

# Creation of Creations: Explainable and Controllable Interfaces in Human-Agent Co-Creation based GenFlow

Alibaba Cloud Design Creativity Center

Workshop Proposal for: ChineseCHI 2024 Workshop, November 22



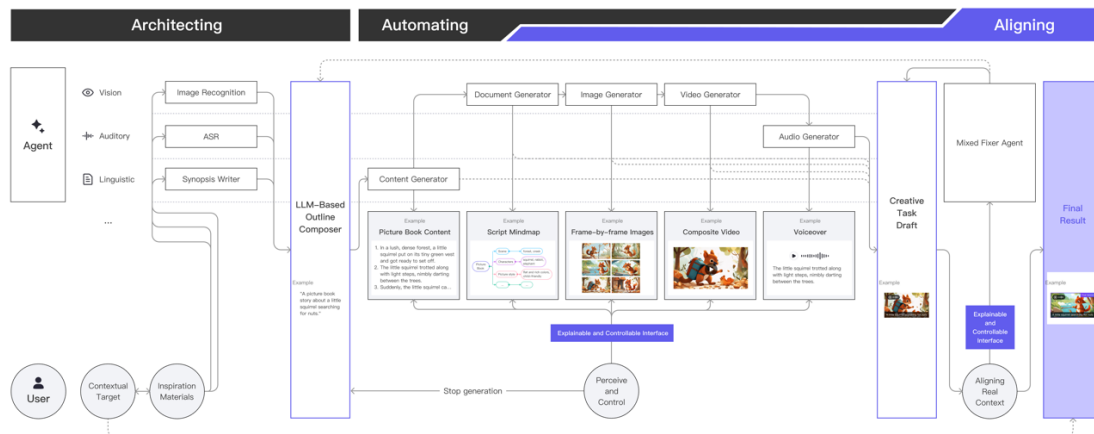
## Introduction

With the development and commercialization of generative artificial intelligence (GenAI) technology, GenAI-based agents have been widely adopted in creative activities, offering diverse sources of inspiration results. Human-agent co-creation is a complex, multi-stage process in which each phase requires both divergent and convergent thinking, gradually approaching the creative objectives through multiple rounds of interaction. However, a well-defined framework for user experience design in this process is currently lacking.

We proposed GenFlow, a mixed initiative human-agent interaction framework designed for complex creative tasks. By emphasizing the provision of explainable and controllable interfaces for mixed-modal agents, this framework enhances the creative experience and quality of complex tasks such as picture books, animated posters, and meeting summaries. Built on the GenFlow, we designed an agent platform that integrates foundational multimodal GenAI capabilities to support the creation and use of creative agents. By the design of controllable and interpretable user interfaces, the platform facilitates human-agent co-creation, enabling the production of higher-quality creative outcomes and improving overall system usability.

In this workshop, we aim to introduce the GenFlow framework, inviting participants to engage in hands-on use of the intelligent agent platform to experience co-creation with agents, as well as to discuss possible expansions of the framework. Additionally, participants will explore the impact and potential of explainable and controllable interfaces in human-agent co-creation, sharing insights based on their hands-on experiences to contribute to enhancing user experience and creative quality in human-agent co-creation.

This workshop provides a valuable reference and practical platform for communities in design, creativity, and AIGC, promoting design thinking and innovation in the era of GenAI.



## Objectives

In this workshop, we invite participants to:

- Understand the concept and case studies of human-agent co-creation based on GenFlow.
- Experience the agent platform, create an agent, and use it to create creative works.
- Contribute ideas and feedback to human-agent co-creation.
- Engage in creative discussions on the possibilities, impacts, and potential of controllable and interpretable interfaces in human-agent co-creation, contributing innovative insights to the HCI and AIGC communities.

## Participants

- 20 to 25 participants
- Researchers, students, and practitioners in design, media arts, artificial intelligence, AIGC, or other related fields, and anyone interested in creative design, co-creation methods and practices.

## Equipment needed

- Please bring your personal phone, charged, ideally with a mobile internet connection.
- It is highly recommended to bring your own laptop for hands-on activities, if unavailable, a few laptops provided by organizers will be available for group use.

## Equipment Provided

- Projector, big screen and microphone for the workshop introduction and platform demonstrations.
- Whiteboard and markers for public notes and guidance.
- Pens, sticky notes and paper for notes drawings and brainstorming.
- 3 laptops as a backup for participants.

## Duration and Location

9:00-12:00

School of Design, Sustech, Nanshan IPark, Building C1, 1011

## Schedule and Activities

### 9:00-9:15 Introduction

- Introduction to the workshop and its objectives.

- Introduction to the GenFlow framework: the concept and framework of human-agent co-creation, and explainable and controllable interfaces in human-agent co-creation.

#### **9:15-9:30 Platform Demonstration**

- Introduction to the agent platform features and functionalities.
- Demonstration of how to use the platform to create agents for creative activities.
- Demonstration of how to use agents.

#### **9:30-9:40 Setup for Hands-On Experience**

- Assist participants in accessing the agent platform on their personal phone and pc.

#### **9:40-10:15 Hands-On Experience**

- Participants use the platform to create a agent for a specific scenario.
- Participants use the created agent to generate creative works.
- Encourage participants to "think aloud" to share any issues, feedback and insights.

#### **Coffee Break**

#### **10:30-10:45 Cross-Experience and Free Sharing**

- Participants experience agents created by others.
- Encourage participants to publicly share their creative process and outcomes, as well as any issues, feedback, and insights from their experiences.

#### **10:45-11:15 Feedback and Discussion**

- Invite participants to reflect on their experience using the platform.
- Encourage participants to share their feedback regarding the platform's usability, user experience, and desired features.

#### **11:15-11:30 Explainable and Controllable Interfaces**

- Introduce the explainable and controllable interfaces in the agent platform.
- Encourage participants to share their feedback on the controllability and explainability of the platform.
- Showcase more examples of explainable and controllable interfaces in human-agent co-creation.
- Encourage participants to share their feedback on these examples, compare them with the current situation, and provide their opinions.

#### **11:30-12:00 Discussion and Future Work**

- Encourage participants to discuss and refine the GenFlow framework based on the hands-on experience with the platform.
- Explore the impact and potential of explainable and controllable interfaces in human-agent co-creation.
- Discuss potential improvements and future directions for the design of human-agent co-creation.
- Summarize the key conclusions of the workshop.