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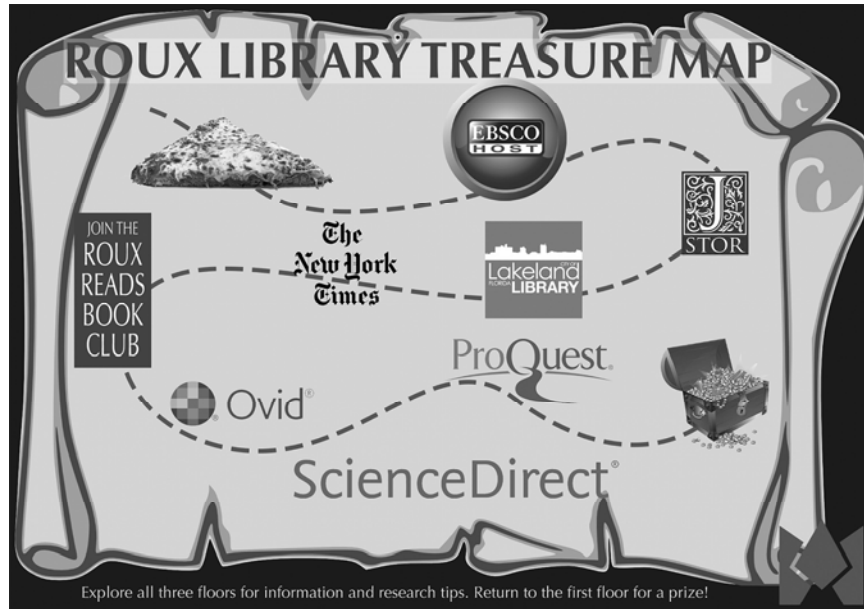
## Augmenting Orientation

### Animating an Interactive Welcome Event at an Academic Library with AR and VR

*Julie N. Hornick and Steven Wade*

The school year begins and students come flooding back to campus. New students get their dorm rooms set up and try to find their way around campus. Returning students meet up with friends they haven't seen in three months. Faculty finalize syllabi and organize research they worked on over the summer. Libraries plan events and orientations to showcase their resources for the campus community and to get the students in the library doors. These events take many forms, from luaus<sup>1</sup> to tailgate parties,<sup>2</sup> and from table games<sup>3</sup> to complex interactive games based on mystery themes<sup>4</sup> or popular literature like *The Hunger Games*.<sup>5</sup> It was within this back-to-school context that the librarians at Florida Southern College began to plan for our annual open house. As it is for many academic libraries, the challenge for us is not only keeping these annual events fresh but also addressing the perennial problem of students who may be inclined to feel scared, lost, or confused about the prospect of using an academic library.

Florida Southern College is a small, balanced arts and sciences institution with a full-time enrollment of approximately 2,500 students. In years past, the Roux Library open house event at Florida Southern College has been held in conjunction with other student orientation activities on campus and designed to get students to come to the library, meet librarians, learn about the resources we have available, and enjoy some pizza (figure 5.1). However, this year, in an effort to condense the orientation agenda for the incoming 2016–2017 freshman class, the library open house was among events cut from the official schedule. This left us on our own in terms of getting students into the library for our event. Wanting to reach as many students as possible, we were faced with how to best bypass the students' natural anxiety about coming to the library in order to introduce them to the



**Figure 5.1. Roux Library Treasure Map. Florida Southern College.**

resources and information they will need throughout their academic career. The Pokémon GO phenomenon of the summer of 2016 provided the inspiration for incorporating augmented reality into our efforts.

This chapter begins with some background on the technological climate of the summer of 2016, and a consideration of library anxiety. We then discuss how we were led to choose the Aurasma augmented reality and Google Cardboard virtual reality apps based on student interest. The chapter will conclude with a description of how we set up the event. With this case study, we hope to provide similar organizations, as well as school or public libraries without extensive in-house IT support, but with enthusiastic library staff, with an easy-to-follow model of the planning process and the steps taken to set up these interactive activities. At the time of the event we did not do a great deal of assessment or qualitative analysis, and further study is needed to conclusively determine the impact of the event.

## BACKGROUND

The Pokémon GO app, launched in the summer of 2016, allowed fans of the long-running video game series to bring the game to life in their own

neighborhoods and public parks. The app used augmented reality to display the creatures on a player's mobile device, appearing to place them in the real world. After its debut, it quickly became the most popular mobile game in U.S. history.<sup>6</sup> By the middle of July 2016, the application was drawing in over 25 million daily active users, according to SurveyMonkey Intelligence.<sup>7</sup> In almost any public space, one could see people walking with purpose, phones out, searching for that rare pocket monster they needed to add to their Pokédex. Would you find a Pikachu in your local library? What about a Tauros lurking at the local train station? Our student workers were discussing the game, proving to us that at least a portion of our college population was, if not actively playing, at least familiar with the game. When the time came for us to plan our annual back-to-campus event, finding activities to capitalize on this interest seemed like a novel way to increase the students' enthusiasm for participating in the open house.

A recent course taken by one of the authors on resources and methods for integrating new and emerging technologies in the classroom suggested a tool we could use. Among the many resources examined in the class was the Aurasma augmented reality application, a relatively easy-to-use online program with an accompanying mobile app. Aurasma allows users to identify a “trigger” (an object or place they want to highlight in the real world) and link an “overlay” (an image, video, words, etc., that will appear on screen) to that trigger. The combination of trigger and overlay is called an “aura” (figure 5.2). While it is clearly more basic in principle and practice than the Pokémon GO game, the parallels between Aurasma auras and Pokémon GO are obvious. Including an augmented reality activity using Aurasma in our

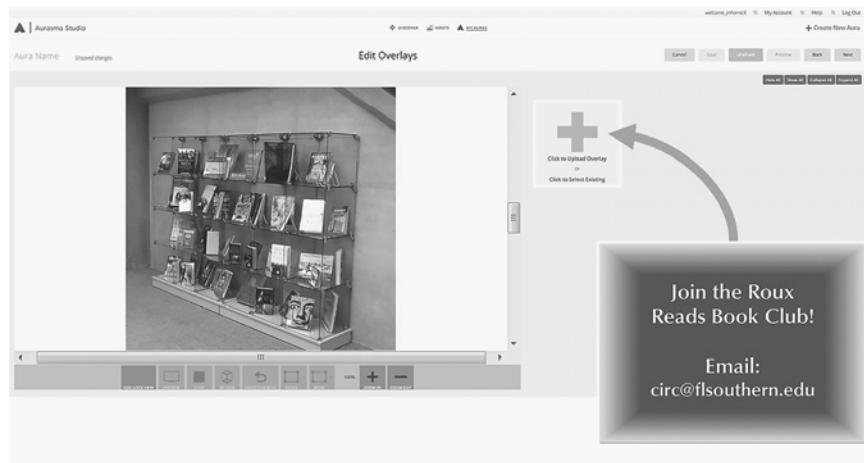


Figure 5.2. Creating an Aura with Aurasma. *Florida Southern College.*

open house event felt like a natural tie-in to an activity that so many students would have been participating in over the summer break; one very likely to increase the engagement of the students in the orientation activity.

The spring and summer of 2016 also saw a surge in interest in virtual reality (VR) devices. The Oculus Rift and HTC Vive headsets were released early in 2016 with great fanfare, and many expected big sales. Early estimates put HTC Vive at around 100,000 units sold by July,<sup>8</sup> although a year in, sales figures still had not been released. *Forbes* cited industry analysts' belief that Vive had sold 500,000 units to Oculus Rift's 250,000 as of April 3, 2017.<sup>9</sup>

These high-tech models are meant to be paired with video game consoles and cost several hundred dollars, pricing them out of range of many of our students. However, we knew that virtual reality can be as simple and inexpensive as Google Cardboard, a do-it-yourself cardboard frame that can be wrapped around a mobile phone. Cardboard was introduced in 2014, and several mobile apps have been released to take advantage of the technology. Content is being developed daily for use with these VR devices, and news organizations in particular have been using VR to connect viewers more intimately with stories using 360-degree video. One such app by the *New York Times*, NYT VR, features educational and informative videos with striking imagery. We believed that demonstrating the app using Google Cardboard would prove to be another effective way to entice students into the library, and would provide us the added benefit of being able to sign them up for access to the *New York Times* through the library's subscription.

## AVOIDING LIBRARY ANXIETY

Anxiety is generally acknowledged as one roadblock that keeps students from coming into an academic library, and was something we hoped to mitigate with our event. In her seminal study, Mellon highlighted several characteristics of library anxiety, one of which is that many students do not know how to use a library's resources and are afraid to ask for help.<sup>10</sup> This self-perpetuating cycle can be difficult to break. Van Kampen-Breit and Cooke illustrated this fact in a study that found that a significant percentage of students surveyed were unwilling to ask for help from library staff. Students also perceived librarians to be often too busy to help them with their information needs.<sup>11</sup> There may be many causes of library anxiety, including bewilderment at how the library is organized, unfamiliarity with equipment and resources in the library, and fear of asking questions of librarians whom they perceive as unapproachable.<sup>12</sup>

What can librarians, who know the importance of the library to a student's academic career, do to alleviate that anxiety? One possibility is to schedule

introductory events for the students. A number of studies examine the usefulness of this approach. Seeholzer found that social events have the potential to increase the students' perception of the library as a "welcoming" place, and of the library staff as approachable.<sup>13</sup> Logically, according to Kang, the less students have used their academic library, the more likely those students are to feel some anxiety about using that library. The inverse is also true.<sup>14</sup> Van Kampen-Breit and Cooke pointed to the need to "foster stronger relationships with library users" and recommend that libraries look for ways to engage with patrons in "non-threatening" ways to increase their users' comfort with the library staff.<sup>15</sup> Carlile noted that providing students a "positive library experience" in a "non-threatening environment" can also help to allay their anxiety.<sup>16</sup> Her research also indicated that librarians "getting to know students in an informal setting may contribute to their comfort and confidence levels, which, in turn, allows them to feel less anxious about using the library."<sup>17</sup> These findings have been borne out in other studies, as well.<sup>18</sup>

Engaging students in active learning has also been shown to reduce students' anxiety. Halpern reviewed several studies showing that "active learning for information literacy in the classroom environment is more effective than a didactic approach for student engagement . . . and alleviating library anxiety."<sup>19</sup> Additionally, Carlile's research found that instruction that incorporates more affective elements may help to decrease anxiety.<sup>20</sup> Not only is it useful, then, to use engaged learning techniques to lower a student's affective filter, but creating an activity that is fun can also help to accomplish that goal. We decided that gamification of our orientation with AR and VR would add that needed element of fun.

## TECHNOLOGY IN LIBRARIES

The use of AR and VR technologies in classrooms and library settings is becoming more common.<sup>21</sup> Many authors take note of their usefulness in developing engaging activities and holding the interest of digital natives.<sup>22</sup> Instructors and librarians are using AR to bring resources to life and to provide valuable or useful extra information about collections, resources, and services.<sup>23</sup> Further, van Arnhem and Spiller noted that using AR allows libraries to "engage with patrons in a way that meets patrons' expectations, a need that is recognized as an integral part of the library experience."<sup>24</sup> Additionally, K–12 school libraries are increasingly using AR to create interest in reading<sup>25</sup> or to invigorate tired orientation lectures.<sup>26</sup>

Academic librarians can thus assume that students will come to campus from high school familiar with these newer technologies, and perhaps even expecting to find AR or VR technologies in place. In his paper discussing the use

of AR and VR in libraries, Massis noted that as our patrons become increasingly familiar and comfortable with various digital platforms, it is important for libraries to keep up with the technology, understanding that making these technology-rich experiences available to our students will not only help keep them engaged but also increase their information literacy.<sup>27</sup> Moorefield-Lang observed in her discussion of VR platforms—from those as complex as the Oculus Rift to ones as inexpensive and accessible as Google Cardboard—that VR has the potential to increase student excitement and engagement.<sup>28</sup>

The literature is clear in its analysis that librarians can effectively counter library anxiety in students by providing high-interest, engaging activities in an informal, non-threatening environment. By acting as early adopters of this technology, and by putting AR and VR in the hands of students, libraries will be seen as innovators and will be better positioned to use these technologies as they become more sophisticated.<sup>29</sup> Given the indisputable popularity of Pokémon GO and the increasing excitement about VR, incorporating AR and VR elements into our open house seemed like a promising formula to present an image of the library as both a modern and a welcoming place. Further, using augmented reality to power a self-guided tour of the library gives the students more control over the experience, and gives students the option to complete the activity in a group, individually, or with the help of a librarian, according to their preference.

### PLANNING “DISCOVEROUX”

We began planning for the event over the summer by contacting some of our major content providers and asking for giveaways. Prize giveaways have always been a part of Roux Library open house events in the past, and are recognized as an effective motivator in the literature.<sup>30</sup> At our event, students receive pens, highlighters, notepads, and other items by visiting different stations throughout the library. Prizes that feature vendor logos have the added benefit of reminding students about content the library makes available to them. Among the items we received were two Google Cardboard viewers from the *New York Times*, which we decided to promote as a grand prize item for students who completed the treasure hunt. Finally, we planned to offer pizza for students who might not be attracted with anything short of the promise of food.

As the library was no longer a required stop in the campus-wide student orientation, promotion of our event became a new and critical part of our planning phase. We knew that no matter how exciting the program might seem to us, if the students weren't aware of it, they wouldn't come, and putting up a few signs in the library wouldn't be enough. We decided on a catchy name, DiscoveRoux, which the students would recognize from our discovery

interface, and which would be illustrative of what the event was designed to accomplish. Our campus Student Solutions office offered the services of their student graphic designers to develop an eye-catching flyer to be posted around campus (figure 5.3), and we designed an in-house poster for table-top displays in the library and our adjacent coffee shop (figure 5.4). In addition, we asked professors to encourage their students to attend and put announcements out through social media and the campus email system.

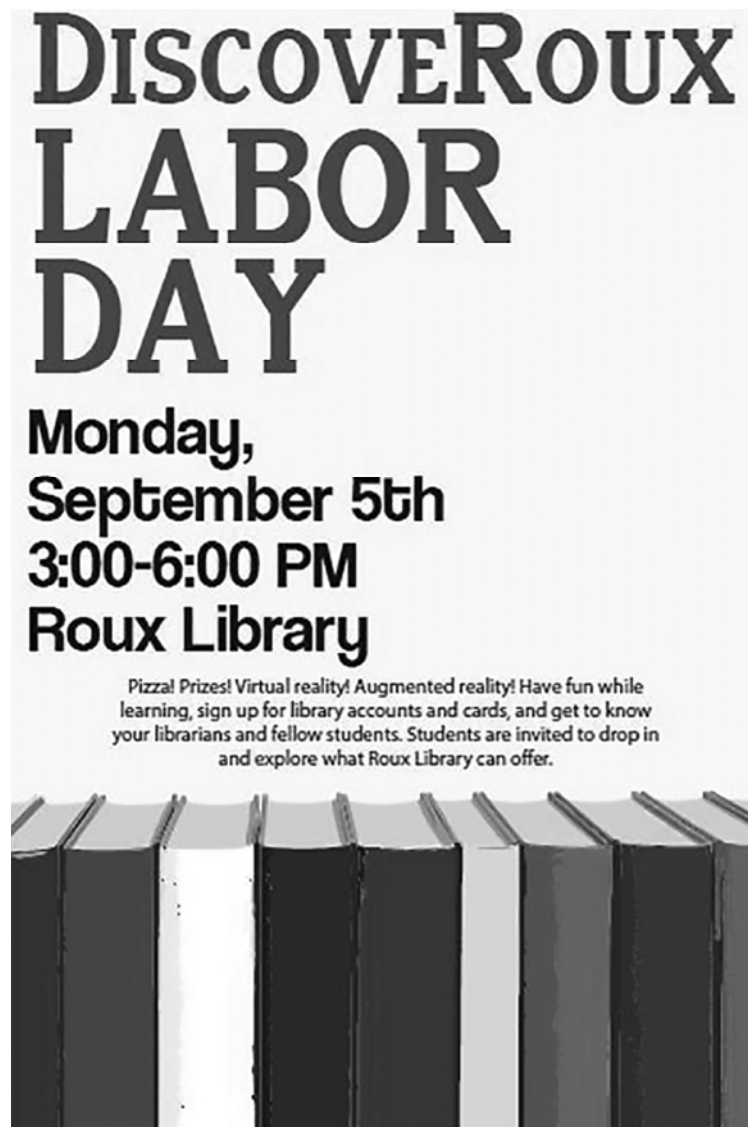
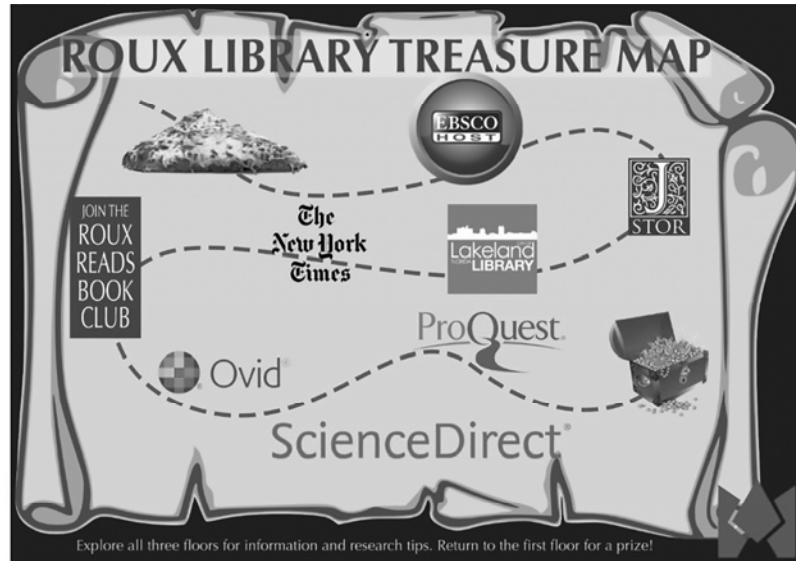


Figure 5.3. Student Solutions DiscoverRoux Flyer. *Florida Southern College*.



# Discoveroux!



## Pizza!

### Prizes! Virtual reality! Augmented reality!

Have fun while learning, sign up for library accounts and cards, and get to know your fellow students and librarians.

Come explore what Roux Library has to offer!

**Date: Monday, September 5th**

**Time: Drop-in anytime from 3-6pm**

Figure 5.4. In-house Discoveroux Flyer. *Florida Southern College.*

## Aurasma

In designing our AR activity, we needed something that included a downloadable app that would be free and easy for the students to use. While there were other AR options available (Layar, ZapWorks, and Blippar, to name just a



few), many came with a cost, and the authors were familiar with Aurasma. This app is free, making it the natural choice for our purposes. Moreover, using Aurasma Studio to develop AR elements is a relatively straightforward process, as previously described. To plan, we identified areas of the library and specific resources we wanted the students to be aware of (e.g., our DVD collection, our popular books display, the copier/printer area, popular magazines, study carrels, the library classroom), as well as some “points of interest”:

- A life-size cutout of a TARDIS
- A larger-than-life brass rubbing of Robert the Bruce
- The record player and record collection
- The fiche reader and microfiche cabinets
- A temporary rare books display

Next, we had to decide what we wanted to do for overlays. Text-based overlays with a description of each site would have been informative, but using text-heavy overlays would have done little to alleviate the discomfort or anxiety students may have had with the library. Instead, we decided to take a more entertaining approach. In the end, we chose amusing GIFs and memes that related in some way to the trigger, and let the students simply discover what the library has to offer them. For example:

- Our brass rubbing of Robert the Bruce was paired with a meme of Mel Gibson as William Wallace (who actually fought by Robert the Bruce’s side) yelling, “Freedom!”
- Our game display was overlaid with a nerd culture GIF.
- Our copier/printer area was accompanied by a GIF of the character Samir Nagheenanajar, from the movie *Office Space*, exclaiming in frustration over a malfunctioning copier (figure 5.5).

We still had to find a way to get students to discover the trigger areas, and so we wrote directional clues through which they could learn something about the library, in addition to finding the aura triggers. We made the clues only minimally difficult to figure out in order to keep the frustration to a minimum, while asking the students to think, at least a little bit. For example, the clue for the display of board games read, “Looking for something to do with your friends on a Saturday night? Roux Library has plenty of these to choose from. We promise you’ll never get *board!*” To help the students discover our study carrels, they were provided with this clue: “It’s finals week. Your roommate is driving you crazy with Zen bells and yoga breathing. You need a space all to yourself to study. Find that place on the second floor.”

## DiscoverRoux Triggers &amp; Overlays

| Trigger   | Overlay                                 |
|---|---|
| DVD collection .....                                | horror movie reaction shot              |
| Tardis.....   | flying/spinning tardis                  |
| Game display .....                                  | nerd culture gif                        |
| Remnant Trust Display.....                          | ancient book being opened/paged through |
| Popular Books Display .....                         | Gaiman quote                            |
| Robert the Bruce .....                              | Braveheart meme                         |
| Copier/Printer area .....                           | Office Space printer                    |
| Magazines .....                                     | spinning magazines                      |
| Record Player / Records.....                        | Lilo                                    |
| Study Carrels.....                                  | Lord of the Rings meme                  |
| Lakeland Ledger Drawer of the Microforms Files..... | link to Ledger calendar of events       |
| Fiche Reader .....                                  | Simpsons fiche GIF                      |
| Library Classroom .....                             | info lit word cloud                     |








**Figure 5.5. Triggers and Overlays. Florida Southern College.**

The clues were then included on the activity sheet that all student participants received when they came into the library for the event. Those activities that required the use of the Aurasma app were indicated by the Aurasma logo on the activity sheet (figures 5.6 and 5.7).

After developing the auras, we asked some of our coworkers to test them out to see if everything was going to work smoothly. Getting library staff ready to start the activity pointed out the need to make sure participants had clear instructions so they would know how to access the auras (figure 5.8). Once that issue was resolved, we sent them off to see if they could figure out the clues and get the auras to work. No one had any difficulty with the clues, but most reported that they could not get a number of the auras to work.







From the difficulties they encountered, we realized that we needed to take several pictures of each trigger from several different angles because participants could not be expected to stand exactly where the aura's developer had stood when setting it up. All of the new pictures were then uploaded as triggers, and paired with the original overlays to create the desired auras. We tested them out a second time and found that most of the problems had been resolved. We had to discard a couple of the triggers when it appeared

### What's Your Library Treasure Hunt Aura?

| Clues & Activities  |   | Description of the aura/Stamp: |
|---|---|--------------------------------|
|    | 1. "Consumer Reports," "Ebony," "Sports Illustrated," and "Vogue." Read them all at Roux.   |                                |
|    | 2. If you want to travel through space and time, this is your ship.   |                                |
|   | 3. Stop by the Roux Reads Book Club information table. Find out what cool things they have planned for this year. Like what you hear? Become a member!                          |                                |
|    | 4. Your paper is due in 15 minutes and your printer is out of ink. Use ours, instead!   |                                |
|    | 5. "The Martian," "The Force Awakens," "The Revenant," & "Chi-raq": Roux has them all, and many more.   |                                |
|   | 6. Looking for something to do with your friends on a Saturday night? Roux Library has plenty of these to choose from. We promise you'll never get <i>board</i> !               |                                |
|  | 7. Have you ever held a book that was hundreds of years old? With this special exhibit, you can.  |                                |
|   | 8. Love to read? Want to check out even <i>MORE</i> DVDs and audiobooks? Pick up some information and sign up for a public library card at the Lakeland Public Library display. |                                |
|   | 9. Try out the Google Cardboard VR goggles at the New York Times display and get your account to access "all the news that's fit to print."                                     |                                |
|  | 10. There aren't many on the first floor, but it's what you expect to find in a library.  |                                |

 use your device/tablet to view the aura with the Aurasma app.

Figure 5.6. DiscoverRoux Activity Sheet, page 1. Florida Southern College.

|   |  |  |
|---|--|--|
|   | 11. Visit the EBSCO Host/ProQuest display, sign up for your account, and find out how EBSCO and ProQuest can help you in your studies.   |  |
|    | 12. This man fought with the forces of William Wallace in 1298.  |  |
|    | 13. Want to experience the phonic sound of vinyl? Somewhere on the second floor, you can.  |  |
|    | 14. It's finals week. Your roommate is driving you crazy with Zen bells and yoga breathing. You need a space all to yourself to study. Find that place on the second floor.  |  |
|    | 15. Are you dying to find out what happened in Lakeland on December 20 <sup>th</sup> , 2013? You're in luck. Find the Lakeland Ledger in the huge filing cabinets on the second floor.                                 |  |
|    | 16. OK, now you've got the little sheet of plastic. How do you read it? The fiche reader!  |  |
|   | 17. Are you a nursing or health sciences student? Ovid is an excellent source of information. (Special goodies available for all nursing/health sciences students while supplies last.)                                |  |
|   | 18. JSTOR aims to expand access to scholarly content around the world and to preserve it for future generations. Sign up for an account and start using their resources today. App and loot available, too!            |  |
|  | 19. On the third floor, you might come here with a class to learn more about how to research effectively.  |  |
|   | 20. If you're now taking any science courses, or will take any in the future, ScienceDirect is an excellent source of information for your studies. Sign up for an account today and pick up some swag while it lasts! |  |

 use your device/tablet to view the aura with the Aurasma app.

**Figure 5.7.** Discoveroux Activity Sheet, page 2. *Florida Southern College.*

Name: \_\_\_\_\_

Contact Info: \_\_\_\_\_

### **What's Your Library Treasure Hunt Aura?**

Your mission, should you choose to accept it, is to complete as many Treasure Hunt and Aura activities as possible. If you complete at least 15 of the 20 possible tasks, bring your form to the prize table to claim your choice of prizes.

Completed forms will also be entered into a drawing to win a set of New York Times Google Cardboard virtual reality goggles!

Some tasks require you to find the appropriate station, and collect a signature/stamp after you have completed the activity at that station.

Other tasks ask you to use the Aurasma app (available for free in the App Store or Google Play; or, you may use the library's iPad when it is available) find the triggers in the library that correspond to the clues, lock in on the trigger, watch the aura that comes up, and fill in the description of that aura. To get started, be sure to download the app and follow our auras:

1. Go to the magnifying glass search button in app.
2. Type in the account name (jnhornick).
3. Select any one of the aura pictures that come up.
4. Press 'follow'. The auras will then be available to your device.

You're free to complete the auras/stations in any order you like – you don't have to move from 1 to 2 to 3, etc.. (HINT: you won't need to open any doors or drawers to finish the activity.)

When you've filled in at least 15 of the 20 spaces on your game sheet, bring it to the prize table for your choice of available prizes.

Plus, all completed sheets will be entered in a drawing to win the Google Cardboard grand prize. Just put your name on the sheet along with a contact number/email and drop in the grand prize container.

 *use your device/tablet to view the aura with the Aurasma app.*

**Figure 5.8. Treasure Hunt Aura Instructions. Florida Southern College.**

that they were too specific or variable; for instance, an aura of the circulation desk did not work because pen holders, staplers, mice, and other objects kept getting moved, making the original snapshot obsolete.

Another factor to consider was the students' access to a mobile device that they would want to use for the activity. In order to work with the auras, students would need to download the free Aurasma app to their devices and then link to our auras. However, we realized that a student might not be able, or willing, to download the app to their device. With this in mind, we decided that we would make the library's iPad available for them to use, which took care of the issue. The activity also included several clues that could be completed without the use of AR for students who preferred not to use either the Aurasma app or the library's iPad.

### Virtual Reality

Our VR activity used the Google Cardboard viewers and was less interactive than Aurasma, but was expected to be equally engaging. Although there are several apps that take advantage of a phone's motion sensitivity to add an interactive element to the Google Cardboard experience, our demonstration using VR videos from the *New York Times* did not use this feature. With NYT VR videos, users can turn their heads to view different angles of the scene, but there is no interactive "game" aspect involved (figure 5.9). The Google Cardboard viewer requires very little assembly and is held together



Figure 5.9. Florida Southern College Student Experiencing VR. *Florida Southern College.*

with Velcro®. For convenience, we used one of the authors' smartphones, pre-loaded with two NYT VR videos and attached to headphones to enhance the user experience.

Although its popularity is steadily increasing, virtual reality is still a new concept for many students, and Google Cardboard is the preferred format for many VR users.<sup>31</sup> To capitalize on this, we set up our VR station on the first floor in full view of anyone walking through the library or using the coffee shop next door. We also had an extra Google Cardboard viewer that we advertised as a grand prize for students who completed the AR activity and visited each database information treasure hunt station. Those students who participated fully in this orientation activity showed a great deal of interest in the possibility of winning the Cardboard viewer. We asked those who wanted to enter the drawing to provide their contact information so they did not need to be present to win. At the end of the evening, we drew for the winner and notified her the next day.

### **Discoveroux**

On the evening of the Discoveroux open house, the pizza was delivered and the student workers who would be helping participants to sign up for database and public library accounts were set up at their stations around the library. The Google Cardboard VR viewers were ready, and our treasure hunt activity sheets were printed, complete with instructions. As attendees dropped in, we asked them to sign in on the computer, and gave each an activity sheet to use as a guide in completing the treasure hunt.

We found that even with the written instructions for using Aurasma, most participants required some personal assistance in downloading the app and accessing the library auras. However, once those steps had been completed, the students were able to complete the activity with few problems. There were a couple of the triggers that still seemed difficult to zero in on sufficiently to get the overlay to appear: notably, the DVDs, record albums, and microfiche drawers. The difficulty likely occurred because the chosen triggers lacked clear enough detail for the cameras on the devices to register them well. Of all who participated, only three students opted to use the iPad: one because his phone was not able to download the app, and two simply because they preferred not to download it. Those who used the iPad did not have the same issues as people using their own phones, because it was already set up for the activity.

## **CONCLUSION**

### **Successes**

Overall, we felt that the open house event achieved our goal of getting students to feel comfortable in the library. We estimated about one hundred



participants, which was consistent with previous years when the event was part of the college's formal orientation. From an informal survey that students could complete if they wished, about two-thirds of those who participated in the AR activity reported that they enjoyed following the clues and discovering the overlays, commenting that they appreciated the "fun pictures and memes" or found them "cute." Further, we observed that most were excited to choose from among the available prizes when they turned in their activity sheets. Most of the attendees entered the Google Cardboard drawing, while some opted out. Although we did not do any formal assessment at the time of the event, a number of students have returned to the library to check out the Google Cardboard viewer, and our end-of-year student survey revealed that, nearly eight months later, students who had attended the event in September still thought the open house was, in the words of one student, "awesome."

### Lessons Learned

The event was not without a few glitches and lessons learned for next year. While free pizza was a powerful draw to get the students into the building, many of them left immediately after grabbing their slice without participating in any of the activities. Other students started the Aurasma activity, but became bored and did not bother finishing. From the one-third who indicated on the informal survey that they did not enjoy the activity, comments included that they felt the activity "didn't have a point" or was too easy or too time-consuming. Even with our efforts to overcome library anxiety with fun, low-pressure activities, there is a need to keep the students interested and engaged so that we can accomplish our goal of exposing them to our resources and services.

Some modifications to the Aurasma activity may help prevent frustration or boredom in the future. As suggested by Kang, having a sign or symbol by the target location in the library can streamline the activity by providing a set object for the students to focus on with their devices. This would reduce the frustration of looking for the right angle.<sup>32</sup> As some of the survey respondents felt it was "hard to find things," having fewer clues may also be effective, although striking the right balance will take some trial and error. Presenting the activity as a group competition could be another option to generate more interest. We hope to re-create the AR and VR activities in the coming years, working out the kinks as we go and collecting concrete data on how effective the event is at lowering the participants' affective filter with regard to the library.

Finally, both our AR and VR activities were visually oriented, but not demanding physically; while we did not encounter any students with physical

or cognitive disabilities that would have hindered their ability to participate in any of the activities, we are aware of the need to be sensitive to this eventuality. Having student employees available as “buddies” to assist patrons with visual or other impairments would be one way to meet this need in the future.

It is an ongoing challenge to bring new students into the library each year and communicate the value of our resources. Augmented and virtual reality provide fresh opportunities to reach students in relevant and exciting ways, and can be implemented with very little impact on budgets.

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