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Do you want to make 3D statue using 2D images (like shown below)? Its possible via 3D reconstruction approaches, very popular in media and entertainment along with other fields.

3D reconstruction keeps evolving and it is now central to digital twins, VR, AR, and product design. But there is a common misunderstanding about what these systems actually produce. A reconstructed 3D scene, whether built using Photogrammetry, NeRF, Gaussian Splatting, or Triangle Splatting, is mainly built for rendering. It gives a clean visual snapshot of the real world. It is great for walkthroughs, asset creation, and measurements. But it is not a true world that you can edit freely.

Mesh-based methods like photogrammetry or triangle splatting let you edit geometry, but neural methods like NeRF or Gaussian Splatting create fields or splats that are not natural to modify. Removing a chair or moving a table is not simple. You need segmentation, manual cleanups, or extra modelling. These models capture appearance and geometry but do not understand the scene.

Here come LWMs (not LLMs) the Large World Models. **Fei-Fei Li** and the team at **WorldLabs** are pushing toward systems that have meaning built in. These models learn not just what the world looks like but also what it contains, how things relate, what actions are possible, and how events unfold over time. They blend spatial understanding with semantics, physics, and prediction. They act more like cognitive maps than rendered scenes.

Think of it like this. A 3D reconstruction gives you pixels and geometry. A Large World Model gives you structure, intent, and intelligence. The future will likely mix both layers. Capture the visuals through reconstruction, then add an LWM for context, reasoning, and editable understanding.

This shift toward layered world models could reshape how we design tools, experiences, and simulations. The question is: will world-aware models replace pure reconstruction pipelines in the next few years?

#3DReconstruction #AI #WorldModels #ComputerVision #TechTrends 🚀

(Following pic is from research paper on NeRF by **Gabriele Mazzacca**)