

Client Story

Advancing Surgical Training With Microsoft HoloLens 2

When a medical device company needed to improve adoption and training for an advanced imaging technology, Insight developed an immersive solution leveraging Microsoft® HoloLens® 2 and Dynamics 365® Guides.

Exploring the power of virtual reality in healthcare

In 2020, the medical device manufacturing arm of an American, multinational medical devices and healthcare company reached out to Insight for support in developing a new physician training module. The company wanted to explore the potential for virtual reality to improve physician adoption of advanced technologies.

While the client's long-term goal is to create a scalable process and approach to virtual training that other functional areas and teams can leverage, the immediate challenge was to improve adoption of a specific imaging technology called Optical Coherence Tomography (OCT).

OCT provides accurate measurements of arterial features, allowing doctors to see the features of blood vessels in more detail than traditional imaging. This allows for improved planning and higher success rates in stent placement surgeries.

Despite the benefits of this advanced imaging technology, adoption rates are lower than anticipated, likely due to hesitation on the part of surgeons to embrace unfamiliar techniques and technologies.

Industry:

Healthcare and medical devices

The challenge:

The client needed to improve adoption of new, arterial imaging technology among surgeons.

The solution:

Insight delivered a focused use case training module using HoloLens 2 with out-of-the-box functionality from Microsoft Dynamics 365 Guides.

Insight provided:

- Strategy workshops and stakeholder interviews
- Design Thinking Workshops to define PoC use cases
- Training module delivery leveraging HoloLens 2 and Microsoft Guides
- Structured, repeatable application delivery approach

Insight services:

- Consulting services
- Professional services

Surmounting hesitation with hands-on training

To overcome this hesitation, Insight proposed using Microsoft® HoloLens® 2 and Dynamics 365® Guides software to provide OCT procedural training and support. The goal was to lower the hurdle to adoption and allow surgeons to see the revolutionary nature of the OCT technology in a risk-free test environment.

By engaging with Insight, the client hoped to establish a proof of concept that would test the use of HoloLens 2 in surgical training. The project began with a strategy workshop to explore how the HoloLens could best be used, as well as to create a working guide to illustrate the capabilities of the OCT approach.

Starting with deep understanding

Insight kicked off the process by holding approximately six one-hour stakeholder and physician interviews to gain an understanding of the space and user needs and frustrations with current-state training.

Having summarized the interview findings into key challenges and opportunities, the Insight team next facilitated four two-hour Design Thinking Workshops to define PoC use cases, as well as brainstorm and prioritize future opportunities in which the HoloLens technology could have a meaningful impact.

Next, Insight teams built the PoC use case using HoloLens 2 and Microsoft Guides. This involved reviewing the client's existing procedure documentation and interviewing subject matter experts to ensure a full understanding of the needs and requirements of the resultant training module. Using this information and Microsoft Guides' out-of-the-box functionality, Insight created the Guides prototype content and integrated the necessary media files.

The result was a training guide capable of walking users through certain procedures and protocols with the imaging device while allowing them to remain hands-free. The use of voice and head-based gesture advancement enabled trainees to stay on task while working with multiple systems.

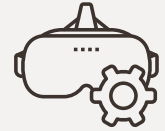
Putting outcomes into action

Insight's structured, repeatable approach to delivering applications empowered quick and effective adaptation to the inevitable changes that occurred during the project. When the client experienced an emergency situation, the decision was made to pivot from the original plan of piloting the PoC solution to immediately having a surgeon test the solution using the actual equipment in a clinical environment. The test was successful, and the client is already planning next steps for leveraging HoloLens 2 technology for future training programs

Benefits & outcomes:



Delivery of a
**Design Thinking
Workshop**



**Proof of concept for a
hands-free, voice-based
training guide**
using HoloLens 2 and
Microsoft Guides



**Successful testing
of the new training
module in clinical
environment**

**Plans to leverage
HoloLens 2
for future training
programs**



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