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INFO 287 - The Hyperlinked Library

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Augmented Reality in Public Libraries: Fostering Accessibility with Emerging Technology

Action Brief

Assure community members with disabilities or mental health conditions that by utilizing the public library's Augmented Reality (AR) features they will have a more comfortable and accessible experience, because the library wants to be accessible to all of its community members.

Idea

The mission of this public library is to create an information environment for all, but it has been observed that there are gaps in the library's ability to serve people who have mobility issues, anxiety disorders, vision impairment, and other related problems. The main concept of this program is to design an AR map feature that guides patrons through the library both in-person and online. It would also implement additional features such as virtual library tours, online assistance, item locating, and more accessibility features that are both trauma informed and interculturally competent.

Users would be able to access this feature through the library's website, and it would function as an integrated participatory service; for example, if someone has an anxiety disorder

relating to unfamiliar places, they could take a virtual tour of the library first to become accustomed to the area. If the patrons were already at the library, to give an additional example, they could also refer to the AR map to find shelf locations without needing to seek help from an employee. Library staff is always there to help, but sometimes a mental health condition or a trauma response will make it difficult for patrons to find assistance in a head-on way.

Objectives & Community Focus

The main goal of this program would be to fill the gaps in accessibility that have long existed, and fulfill the mission of the public library while doing so. These improvements would not just help the underserved community members, but it would also help the current patrons who use the library everyday. Psychological trauma affects around 70 percent of adults in the United States “at some point in their life” (Conley, 2019), and more than 1 in 4 adults have a disability of some kind (CDC, 2024). Designing library features that have trauma and accessibility in mind can close gaps that prevent libraries from being utilized and enjoyed fully.

Inspiration

This concept was inspired by the UC San Diego [First Year Experience](#), which is an AR scavenger hunt that guides new students through the library as a way of familiarizing them with the space (Tang, 2021). Students were reported to feel more at-ease and comfortable with the space after the tour, because it lowered the amount of unknown factors and made it clear that they were being kept in mind as individuals and new students. UC San Diego also added an element of gamification, which is a “technique that uses game elements, logic, and experience design to engage and motivate users for accomplishing their objectives” (Tang, 2021).

Gamification is a popular method for attracting younger populations to otherwise “boring” spaces, because it adds interest into learning something.

While the focus of the AR program in this paper's example may have elements of gamification, the primary focus will be on usability and functionality. While it is great to explore creativity, adding too many features can sometimes negate the progress made towards accessibility.

Guidelines, Policies, Timelines, and Trainings

This program will be used by choice of the patrons alone, and since the features of the program are augmented in nature, it would have no effect on those around them. This means that there would only need to be limited policies and guidelines on the use of the AR, if any at all. Employee policies and guidelines would differ; however, as the AR will only be useful as it is up-to-date and aligning with the layout of the library.

While this program will create full independence and self-navigated experiences for the intended patrons, staff will still need training for the processes regarding the upkeep. As the library changes and collections are moved around, staff will need to know to report these changes to the person in charge of the AR. The program will only be useful as long as it is relevant and correct; If it guides patrons to a wrong section it will create a bad experience for the individual, and mistrust in the library. The timeline of creating the AR program will align with how long it takes to properly map out the library and match up shelf locations with the content. There is also a dependency on this same employee(s) to gain notice of changes and implement them as soon as possible.

Marketing

This initiative will have an online-marketing focus, as patrons who have not been able to use the library in-person will most likely view it this way. One clear downside of this technology-forward program is that it will be vastly unusable to those who struggle with computers or smartphones, although the benefit of opening up the library to a wider audience does outweigh this in the long run. Marketing this program to those who are already tech-savvy is a good way to draw in that intended audience, and make it clear that the library wants to welcome them in.

Evaluations

Since this will be a half-digital program, user reviews will be implemented to report any issues or bad experiences. These reviews can go towards improving the program on a routinely scheduled basis. Expansion of the program will only be needed as the library itself expands, and updated when the library is updated. The key importance of this program will be the information relevancy and alignment with the library itself, and as the information is updated, the user reviews can be implemented at the same time. The program, much like the library itself, depends entirely on its usefulness to the community.

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