

Virtual Reality (VR)



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**INSTITUTE FOR
IMMERSIVE LEARNING**
A NEW DIMENSION OF WORKING AND LEARNING



**IMMERSIVE
LEARNING
NEWS**
- VR/AR/MR/XR -



SPATIAL Computing.
consulting
New Dimension of Working and Learning



**Shift
Learning
Space**
New Dimension of Learning Spaces



Virtual Reality (VR) & Augmented Reality (AR)
barcamp
Working and Learning - Online am 01.02.2021



corporate vision
**Technology
Innovator
Awards**

**Best VR E-Learning Specialists 2020
- Germany**
Award for Excellence in
Immersive Upskilling Experiences

VR/AR Experience Day

29.06. – 08:30 – 12:00

Überblick
360/VR/AR
60 Minuten

360 Grad
inkl. Hands-On
60 Minuten

Virtual Reality
(VR)
60 Minuten



Virtual Reality
(VR)
30 Minuten

Augmented
Reality (AR) –
90 Minuten

Ideen bewerten
& Blick in die
Zukunft
60 Minuten



Video-Learning

Glossar



Ideen-Sammlung bei AWO



Offene Fragen

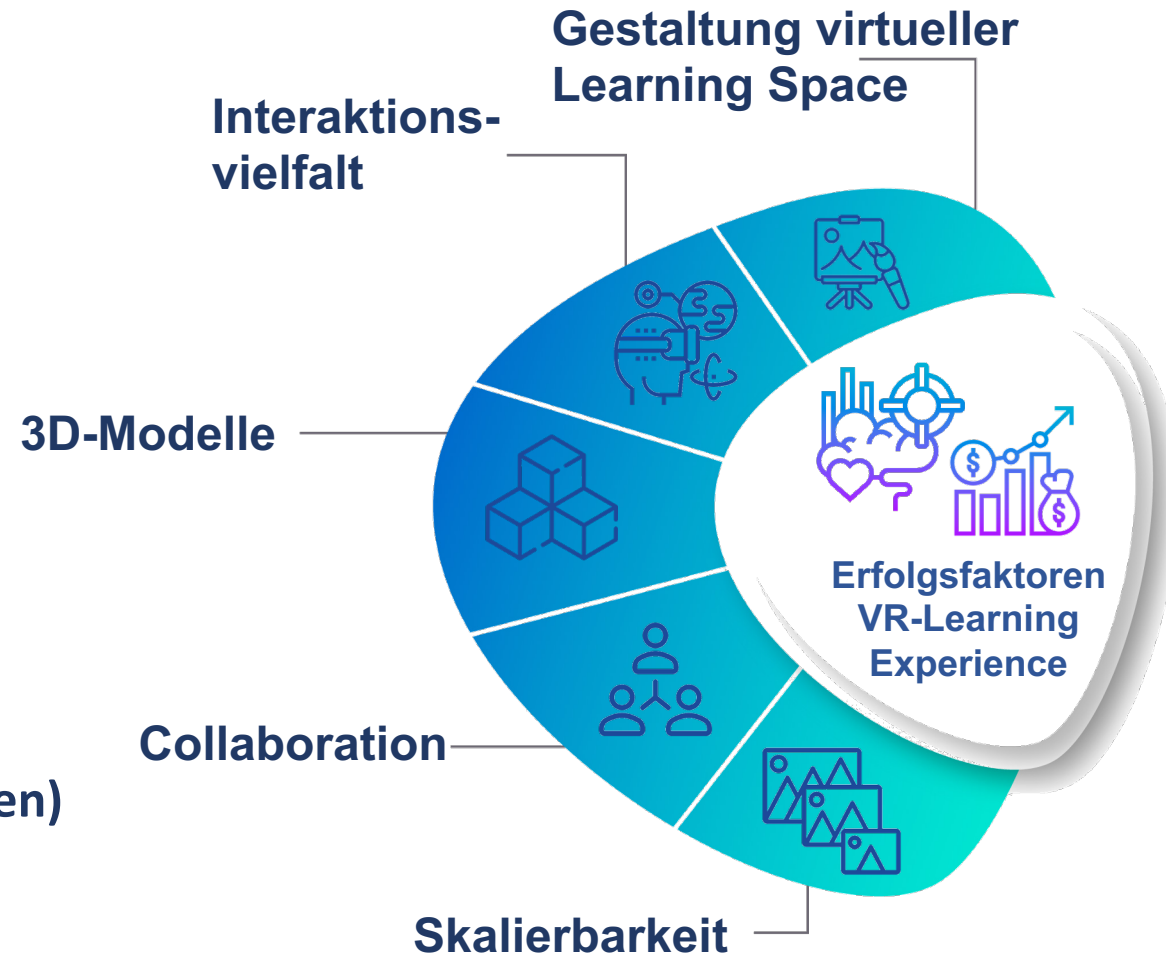


Selber ausprobieren

upskilling

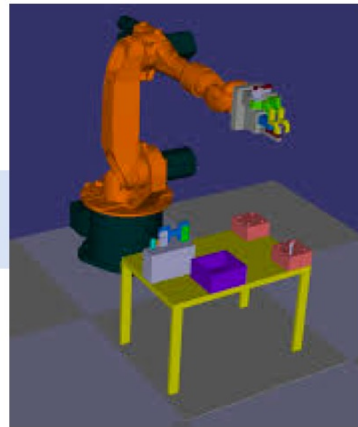
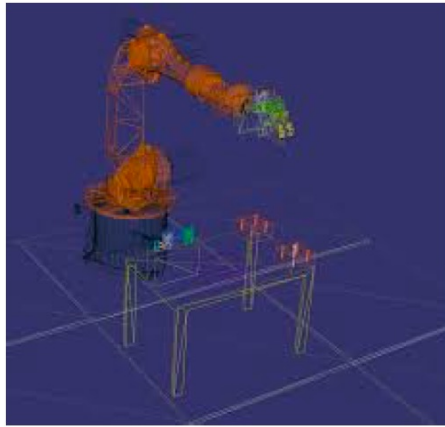
Erfolgsfaktor VR-Learning Experience

- Klare Lernziele
- Zielgruppenansprache
- Story-Telling
- **3D-Modelle** (vorhanden?, Anpassung, Erstellung...)
20...40% Gesamtkosten (Heute)
- Sound-Design
- Interaktionslevels
- Einbindung externer Hardware
- Collaboration
- Avatare aussehen
- Learning Analytics (neue Möglichkeiten)
- Marktübersicht/-Kenntnis
- ...



Grundlage für alles

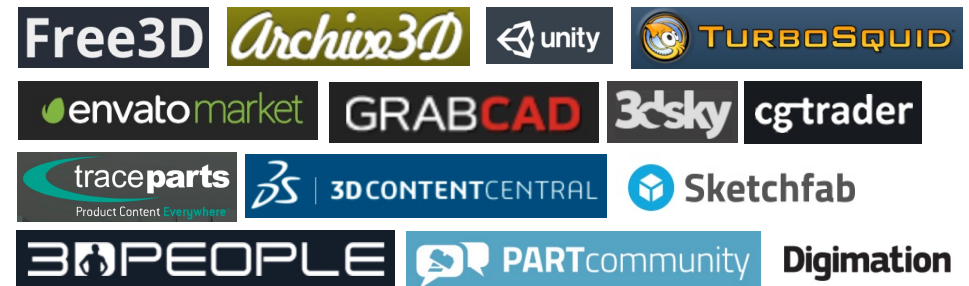
3D-Modelle



Komplexität der
3D-Modelle

Anzahl der Polygone und Qualität der Texturen auf Objekten wächst

3D-Asset-Stores



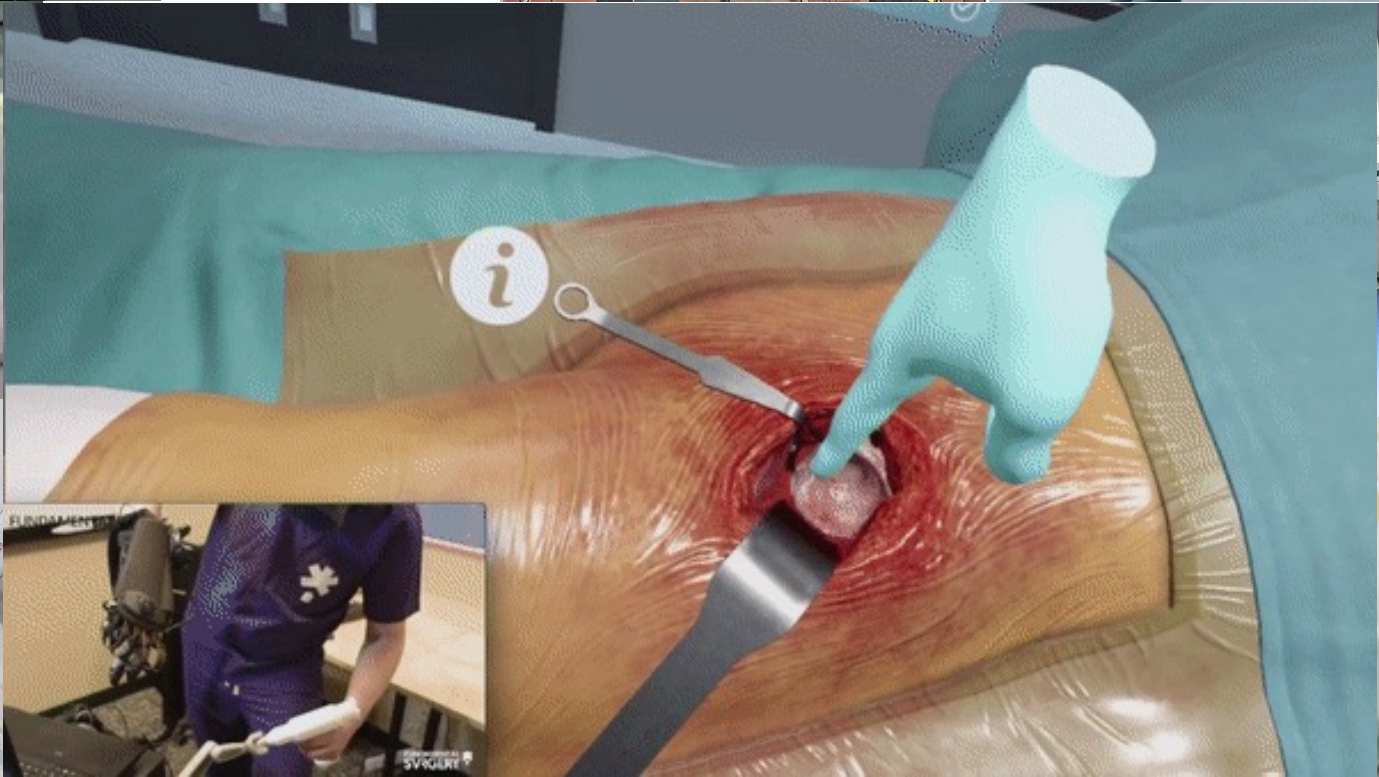
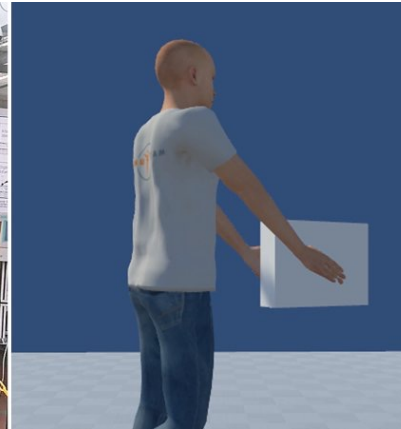
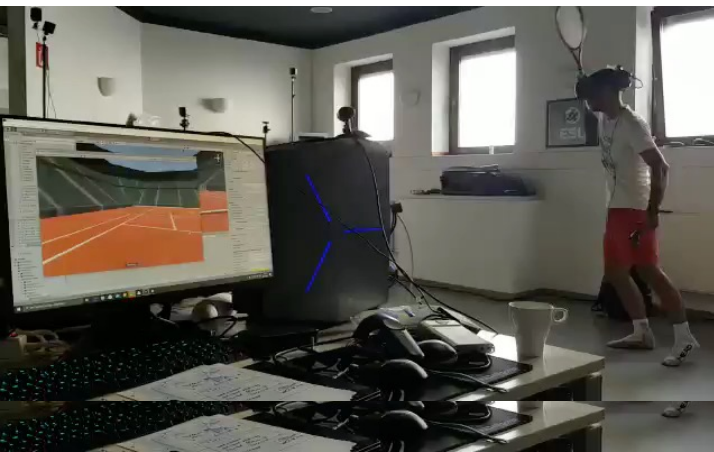
Poly



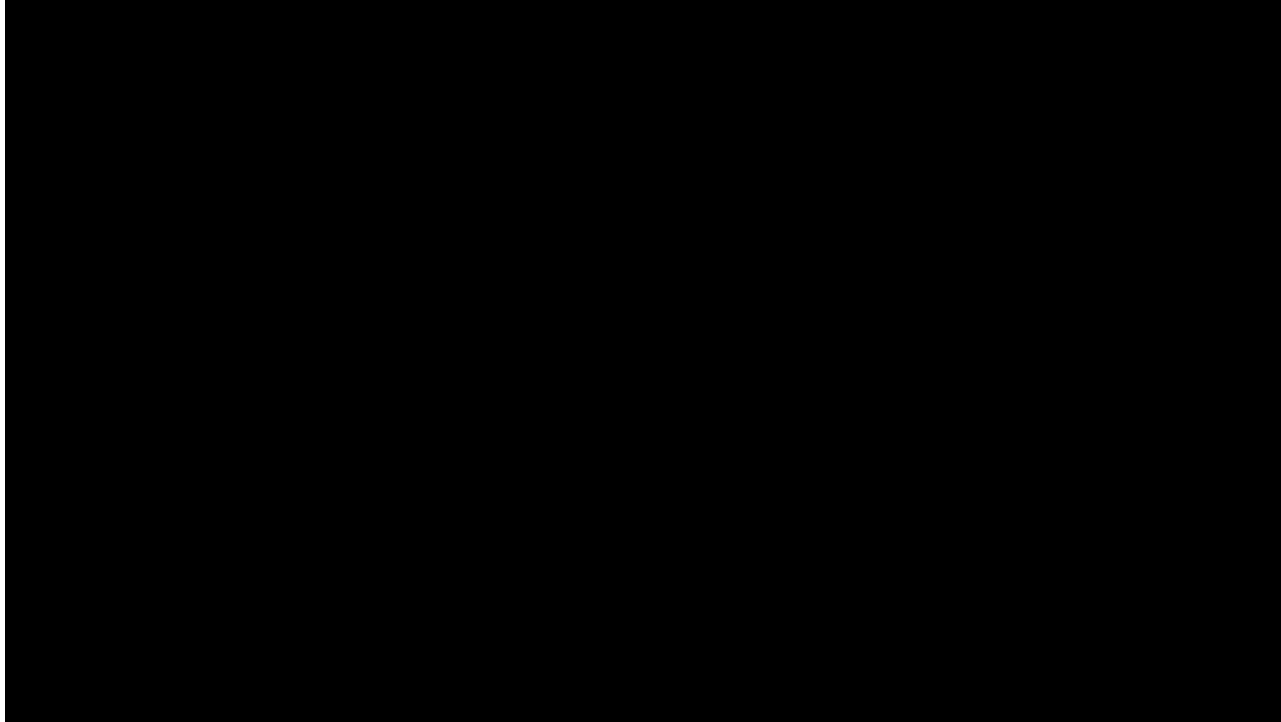
Blocks

Reale und virtuelle Welt verbinden

Einbindung Hardware (Haptik) in die VR z.B. Werkzeuge, Geräte...



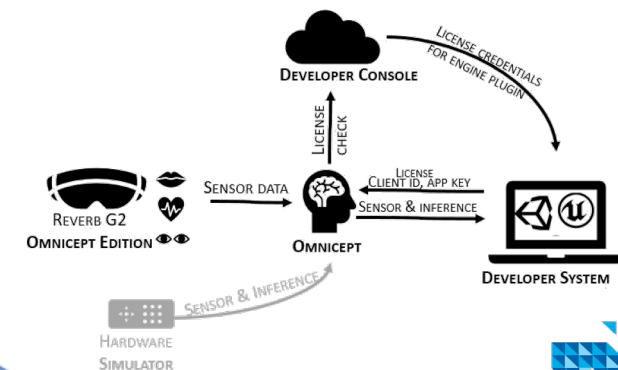
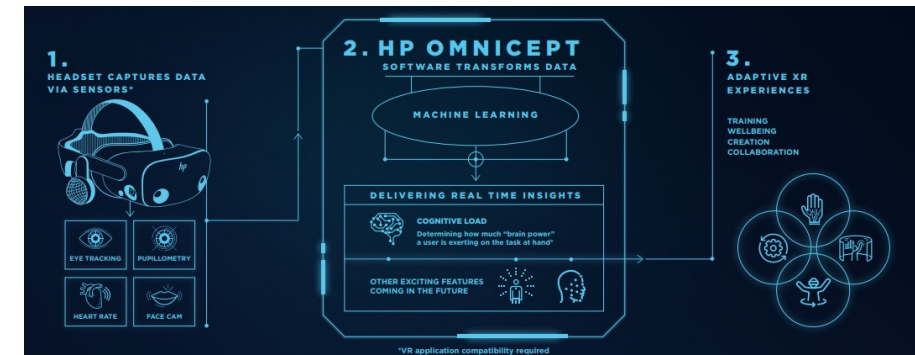
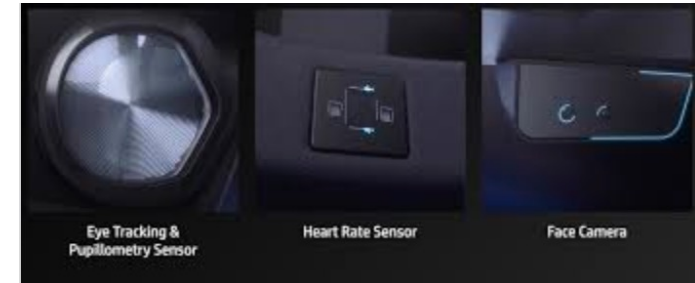
VR Handschuhe werden erwachsen?

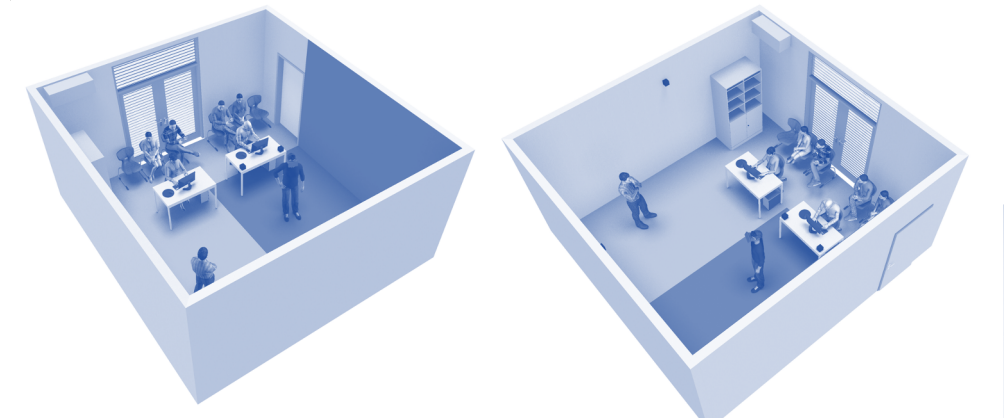


Mehr Sensorik in der VR Brille



HP Reverb G2 Omnicept Edition





Christiani

seit 1931

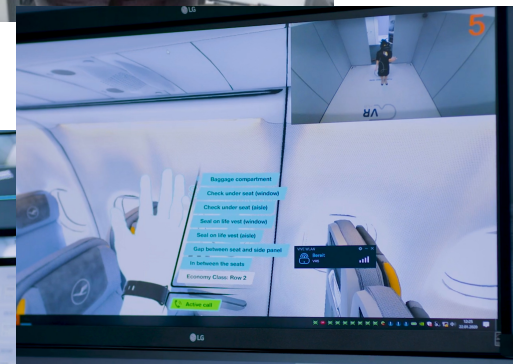
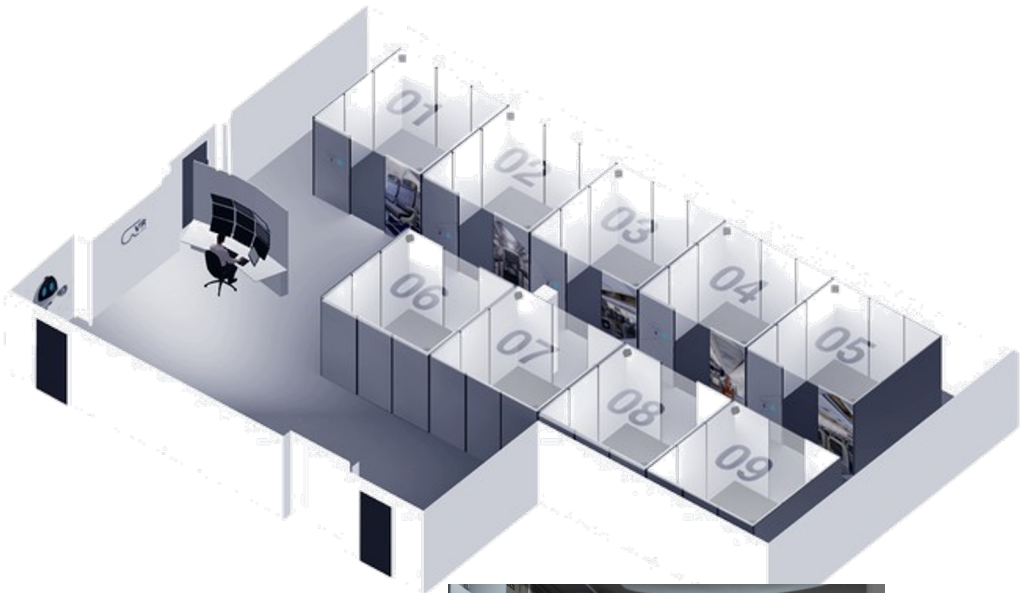
VR/AR-Lab
Kompetenzcenter Rheine

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VR-Trainer*in Ausbildung 2021 – Praxis Day
ENBW + Netze BW Standorte Biberach und Karlsruhe



 **Lufthansa**
Aviation Training
Train smart. Fly safe.

VR HUB
Lufthansa München/Frankfurt

Online Seminar – upskilling

Hygiene geht vor



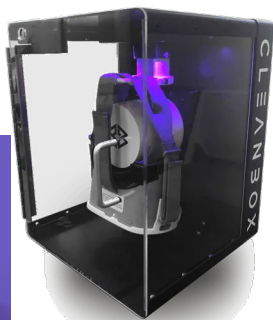
Brille und Controller säubern



Microfaser-Tuch
Linsen säubern



für ganze Brille + Controller



€1899,00

für Auflagepunkte am Kopf



€2260,00



€699,00



Learntec 2019

Augmented Reality (AR)

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Möglichkeiten von AR

Marker und Tracking machen es möglich



AR Location Tracking



AR Tracking mit physischen Marker



Markerless AR Tracking



AR Tracking über Objekterkennung

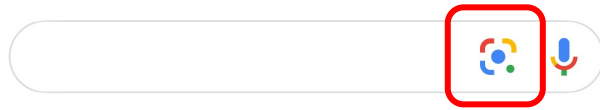
LIDAR – Sensoren
im iPad Pro und bald im iPhone 12



Google-App auf dem mobile Device starten



Google



Google Lens starten



mit der Smartphone-Kamera über das rechte Bild gehen. 



hands ON

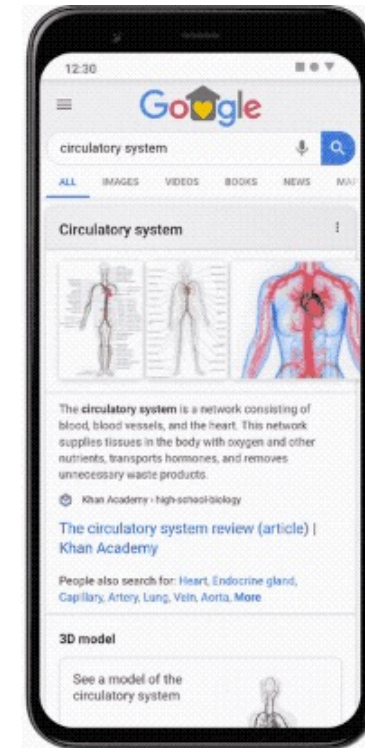
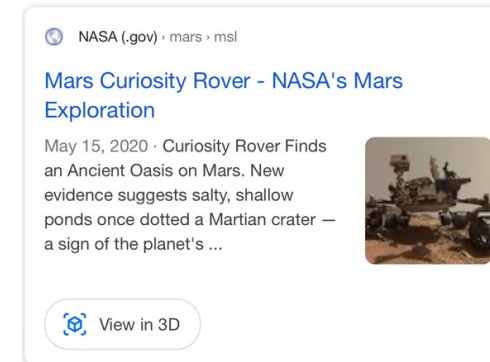
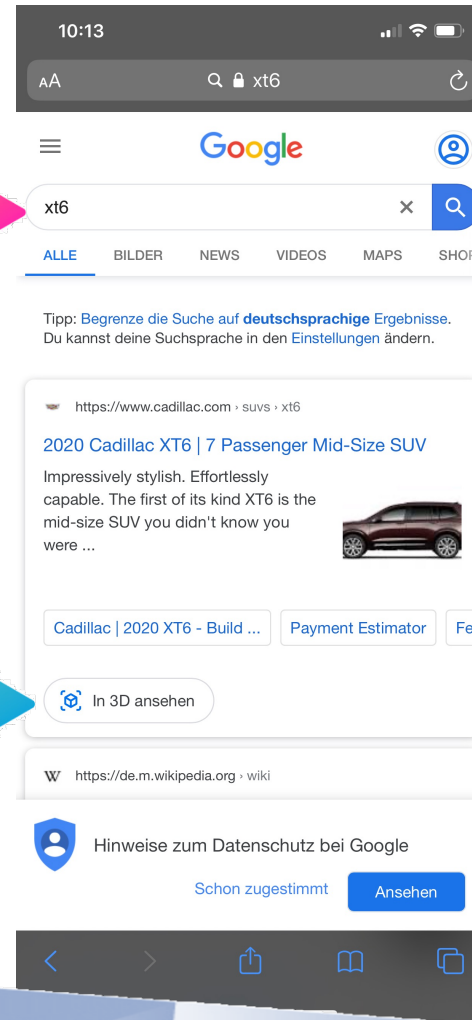
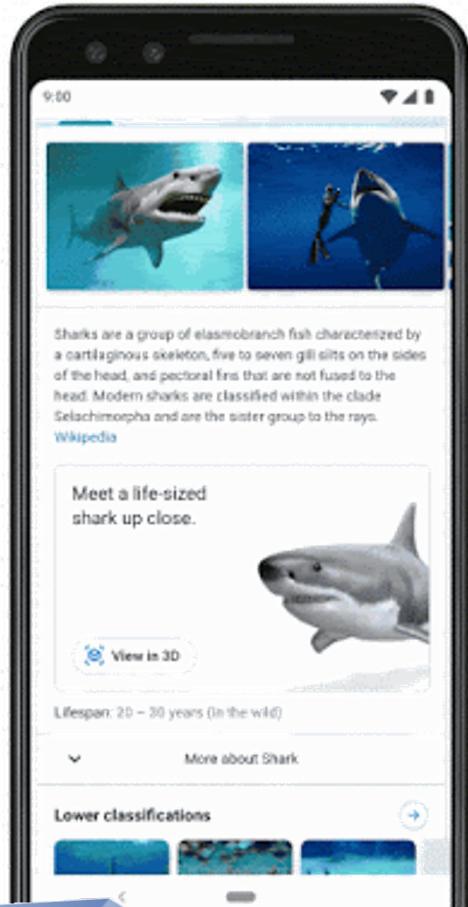


Alle
Google – APP
Google - Search

PRINT-Unterlagen digital erweitern und anreichern



AR – Inhalte über die Google Search



Augmented Reality (AR) in der Bildung

AR Tracking mit physischen Marker

Gruppe

MERGE Cube - Apps



- [Merge Object Viewer \(PlayStore\)](#)
- [Merge Object Viewer \(Apple Store\)](#)
- [Merge GalacticExplorer \(Apple Store\)](#)

hands
ON



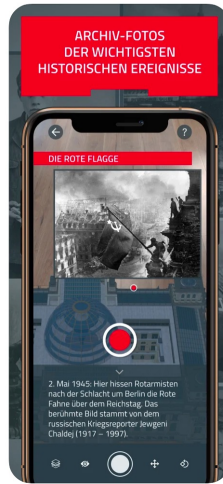
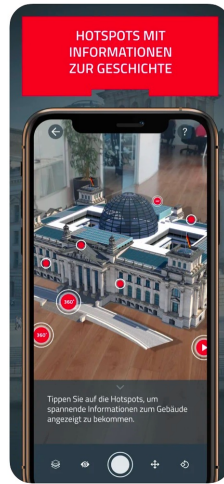
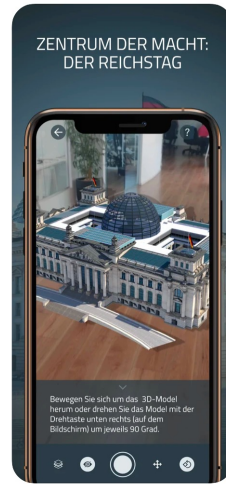
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Würfel zusammen bauen



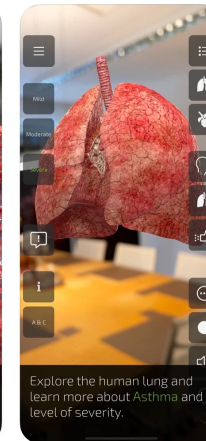
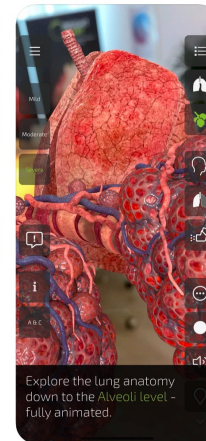
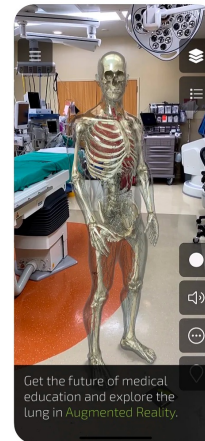
ntv AR - Der Reichstag



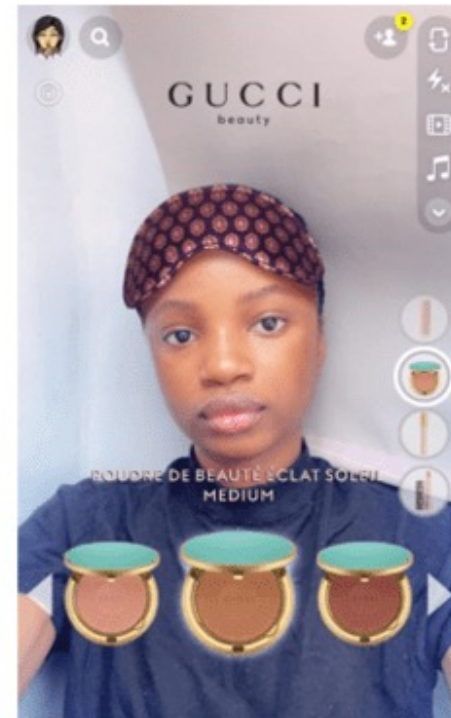
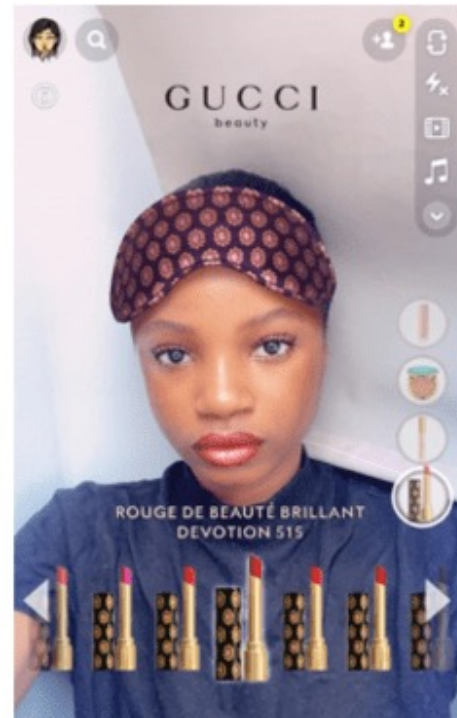
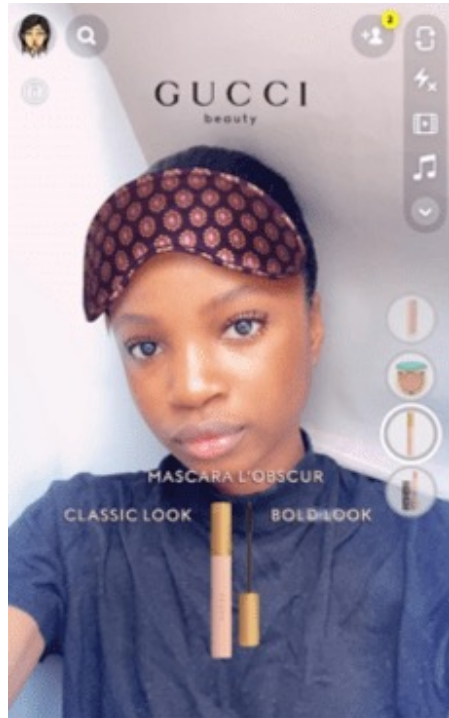
10 Minuten



hands ON



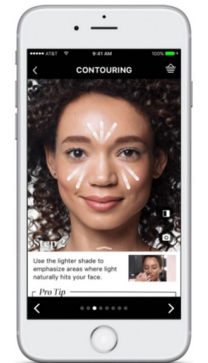
AR und Beauty



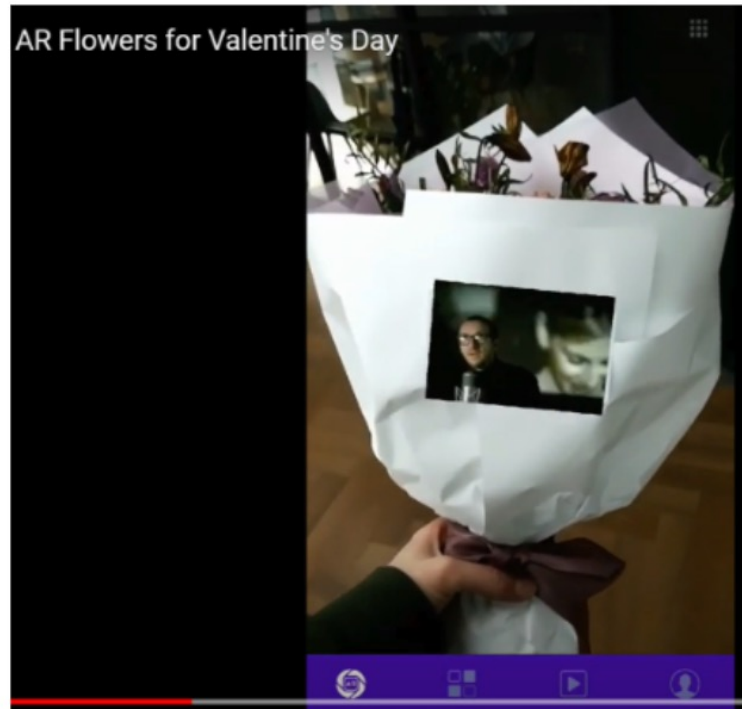
AR in Snapchat



Sephora: Buy Makeup & Skincare 4.9
Shop Inclusive Beauty Brands
[Sephora USA, Inc](#)
#50 in Shopping
★★★★★ 4.9 • 326.6K Ratings
Free



AR/3D-Printing



<https://www.youtube.com/watch?v=rPvfyabupoY>



Standardfunktionen der mobilen Geräte

Aufmaß

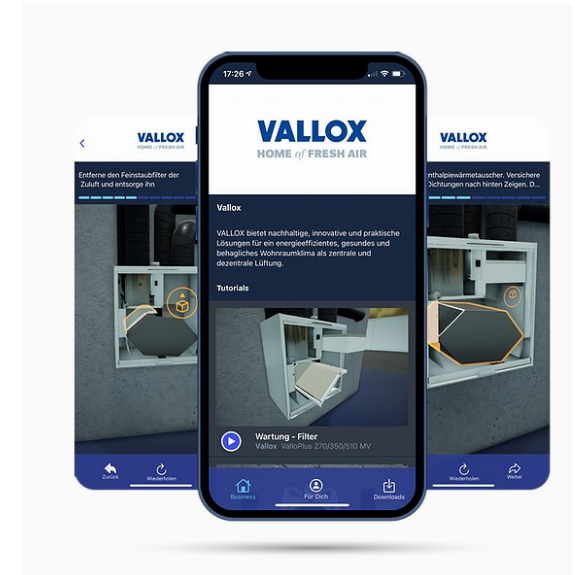


Raumerfassung



Objekterkennung

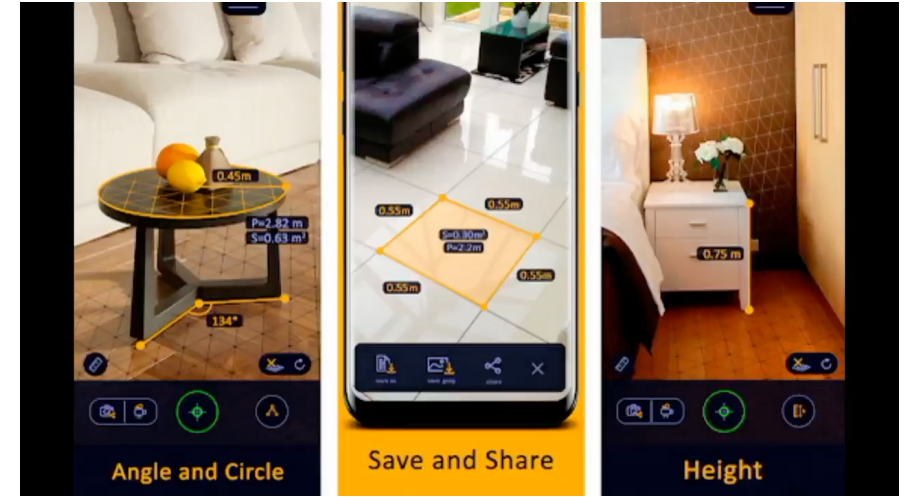
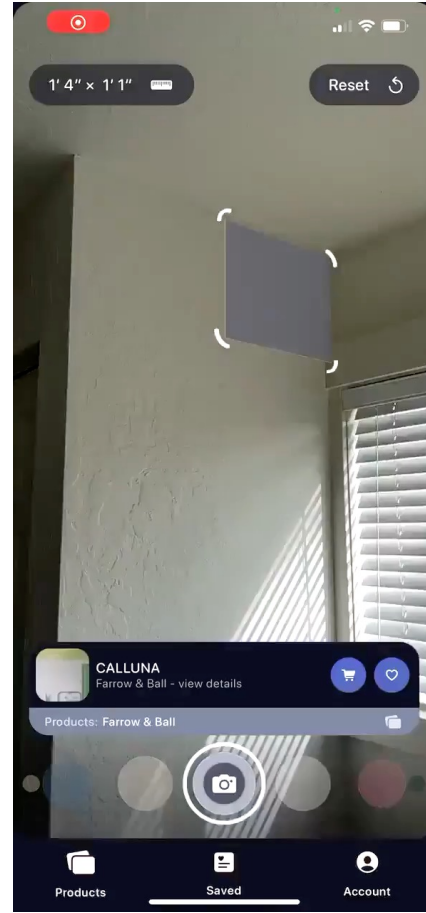
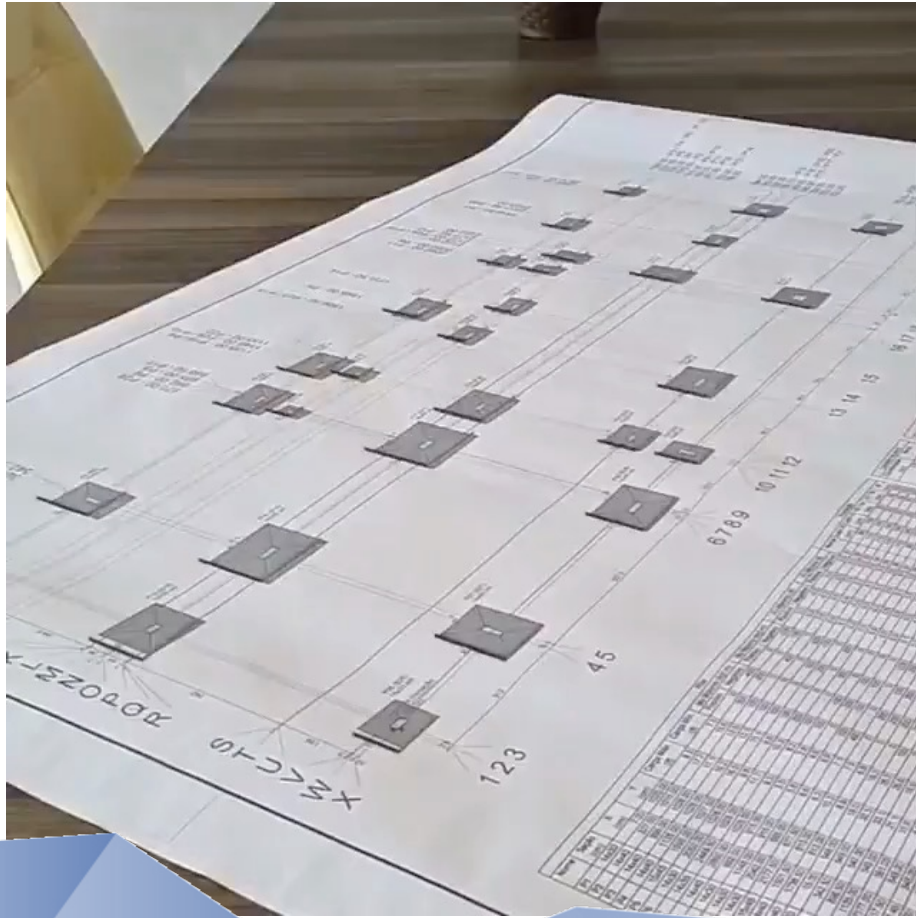
Wartung/Support



Schritt-für-Schritt

Beispiele

AR und Handwerk



Workplace Learning/Performance Support

Einsatzszenarien für Field Worker/Handwerker

Kontextsensitiver Zugang
über KI/Objekterkennung
(Simulation...)



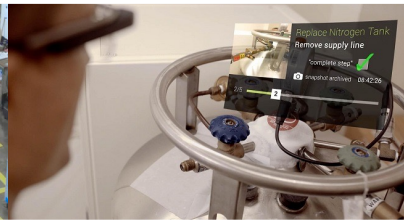
Zugriff auf Dokumente/
Informationen im Kundengespräch
(Prozessbeschreibungen,
Schaltpläne, 3D-Objekte...)

Prozess-Guides direkt
im Arbeitsprozess
(Schritt-für-Schritt)



Checklisten/ Assistents-
System / Handlungs-
sicherheit

**Wartungs-/Service-
Dokumentation**



Wartungsprotokoll –
automatische Aufnahme der
Aktivitäten

Collaboration mit Experten
/ **Teams** im Arbeitsprozess
(Remote Assistant, Coaching)



z.B. per Skype inkl.
interaktiven Rückkanal



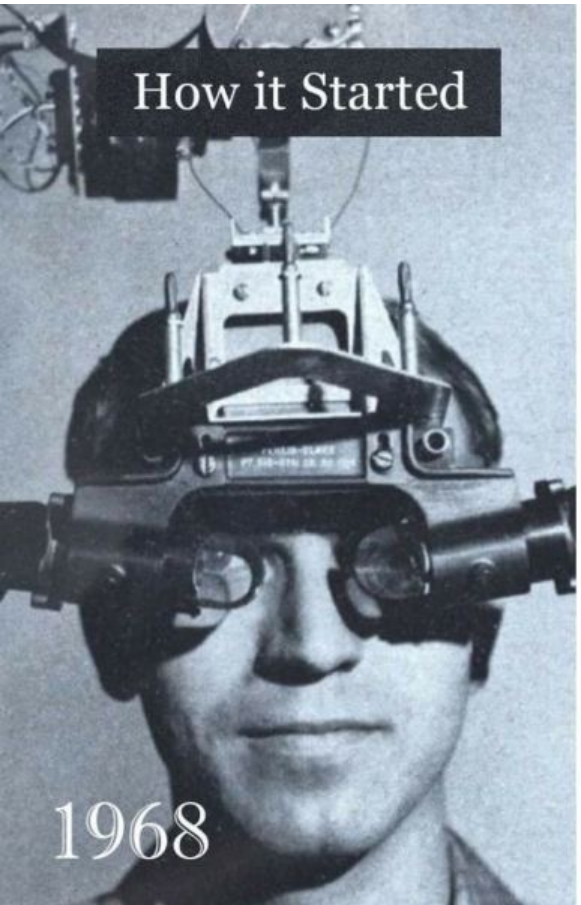
Kundeninteraktion
Beratung / Verkauf

Workplace Learning, Performance Support, 5 Moments of Need

= Arbeitsplatz der Zukunft
= immer und überall
= Spatial Computing

AR-Brille

Lernort ist überall, Lerninhalt kann alles sein, dabei sind Hände frei



Lenovo Reveals ThinkReality A3



Online Consulting
**Virtuelle
Beratung (VR)**



Online Workshop
**XR (VR/AR)
Experience Day**



Online Workshop
**Immersive
Learning Day**



Online Workshop
**360 Grad Lern-
content erstellen**



Virtueller Workshop
**Learning
Strategie
entwickeln**



Online Zertifizierung
VR Trainer/in



Online Zertifizierung
**VR Collaboration
Experte/in**



Online MasterClass
**VR/AR Learning
Architect/Designer**



Online Workshop
**VR/AR für
Lehrer/innen**

**Leadership
Themen**



Virtuelles Coaching
**Coaching
VR/AR Start-Up**



Virtueller Workshop
**Performance
Improvement
Teams**



Virtueller Workshop
**Customer
Journey
entwickeln (MVP)**



Virtuelles Event
Team Party

Nutzen Sie die Online upskilling-Angebote...

 <p>Online Consulting Virtuelle Beratung (VR)</p>	 <p>Online Workshop XR (VR/AR) Experience Day</p>	 <p>Online Workshop Immersive Learning Day</p>	 <p>Online Workshop 360 Grad Lerncontent erstellen</p>	
 <p>Virtueller Workshop Learning Strategie entwickeln</p>	 <p>Online Zertifizierung VR Trainer/in</p>	 <p>Online Zertifizierung VR Collaboration Experte/in</p>	 <p>Online MasterClass VR/AR Learning Architect/Designer</p>	 <p>Online Workshop VR/AR für Lehrer/innen</p>
 <p>Leadership Themen</p>	 <p>Virtuelles Coaching Coaching VR/AR Start-Up</p>	 <p>Virtueller Workshop Performance Improvement Teams</p>	 <p>Virtueller Workshop Customer Journey entwickeln (MVP)</p>	 <p>Virtuelles Event Team Party</p> <p>VR Collaboration</p>



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FELL