

“AR DfAM Explorer” - Augmented Reality app for Design for Additive Manufacturing

Enabling higher creativity for product design via immersive and interactive learning



Motivation and Relevance

- Would you like to train your workforce and transfer the knowledge from previous AM projects more effectively?
- What about enhancing their creativity for new products?
- **Industrial Metaverse** offers a scalable solution for your team to explore successfully AM-enabled product designs

Approach

- **Learn better, anywhere and anytime:** use of augmented reality application with knowledge database about DfAM principles (e.g., lattice structures, topology optimization and part consolidation) and real industrial use cases (e.g., automotive, energy and medical field)

Results

- Statistically significant higher creativity was achieved using AR than conventional learning methods
- AR helped the user to learn DfAM principles more effectively via a visual, focused and engaging learning

Design creativity ★★★★★

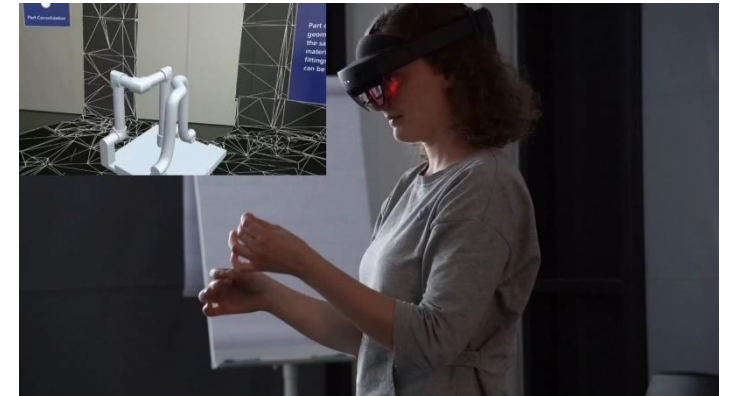
DfAM usage ★★★★★

Technical correctness ★★★★★

Research Area

- Design for AM
- Industrial Metaverse
- Immersive learning
- Knowledge transfer

Picture



HoloLens 2



Contact



Gustavo Melo, M.Eng.
Group Manager Industrial Metaverse
gustavo.melo@dap.rwth-aachen.de
www.dap-aachen.de