



eTools: Using HP Reveal in the Classroom

Rebecca Dohrman, Ph.D., Maryville University

Introduction

Augmented reality and virtual reality seem to be in the news constantly these days. Articles are published daily detailing how virtual reality has and will continue to transform industries like health care, hospitality, travel, and video gaming. Interestingly, many journalists, students, and professors have asked: How can higher education incorporate augmented reality in the classroom in an assignment that is both affordable and engaging for students? One application that does just this is HP Reveal (previously known as Aurasma).

What is "HP Reveal"?

HP Reveal is an application that can be found both smartphones and smart devices (as well as on desktop computers, although mobile devices work better functionally). The application allows a user to set up "auras" which trigger images behind which are hidden "overlays" (which can be photos or videos, including audio). A user sets up an if-then statement in the HP Reveal Studio on mobile or desktop so that

the app recognizes that a particular image is an aura that should reveal the hidden photo or video when scanned.

How can I get HP Reveal for use in the classroom?

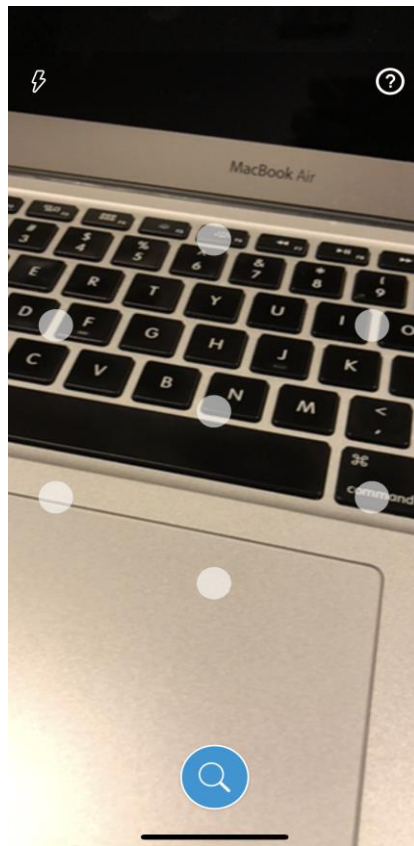
HP Reveal can be downloaded for free on mobile devices (the icon for the app is shown at the top of this white paper to make it easy to find). Users must create an account and then can do one of two things: create their own aura or scan for auras in their surrounding area. Students can create an in-class museum or exhibit using HP Reveal. For instance, in a women and media class, you could ask students to bring in an advertisement for this HP Reveal exhibit day. They would tape the advertisement to the wall and then create an aura around the image that is a video of the student explaining how they see gender unfolding in the advertisement. Students would benefit from creating their own aura and then could go around the room to look at each other's advertisements, which would be an engaging way to help the material solidify.

There are two steps that are important to understand when using HP Reveal. First, to create an aura, the user should press the plus sign in the upper right-hand corner. A box comes up that asks you to take a photo of the trigger image that you'll want to create a hidden video or photo behind. There is a helpful red/yellow/green indicator at the top that forces you to create a unique enough image that it wouldn't appear in hundreds of places (i.e. a standard photo of a Macbook cover can't be used to create an aura because it is too common. Once you've taken the photo of your trigger

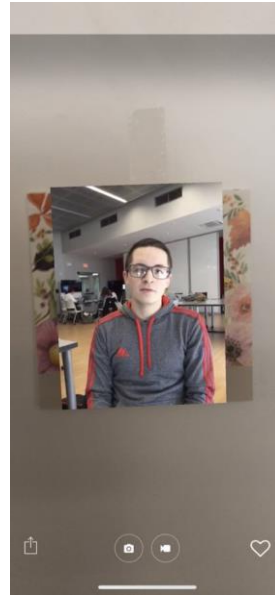
image, HP Reveal asks you to "Choose an Overlay." They offer some basic iconography options, but the "Device" options in the second tab offers many functional options that are more sophisticated. In the Device tab, they can upload a video from their phone of them explaining something about the image, an audio file, or a static photo. Once students have uploaded the video, they can name the aura (I recommend encouraging use of a class hashtag #comm499 to make the aura's easier to find) and then save it in their private or public folder. The aura is then saved and within moments will be live. On the desktop version, students can also upload a 3D model as the overlay.

Importantly, students should save the aura as a public aura and then become friends with the other students in the class (which I most often do by having them write their account usernames on the board in front of the room or near the image they hang up in the room and then they can use the search bar at the top of the app to find one another.

Once they've created their aura, they'll want to find others. They can do this by clicking the blue circle at the bottom of the app with an incomplete square inside. When they do this, the app will begin searching visually and looking for images set up in their databases with an aura. There are a series of white dots (see below image) that move along the screen scanning for visual images using the mobile device camera.



Once the app finds an image with an aura, the overlay that the student set up will appear. The app will also play the audio on the video, so I suggest students bring headphones so that it is easier for them to hear.



How can I use HP Reveal in the classroom?

There are several ways this simple augmented reality app can be used in a communication class:

1. Exhibit: One use case for such an app in the higher education classroom is to have students create an exhibit in the classroom based on images they bring in to class or create in class. This can be an engaging way of reviewing content, extending class material, or solidifying a topic that is very visual or complicated.

2. Test Review: Students can create artwork using class vocabulary and then they can put a video definition and explanation as the overlay behind the vocab artwork images so that as the other students review each other's auras, they are also prepping for a test.

3. Student Presentation Feedback: Students could post a video of their presentation introduction for an upcoming presentation and then other students could

write notes on a feedback form placed near the trigger image so that their classmates can review the video and make comments to help them prepare for the presentation.

4. Student Presentation Time-Saving: Presentations are such an important part of our discipline and modern organizational life, but it can take a very long time for every student to do a presentation on any assignment, depending on your class time. Student could pre-create a video presentation and then they could create auras with their presentations and then you could ask each student to review five presentations, rather than all of them. They could write feedback in person or through an online form to ensure the presenter gets feedback. This would be much faster than every student presenting in real time, although of course it would present a different experience for the presenter to present to their mobile device instead of in person.

5. Student Debates: When material is very controversial, I like to give students time before class to consider their position and do some research to support and also challenge their position. Students could use HP Reveal to create an aura with a video of them articulating what they learned about their side of the debate before class and they could bring in a trigger image that fits their point of view (i.e. a photo of a leader or important moment in history) that also adds to the learning and engagement.

Conclusion

In short, HP Reveal is a wonderful resource to add into a class for the above or other reasons. Once you have the technology mastered and introduced in your class, it

can be used in a variety of ways to review material, encourage class debates, and encourage student feedback. It's an easy and simple first step into augmented reality and one that I find students really enjoy.