Google AR & VR

NYU Students Easily Develop AR & VR Content with Google 3D Modeling Tools

New York University's School of Professional Studies (NYU-SPS) offers a User Experience Design diploma (UXD) for creative professionals. Introducing Blocks and Poly into the curriculum sparked a whole new level of interest in augmented reality (AR) and virtual reality (VR), with nearly every student now working on 3D modeling.

Kevin Park co-developed the UXD program at NYU-SPS in 2016. Students in his user experience and user interface courses are already established as art directors, designers, project managers, marketing managers, researchers, and more. Many look to build new skills and learn new technologies, while others hope to change careers.

Park's challenge was to teach the user experience (UX) aspects of AR and VR to his students, who lack the 3D-modeling skills of game designers and have little or no experience or expertise in the field. "I tried to go into the production level and teach them to develop for AR and VR, but it was too hard for them to understand," Park says. Their interest isn't in 3D modeling itself, but "more about prototyping and developing something quickly so they can show it to their clients, their boss, or their team."

From concept to 3D object in under 15 minutes

Park realized that Blocks was perfect for getting his students started. Blocks is a VR app for the HTC Vive and Oculus Rift comprised of a collection of tools for rapid 3D modeling. Users can create real, volumetric objects in VR and share models via links, .obj exports, or animated gifs that can be viewed

on 2D surfaces. Park quickly integrated Blocks' tools into his courses, and had students publish the objects they created to Poly, Google's 3D object library. "It takes less than 15 minutes for students to learn how to use Blocks, and then they immediately start building something," he said.

"Once the students finish their 3D modeling from Blocks, they can access Poly from anywhere," Park explains. "So, for whatever they are trying to do in their projects, it's up to them to build from there on their own devices." They can download their objects from Poly onto their phones and use them on Google Cardboard, Unity, or Daydream.

AR & VR apps from the grocery to the subway

One student team used Blocks and Poly to create SuperMunch, an AR scavenger-hunt game app for children ages 5-10 that promotes healthy eating. "Young kids can walk around the grocery store, use their parents' phone to scan and find the right products, and go back home to create dinner together," Park says. SuperMunch took "less than a couple of days to do," he notes, "which is phenomenal for students who had no background in 3D modeling, AR, or VR."

UXD students now want to learn more about AR/VR, and other emerging technologies.
They can then share new concepts with stakeholders in their jobs, and pass them along to in-house developers, designers, or 3D modelers. "We've decided to fully incorporate AR/VR and other emerging technology into the program," Park adds. "Other schools are following similar models."

Organization Profile

Established in 1934, the NYU School of Professional Studies provides educational experiences to seasoned professionals and to those just beginning their careers. NYU-SPS enrolls nearly 50,000 students annually, both onsite and online. The
UXD program establishes a conceptual framework by exploring key digital tools
and resources.

Products Used

Google Blocks

Google Poly

Google Cardboard

Google AR & VR

Google AR & VR NYU Toolkit

Project Title	Unconventional and Unpredictable: Application of AR/VR to Enhance UX Design
Project Description	Integrating UX aspects of AR/VR into a traditional UX design course

Project Development

What problem was your project designed to solve?	To teach UX aspects of AR/VR concept to my non-game design students, who have no prior experience or knowledge of 3D modeling or its creation process. Most of them are coming from a conventional mobile/web design, product design, and project management background.

Logistics & Operations

What processes did you implement to manage the project?	First, I introduced Google Blocks, Tilt Brush, and Poly to students through a demo and two simulations of 3D model and scene designs. After, students explored the tools in small groups and participated in a question/answer session. Next, students reviewed tutorials so they could become familiar with the VR settings prior to designing. It was all brought together by designing their first 3D models in Blocks, followed by a UX strategy and rapid prototyping process to develop their first mobile AR/VR project.
Describe the team it took to make this project happen.	I worked closely with the educational tech support team to secure the funding and equipment. The partnership allowed us to set up a portable system in the computer lap, and to provide my students access to all required system.

Measuring Success

How did you define success and when?	It all comes down to students and their projects. In the beginning just 1 or 2 students (10%) wanted to work on AR/VR related projects, but after 3 semesters almost every students (90%) wanted to include some aspects of AR/VR in their projects.
What did you do to measure success and report on it?	I focused on students' confidence level with the new technology and the adoption rate of AR/VR. I found that students started requesting more information or resources for AR/VR and Voice.

Learnings

What is the one thing about this project that made it such a success?	Students' willingness to learn and fail is the key.
What is the one thing you wish you knew/considered starting the program?	I would secure more funding at an earlier stage so all my students could access the equipment and system anytime. I would also make it a more fun and playful experience from the beginning.