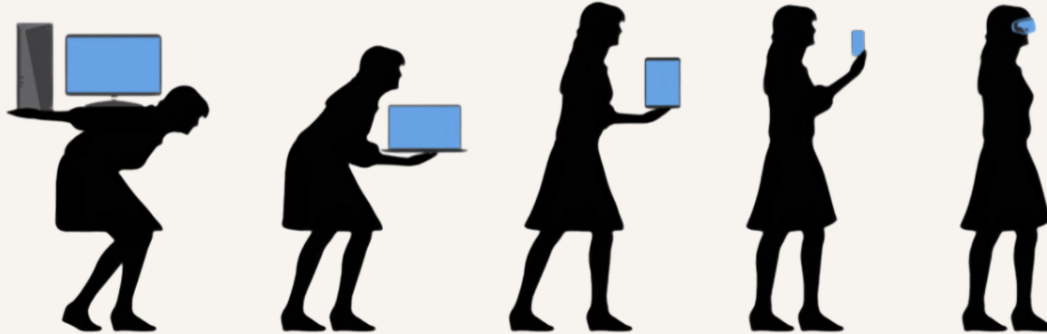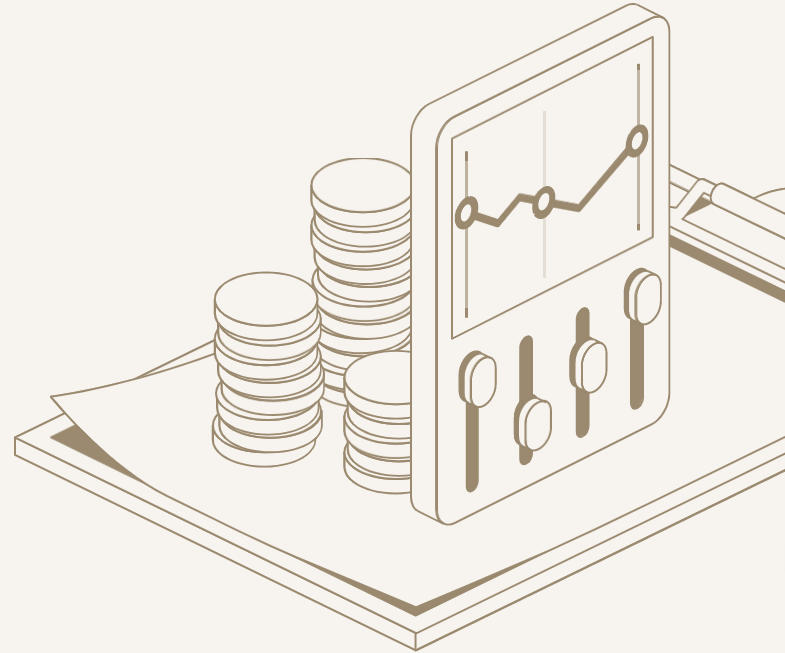ALL3D × AHFA
American Home Furnishings Alliance

AHFA Conference and CEO Meeting

A 3D & AI Visualization Company For Wholesalers and Retailers
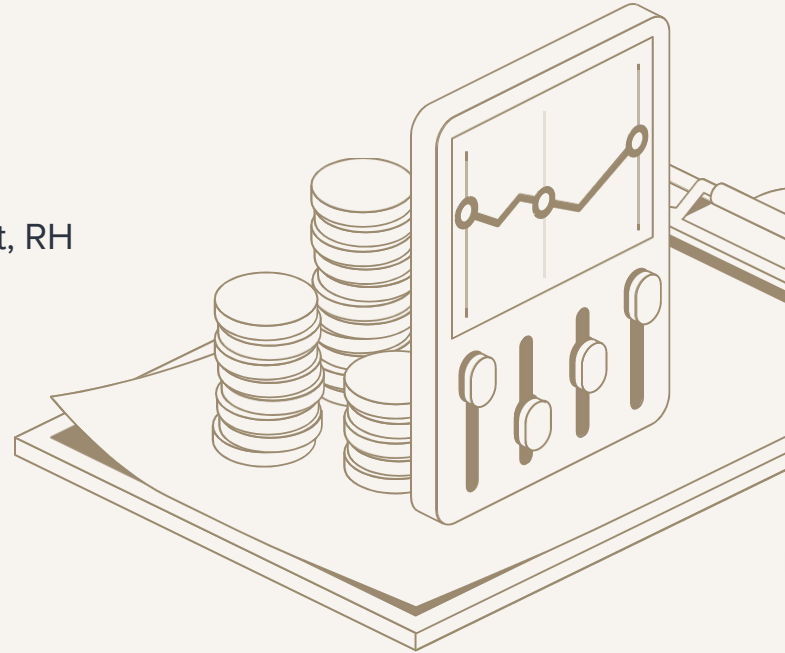
Agenda

- What is All3D?

- What are the Use Cases For All3D?

- Evolution from 2D to 3D Ecommerce

- What are the problems and challenges with 3D?

- What is Generative AI?

- AI Disruption in the Home Furnishing Industry
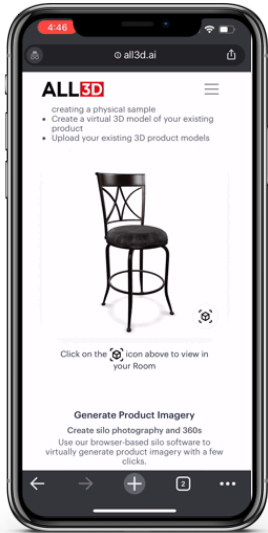
- AI and ALL3D

COMPANY OVERVIEW

- San Francisco-based 3D software and AI company

- $16 billion+ market opportunity

- Marquee brand customers; including Walmart, Home Depot, RH

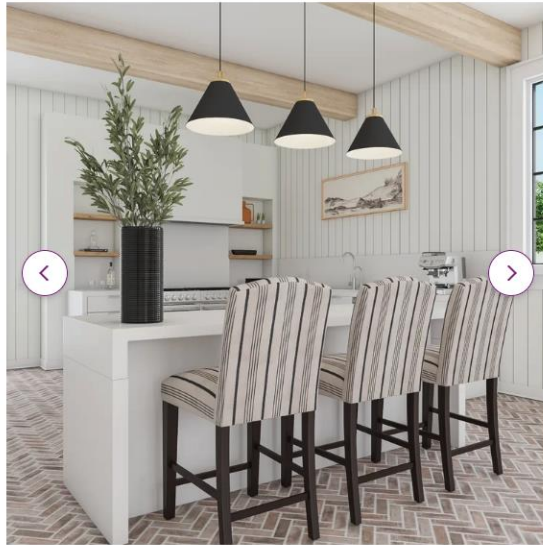- In-progress API Integration with Amazon

- In tests with Wayfair

ALL3D USE CASES

PRODUCT WEB PAGES

+ AUGMENTED REALITY

⌕ Menu   **wayfair**   Find anything home...   ⊙ Sign In   🛒 Cart

Furniture   Outdoor   Bedding & Bath   Rugs   Décor & Pillows   Organization   Lighting   Kitchen   Baby & Kids   Home Improvement   Appliances   Pet   Holiday

Shop by Room   Sale

Aeja 26" Counter Stool

See More by Red Barrel Studio®

★★★★☆ 4.0   3 Reviews

$349.99

$40 OFF your qualifying first order of $250+[1] with a Wayfair credit card

Free shipping
Get it in **2–3 weeks** to New York - 10003 ⌄

Can't Decide?   ⬦ Order Free Samples

[−] 1 [+]   ♡   Add to Cart

What We Offer

☐ 🔧 **Professional Assembly for $84.99**
How It Works

☐ 🛡 **3 Year Protection Plan for $36.99**
What's Covered

◆ **Quick-Ship Samples**
Order a sample to see and feel the product before buying.

CONFIGURATION OF PRODUCTS

RH
Cloud Modular Sofa

Preconfigured | Components

Colors

Indigo	Black	Carbon	Fog	Charcoal
Sand	White	Mist	Dove	Natural
Nickel	Solid Sand	Taupe		

Dimensions

hidden | inches | centimeters

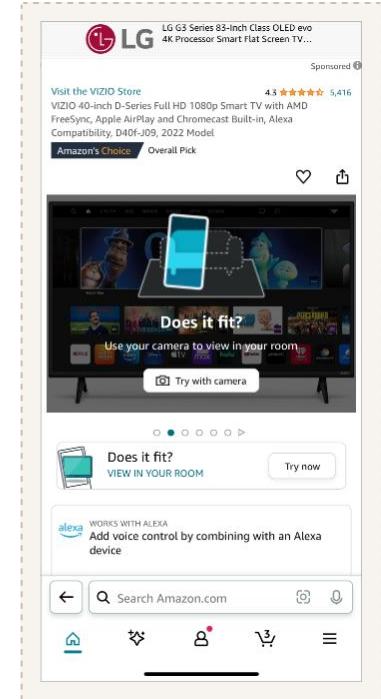**RH Real-time Configurator**:

Static Image Configurator
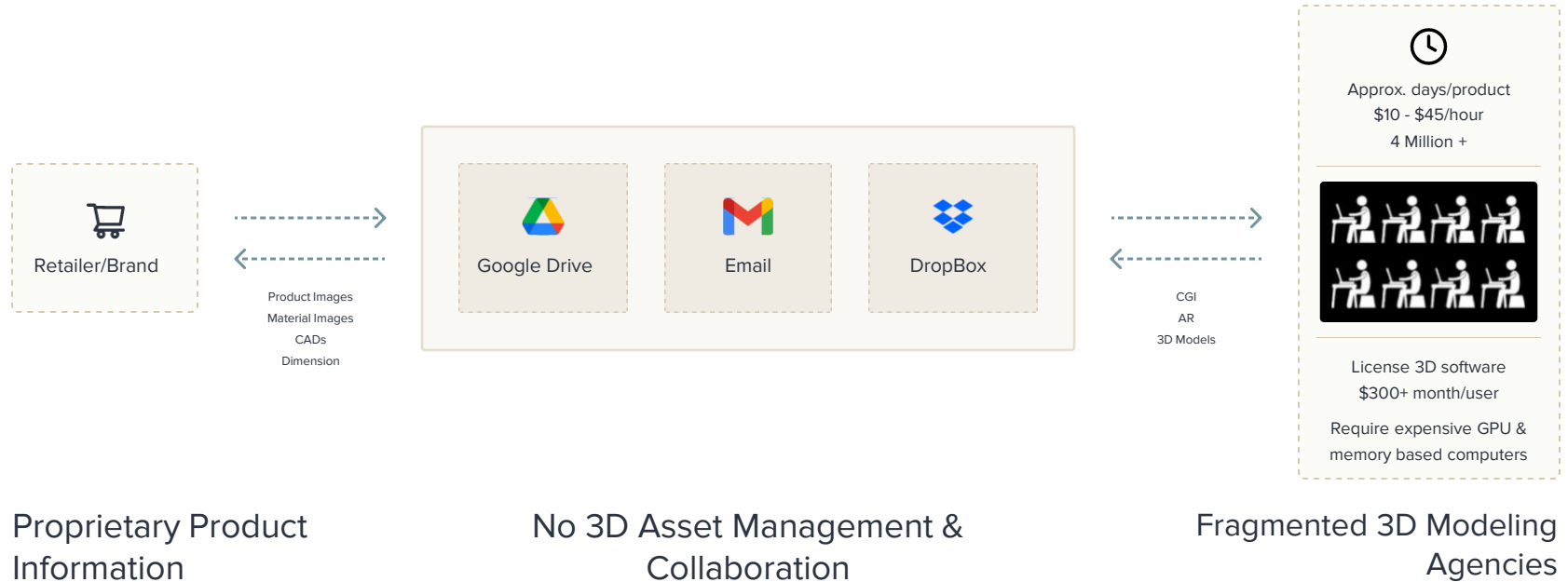
2D 3D

EVOLUTION FROM 2D TO 3D ECOMMERCE

Every sellable product on the web needs a 3D model

- 200 billion product images on Amazon.com

- 1 billion new product images are uploaded on Shopify every year

PROBLEMS WITH 3D

Currently, 3D is too difficult, manual, expensive, and unscalable

Retailer/Brand

Product Images
Material Images
CADs
Dimension

Google Drive

Email

DropBox

CGI
AR
3D Models

Approx. days/product
$10 - $45/hour
4 Million +

License 3D software
$300+ month/user

Require expensive GPU &
memory based computers

**Proprietary Product
Information**

**No 3D Asset Management &
Collaboration**

**Fragmented 3D Modeling
Agencies**

ALL3D BROWSER & CLOUD BASED PLATFORM

UPLOAD

- Information for 3D model creation
- Ingesting existing 3D assets

WEB-BASED TOOLS

- Product CGI
- 360s, 3D Tours
- Configuration and SKUs
- Augmented Reality

3D DAM

| Collaboration | Sharing | Reusability | Distribution | Archiving & Storage |

CLOUD AUTOMATION

| VRay Rendering | Model Conversion | Mesh & Texture Optimization | Automated QA | Image Processing |

3D MODEL CREATION

| On-Demand Job Desk | Vetted 3D Artists & Agencies | Admin QA, coaches and testers | Approx. hours |

What is Generative AI

Generative AI is a type of artificial intelligence that creates new content from large amount of data. Generative AI models synthesize entirely new data that resembles human-created content

- Text,
- Images,
- Animation,
- Sounds,
- 3D models and more

How it works:

Neural Networks identify patterns in existing data and use them to fuse together fresh and unique content

What are the AI Tools you've heard about?

Here are a few of the common ones:

- Open AI - Chat GPT
- Open AI - Dall-E2, text to images
- Google LaMDA and BARD chatbot
- Stability AI- Stable Diffusion - image to image
- Midjourney Inc.- Midjourney text to image artists

Stable Diffusion

- Image-to-image generation
- Creating graphics, artwork, and logos
- Image editing and retouching
- Video creation
- Inpainting
- Outpainting

DALL-E-2

- Create photorealistic images
- Produce images with specific artistic styles
- Produce variation the same salient features
- Modify existing images

GPT

Large language model (LLM)

- Gived AI apps the ability to generate text
- One of the largest neural networks, with hundreds of billions of parameters

VS

ChatGPT

Chatbot app powered by GPT

- Relies on a set of GPT's parameters
- Optimized for dialogue
- Has content filters

AI Disruption in the Home Furnishing Industry

AI disruption

- Changing product design from an art to data & science
- Marketing from mass to personalizing on each individual preferences
- Interior design - leveraging million of home designs photos to create personalized designs for consumers based on preference and styles in a few minutes

Benefits of AI

- Efficiency: automating repetitive tasks and iterations
- Cost Savings
- Improved Customer Satisfaction: low return rates
- Personalization
- User Experience Enhancement to iterate and refine your products for more user centric

Enhancing creativity and design

When it comes to architecture or product design, generative AI can produce multiple design variations in minutes according to project needs. This means designers can quickly iterate and refine ideas, cutting down the time traditionally required in the design phase.

AI & ALL3D

AI

- Today tens of 1,000 3D models created via ALL3D are being used as training dataset

- Start collecting & organizing dataset into easy to use data pipelines to enable future AI training

- Create simple assets that can be the starting point for artists to build on

Technologies

- Neural Radiance Fields (NeRF) transform 2D images into 3D scenes.

- 2D Diffusion models (e.g. Dall-e, Stable Diffusion) transform text into 2D images.

- unCLIP models allow for text and image based editing of a 2D image.

- 3D Diffusion models (e.g. Point-e, DreamFusion) transform text into 3D models.

- Missing piece: text and image based editing of 3D models.

THANK YOU!

ALL3D

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www.all3d.ai