



Simple Virtual Reality in the Classroom with Google Streetview and Google Cardboard with Donnie Piercey

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Vicki: Happy Ed Tech Tool Tuesday! Yes, we CAN do virtual reality (VR) in our classrooms. Today we're talking to Donnie Piercey, who's doing it NOW. (Twitter handle is [@mrpiercEy](https://twitter.com/mrpiercEy)... donniepiercey.com)

So, Donnie, how did your students do VR in your classroom?

Donnie: The original idea this past October... You know, I'd given them some geography questions to work on, as I'm a fifth grade social studies teacher. I always like to use [Google Maps](https://www.google.com/maps). I find that it's one of the most up to date tools, it's "real life," kids use it every day, so when I'm giving them questions to answer in class, I like to use Google Maps. It tends to be something they like. The questions that I'd given them involved our community. I teach in a small rural community called Eminence, Kentucky. When they were kind of researching and looking around at some of the street view images, they noticed that a lot of the images had been really out of date. It almost looked like the Google Maps car had driven by once, ten years ago, and that was it.

Vicki: (laughs)

Donnie: So they said, "Mr. Piercey, is there anything we can do to kind of update this image?" We had recently got a new building and we were adding on to our school district. I kind of showed them this App called Google Street View <https://www.google.com/streetview/> which is on iPhone and Android. What it allows the users to do is – first, to access any 360 image that's on Google Maps, and view it. But what's cool about it is that you can, either a 360 camera like the [Ricoh Theta S](https://www.ricoh.com/us/products/theta-s), or you know Samsung has one as well now, or even your own camera on your iPhone or Android phone, you can actually create an upload your own 360 degree images to Google Maps. You can contribute to the greater community, which is really neat. I showed it to my students, and they said, "Well, that's really neat. That's pretty cool. How does Google go and collect these street view images?" They were looking at some, and they realized, "I'm pretty sure that the Google Maps car can't go onto this mountain here... or can't go into this cave here..." The Google Maps team has these things called checker bags. They're basically backpacks with the massive Google Street View cameras on the back of them, typically what's on top of those cars. So they did some research and found out that buying one of those is a little bit out of our school budgets...

Vicki: (laughs)

Donnie: So essentially what they ended up doing was they got a tripod. They took a 360 camera that we had recently purchased for about \$300, put it on the tripod, put it in a backpack, and basically made their own. Right? So for a project that they did for class, they went and they basically paraded around town and the school district to capture and update Google Maps, just through this simple little 360 camera hack that they created. It was cool, though. You talk about the idea of virtual reality or even starting to transition to augmented reality by this point. Google Street View app allows you to view any 360 image on Google Maps in a virtual reality form. Right? If you have Google Cardboard (Google's \$15 viewer that's kind of like the Viewmasters from the 1980s, 70s, 60s and all that), you can just click a button and view any 360 image on Google Maps, like you're there.

Vicki: Wow!

Donnie: Yeah! And so like my kids took these images that they collected inside and outside our building, and they actually presented and shared at the International Society for Technology (ISTE) this year, which is really neat. They got a poster session. They presented with Google Expedition's team at the Google booth. They even spent some time with the Google Earth people, kind of just sharing a little bit of their new updates and how they can use Street View imagery. So it's been kind of a neat experience for them, since they basically just stuck a 360 camera in a backpack and went for a walk.

Vicki: Oh, that's so much fun! Now what did they learn as they did this, besides all of the incredible technology?

Donnie: What was really cool? They just said, "This could be fun. Let's try to create something and go out for a walk." But what I didn't tell them is that the Street View, as people start to search for "Eminence, Kentucky," or our new building that we recently constructed called the "Eminence Ed Hub"... If you go to Google Maps and search for "Eminence Ed Hub" those images that they collected as they did that is what pops up. And kind of like on YouTube, it actually creates a tally for you of how many times people have viewed those images. The images that they've update are in Google Maps and the new Google Earth so far have been viewed close to 90,000 times.

Vicki: Wow!

Donnie: Yeah! So you know how you always talk about, "What kind of impact are you making? How do you know that people are actually viewing your community, like these images that you put on there?" Well, there I can see through the app that this has been viewed X number of times, so there's the proof right there. And for kids who, a lot of them have never left the city of Eminence before, or Henry County in Kentucky where Eminence is -- for them to know that people from all over the world have been looking at their images -- it's a really unique way to kind of connect them to the larger world. And vice versa, too.

Vicki: Now you've authored the Google Cardboard book, so I'm assuming this is one of many examples. Can you use Google Cardboard? Can kids create things, besides just viewing?

Donnie: Yeah! So the book that I helped co-author – I wrote it with four or five other people – is called The Google Cardboard Book.

It's all about 1) different ways that you can collect 360 imagery, but also, more importantly, how you can take this idea of virtual reality, where students can put their device into a viewer like Google Cardboard, for example, and feel like you're actually in a place or view a 360 view on YouTube. You know, how can we as educators use this brand new technology to really kind of change the learning in our classroom? What's the difference between, say, watching a 5-minute clip on YouTube as opposed to viewing, say, a 360 film that was filmed underwater as sharks are feeding around?

If you've had the opportunity to view anything in virtual reality, knowing and feeling like you're ACTUALLY there is something which students – even my daughter who's five, she's starting kindergarten this year – she LOVES it. I do feel that if you can actually visit places -- like you've got a great museum that's in your town, or if your school district has the resources to take your students to Washington D.C. or a national park -- definitely take that opportunity first, but you know school budgets are, you know, not always the (especially in a public school district like I teach) sometimes you're kind of limited. The idea of virtual reality is something which can give students the next best thing.

Vicki: Now we're going to be doing a giveaway with the The Google Cardboard Book, and I know you're going to give us a link to the 360 camera that you got, right?

Donnie: Yep! The one that I like (and there's several on the market now)... the most popular one that schools and students and educators are using is called the Ricoh Theta S. There's different models of it, and there's supposedly a new one coming out. Maybe it will be out by the time this airs. I'm not sure yet, but the Ricoh Theta S runs for about \$300-ish, depending upon where you're looking.

Vicki: So this is approachable for all of us. And we can do this in our classrooms, and can do some really amazing things. Our students can CREATE virtual reality experiences and use Google Cardboard. This is so fantastic. If Donnie can do it with his fifth graders, why can't we?

Donnie: And that's the best part. I spent maybe five minutes just showing them how to use the app, and then they took it and ran with it from there. There were many weekends when I sent the camera home with them, and then they came back with like "Hey, I was at Disney over Spring Break," or "I went caving this weeknd," and here's some images that I collected. Once you take a couple of minutes to frontload and show students how to use the tool, then you'd be amazed what they can do with it.

Vicki: Incredible.