



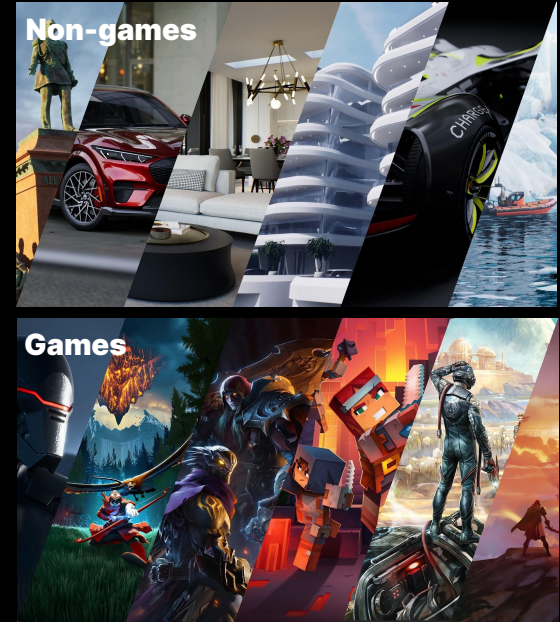
# Representing All Students in the Digital World

with MetaHuman Creator

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# What does Epic Games do?



# Representation:

what does it mean and why does it matter

**When students see  
representations of  
themselves, it **shapes**  
how they **imagine** their  
place in the world now  
and in the **future** .**

 Laura Thomas, Edutopia

**U.S. population is nearly  
40 percent non-white**

 2018 U.S. Census Bureau estimate

**the U.S. will not have  
one racial or ethnic  
majority group by 2055**

**"When you have never  
seen yourself in books  
or movies or music, the  
first time you do is  
stunning."**

 Alex Laughlin, Washington Post

**"If you see people who  
look like you and act like  
you and speak like you  
and come from the same  
place you come from ...it  
serves as an  
inspiration"**

 HS Student, South Mountain HS, AZ



**"Representation isn't  
just about seeing  
yourself in art or culture  
— it's about feeling  
connected to and seen  
as part of a larger  
community "**

 Wendy Hsu, USC  
ArtCenter College of Design

**Seeing ourselves in  
media is powerful .**

**The ability to tell  
authentic stories is  
essential .**

**How can we create  
opportunities for  
students to feel **seen and  
heard****

# **Real Virtual Beauty Training: diverse and authentic character design**





# REAL VIRTUAL BEAUTY TRAINING

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Supported by Dove, the Centre for Appearance Research,  
and Unreal Engine Education



# Hosts of the Modules



Phillippa Diedrich



Raqi Syed

# Real Virtual Beauty Modules





# MetaHuman Creator

[metahuman.unrealengine.com](https://metahuman.unrealengine.com)



### HIGH FIDELITY

MetaHumans can run in real time on high-end PCs with RTX graphics cards, even at their highest quality with strand-based hair and ray tracing enabled.

### INCREASED CUSTOMIZATION

Near-infinite variations of facial features and skin complexions, different choices for hair, eyes, make-up, and teeth.

### RIGGED FOR ANIMATION

Facial and body rig, ready to animate in Unreal Engine, either keyed, or using a performance capture solution



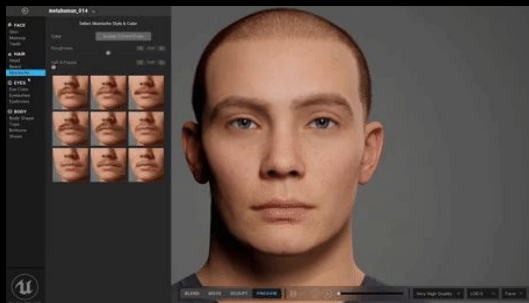
## Overview

# MetaHuman Product Suite

MetaHuman introduces a complete product suite empowering creation and animation of convincing human characters across platforms. Plug and play in Unreal Engine.

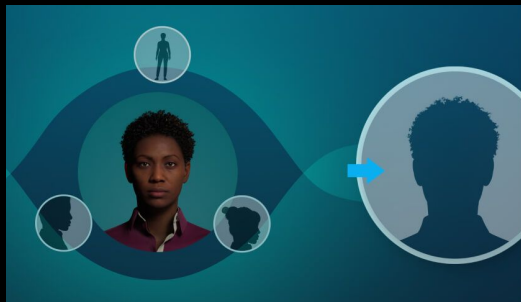
## Create

Quickly and intuitively create convincing digital humans, fully rigged and ready to use.



## Calibrate

Update MetaHuman's facial rig (likeness, scale, head position) or adjust it to the custom body.



## Animate

Reproduce facial performances as high-fidelity animation on any MetaHuman.



# MetaHuman Creator Demo

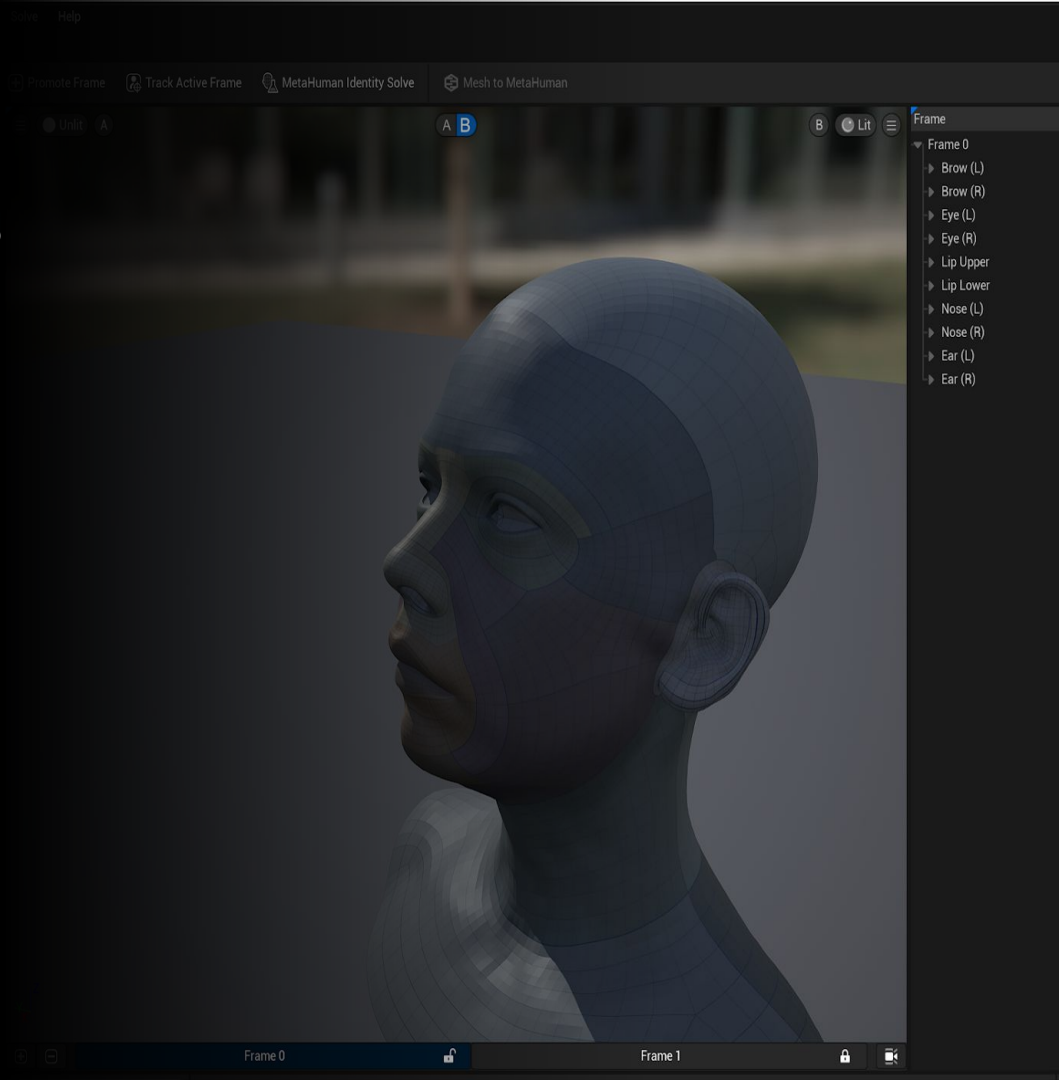
[metahuman.unrealengine.com](https://metahuman.unrealengine.com)

# Mesh to MetaHuman

- UE5 Plugin where you can use your own facial scans to create a customizable mesh to use in your MetaHuman creator pipeline
- Same suite of face, skin and hair tools (including sculpting and blending) can be applied to this customized mesh
- MetaHumans are stored in Quixel bridge for import into Unreal Engine

# MetaHuman Creator

- Browser-based online character creation tool
- Free to use, login with Epic Games account
- MetaHumans are stored in Quixel bridge for import into Unreal Engine



# Polycam

The Polycam app is a very simple, beginner-friendly facial scan method. Easy to download, scan takes approx. 2 minutes to capture and 5 minutes to render. The scan requires clean-up in Blender (approx. 10 minutes).

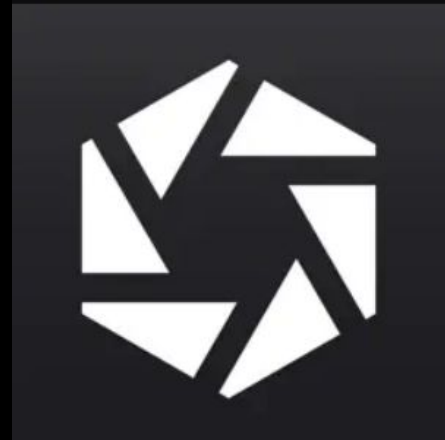
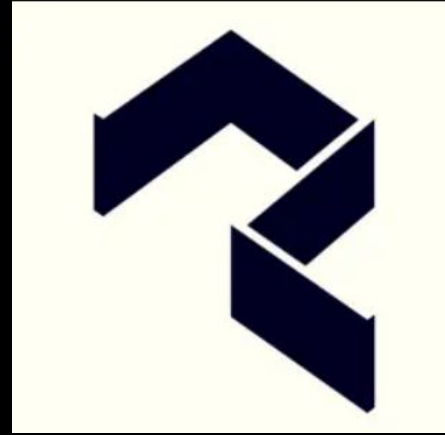
## You will need

- Any smartphone (Android or iPhone)
- Polycam mobile app (available for free on Google Play or Apple Store)
- Polycam account (free version works just fine, no need to license)



# Polycam, Reality Scan

- Download (Android or iPhone)
- Create an account if you want to save
- Permissions: Allow Polycam
- How to Guide
- Start scanning!



iwearthecrowns



Create

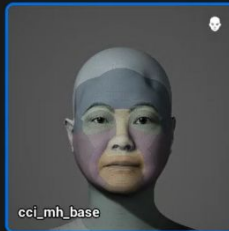
My MetaHumans



Current Version

Legacy MetaHumans

Search



Upgrade All

Upgrade Selected to Active Version

3.1.0-33169656

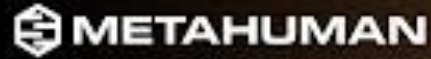
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Mesh to MetaHuman

# Video demo



NEW RELEASE BRINGS  
**MESH TO METAHUMAN**  
AND MORE



# MetaHuman Animator



# Live Link Face

Capture performances on iPhone then applies its own processing to create high-fidelity facial animation for MetaHumans

iOS app captures raw video and depth data,  
Directly from your device into Unreal Engine  
for use with the MetaHuman plugin

Facial animation created with MetaHuman Animator can be applied to any MetaHuman character, in just a few clicks

Requires an iPhone (12 or above), desktop PC running Windows 10/11, and MetaHuman Plugin for Unreal Engine.



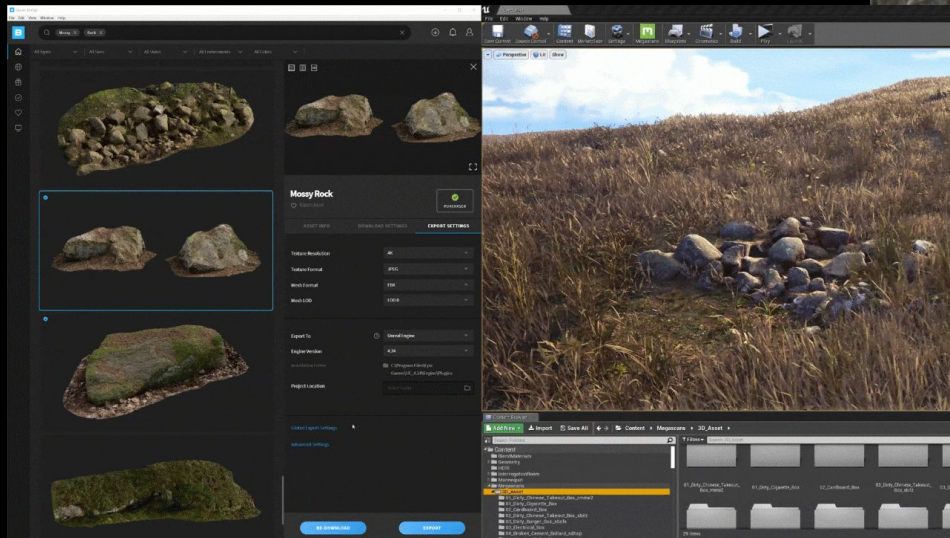
# Blue Dot: A 3Lateral Showcase of MetaHuman Animator



# Photogrammetry

## Overview

# Reality Scan + Free Assets



# Accessible, instantly applicable



Cleverlike Studios  
@cleverlike

We taught an exciting day of [#Interactive3D](#) [#PD](#) at [@BrowardSTEM](#). Showing how to convert real world objects into 3D assets. Endless uses in education and engaging students! So much fun!!! Who wants in?



You and 8 others



Erik "River" Leitner  
@Professor\_Erik

Amazing day with [@cleverlike](#) working with the teachers of [@browardschools](#) [@browardstem](#) creating incredible scenes using photogrammetry and Twinmotion. Bring the real world into the beyond.  
[@BrianDickman](#) [@mr\\_isaacs](#)



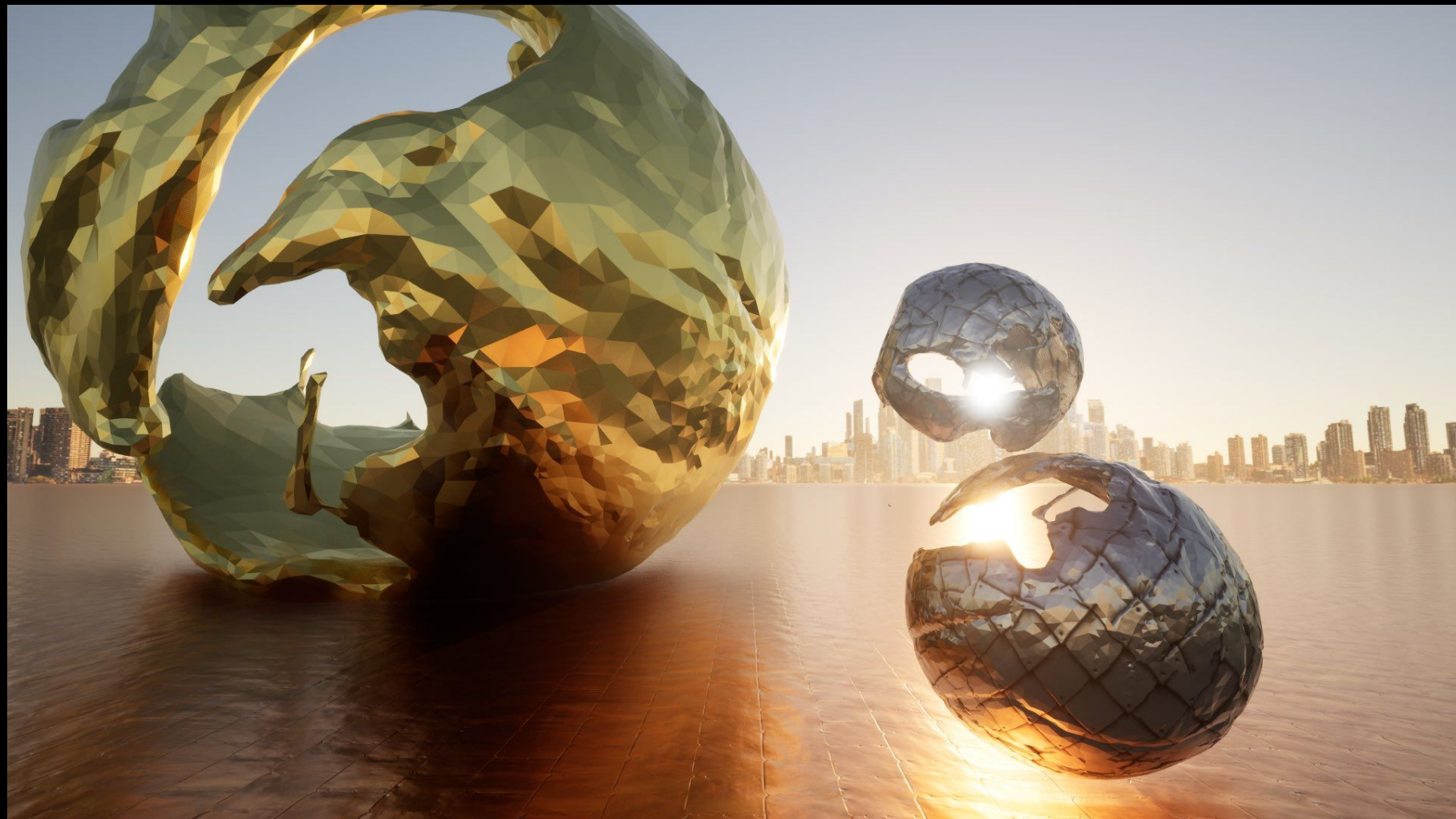
Cleverlike Studios and 9 others

6:39 PM · Jan 21, 2023 · 1,802 Views











**Twinmotion**

Twinmotion  
**Trailer**



TRAILER





Twinmotion

# Overview

- Easy introduction to interactive 3D
- Drag and drop
- Photorealistic assets
- Storytelling
- Export video and interactive projects
- Twinmotion Cloud
- Professional presentation
- Industry standard



**“What our young people  
see around them  
positively or negatively  
shapes their  
expectations for  
themselves and for each  
other”**

Alex Laughlin, Washington Post

Education at Epic

# The Epic Ecosystem- **FREE** for Education



## Tools



## Content



## Services



## Distribution



## Communities



# Thank you

Unreal EDU Survey:

**epicgames.questionpr  
o.com/EpicEDU**

