UMW VR Campus Tours

By Jessica Reingold

Summary

Throughout the process of brainstorming, researching the idea of creating virtual reality (VR) tours of the University of Mary Washington (UMW) campus, as well as building a prototype of a VR virtual tour of one building, I have learned that the user experience design process is messy but also exciting.

Starting with the customer journey, I empathized with a target user by considering their thoughts and feelings and how a VR campus tour would benefit them in addition to benefiting UMW. Thinking about how current prospective students (the users) learn about UMW, visit the campus, and try to see themselves here solidified that my idea of bringing VR video tours to UMW would fill a gap within what Admissions has to offer. 360 static images (the current UMW virtual tour) and descriptive text on a webpage don’t give prospective students the same kind of experience as an in-person tour would. However, an out-of-state, prospective student like Bethany in my scenario may not be able to visit campus in person. Without a VR video tour, she would miss out on seeing what not only UMW’s campus is like, but also the atmosphere of the school during a typical day or a big event. In completing my customer journey, I decided I should pursue the idea and conduct research on what should be included in the VR video tour and whether or not current students would have utilized the videos when they were looking and applying to schools.

As I continued to expand upon my idea, I found that the UX research plan gave me even more information to consider. The participants’ feedback sparked more design concepts for my prototype and reassured me that an immersive experience would be beneficial to UMW. Many of the research participants were also involved in the co-design activity, which was creating a storyboard for the VR video experience. As we drew out the storyboard we further examined what the participants discussed throughout the informal research interviews. We decided that a self-guided, immersive, slightly interactive VR video with brief bits of information and the natural ambient sounds in the background is the best solution to filling a need of prospective students and creating an alternative to an in-person on-campus tour.

Finally, taking everything I learned over the various design steps and activities and features from the co-design session, I created a prototype. The prototype is a rather
rough but fully 360 video tour of a building on UMW's campus. The prototype shows what a VR video tour could look like. While the video does not have real interactivity, a clean 360 view (I am in the way of the camera) and unfortunately, stabilization due to lack of certain resources, a viewer can get the overall idea of how a prospective student would interact with the video and what the video’s content would be.
# Scenario

Bethany, a 20 year old woman lives in Florida but is moving to Virginia because her husband, who is a medic in the Navy will be stationed at Quantico and Fort Belvoir. She has been taking classes at University in Florida, but now needs to transfer to the University of Mary Washington, as it is closest University to Quantico. She does not have time to travel to Virginia to tour the campus before moving and starting the Fall semester. She looks at the UMW website to get a feel for the campus, but there isn't many pictures of the inside of buildings on campus. She knows that there is a "VR" tour on the website, but discovers that it is really just 360 images of the outsides of buildings. An interactive, video, VR tour of campus would be much more helpful for her to get an initial feel for UMW.

## Customer Journey Map

### RESEARCHING UNIVERSITIES
- **Actions**: Using the internet to see which colleges are in the state of Virginia.
- **Thoughts**: "There are a lot of options in Virginia...81 Four Year Colleges".
- **Feelings**: Uneasy, anxious, interested, overwhelmed.
- **Improvements with VR Videos**: UMW will stand out because through the use of VR it will include information that cannot be conveyed concisely through text. One example is what the insides of classrooms of all the academic buildings look like.

### EXPLORING A FEW UNIVERSITIES
- **Actions**: Looking for further information on campus life and academics at colleges near Quantico. Narrowing down the list to UMW and George Mason University.
- **Thoughts**: "UMW and GMU are very different. GMU is quite large and UMW is much smaller."
- **Feelings**: Curious, skeptical.
- **Improvements with VR Videos**: She will be able to see UMW's campus layout, size (which could be done with map), but more importantly, environment.

### APPLYING TO UNIVERSITIES
- **Actions**: Filling out and submitting applications.
- **Thoughts**: "I hope I get into at least one school."
- **Feelings**: Anxious but also fairly confident she will get into both.
- **Improvements with VR Videos**: Can provide a sense of reassurance that she is applying to right one(s).

### ENROLLING IN A UNIVERSITY
- **Actions**: Paying tuition, choosing classes.
- **Thoughts**: "Now that I'm committing myself to this college, I need to try to get the courses I want."
- **Feelings**: Confident, excited.
- **Improvements with VR Videos**: She will already have an idea of where her classes will be and what the inside of the buildings look like inside. She will also have an idea of the overall atmosphere of UMW.
UMW VR Campus TOUR

CUSTOMERS:
Director of University Marketing, Director of Admissions

WHAT THE UMW KNOWS:
- Over 800 colleges are using YouVisit to provide VR (or 360 image) tour experiences via YouVisit.
- Out of state enrollment is on the decline

WHAT THE UMW DOES NOT KNOW:
VR can be much more interactive and that VR isn't the same as 360 images, which is what they are using now.

CONCERNS:
- Creating VR tours takes time. The filming and editing always takes longer than expected.
- The campus looks significantly during the different seasons. Which one should the school present?
- There is always something under construction on campus. Some buildings will reopen and close after the videos are made. New videos would have to be made or current ones would have to be edited.

TOOLS:
- Past: Image galleries on the University website, in-person campus tours
- Current: in-person campus tours, 360 images through YouVisit (youvisit.com/tour/umw)
- Future: Interactive VR video tours

GAPS:
- There needs to be a person or consulting company whose job it is to create the videos, edit, and maintain videos
- Where would the University host the videos? They are going to be large files.
UX Research Plan: UMW VR Campus Tours

Stakeholders
Director of Marketing, Director of Admissions

Background
UMW would like to increase recruitment and revenue by enrolling more out-of-state students. Over the last few years, the numbers have been slipping due to several reasons, but one that has always been a constant challenge is that prospective students may not want to travel several hours to visit a school. While there are other strategies that could be taken into consideration to attempt to attract more out-of-state students, one way to make the university more accessible is to provide virtual reality tours of campus. VR video tours of the campus would allow prospective students anywhere, but particularly out-of-state, to view the campus in an immersive way without having to travel long distances.

Goal
Identify if VR video tours would be a feature that prospective students would utilize and if it would be an acceptable alternative to an in-person, on-campus tour.

Research Questions

1. What does a VR campus tour offer that isn’t being offered now?
2. What kind of content would be beneficial in a VR tour of campus?
3. Is a VR video campus tour comparable to an in-person guided tour?

Methodology
A study will be held with 5 participants: 2 recent alums (one in-state, one out-of-state) and 3 current students (1 in-state junior, 1 out-of-state senior, 1 in-state senior who applied to out-of-state schools). The alums will participate separately as they might reflect differently on their pre-college experience since one was an in-state student and the other was an out-of-state student now that they each have more hindsight. The current students will participate together despite their different statuses because they...
can bounce answers and ideas off each other while sharing their experiences and the experiences of their friends. Each alum and a group of students will be asked a series of questions that will help answer the overall question of "Would a VR campus tour help attract more out-of-state students to UMW?"

Participants

Due to the limited access of prospective students (Admissions cannot provide me with this information), the primary characteristics of the study’s participants are as follows:

- Current UMW student or recent alum
- Ages 19 to 22
- Have experience with VR or 360 images using a headset (Google Cardboard, Oculus, etc.)
- Looked at out-of-state schools as a prospective student

Consent or Privacy Documents?

No

Process of Recording Observations

In-person with notes taken in a Google Doc

Schedule

Recruiting, Study, Results: December 5, 2018

Script

Thank you for taking the time to meet with me. Today I’m going to ask you to think about your previous experience(s) as a prospective student, particularly when you were looking at different colleges to apply to. Please provide any insight, opinions, or suggestions as I ask you a few questions.

(Some questions that will be asked if potential answers do not arise naturally)

- Do you think you or your friends would have utilized a VR campus tour of this school or another school?
The current VR tour of campus has several 360 images. Since you have some experience using VR do you think video VR would be more impactful?

Would a self-guided or guided VR video tour be more enticing?

How interactive would you make an ideal video VR tour of campus?

Results/Feedback

Do you think you or your friends would have utilized a VR campus tour of this school or another school?

YES

“My friend is from California and she wasn’t able to visit because well...we are on the other coast. Her cousin went there though and she said that she would like it, so she took a risk. I think being able to ‘see’ the campus would have made her less anxious.” - Jaqueline, senior

“I would have definitely used it because after visiting a bunch of schools this size, they all blended together. Being able to go back would have been helpful.” - Courtney, sophomore

“Maybe. If I had something like a Google Cardboard then sure. I don’t think I would have bought it, though, for just one school’s VR tour.” - Abbey, senior

The current VR tour of campus has several 360 images. Since you have some experience using VR do you think video VR would be more impactful?

YES

“Absolutely. A video is way more immersive than images.” - Jenn, junior

“If I’m going to do something with VR, I want to feel like I’m there, otherwise it may as well be that 360 image thing on Facebook” - Chris, senior

Would a self-guided or guided VR video tour be more enticing?

SELF-GUIDED

“I never really listened to the tour guides when visiting schools, so I don’t think a super guided tour is necessary.” - Eliza, senior, out-of-state

“I can see both being good. Self-guided is nice because then you can take your time and look around, but guided can give you information in the moment.” - Stef, recent alum, in-state

“Self-guided for sure, because I don’t want to have to listen to a guide again if I go back and look at the videos again.” - Trevor, freshman, in-state
“Self-guided, because a talking head would be annoying.” - Katie, junior, in-state

How interactive would you make an ideal video VR tour of campus?

LITTLE INTERACTIVITY

- “I wouldn’t make it like a game where you have to complete tasks or something. Maybe just be able to click on some things.” - Chris, senior, in-state
- “There needs to be some interactive elements; otherwise it’s just a video and the VR seems like a waste.” - Bethany, recent alum, out-of-state
- “Maybe just the ability to click on certain things that give some information.” - Jenn, junior, in-state
Co-Design: UMW VR Campus Tours

Background

UMW would like to increase recruitment and revenue by enrolling more out-of-state students. Over the last few years, the numbers have been slipping due to several reasons, but one that has always been a constant challenge is that prospective students may not want to travel several hours to visit a school. While there are other strategies that could be taken into consideration to attempt to attract more out-of-state students, one way to make the university more accessible is to provide virtual reality tours of campus. VR video tours of the campus would allow prospective students anywhere, but particularly out-of-state, to view the campus in an immersive way without having to travel long distances.

Participants

1. Chris, senior, in-state
2. Jenn, junior, in-state
3. Eliza, senior, out-of-state (North Carolina)
4. Stef, 2018 alum, in-state
5. Bethany, 2018 alum, out-of-state (Florida)

Methodology: Storytelling, Storyboard

We created a storyboard of a VR video campus tour to define and describe what the user’s journey would look like. In this storyboard, we mapped out what the user would see, how/if the video was narrated, how interactive the video would be, and what the VR tour would cover. In addition, we looked at what UMW's current 360 image story seemed to convey, and what another school's VR/360 campus tour seemed to convey. Using the current UMW static 360 tour, UMW's in-person tour, and Harvard's VR tour (which has a live-action tour guide dropped in via a green screen), we created a storyboard for a VR campus tour of UMW. We believe our storyboard addresses the issues in our research questions:

1. What does a VR campus tour offer that isn't being offered now?
2. What kind of content would be beneficial in a VR tour of campus?
3. Is a VR video campus tour comparable to an in-person guided tour
Photos
Results

Thoughts and Ideas from the Session

- VR campus tours bring the campus to life for prospective students. Campus during the summer is rather barren.
- Record big events such as Homecoming and add those to the campus tours that way prospective students can get an immersive sneak peek at student life.
- VR tour should be self-guided that way the prospective student can “feel” the atmosphere of the campus with little distraction.
- There should be some information provided in the tours but not enough to feel overwhelming. The majority of the information would be on the webpage where the video is embedded.
- The tours should be on YouTube because they’re more accessible and memorable to prospective students.
- The VR tours need to be actively marketed otherwise they will go unseen.
- The VR tours allow prospective students to see things that they wouldn’t be able to do during an in-person on-campus tour such as classrooms and all of the residence halls.
- The tours should be recorded in the fall because the campus is more attractive then and because that’s when prospective students would most likely be on
campus the first time after enrolling (with the exception of a brief orientation in the summer).

- The tours should be updated every two years except when there is construction. If a new building opens or a renovated building re-opens, those tours need to be added ASAP. If a building is closed, then that tour video is removed, but the information about it would stay.
- Current students would have used the VR tours because they didn’t get to see everything they were interested in when they were visiting or applying. Some never saw the campus because they were too far away. They relied on text and images to get a feel for the campus.

Research Solutions

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<th>Research Question</th>
<th>Solution</th>
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| What does a VR campus tour offer that isn’t being offered now? | ● The chance to see more of the campus (inside buildings, a few classrooms, more residence halls)  
● The chance to see more student life (video of big campus events such as Homecoming and Devil Goat Day, a UMW-specific tradition)  
● 24/7, 365-day access                                         |
| What kind of content would be beneficial in a VR tour of campus? | ● Insides of academic buildings, residence halls, other services buildings  
● Student events  
● Information on areas of interest such as the James Farmer statue on campus walk or the Information Desk in the Hurley Convergence Center |
| Is a VR video campus tour comparable to an in-person guided tour? | ● Yes, because you get to “travel” around campus while still getting pieces of information while doing so.  
● Yes, because you get to be immersed in the campus’ atmosphere. The air may be |
VR Video

Note: I am in the VR video holding the 260 camera. My face is blurred in an attempt to show that the cameraperson is insignificant to the video. Ideally, the camera would be on a rig or something like a stabilizer arm. Unfortunately, the prototype video is not stabilized, because I did not have access to a computer with enough power to run the video through a stabilizing software. Lastly, the video is not “clickable,” but does have a clicking sound to show what interactivity could be like.

To view the prototype, click on the video embed in the PDF. If that does not work then click on this link: youtube.com/watch?v=GWtMI5G_0lg. This will take you to the video on YouTube. Once there, please make sure to set the resolution to at least 1080p. 4K is preferable if you have a device that supports that. To view the video, use a Google Cardboard or a similar VR headset.