

# BioDigital Revolutionizing Data Visualization in Healthcare

Imagine having a 3-D model of the human body in front of you that enables you to understand its functions better, as well as the changes that occur during illness. Now visualize that you can evaluate this model from any computer or mobile device. If this sounds too good to be true, it isn't. BioDigital has revolutionized the way healthcare organizations, businesses, and students see and understand the human body, through the first 3D human body platform—the BioDigital Human.

Many years of research and taking a multiple-disciplinary approach to developing the platform has made this feat possible. Co-founder Frank Sculli says, “3D technology was a luxury. It

These components are a web-based and mobile-based simulation environment, a vast and deep library of 3-D models of normal and abnormal human body states, and a robust programming interface to manipulate models.

The key, however, is a developer's ability to customize the platform for a specific situation, to meet the quickly evolving and huge challenges of modern day healthcare. Sculli says, “By leveraging our 3-D body as the interface to their data, users can enter data faster, with more precision as well as interpret information more quickly. This tool also allows doctors to communicate difficult medical concepts with patients, so patients can make informed decisions.”



Frank Sculli

“

**By leveraging our 3D body as the interface to their data, users can enter data faster, with more precision as well as interpret information more quickly**

wasn't available to most organizations. Three years ago, we sought out to put a platform in place—the first human body cloud-based platform, making a 3-D interactive model of the body available for the first time in a more economical and accessible way.”

Many key players were involved throughout the development process and continue to work on the continuous development of the platform. These experts range from scientists and software engineers to 3-D developers and modelers. Due to all this hard work and ingenuity, users can “build custom immersive experiences and map data to and from the 3-D models.” This ties into the three main components of the framework.

Scientists, students, healthcare professionals and other businesses also use this unique platform. Any organization with a need for cloud-based 3-D modeling of the human body can use it. This has resulted in BioDigital having a user base with over 3 million registered members.

To suit the needs of so many users, Sculli states from an API standpoint that it was “about designing functionality that would empower organizations to build solutions to meet their specific needs. Some are educational, in other cases it's a visualization of health data, and sometimes its incredible use of our technology we never would have imagined.”

Data visualization is not something to be underestimated, as the healthcare industry deals with constantly increasing large amounts of complex data. By customizing the 3D human body platform to play a specific scenario, users are presented with visuals that help them understand concepts that they would find very difficult to comprehend otherwise. The learning process is accelerated. This can help patients, students, or professionals who have worked in the healthcare industry for a long time.

As for what BioDigital will be doing in the future, Sculli says modeling the human body for all the use cases in health is endless, but more specifically there are plans to expand into VR, AR and holographic arenas. He also noted when talking about breaking language barriers for worldwide expansion that “the nice thing about APIs and visual technology is that they innately remove regional barriers.” Continuous advancements in the technology will open it up to more developers who need to present health information in a more visual, engaging, and intuitive formats. **CR**