Innovative Technologies and Online Platform for the Future of Intangible Cultural Heritage

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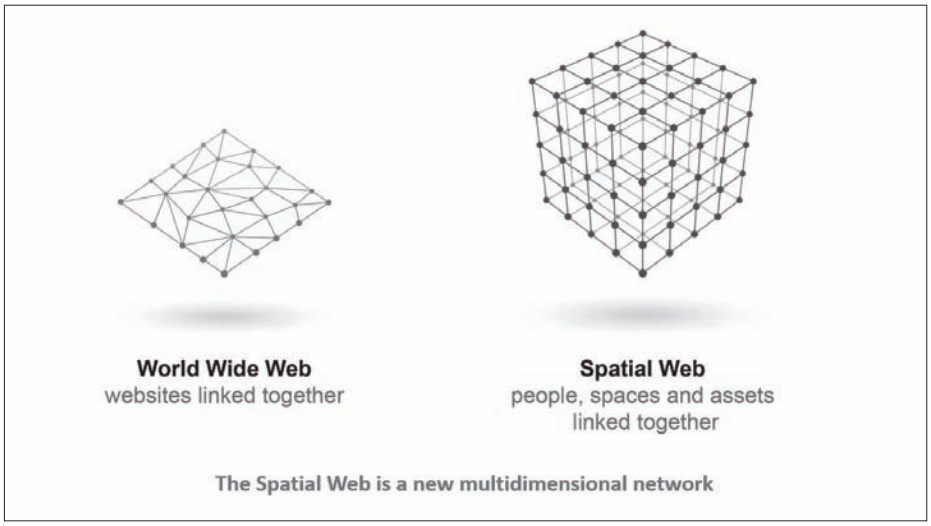
Today's talk is about Innovative Technologies and Online Platform for the Future of Intangible Cultural Heritage. My name is Dave Whelan. I'm the CEO of VR education. And we're the team behind the Engage platform. And I'd like to welcome the people sitting inside the engage platform today, watching this presentation inside VR.

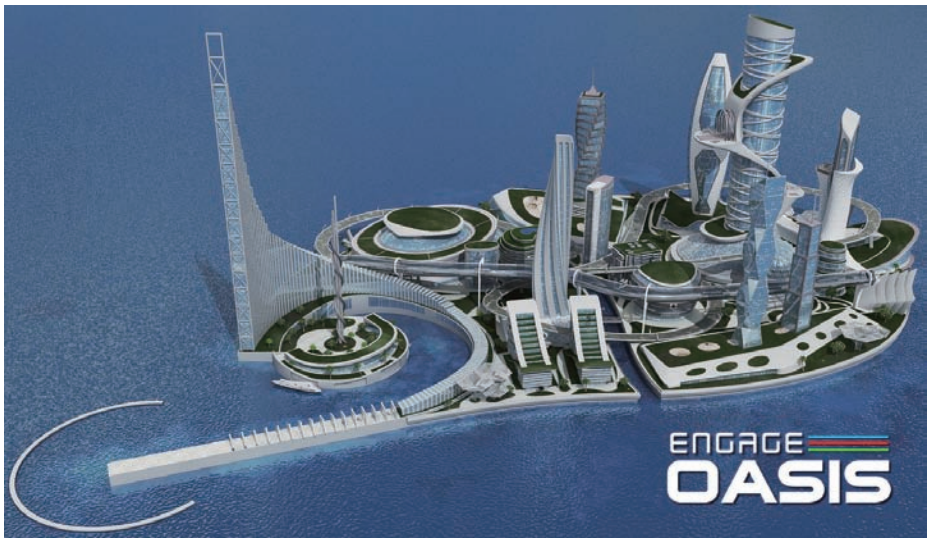


Please let me share a bit of our company; what we're building is in a virtual digital world that I will discuss more in this presentation. Today, there are

two types of digital location. So we have the World Wide Web, which everybody knows about standard web pages. So these are flat web pages, which are designed for flat screens, where you will go from site to site, you will see text and some videos, then you will browse, and you can communicate on these websites. But there's a new type of web coming. And this is called the spatial web, a 3D virtual environment where instead of just viewing flat 2D web pages, you're physically walking around in these spaces with a virtual avatar, which is a digital representation of you. So you can physically walk from location to location, meet other people, and physically walk into a replica of a store as an example. Instead of looking at a web page, physically pick up virtual 3d objects and purchase those objects. So this new spatial web is an evolution of the World Wide Web. And it's a very excellent way to connect with people.

The virtual spatial webs, Metaverse, will be connected via portals. So instead of web links, you can physically walk through a door to another virtual location and explore that location. And this is an image of a famous movie called Stargate from back in the 1990s where this person would walk through a

portal(Stargate) and would appear in a completely new digital world. And this is an image of a famous movie called Stargate from back in the 1990s where this person would walk through a portal(Stargate) and appear in a completely new digital world. It is precisely the type of thing that we're building here with the Engage platform.

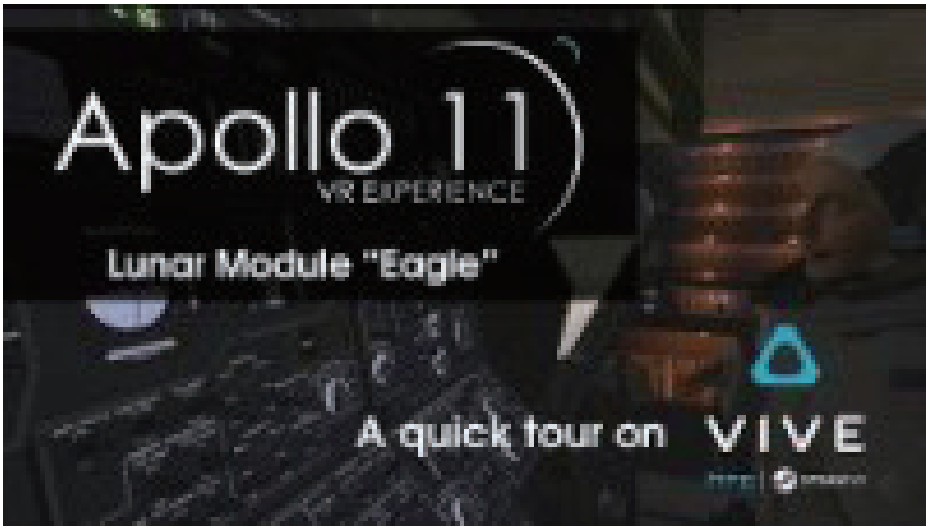


We announced recently that we're going to be building a new service called Engage Oasis, an always-on digital city where corporations, brands, artists, and cultural centers can set up their own virtual location and build whatever they want. So you can have a replica of your hometown or historic sites and the people who control and build the meta world. They have full control and can create safe environments for people visiting your location, dress codes, etc.

Some of the exemplary meta worlds are inside today, and you can see there's quite a wide range of different types of locations. We have Facebook as a client with a virtual recreation of campus in Menlo Park in California, where employees would go in and meet each other. They would also bring in VIP guests and show them about new services. And obviously, we also have Zoom as a client who uses our digital campus.

But one of the great things about a virtual platform is that you can recreate anything quite easily. This example above is ancient Avery in the UK,

a Neolithic, monuments containing lots of stone circles around the village of Avery in Wiltshire in South East of England. It's a prehistoric site and a replica. You can see the standing stones and walk around here in virtual reality. If it's a location that you don't have access to, you can access it here in virtual reality. And you can hold events in here, and it's fabulously located to go in and check out. But not just locations, and there's also photogrammetry, where we have people who go to these historic sites and will photograph them from hundreds of locations that are recreated digitally. You can take photographs from all around the objects and every conceivable angle. Those photographs are uploaded into your computer and then are recreated in a 3D model, which you can bring into virtual reality and manipulation walk around. This is the way that a lot of monuments are being saved. So you see what a lot of terrorism acts, especially in the last ten years where these monuments have been blown up. There's a real big push now for photogrammetry experts to go to these locations and photograph them before they go missing. A famous building that went missing very recently is Notre Dame, which burned to the ground a few years ago. Thankfully, before it was burned, there was a laser scan made of it and trussed 360° video.



Another thing that you can do inside virtual reality is that you can recreate historical events. This is the Apollo Lunar Module "Eagle", which is not only recreating historical locations and events but giving people a sense of being there.

What's driving the adoption of these virtual worlds? Recently, you would have seen well the re-emergence of virtual reality. Virtual reality is not a new technology that has been around for over 40 years and is hugely expensive. The end-user experience was great, but now with very high powered computers and chipsets, we're getting excellent experiences. And there are Vive Cosmos from HTC Vive and Facebook and Sony have been developing their own headsets. But it's not only just VR wearables but also different types of wearables that you might even have on you today. We are seeing the re-emergence of smart glasses and wearable computing is becoming more and more commonplace. As the years go by, we've already seen demo examples of contact lenses that can provide augmented reality experiences and the 3D representations/holograms overlaid in the real world. In the last ten years, the technology has gone from a huge VR

headset connected to a powerful computer to a contact lens that so quickly, technology has been developed.

Another driver of virtual technology and remote collaboration is obviously COVID-19, where the majority of workers around the world and businesses were forced online to communicate. They found limitations with video communication, where if you have any more than 10 or 15 people on a call, they can communicate effectively because everybody will overtake each other quite quickly. People attend actual events for one-off chance conversations to meet somebody and have a private conversation. You can communicate in 3D virtual worlds because of the spatial audio, where you can sit down and watch a presentation in a virtual auditorium. Or you can get up out of your seat and walk down the corridor and meet someone and have a conversation with them. And that's what people have missed about physical meetings.

We've recently seen an enormous upsurge in NFT, a Non-fungible token and digital creations. It can be anything turned into a unique digital asset and

then sold it. Its price has been being asked here for some of these digital assets. The World Wide Web source code was vast amounts of money out there. So it's making it very economical for people to get into digital worlds and businesses and start providing services. We have an NFT Gallery opening up in collaboration with HTC. And it's the cat museum. So you walk around, and they have a lot of these cat NFTs.

So far what makes Engage in virtual worlds significant from a cultural point of view is the meanings and connections you can make inside these virtual worlds. The communities grow inside these virtual worlds and create their own new cultures. And it's great to be a part of such a wide and varied community. But there will be fully realized virtual cities that are becoming more and more prevalent and will be interconnected. So you're going to have your physical world but also to have a digital world where there's going to be jobs available there. There's going to be socializing in there as well. Everything that you do in the physical world will also be represented in the digital world, but you're going to be able to do so much more.