

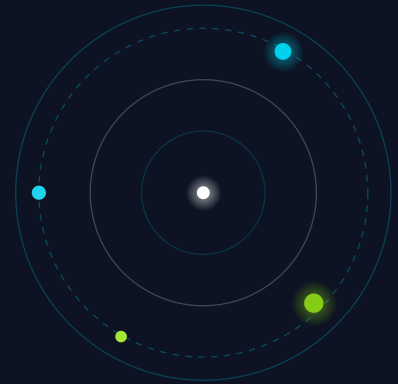
AN ECOSYSTEM AND GOVERNANCE SERIES

The Convener's Table

TOPIC & FOCUS

Enterprise VR & Immersive Ecosystems

How industrial XR training is deployed at scale, how startups, universities and industry collaborate, and what generative AI, data privacy, provenance and consent mean for 3D and spatial content.



FEATURED GUEST

S

Srinivasan

Founder & CEO, Grahast VR • Industrial XR training and custom immersive solutions

"We had to explain to people what virtual reality is, and today we are at a stage wherein they come to us with all the requirement documents and everything, and it is just business negotiations."

— SRINIVASAN, SESSION 01

ABOUT THE SERIES

Welcome, everyone, to The Convener's Table—the live interactive series brought to you under the umbrella of the Metaverse Standards Forum.

The series is hosted by Makki Elfatih, CEO at Hkdolts, MSF Board Member and Co-chair of the Ecosystem & Governance Working Group.

The Convener's Table was created from a simple yet critical realization: the Metaverse will not be built by any single platform, algorithm, or walled garden. It is being forged at the intersection of open standards, academic research, spatial media, and human-centered design.

In each session, the series invites the visionaries, the researchers, the standard-setters, and the architects who are laying the foundational bricks of a shared digital future. Together around the table, they unpack the tough technical and ethical questions and explore how to build a truly open, interoperable, and inclusive spatial web.

Each guest conversation moves through three threads:

THREAD 01

Their journey

THREAD 02

The operating reality of what they're building right now

THREAD 03

How they're reading the shift toward Gen AI, physical AI, and robotics

Nothing to prepare formally — guests are simply asked to come ready to talk.

Whether watching live or tuning into the recording, everyone is welcome at the table.

● Session at a Glance

50 min

SESSION DURATION

4

PARTICIPANTS

11INDUSTRIAL
VERTICALS SERVED**~30**MSF USE CASES
PUBLISHED

Guest: Srinivasan (Grahas VR). Host: Makki Elfatih (MSF Ecosystem and Governance). Participants: Rolf Kruse and Nelly Tacheva (Tangra), both active in MSF education work. First session of the series.

● Session Discussion & Key Themes

01 / JOURNEY

From PC Business to Hardware-First XR

Started in late 2015 to early 2016 after seeing computing form factors shift from mainframe to PC to smartphone. Began with a smartphone-based headset, then moved into use cases and content. About a decade in VR.

02 / ACADEMIA

Tri-Party Collaboration

IIT Mandi both funded and became a customer. Industry brings problems, the university and startup co-develop XR, spatial computing and AI solutions. Also runs faculty development programs and sets up VR/AR labs.

03 / SKILLS GAP

No Full XR Curriculum Yet

XR and spatial computing sit in scattered credit and certification courses, mostly in CS, ECE and IT, in India and globally. A 2026 engineering graduate is still not deployable for XR development without a major gap.

04 / TRAINING

STEP Framework

Story, Emotion and Place: a cognitive-science approach to VR content, applied to industrial and blue-collar training and compared against conventional and on-the-job training for confidence in applying knowledge.

05 / GENERATIVE AI

Useful, but Not Production-Ready for 3D

AI shortens development time, yet raw AI-generated 3D is too heavy. WebXR models need to stay under roughly 20 to 30 MB, with no 4K textures. Human-in-the-loop optimization is still required.

06 / PROVENANCE

Identity for 3D Content

Calls for a SynthID-like mark for 3D, plus a DOI-style persistent identifier tracking a model or project over its lifetime. MSF is exploring a provenance manifest alongside C2PA & Related Ecosystem Potential Collaboration Work.

• Strategic Matrix

CATEGORY	KEY DISCUSSION POINT	ACTIONABLE TAKEAWAY
Education	No structured XR curriculum in India or globally; XR sits in scattered certification and credit courses. Industry sees a large gap in graduate readiness.	Partner universities and startups on faculty development, curriculum modules and XR labs; define industry-ready XR skill benchmarks.
Industrial training	STEP Framework (Story, Emotion, Place) applied to blue-collar and industrial tasks. Use cases include TPM audits, maintenance and repair operations and collaborative R&D.	Baseline confidence and task performance against on-the-job training before rollout; design content around narrative, emotion and place.
Heritage & tourism	AR, AI and 3D reconstruction of 4 to 5 Himachal Pradesh heritage sites with IIT Mandi and IIIT Delhi; VOC Port tour (about 9 sq km) cut from about 2 days to about 4 minutes in VR.	Contribute heritage and virtual site-visit use cases to the MSF repository.
Hospitality & marketing	Radisson Blue fish-fry journey from catch to plate, 3 to 4 culinary experiences, and a Texas farm marketing experience on Google Cardboard.	Submit the Radisson Blue food-and-beverage use case to the hospitality section of the repository.
Safety & education	AI-based disaster simulation lab for school students with Bal Raksha Bharat (Save the Children), funded by Salesforce: 3 to 4 schools, scaling to about 500 students, ages 6 to 12 and 12 to 18, UN recognition.	Offer the crisis-management simulation as an MSF use case, subject to client confidentiality.
Platforms & hardware	Unity and web; Meta Quest is primary, HoloLens occasionally. Defense clients (Indian Air Force, Navy) bar Chinese-branded hardware, which rules out Pico.	Treat hardware provenance and supplier restrictions as explicit requirements in enterprise and defense use cases.
Generative AI & privacy	Defense and enterprise need data privacy: a Navy haptic-vest cognitive analytics project moved from LLMs to an SLM on a custom server. Commercial models' data-sharing policies block these sectors.	Specify private, open-source or custom models for sensitive sectors; budget optimization time into AI-generated 3D pipelines.
Provenance & consent	Sketchfab fingerprints are hardly noticeable. Parallels drawn with the European news-versus-AI training debate; India has deepfake and synthetic-media rules.	Feed persistent identifiers and tamper-evident edit records into the MSF provenance manifest and C2PA & Related Ecosystem Potential Collaboration Work.

• Deployments Cited in the Session

HERITAGE

Himachal Pradesh Cultural Sites

AR, AI and 3D reconstruction of monuments and forts damaged by a devastating earthquake, with IIT Mandi and IIIT Delhi.

LOGISTICS

VOC Port Digital Twin

Port of about 8.5 to 9 sq km digitized for VR; a client tour that takes about 2 days reduced to about 4 minutes.

HOSPITALITY

Radisson Blue Culinary Journeys

Guests wear a headset, go fishing, see the kitchen, and the dish arrives at the table when the experience ends.

AGRITOURISM

Texas Farm Marketing

Gamified mobile VR on Google Cardboard to drive visits to a farm.

SAFETY

Disaster Simulation Lab

AI-based scenarios including earthquake, fire safety, cyclone and heat wave for two school age groups.

HEALTHCARE

Anatomy of Bones

Online meeting app with AR experience for HoloLens and Android.

• MSF Context Referenced

Forum Labs (subscription, 3/6/12-month projects)

Free open-source use case artifacts

Provenance manifest + C2PA & Related Ecosystem Alignment

Remote assistance for autonomous robots

Precision engineering for medical devices

Financial services & digital asset management

AOUSD / OpenUSD heritage use cases

PNET (inaugural Forum Labs partner)

• MSF Follow-ups & Next Steps

- Host to send the MSF repository link and use case template to Srinivasan, who will review the roughly 30 published use cases and submit non-overlapping ones.
- Priority submissions discussed: Radisson Blue hospitality, disaster simulation and crisis management, cultural heritage, and virtual site visits. Only public-domain, non-confidential work will be shared.
- Host to send Forum Labs details: subscription-based with a negotiable fee, typically 3-, 6- or 12-month projects, with MSF endorsement, global visibility, community support and specialist access. Guest asked about weekly or monthly time commitment.
- Alternative route offered: free, open-source conceptual use case documents, like the roughly 30 already published.
- MSF to continue provenance manifest and C2PA & Related Ecosystem Potential Collaboration Work, taking the guest's input on 3D content identifiers and consent.