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Narcissus, Meet Iris: Q&A with Digital Mirror Pioneer MemoMi

By Anne Fisher, Managing Editor

Until just a few years ago, using mirrors or reflections hadn't changed much since the lack of feedback from the "mirror" Narcissus used didn't turn out so well for him. Salvador Nissi Vilcovsky, founder with Ofer Saban of digital mirror platform maker MemoMI, Palo Alto, Calif., describes what we have been doing as using "passive mirrors, mirrors that just let you look at yourself in a very limited way." When MemoMI came on the scene a few years ago, the way mirrors are used began to change.

Vilcovsky emphasizes the MemoMi MemoryMirror™ devices ability to make connections possible. This includes the links between developers and the company's platform, via its SDK, between retailers and customers, and between shoppers and their friends on social media. Edited excerpts of our interview follow:

Embedded Intel Solutions (EIS): Please give our readers some background on MemoMi and tell us what your SDK makes it possible for developers to do.

Salvador Nissi Vilcovsky, MemoMi: Ofer Saban, our CTO, and I founded MemoMi Labs in 2014. In developing the world's first digital mirror, we have been lucky to partner with companies including Intel, IBM, Adobe and Corning. Until now if you took a camera and put it on top of a screen, you would get distortion. Think of how one's reflection looks in a security camera. Our secret sauce is our patented technology that corrects that distortion in real time.

With our SDK, developers can create use cases for our mirror platform. For example, customers can see a 360-degree view of themselves or view two images on a split screen. And embedding Intel RealSense technology allows accurate scanning to support size recommendations and realistic fabric and cloth Augmented Reality virtualization.



Figure 1: Customers can see a 360-degree view of themselves or view two images on a split screen.

Vilcovsky spoke with Embedded Intel Solutions recently about—among other topics—the importance of Intel solutions—including the Intel® Iris™ GPU and Intel RealSense™ technology—to MemoMi's success. By the way Iris (the goddess, not the GPU) is known for connecting the gods to humanity¹. I found that interesting, especially as



Salvador Nissi Vilcovsky,
CEO, MemoMi



Ofer Saban, CTO, MemoMi

Developers and partners can also use the SDK with very minimal effort to innovate and customize their own User Interface experience to address their unique retail requirements. Or with tighter integration around the Augmented Reality SDK, they can innovate in a game-changing way for a number of different verticals, leveraging the digital mirror platform, for example, as a telepresence end point. Gaming and entertainment, healthcare, automotive, and other verticals can use streaming images or videos captured by Memory Mirrors and sent directly to mobile devices. Individuals gain the ability to share the images on social media. Creating applications for controlling the mirrors remotely is another feature that developers can use our SDK to build.

EIS: You've noted that the MemoryMirror digital mirror is quite different than what is called a smart mirror.

Vilcovsky: That's correct. We do more than put a screen behind a two-way mirror. Our solution has the unique ability to capture and deliver data that can be analyzed by a recommendation engine.

With the customer's permission, we can deliver analytics that enable a retailer's brand to improve their shopper's experience with personalized recommendations. Being able to detect clothing colors and patterns, for instance, allows recommendations for future purchases to be generated which will be very relevant and personalized.

And this would apply for other areas as well. One of the good things about working with Intel is participating with them at events such as NRF [National Retail Federation] conventions, where we have the opportunity to speak with customers before we start to work with them, to understand their needs and what will drive a successful pilot and roll out.

At one event a gentleman who worked in the furniture industry presented to us the problem of wanting to show customers how beds looked with various bedspreads, pillows, etc. choices, but without using the showroom real estate for numerous beds. Our digital mirror makes it possible for furniture showroom customers to see the beds with different bedding choices without having to use that real estate.

An interesting project we are working on with Luxottica is the Sunglasses Memory Mirror™, which will allow customers to try on glasses and compare and afterwards to share the sessions and get feedback. We are leveraging Intel® RealSense™ and in the future we will give recommendations and be able to take facial measurements.

EIS: Is the MemoryMirror platform somewhat agnostic when it comes to hardware?

Vilcovsky: While we are GPU-agnostic, we have been very, very impressed with how the Intel® Iris™ GPU has evolved. Also, we wanted to have the smallest possible computers and we wanted integration, rather than getting the CPU from one hardware provider and the GPU from another. The Iris GPU is allowing us to push more and more work to the GPU—the algorithms, the calculations, the renderings.

EIS: Can the SDK can be utilized by iOS Android or native Web-based applications for mobile?

Vilcovsky: The client SDK currently runs on Win OS, although our Web plug-in wrapper allows developers to create Web applications on top of the plug-in, as if the digital mirror was a virtual camera connected with USB to the device.

In the last few months we have done some work to address iOS and native Web environments for mobile developers, but will expedite the plan per actual demand.

EIS: What are you seeing as the SDK's capabilities are put to use by developers?

Vilcovsky: Some of our customers and partners have already started integrating the digital mirror platform with other solutions they want to have or already have for e-commerce, analytics, and recommendation. So developers can leverage these initiatives with us or directly with some of our partners.

For example, we are working very closely with Adobe to develop an integrated SDK with Adobe's retail suite of marketing (AEM) analytics and recommendation, so its ecosystem and partners can innovate on top of the digital mirror.

References

1. [https://en.wikipedia.org/wiki/Iris_\(mythology\)](https://en.wikipedia.org/wiki/Iris_(mythology))