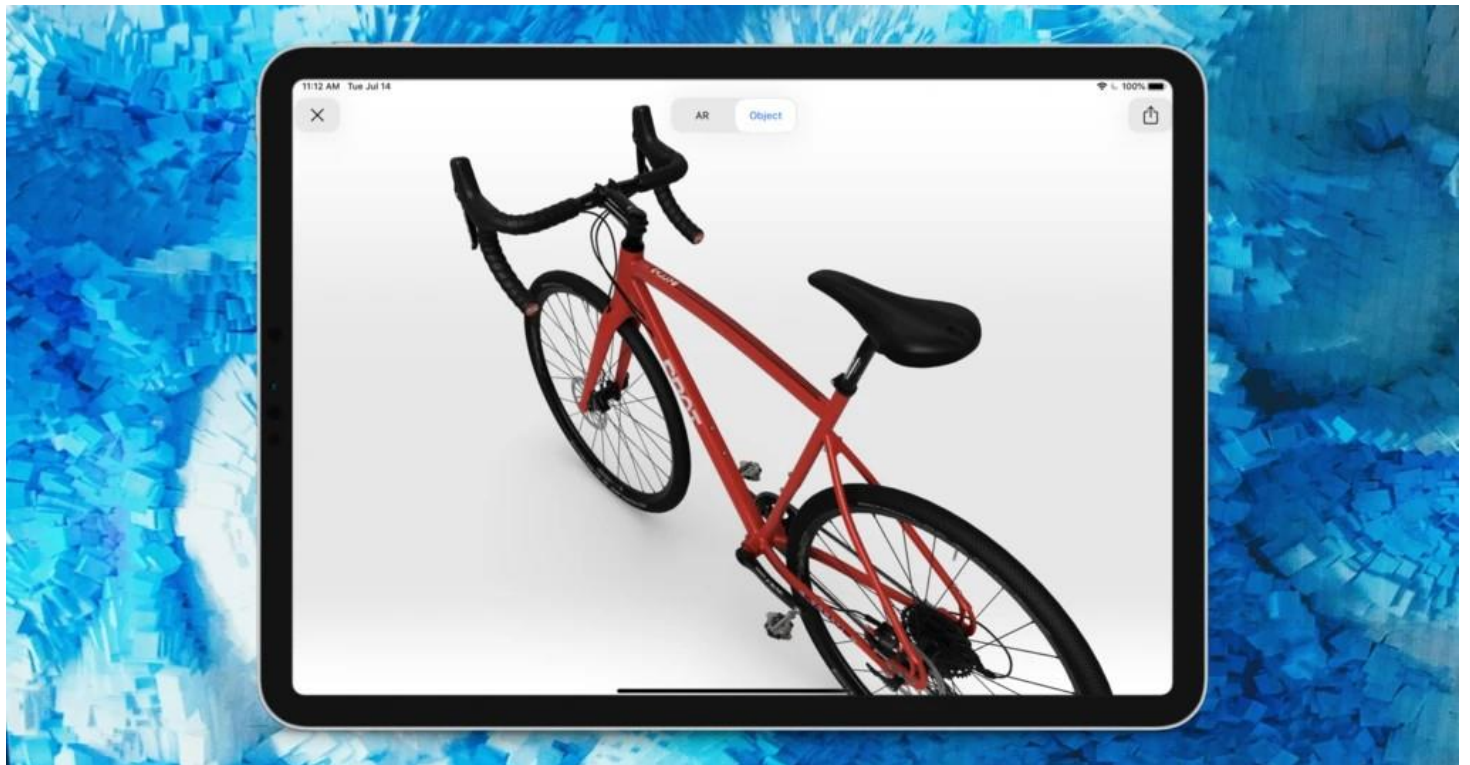


10 Things to Know About the World of 3D Models



By [Sahil Gupta](#)



Racing bikes, coffee machines, energy drinks, dining chairs, camping cookers, hockey sticks, diamond rings, and even Hot Wheels toy cars. You can find them in Shopify

stores, and now with the latest advances in file standards and web rendering, you can see these exact products in 3D on your own laptop screen. Even more, with iPhone and Android augmented reality, you can see them in your own home. Welcome to 2020.

1. The future of e-commerce is 3D

How is this possible? With 3D models of real world products. These assets are photorealistic representations of the real thing, and manufacturers, retailers, and even dropshippers are investing in them because they dramatically improve visuals, and visuals drive sales.

Imagine your store has 3D assets, and your competitors' only have photos. Your customers will be able to see your product from every angle, in the best lighting, and in AR just by opening their phone camera. It's a magical experience when your product appears out of thin air in your customer's living room or materializes on the desk of their home office. These assets are true to size, color, and shape, and now that AR works on every modern smartphone, these models are more accessible than ever before.

Besides the incredible visuals, 3D models allow your customer to examine in detail the product, dramatically improving buying confidence, and reducing return rates. In 2020, going 3D is the most effective visual strategy to give your online business an edge.

2. Models work with every Shopify store

Shopify stores with new themes automatically support 3D models. Stores with older themes can load models with a simple code snippet, powered by the Google Model-Viewer.

A list of new themes that support 3D can be found [here](#).

3. You'll rank higher on Google

With 3D and AR-ready models, your Shopify store will rank higher on Google and your models may even show up on the first page of search results.

Thanks to Google's focus on augmented reality, they're actively crawling the web for models.

When Google finds a website or store hosting models, that translates into better SEO.

4. All you need are photos

To order a model, [find a modeling expert](#), and prepare either photos or videos of your product or just a link to your product page. Odds are you already have at least 4-5 high quality photos in bright lighting of your product, and the product page will have dimensions (length, width, height) already posted. These are the reference materials a 3D expert needs to model your products.

Why dimensions? So that the final 3D model is true to scale, which can be achieved down to sub-millimeter accuracy. To recap, that's:

- ♦ At minimum: Photos of your product from multiple angles in bright lighting.
- ♦ Optional: Videos walking around the product.
- ♦ Best case: The link to your product page that already has photos and dimensions

5. Be careful with photogrammetry

Photogrammetry is an automated process where software calculates measurements and builds a 3D model from a series of photos. However, generating models from photogrammetry is rolling the dice with quality.

It often requires hundreds of photos from various points of view of the product, and the end result often looks choppy. It's notorious for having problems with metal, glass, indents, and anything shiny.

Photogrammetry may be useful for a rough draft of a model, but rarely a finished product.

6. How to think about clothing

Clothing presents a set of challenges different from hard-surface products, due to the complexity of materials creasing, wrinkling, draping, as well as the challenge of meeting expectations of virtual try-on.

What's possible at the moment, in terms of photorealism, is dressing up a mannequin in clothing, and displaying that grouping in 3D and augmented reality.

What will be possible in the future is a truly accurate virtual try-on, where the camera software will dress a model of you, and the details of materials creasing and wrinkling will be physically simulated, not photoshopped or sculpted into a stationary model.

7. Variants and colorways are a breeze

If your products come in multiple color variants or colorways, making models of them are incredibly easy once you have a base model. That's because the shape stays the same while only the materials change.

Also, for simplicity in file management and rendering, we recommend maintaining a 1-to-1 relationship between SKU and 3D model file.

8. Keep your models lightweight

Keep your models lightweight. Super important.

There is a balancing act between shape and material definition in your model and file size.. If files are too large, the model viewer or AR view load time goes up. If files are too small, topology and surface detail go missing and models look like clip art.

Your customers should be able to hop from a photo of your product to its model instantly, and lightweight files are the key.

9. There are two critical file types: GLB and USDZ

GLB and USDZ are portable, AR-ready, photorealistic file formats for 3D content. GLBs are critical for viewing on the web and on Android-powered phones. Meanwhile USDZ is

critical for viewing on Apple devices like the iPhone and iPad. This makes having both file types a must-have when it comes to delivering a smooth AR experience that works everywhere.

Shopify supports GLB model uploads and automatically creates USDZ models for you.

These file formats describe an object by its surface, with meshes and materials. An exoskeleton made of triangles, and digital paint. For example, a porcelain coffee mug as a model would be the mesh describing the mug body and mug handle shape, and the material describing the look of the surface of the porcelain. Materials are based on an understanding of the real properties of light, thanks to industry standard physically-based-rendering (PBR) frameworks.

10. Useful tools to take your models to the next level

- ♦ Adobe Dimension
 - ♦ A powerful tool for taking your models and then rendering high-resolution lifestyle photography, with incredible features like auto-matching lights and camera.
- ♦ Vectary Photon
 - ♦ A web-based alternative to Adobe Dimension that enables high-resolution rendering with custom scene creation.
- ♦ Google Model-Viewer
 - ♦ The most powerful web viewer for 3D models, enabling you to control lighting, camera, and animation properties of your models.

Spase is offering a free model of Complexity I or any model of a higher complexity with a price discount equal to Complexity I for the next 30 days. Just message us on our website with the phrase “C1off”.

