



## Call for Papers

# Web3D 2026: *AI-Driven Human-Centered WebXR*

Web3D 2026 explores how immersive 3D environments delivered and shared through the Web are transforming the future of digital interaction, and how recent advances in AI capabilities, embodied intelligent systems, and multimodal human interfaces are expanding what is possible in XR.

We invite submissions across all sectors in which the 3D Web plays a transformative role, including education, healthcare, e-commerce, cultural heritage, digital tourism, entertainment, media, construction, robotics, urban computing, and emerging industrial metaverse applications. The goal is to foster cross-disciplinary dialogue that shapes the future of interactive Web technologies and the extended multiverse.

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# Topic Area

- **Metaverse & Realities**

- VR/AR/MR/XR: virtual, augmented, mixed, cross, and extended realities
- HCI for immersive Web environments
- Intelligent and AI-driven agents, social robotics, embodied conversational systems
- Human-centric metaverse design: cognition, usability, ergonomics, personalization
- Adaptive interfaces, emotional computing, social presence
- AI for perception, scene understanding, simulation and content generation
- Impact of metaverse platforms on communication, behavior, and spatial interaction
- Training, simulation, and decision support in industry, medicine, and culture

- **Applications & Libraries**

- Interactive 3D Web applications in any domain
- Novel APIs, toolkits, and frameworks for WebXR
- Multimodal interfaces: gesture, voice, haptics, spatial UI, gaze
- User studies, cognition models, and human-subjects research in XR
- Ethics, accessibility, inclusivity, and societal implications
- Agent-based interaction, co-creative interfaces, and conversational XR

- **Content and Publishing**

- 3D content creation, scanning, reconstruction, compression, and publishing
- Algorithms for modeling, optimization, analysis, and shape processing
- Semantic Web, knowledge graphs for 3D assets and environments
- Visual analytics in immersive 3D data spaces

- Co-creative workflows with generative AI and procedural modeling
- **Humans, Avatars, and Animation**
  - Digital humans, avatars, virtual identities, and social presence
  - 3D technologies for medical and health data visualization
  - Motion capture for expression, behavior, and real-time synthesis
  - AI for animation, performance capture, motion prediction, and realism
  - Personalized avatars, social signals, and interaction fidelity
- **Industrial Applications**
  - Digital Twins on the Web: modeling, simulation, photorealism
  - Human-in-the-loop digital twin systems
  - Collaborative XR for construction, robotics, manufacturing
  - Industrial training simulations, safety and ergonomics
- **Transmission & Rendering**

Topic Area

Submission

CFP – PDF Version

Important Dates

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- Comparative and historical perspectives on Web3D
  - **Healthcare, Medicine, and Wellbeing**
    - Web-based XR for clinical training, medical education, and procedural simulation
    - 3D Web platforms for patient education, rehabilitation, and assistive therapies
    - AI-driven virtual patients, clinicians, and therapeutic agents
    - Immersive visualization of medical imaging, physiological data, and digital biomarkers

- Mental health, neurodiversity support, and wellbeing applications in immersive Web environments
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## Papers & Submission

This is a blind peer-reviewed conference. Authors are invited to submit their papers in English through the conference submission system by **June 1, 2026**. Submissions must be original and should not have been published previously.

The accepted papers and poster summaries will be published in the Web3D 2026 Conference Proceedings, available in the ACM Digital Library. Works selected for the Best Paper awards will be invited to submit extended versions to the Computers & Graphics journal.

All papers must be **original, anonymized, and not simultaneously submitted to another journal or conference.**

**At least one author must attend the conference in-person to present their work.**

Submissions are accepted via [EasyChair](#)

Template Instructions for papers and posters authors are available here:

[Submission Guidelines](#)

## Full, short paper and poster, Industrial use cases

- Select the **submission track** (Papers, Posters or Industrial Use Cases).
- Add your abstract and upload your PDF submission.

**The following paper categories are welcome:**

- **Full or short papers** presenting original work in 3D Web research and applications may be submitted in long or short form (up to 9 or 4 pages, EXCLUSIVE of the page(s) devoted to bibliographic references and short appendices). Do include a full citation list. Submissions will be peer-reviewed.
- **Posters** present results of ongoing or recently completed work in 3D web research and application. The poster format offers the opportunity to interactively present and discuss interesting results to the Web3D community. Posters should be submitted in the form of abstracts (2 pages). Posters must be formatted using the document templates for conferences. Upon

acceptance, the final revised poster is required in paper and electronic format. Printing and delivery of the poster is the author's responsibility.

- **Industrial Use Cases** enable practitioners to demonstrate how 3D Web technologies may be used in industrial applications. A special track during Web3D 2025 will be devoted to industrial use cases to share best practices, and requirements of using 3D in various application domains.  
**Industrial Use Cases submitted after June 1st will not be included in the proceedings**
- **Competitions** Shape the Future of Web3D/Metaverse Tools and HAnim 3D Character Animation. Create, Innovate and Dominate. Sponsored by the Web3D Consortium and Korea Standards Association. **Win cash prizes up to \$1,200** and gain recognition, and visibility within the 3D industry. The 3D Challenge Awaits!

## Other tracks / types

Submit your Tutorial, Workshop, Industrial Use Case (submitted **after June 1st**), Standards Session, Demonstration and Competition in EasyChair

- **Tutorials** are an opportunity to present introductory and advanced applications of 3D Web technologies to students and to experienced practitioners. Tutorial subjects can include practices for authoring interactive 3D scenes and using 3D graphics in diverse application areas. Especially welcome are tutorials in the use of open-source software and Web applications which can be presented in hands-on sessions at the conference. Submissions should include names, affiliations, and contact information, title of the tutorial, and a short 1-2 page summary including: the topic of interest, subjects covered, learning objectives, intended audience, prerequisites, and level of difficulty.
- **Workshops** provide a forum for researchers and practitioners from both the Web and 3D multimedia communities to discuss and exchange positions on current and emergent 3D Web topics. Workshops may take the form of presentation sessions moderated by workshop organizers or open discussions of new knowledge on a specific topic of interest. Each session will last 90 minutes with presentations and discussions. Submissions should include names, affiliations, and contact information, title of the workshop, and a short 1-2 page summary including: the topic of the emergent technology and its use cases and challenges.
- **Demonstration Showcase** enables artists, content designers, and developers to share their innovative 3D work at the conference. Artwork and applications developed for various platforms, including the Web, desktop, mobile, and VR/AR systems, are welcome. Submissions accepted at the conference and should include names, affiliations, and contact information, title of the demonstration, and a short 1-2 page summary including: technology and tools used, use case and market readiness.

- **Standards Session** provides a meeting for researchers and practitioners from both the Web and 3D multimedia communities to discuss and exchange standardization issues on current and emergent 3D Web topics. Submission should include names, affiliations, and contact information, title of the presentation, and a short 1-2 page summary including: 3D emergent Standardization topic and status.

Accepted proposers of Tutorials, Workshops, Industrial Use Cases, Standards Session, Demonstrations, and Competitions will be asked to **provide a biography paragraph for each presenter**, a representative image, and publishable course notes suitable for use on the conference proceedings, web site and promotional materials.

Questions about the CFP, program and conference should be emailed to [program2026@web3d.org](mailto:program2026@web3d.org)

## Important Dates

**Conference Dates:** 13 to 15 of October 2026

**No virtual participation or presentations**

	Deadline 11:00 PM PDT (GMT-7)	Notification	Camera Ready
<b>Full Papers (10 pages)</b>	June 1st, 2026	July 15th, 2026	August 1st, 2026
<b>Short Papers (4 pages)</b>	June 1st, 2026	July 15th, 2026	August 1st, 2026
<b>Posters</b>	June 1st, 2026	July 15th, 2026	August 1st, 2026

<b>Industrial Use cases (IUC)</b> (included in the Proceedings)	June 1st, 2026	July 15th, 2026	August 1st, 2026
<b>Workshops / Tutorials / Standards Session / IUC</b>	June 30th, 2026	July 31st, 2026	August 31st, 2026
<b>Web3D HAnim Competition and Web3D / Metaverse Tools Competition</b>	August 31st, 2026	Winners announcement at the Conference	