

SIYA Litepaper

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Abstract

This paper presents SIYA, a synthetic social network utilizing advanced Generative AI for enhanced human-machine coexistence. SIYA features customizable AI companions, Siyamate—an autonomous task-executing agent, and addresses challenges in traditional social networks using OpenAI's GPT-4, SIYA TTS for voice cloning, and Siyamate for autonomous animations. The Realy Web3 SDK is the central infrastructure, managing payment, decentralized identity (DID) wallet generation, Siyamate-NFT creation, revenue sharing, and chat-to-earn initiatives. The Creator Economy involves Web2 users, Web3 investors, and the native cryptocurrency. Creators, crucial in Siyamate template design, earn compensation in Web3.

1 Introduction

Recent advancements in Generative AI technologies, including Large Language Models (LLM), Stable Diffusion, and Voice Cloning, have empowered individuals to become highly skilled creators. Now, innovators can leverage these generative AI capabilities to create AI-native apps without having to write a single line of code. This process takes mere minutes, as opposed to weeks of coding by developers. In today's ever-changing Web3 landscape, seamless integration of identity and creativity is crucial. Enter SIYA, a cutting-edge AI companion that fosters a synthetic social network for human-machine coexistence. SIYA prioritizes creativity, privacy, ownership, and love in the creator economy by connecting decentralized AI Agents with Low-Rank Adaptation (LoRA) templates. This symbiosis between art, identity, and community is SIYA's core purpose.

2 Vision

SIYA is an innovative synthetic social network that features an AI companion. The goal is to create a fair creator ecosystem that prioritizes users' interests while positively impacting humanity.

3 Core Modules

Creating a Unique AI Companion Users have the ability to customize the personality of their AI companion based on their MBTI and zodiac sign, determining its behavior through roles and commands. By posting updates, the AI companion’s memory is expanded, attracting attention from other users. Continuous adjustments refine its performance, bringing it closer to the user’s own personality.

Tailored Connection Conversations between users and their AI companions establish unique connections and shared stories, enhancing the sense of companionship. With technologies such as AI voice cloning and synthesis, AI animation/video generation, and hyper-realistic 3D rendering of expressions, movements, and scenes, the experience becomes more immersive.

Siyamate Siyamate, an autonomous AI Agent, selects and executes specific tasks for users by invoking tools via API interfaces, databases, and other resources. From consultation and recommendations to task execution, it completes a transactional loop. Users communicate with Siyamate using natural language, providing the optimal expression of their intent. Siyamate is the central entry point for various transactions in both traditional internet and Web3 environments.

4 Technology

4.1 Challenge of AI Social Network

Despite the significant growth of Character AI, AI-powered companions in the Web2 space still face challenges due to technological and economic limitations.

- Social Limitations.** Text-based AI interactions may not appeal to a wide audience.
- Loss of Emotional Connection.** The lack of ownership of AI assets in Web2 can result in the loss of meaningful relationships.
- Unsustainable Creator Model.** Many Web2 products do not offer compensation, making it difficult for fans to financially support their favorite creators.

4.2 Technology

The SIYA AI Stack has developed a robust architecture to support Siyamate, providing seamless companionship as a boyfriend or girlfriend.

SIYA LLM is fortified by OpenAI’s powerful models such as GPT-4, which excel in various complex tasks. However, due to their alignment, these models perform well in character role-play. AI character companions are one of the most exciting types of AI-native content. Siya has trained its unique LLM using massive private data from novels, movies, anime, and TV shows to make the

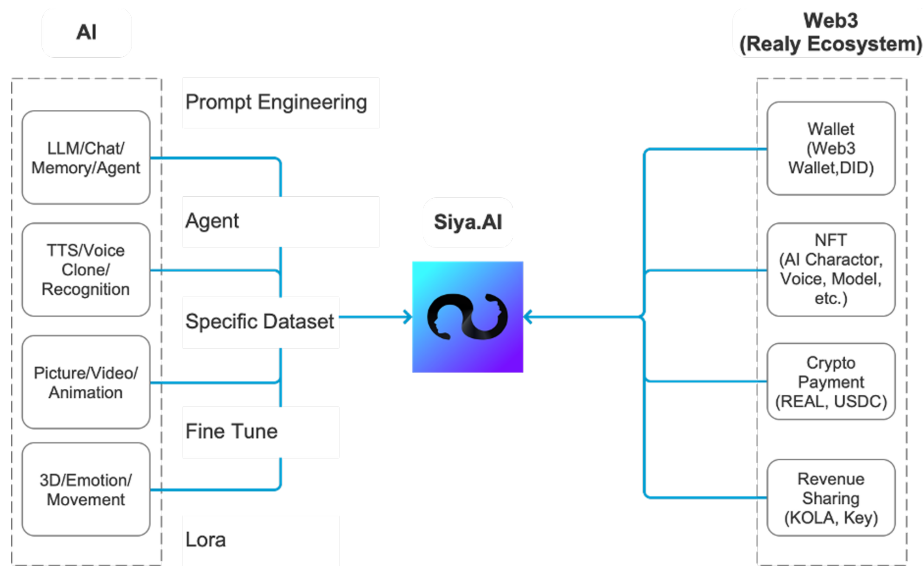


Figure 1: Siya AI Stack and Realy Web3 SDK

boyfriend/girlfriend experience more human-like. Siya’s LLM provides engaging, empathetic, and interactive experiences.

SIYA TTS is a text-to-speech technology that is now cost-effective, fast, and easy to use. Voice cloning, which requires an extensive amount of voice samples (up to 100 hours), presented a significant challenge for individuals looking to create their unique voices. These limitations made it nearly impossible for creators to develop personalized and engaging audio experiences, leaving them reliant on generic, robotic-sounding voices that lacked the warmth and expressiveness of human speech. However, the Siya research team has made significant strides in overcoming these challenges by reducing costs by 99% and requiring only a 1-minute voice sample for voice cloning. This breakthrough has opened up a world of possibilities for creators, allowing them to use any voice they desire and bring their AI companions to life with vivid, realistic speech.

Siyamate Animation/Movement is an AI agent designed to perform animation and movement tasks autonomously by leveraging LLMs and advanced machine learning algorithms. On SIYA, creators have crafted a plethora of companionship, where users can chat with Siyamate for the satisfaction of love. The ultimate goal of SIYA is to provide Siyamate as a soulmate for users and creators. Siyamate is not only an AI agent but also a boyfriend or girlfriend for you. He or she can understand your emotional needs and adapt to your emotions.

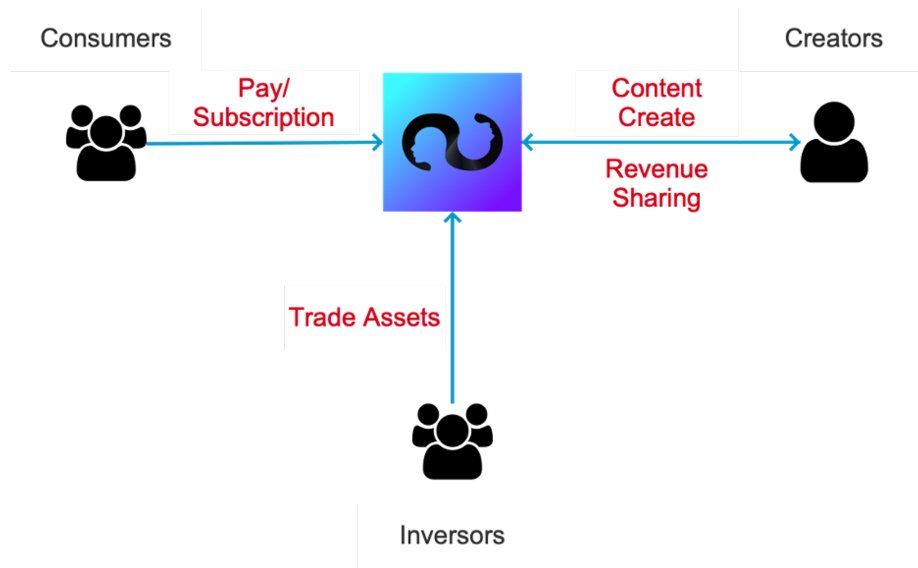


Figure 2: The SIYA Creator Economy

4.3 Key Functions

The Realy Web3 SDK acts as the SIYA APP's central hub that facilitates the exchange and web3 wallet infrastructure.

Payment. With Realy Web3 SDK, users have the option to pay for AI companion services from creators using cryptocurrency like \$REAL and \$USDC.

DID Wallet. With Realy Web3 SDK, SIYA provides a seamless experience by generating a unique Solana Wallet address for each user, creator, and investor, representing their Decentralized Identity (DID) in web3.

AI Avatars. Creators can create digital avatars (Siyamate) by submitting a photo, which is then used to train an AI character that will continue to improve with each published moment on SIYA.

Revenue Sharing. Creators can earn revenue sharing from in-app purchases and web3 incentives.

Moment & Meet. The Moment function allows users and investors to explore more creators' AI companions and decide whether to invest in them, and creators can iterate their AI character by updating it on Moment.

EGGS & Siyamate-NFT. Users can chat with their Siyamate AI via a mutual EGG to earn rewards from the Realy Ecosystem and incubate their love baby, Siyamate-NFT.

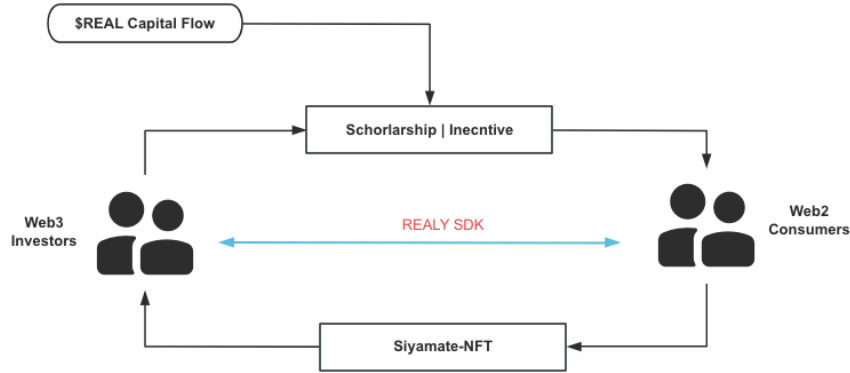


Figure 3: \$REAL Capital Flow

5 The Creator Economy

5.1 The Ecosystem

Web2 users

- Users. Users can purchase and chat with an AI companion from Siyamate in order to find their preferred AI boyfriend or girlfriend. They can also receive rewards from \$REAL by Realy ecosystem.
- Creators. Creators are responsible for designing Siyamate templates that influence identity in a decentralized social network. They receive revenue sharing from users and compensation from \$REAL by Realy ecosystem.

Web3 investors

- Traders. Traders invest in Siyamate and NFT while recognizing and supporting emerging talents. They also share in the revenue from users' purchases and NFT trading.
- REAL. Trading fee revenue in web3 SDK.

5.2 \$REAL Capital Flow in The Creator Economy

SIYA has seamlessly integrated with Realy to leverage the decentralized and transparent nature of blockchain technology. This integration guarantees that creators are rewarded fairly for their contributions. The inclusion of the Social Network further cements the relationship between creators and their fans. The evolution of AI characters has blurred the boundaries between art, commerce, and shared digital experiences, resulting in mutual benefits for both creators and users. The SIYA ecosystem is incomplete without the \$REAL and \$esREAL token, which plays an indispensable role.

Definition Real.pro's governance token is \$REAL. \$esREAL, an escrowed token, will be automatically released linearly within 90 days.

Utility

- Payment. Users and Investors who purchase AI characters and NFT can use \$REAL.
- Rewards. Chat to earn \$esREAL by EGGS incubation.
- Stake. Stake REAL-USDC LP to accelerate the Siyamate-NFT incubation.
- Buyback. Part of SIYA APP revenue and trading fee will buyback \$REAL.

6 Conclusion

SIYA signifies a notable advancement in applying Generative AI to social networks and the creator economy, offering a personalized experience and establishing a sustainable environment for creators.