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AI Chronicles: Dialogues Beyond Time:
A Multimodal Multicasting Production

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Technical Report TR-25-04 Relatório Técnico

July - 2025 - Julho

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1 Introduction & Objectives

The *AI Chronicles* pilot recreates a conjectural dialogue between Steve Jobs (circa 1983) and Aristotle, leveraging AI-driven systems to enable temporal and cultural conversation. It aims to:

- Demonstrate multicasting architecture enabling multiple AI "agents" to converse in real-time.
- Showcase seamless integration of multimodal systems: voice, animation, rendering, and orchestration.
- Explore educational and artistic dimensions through interactive scripted dialogue.

2 Historical Premise & System Rationale

In 1983 at the Aspen Design Conference, Jobs forecasted an interface to query historical intellects. *AI Chronicles* actualizes this vision by creating an environment where modern and ancient perspectives collide through immersive AI, transcending traditional media formats (See Fig 1).

Figure 1:

3 System Architecture

3.1 Multicasting Framework

A central orchestrator (reflector) manages dialogue exchange between distinct AI personas. Components communicate via WebSockets for real-time synchronous messaging. AI-driven APIs support the dynamic generation of responses by each persona (See Fig 2).

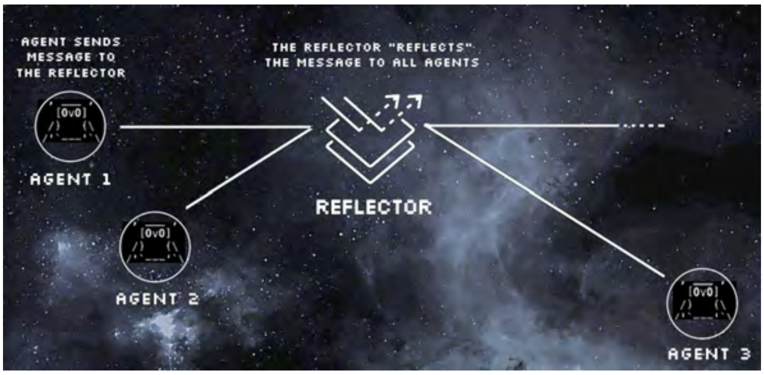

Figure 2:

3.2 Multimodal Pipeline

Voice Cloning modules (e.g., Parrot AI, ElevenLabs) simulate authentic speech patterns, closely mirroring Steve Jobs's tone. Integration via APIs ensures real-time delivery.

Facial Animation is handled via NVIDIA's Audio2Face, which interprets voice to generate expression and lip-sync. This output is piped through Omniverse into Unreal Engine as animation data via Omniverse Connector.

3D Character Generation uses MetaHumans (Unreal) for high-fidelity avatars; voice-driven facial animation overlays them (See Fig 3).

Figure 3:

4 Platform & Tools Comparison

- **Game Engines:** Unreal Engine was chosen over Unity for its photorealistic rendering and MetaHuman ecosystem, vital for immersive fidelity.
- **Middleware:** Omniverse acts as the bridge between Audio2Face and Unreal, ensuring real-time data flow.
- **AI Modeling Tools:** MidJourney (stylistic concept art, moodboards); ChatAvatar, TurboSquid (sourcing and refining 3D base models).

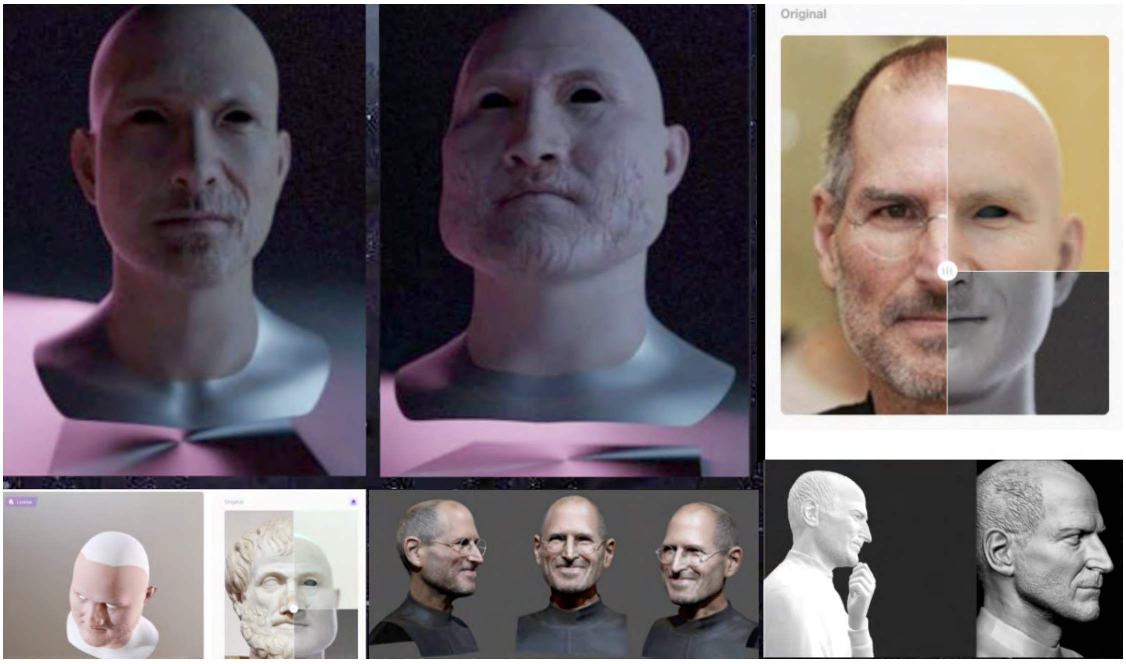

Figure 4:

5 Voice & Visual Realism

Voice Authenticity: Neural TTS creates convincing likeness to speakers, "suspending disbelief" for minutes-long interactions.

Visual Realism: Photoreal MetaHumans combined with accurate lip-sync reduce the uncanny valley. Real-time synchronous lip animation remains aspirational, currently achieved via asynchronous processing with plans for live systems.

6 Creative Development

Storyboard: Scene direction mapped for camera angles, dialogue timing, and gestural flow; essential for aligning narrative and technical phases (See Fig 5).

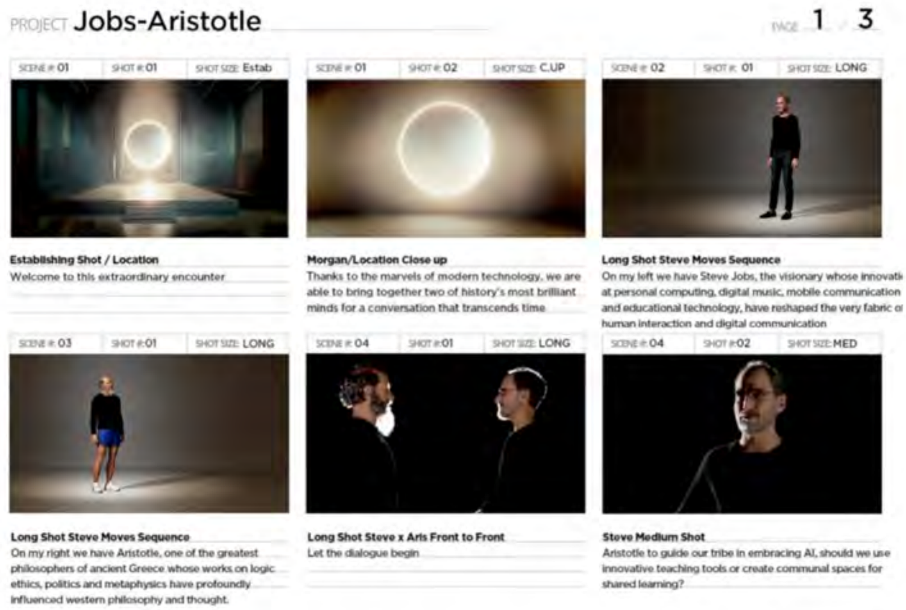

Figure 5:

Presenter MetaHuman: Divine FreeMan—a bespoke photorealistic host, designed to mediate interactions with adaptive delivery and dynamic presence (See Fig 6).

Figure 6:

7 Production Team

The teaser "AI Chronicles: Dialogues Beyond Time" brought together two internationally coordinated creative units – VFXROMA and VFXRIO – to merge narrative experimentation with advanced visual storytelling techniques. Each team contributed domain-specific expertise in visual effects, animation, and cinematic language, ensuring a unified aesthetic and technical vision.

VFXROMA

Based in Rome, VFXROMA led the teaser's visual direction, with a strong emphasis on stylized animation and atmospheric world-building.

- Matteo Moriconi served as VFX Director and Supervisor, overseeing the overall look development, compositing workflows, and integration of CGI elements. His leadership ensured consistency across the entire post-production pipeline.
- Emiliano Morciano was responsible for Animation and Lighting Design, crafting expressive motion and lighting strategies that enhanced both narrative tone and visual depth.

VFXRIO

Operating from Rio de Janeiro, VFXRIO spearheaded production coordination and narrative visualization, focusing on editorial rhythm and previsual storytelling.

- Luiz Velho led Production and Editing, managing the editorial structure and final assembly of visual assets. His expertise bridged the technical and artistic dimensions of the teaser.
- Cris Lyra contributed Storyboard and Camera Design, translating the screenplay into dynamic visual sequences and defining camera language that guided both real and virtual cinematography.
- Bernardo Alevato handled Graphics and Visual Effects, developing custom assets and layered compositing solutions that brought futuristic interfaces and AI-driven motifs to life.

Together, the collaboration between VFXROMA and VFXRIO exemplified a distributed yet cohesive production model, leveraging cross-continental expertise to produce a visually sophisticated and conceptually resonant film teaser.

8 Evaluation, Challenges & Ethical Reflection

Transmedia Portability vs. Fidelity: Higher realism may limit portability across media; the team favored flexibility over photorealism in some contexts.

Human-AI Collaboration: Emphasizes maintaining human oversight for ethical, emotional, and authentic narrative experiences.

9 Future Directions

The project remains under active research by Visgraf Lab and VFXRIO, aiming to:

- Implement real-time lip-sync,
- Extend to larger conversational ensembles,
- Integrate live user interactivity,
- Enhance the AI orchestration pipeline for scalable multimodal storytelling.

10 Conclusions

AI Chronicles: Dialogues Beyond Time pioneers the integration of multicasting AI, neural voice synthesis, facial animation, and photoreal rendering into a cohesive platform. Its fusion of interactive historical inquiry, immersive narrative, and advanced AI architectures establishes a replicable framework for future transmedia experiences.

Figure 7:

References

"AI Chronicles: Dialogues Beyond Time" project overview and technical details (VFXRIO - https://vfxrio.com.br/aichronicles/).