Update from the Entertainment Technology Center

By Kenneth Williams

The Entertainment Technology Center @ USC (ETC) closed another successful year by receiving a Technology and Engineering Emmy for its contributions to SMPTE ST 2067, the Interoperable Master Format (IMF). This recognition affirms ETC's mission to provide the Media and Entertainment industry with a collaborative environment to explore emerging technologies, address shared challenges, and develop innovative solutions.

Over the past year, ETC continued helping the industry understand and adopt emerging technologies, particularly AI-assisted tools. Building on its leadership in virtual content creation, ETC selected its 10th R&D short film project to demonstrate and evaluate emerging virtual filmmaking technologies through hands-on experimentation and proof of concept.

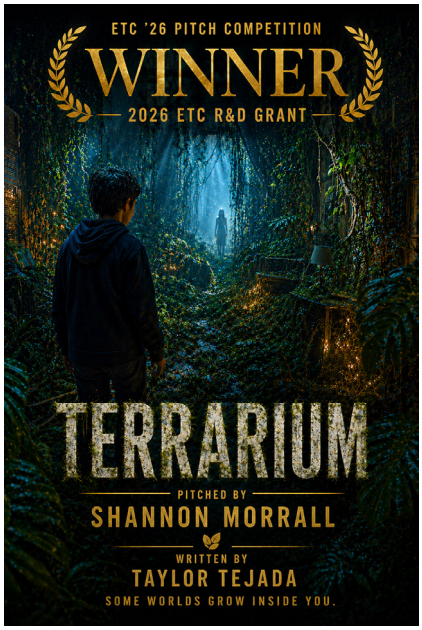
ETC also expanded industry dialogue on AI through ongoing programs, roundtables, and an all-day Synthetic Media Summit featuring leading voices exploring AI's evolving role in entertainment.

ETC publicly released the Narrative Context Protocol (NCP), a narrative standard for encoding authorial intent. NCP enables portability of story across linear and interactive modes of storytelling, keeping authorship central--to enhance, rather than replace, creative expertise.

As the industry navigates rapid technological change and complex questions surrounding AI, ETC's role as a research hub, innovation partner, and forum for constructive collaboration and debate is more important than ever. ETC remains committed to advancing responsible technology adoption while supporting the creative and business needs of the industry.

ETC Projects

AI & Emergent Media (formerly Adaptive & Virtual Production**)** examines both the technical systems and the human workflows behind modern production by researching production workflows that combine physical stages, real-time rendering, LED volumes, and adaptive creative pipelines, focusing on how virtual production, real-time engines, camera tracking, visualization tools, and production operations can work together in practical creative environments.



Terrarium: Rethinking Production for the AI Era

Terrarium is the 10th R&D short film produced by ETC. The film is designed to investigate a larger question facing the motion picture industry: *What does a professional production pipeline look like when physical production, spatial computing, visual effects, and generative AI become parts of the same filmmaking process?*

Terrarium approaches AI not as a replacement for traditional production, but as another component within an increasingly hybrid production environment. The project combines practical photography with generative AI, custom model training, relighting, inpainting, motion transfer, digital doubles, virtual production, Gaussian splats and 4DGS, alongside conventional visual effects (VFX), editorial, color, and finishing.

The goal is to *reduce fragmentation across production and post-production* by validating integrated approaches to data capture, machine-assisted interpretation, and intelligent reuse of production metadata. It seeks workflows in which cinematography captures not only images but useful spatial, temporal, and performance data; on-set decisions remain valuable downstream; and AI functions as a force multiplier

for artists rather than a replacement for authorship.

Exploration may include augmented capture systems, hybrid spatial representations such as 3D Gaussian-based scene reconstruction, AI-assisted previs, editorial and VFX workflows, and data-continuity systems that preserve production information throughout a project.

ETC treats *AI as infrastructure, not authorship*. The production supports intentional, ethical, director-centered applications that expand creative exploration, absorb complexity, and make ambitious choices more financially viable while preserving the filmmaker's voice and judgment.

This technical mission serves a broader cultural purpose: *lowering barriers without lowering standards* so filmmakers can pursue complex themes, emotional truth, diverse perspectives, and speculative futures.

Success is therefore measured not simply by completing a short film, but by whether the project's discoveries can be *adopted, adapted, and expanded by future filmmakers*, creating more accessible, efficient, and resilient production methods while preserving cinema's power to transmit meaning, agency, hope, and imagination.



AI in Media

Synthetic Media Summit, March 6, 2026, USC Hotel

The AI Playbook for Media

Answering the questions: What is the Playbook? Where are we? Where are we going?

ETC@USC hosted its second Synthetic Media Summit convening media and technology leaders to identify AI applications and chart a detailed playbook for an AI-augmented future for human creativity. ETC partnered with Carnegie Mellon University, United Talent Agency, and Machine Cinema to deliver this timely, compelling event. While the Summit was closed to the press and presented off the record, ETC's Yves Bergquist, the event's organizer, discussed the Summit and what's next for artificial intelligence and creativity in this interview on our website.

The project also organizes AI Roundtables with presentations from industry speakers and publishes a daily AI Roundup with essential media-related AI news and a weekly AI Roundup report.

AI Roundtables are open to ETC members only. Topics from October 2025 to June 2026 include:

- **The Great Leap Forward in GenAI Video: Hands-on Review of Sora 2, Veo 3 and What's Ahead**
  October 28, 2025
  Tobias Huber and Albert Bozesan, Storybook Studios

- **AI Governance and Copyrights: Where Are We? Where Is It Going?**
  November 13, 2025
  Avi Gesser and Megan Bannigan, partners, Debevoise & Plimpton

- **Building an AI-ready Workforce: A Case Study from the Media Industry**
  February 26, 2026
  Dr. Laura Weis

- **Building "Safe" Agents Using Claude Code: A Quick Tutorial**
  April 24, 2026
  Michael Albers and hosted by Orlando Woods, Co-Founder, Koobrik

- **Frontier AI to Deliver New Gaming Experiences**
  May 20, 2026
  Susan Cummings, 10six

- **A Neuroscientist on Robot-proofing Yourself in the Age of AI**
  May 29, 2026
  Dr. Vivienne Ming

- **Behind "Satoshi": An End-to-End AI Feature Pipeline**
  June 17, 2026
  Ryan Kavanaugh

Narrative Context Protocol (NCP) is a writer-friendly narrative model that enables stories and characters to become as portable as any asset. It will support the next generation of human-fashioned consumer storytelling products from linear through immersive experiences. By representing all aspects of narrative structure, such as character motivations, thematic conflicts, thematic content, and more, NCP fully chronicles an author's intent as it amplifies their creative potential. The protocol is open source and can bring a new level of creativity, exchange, IP control, canon support, AI copyright data, and will support writers from the first word as they use new assistive AI tools.

NCP 3.0 introduces a division between narrative profiles, which represent individual narrative interpretations, and the NCP envelope itself. Through the protocol, stories can be analyzed for their narrative structure, enabling attribution and tracking as a story develops in a writer's room, and more. Once one (or several) narrative interpretations have been developed (either manually or through AI assistance), further narrative development can be supported, real-time story experiences enabled, and more.

NCP is gaining industry support. It has been adopted by an ETC member as narrative infrastructure for its internal writing and production tools. Additionally, ETC and MovieLabs have initiated a collaboration to ensure their Ontology for Media Creation (OMC) can effectively transmit narrative information throughout production.

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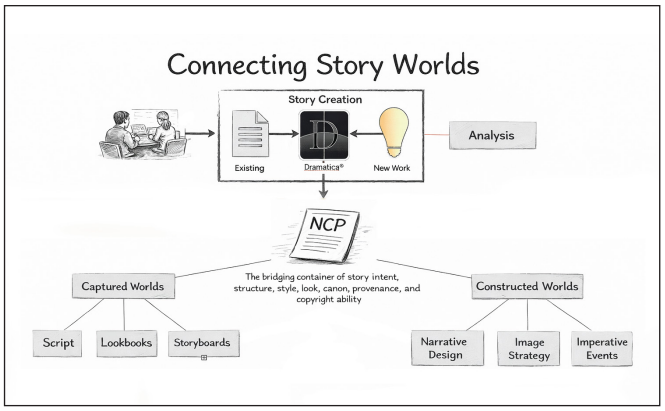

The project expects that other script-focused tools will utilize the narrative DNA contained within the NCP, providing a new source of inspiration for richer character and story development.

Transmedia Innovation Student Challenge // Voices of Tomorrow: Transmedia from a new generation (October-December 2025) sponsored by Sony Pictures Entertainment and ETC@USC. The challenge invited students to develop ideas that suggest the next generation of engaging transmedia experiences, blending storytelling techniques, multiple media forms, tools, and resources in new and original ways.

Four teams had 12 weeks to pitch, develop, design, and present their projects.

The final presentations were:

- Team 1: Cloud Room - allows a person to "recharge" in a tranquil cloud bounce house (AR/VR, Mocap, Sound + Bounce).
- Team 2: Biofeedback Music Composition created music using vital-sensing data (biometric, heartbeat + EEG + Audio & Facial input).
- Team 3: Turn Tale, where you are a rabbit in a 3D pop-up book-style forest evading predators (SDR & Mocap).
- Team 4: Documentary Simulator—a VR game acting as a training simulator for documentary filmmakers (VR and Unreal).

Teams 1 & 3 presented with Sony and ETC at SXSW 2026 in Austin, TX.

Events and Publications

A sample of industry events that included ETC programming and/or participation:

- *Europa* screening (September 26, USC Norris Theatre, Los Angeles, CA)
- Infinity Festival (October 9-10, Academy Museum & Sony Imageworks' Miracle Mile Campus)
- AI in Media Working Group - Copyright Enforcement and the Content Fingerprinting Initiative (October 30, ETC Online)
- AI Meets OSVP, The Toolbox Grows - LATAM Summit (December 3, Santiago, Chile)
- Bending Reality: Scaling Film Productions with AI Workflows (SXSW, March 16, Austin, TX)
- VU AI Summit: AI - the Future of AI Production (March 25, Tampa, FL)
- VP Gathering: Machine Intelligence Meets the Volume (April 14-16, Breda, The Netherlands)
- NAB: AI - Cut Through the Noise. Discover What's Actually Working in AI for Media & Entertainment (April 18-22, Las Vegas, NV)
- *The Bends* screening - Cannes Film Festival (May 12-23, Cannes, France)
- AI Working Group - Localization and Versioning in the Agentic Age (May 14, ETC Online)
- *ChikaBoom!* premiere - -Tribeca Film Festival (June 6 and 13, New York, NY)
- *Europa* screening and panel - Annual NASA Europa Clipper Summit (June 10, Boulder, CO)
- Hollywood Rewritten by AI-XR (June 10, KMF2026, Gangnam-gu, Seoul)
- New Workflows in Filmmaking - LA ACM SIGGRAPH Professional Chapter (June 24, Los Angeles, CA)
- ETC Digital Town Square - Towards Agentic Localization & Versioning (June 25, ETC Online)
- SIGGRAPH (July 19-23, Los Angeles, CA)
  - ◊From Cloud to Set: Discussing the Future of Cloud, Adaptive, and AI-Native Production (July 22)

ETC Membership is open to M&E companies interested in driving and/or participating in the technological changes that advance the industry.

Membership levels:

- *Platinum (Executive Board):* Governs the center's direction and has access to all activities and projects.
- *Gold:* Access to all activities and projects, no voting privileges.
- *Silver:* Access to one project specific to the company's agenda.

For more information: www.etcenter.org

About the Author



Kenneth Williams has been the executive director and chief executive officer of the Entertainment Technology Center (ETC) at the University of Southern California (USC), Los Angeles, CA, since March 2012. A media industry veteran, Williams spent 18 years with Sony Pictures Entertainment.

A contribution received from the author for the 2026 Progress Report.
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