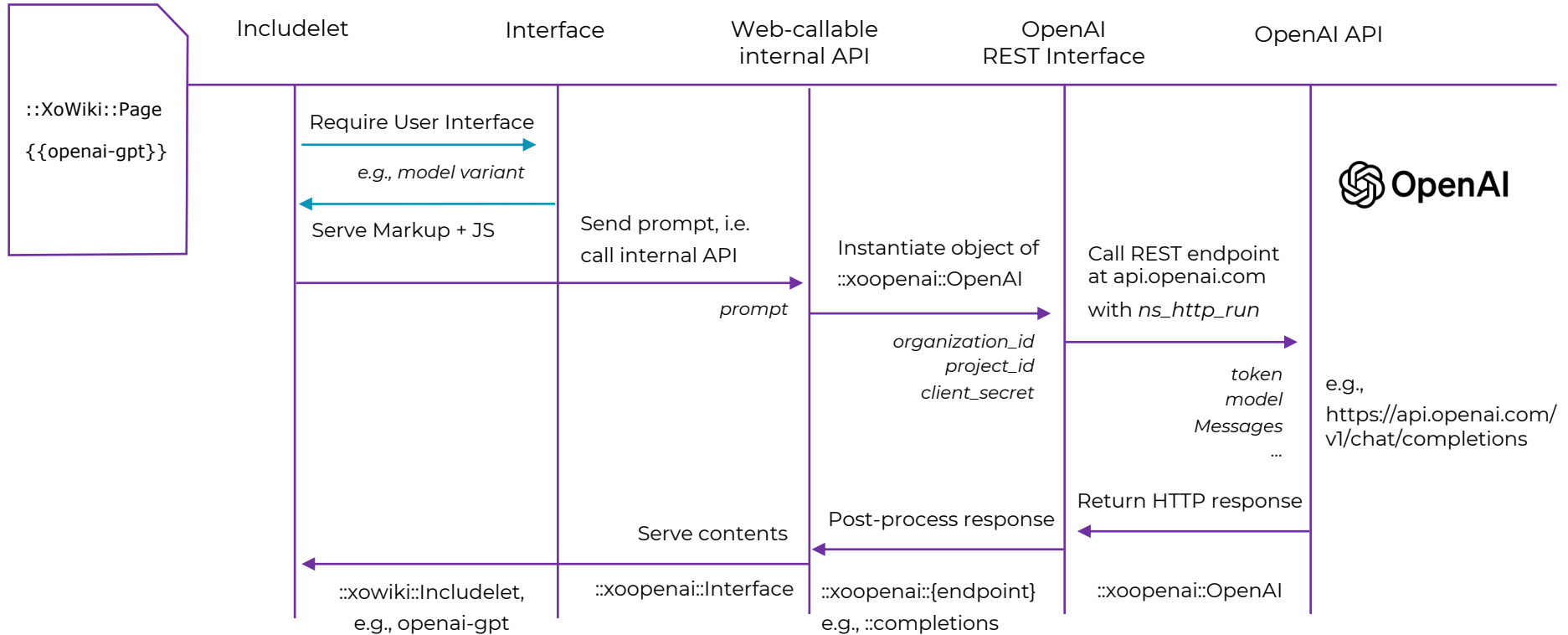
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UNIVERSITY OF  
ECONOMICS  
AND BUSINESS

Sebastian Scheder



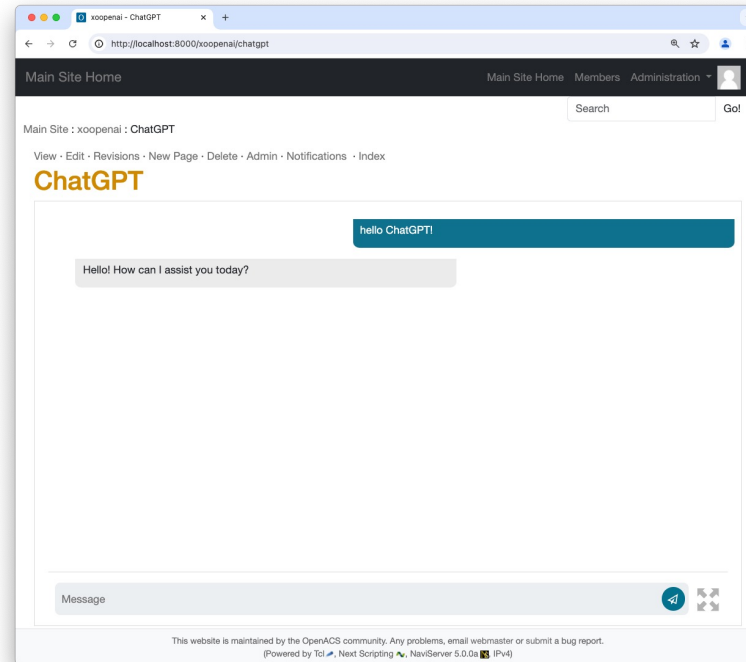
- LLMs have become a **business driver** (see e.g., NVIDIA) due to their widespread use
- Being a “megatrend”, LLM-based applications are
  - **quickly purchased** by companies and public institutions
  - **miserably integrated** into existing environments
  - “thrown” at its end users **without them being trained**
- **Consequences**
  - inconsistent UIs → users have to switch to another environment
  - complex workflows, e.g., if they run on a separate platform
  - decreased productivity → users do not even know how to use the tool
- **Purpose**
  - Provide OpenACS users with an **integrated, modern and extensible interface** to OpenAI models
  - Contribute to the perception as a **platform which addresses today’s trends/challenges**

# Approach: Control Flow



# Demo

# Demo



# Results and Future Work

## ■ Features

- Prototype with basic support for GPT models
- Secure credential storage and handling
  - In NaviServer configuration / Package parameters

## ■ Usage options

1. XoWf-based **standalone** package
2. Embedded as an XoWiki **Includelet**
3. As a **DotLRN Applet**

## ■ Future Work

- Support for other models and APIs (e.g., DALL-E)
- Streamed responses (via SSE)
- Get it listed on <https://platform.openai.com/docs/libraries>

### Main

client\_id

ⓘ For users who belong to multiple organizations or are accessing their project. See <https://platform.openai.com/docs/api-reference/organizations-and-projects>

client\_secret

ⓘ The OpenAI API uses API keys for authentication. You can create API keys [here](#)

project\_id

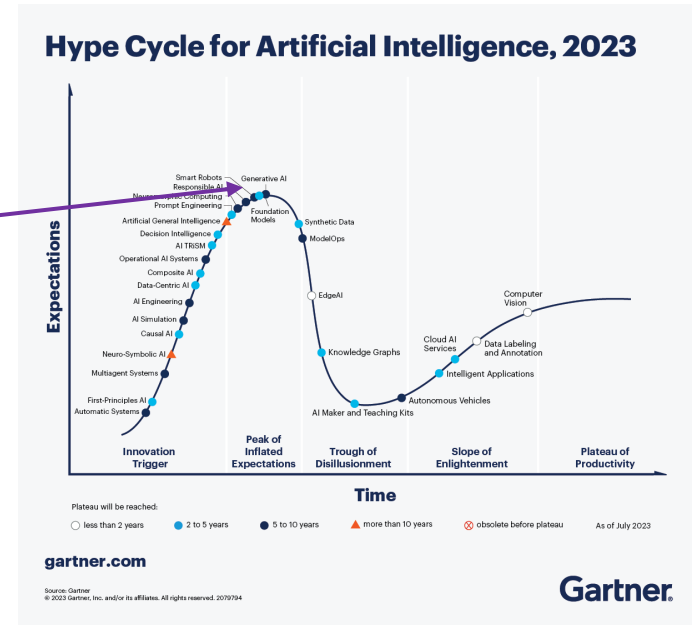
ⓘ For users who belong to multiple organizations or are accessing their project. See <https://platform.openai.com/docs/api-reference/organizations-and-projects>

OK Cancel

**stream** boolean or null Optional Defaults to false  
If set, partial message deltas will be sent, like in ChatGPT.  
Tokens will be sent as data-only **server-sent events** as they become available, with the stream terminated by a `data: [DONE]` message. [Example Python code](#).

# AI and Responsibility

- LMs, such as GPT, are **no more than mathematical abstractions** of provided data (“models”)
- Observations**
  - Unrealistic expectations (“If I cannot solve it, the AI will”)
  - Incorrect perception** of
    - internals (i.e., how they work)
    - capabilities (often referred to as “the AI” as if it was “Skynet”)
  - Ill-considered usage (e.g., students ‘writing’ whole essays)
  - Data Privacy issues
- A More rational usage approach:
  - Perceived as the next **”bicycles for the mind”** but
  - never question** the genuine superiority of **the individual**



<https://www.gartner.com/en/articles/what-s-new-in-artificial-intelligence-from-the-2023-gartner-hype-cycle>



**Don't be driven by technology  
- drive it!**

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UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS**





**IT-Services / Software Development**  
Welthandelsplatz 1, 1020 Vienna, Austria

**Sebastian Scheder**

T +43-1-313 36-5277  
sebastian.scheder@wu.ac.at  
www.wu.ac.at

Questions?