PLP Innovation and Technology Opportunity Grant Program Application

Library Name:　　　Palo Alto City Library

Project Title:　　　XR Storytelling

Select criteria that you are applying under (check all that apply):

☒　Service that introduces a new idea, program or vision that is not currently used in libraries in response to the COVID-19 pandemic.

☒　Service that may benefit other PLP members in response to the COVID-19 pandemic.

☒　Service that may benefit other California libraries in response to the COVID-19 pandemic.

1.　**Please provide a one paragraph project summary.**

The XR Storytelling project is a 3-month pilot our library will undertake to test the effectiveness of a new livestreaming video production workflow against current methods. It is a *hardware-based* alternative to traditional *software-based* green screen virtual backgrounds and time intensive video editing.

2.　**Please provide a detailed description of the proposed project including the population served and the demographics of that population.**

This video production hardware grant is in response to the increased number of public libraries which now engage in virtual story time events, the limitations of software based green-screen technology, and limited staff time and experience using video editing software during the COVID-19 pandemic.

Our project would increase the video quality and immersive nature of storytelling through the creation of custom 3D environments and programmable, interactive lights for 4K video streaming based on popular children's book themes.

As part of this project, 2D virtual backgrounds will also be extracted from our 3D environments for use by other public libraries also engaged in online story time events, and the benefits (or potential negatives) of this livestreaming setup will also be documented and shared with other PLP libraries.

Palo Alto City Library serves a population of approximately 60,000 residents. Prior to the library's closure in March 2020, librarian led story time events was our most popular event

category and continues to be a daily event for viewers of our recently launched YouTube (100+ subscribers) and Facebook Live (2,500+ fans) users.

Our dedicated Children's Library, now temporarily closed, had a yearly average of 98,000 visitors between 2017 and 2019. It was a community staple. For a detailed view of program attendance by age group see https://data.cityofpaloalto.org/dataviews/255345/palo-alto-city-library-program-attendance/

3. What are the goals and objectives of the project?

Efficient

Rather than relying on complicated (and time consuming) video editing software to achieve visual effects, all storytelling elements are controlled by the presenter in real time. A similar innovation grant awarded by PLP in 2018 allotted over $10,000 in video editing costs alone. The newly proposed workflow in this project not only eliminates this additional cost but will give non-technical staff the ability to create breathtaking 3D scenes using commercially available videogame equipment and creative software tools.

Engaging

Custom backgrounds created for this project should act more like a stage rather than standalone art. They will be designed to not only help eliminate distractions for young viewers but also can *react* to each page turn or plot element as they happen. Many virtual story time events created by librarians have a similar look and feel—ours will stand out in the list of search results and recommended videos.

Innovative

Commercial videogames and VR equipment offer a novel approach to 3D environment creation which Palo Alto City Library has been using for over 3 years. This mode of special effects creation using video game elements *during* rather than *after* a scene is captured on film was only recently perfected by Hollywood studios, but its success has not been ignored. Many film industry leaders point to the fact that this new process not only makes it easier for actors to act, because they feel more connected to the scene they are acting in, but also encouraged their crew to try new ideas that would have otherwise been difficult to re-shoot later.

4. Explain how this project fits with the library's strategic directions.

This project is closely aligned with 2 goals mentioned in our 2018-2021 strategic plan. XR Storytelling, if successfully executed, should provide a more engaging experience for our youngest customers and builds on the expertise of our Youth Services and eLibrary teams by further integrating the library, and its many books, into the lives of our community.

Please include your project timeline (include detail of activities).

September 2020	Hardware and software purchases and configuration.
Oct- Dec 2020	XR Storytelling Pilot Begins.
January 2021	Data analysis of 3-month evaluation period.

5. **Please include your project budget. (Note: Indirect costs are not allowed).**

- 4K+ television screen to serve as video backdrop (~$2750)
- Height adjustable, portable TV stand (~$300)
- Software controlled, mobile LED lights (~$1300)
- LED light stands ($200)
- PlayStation 4 Pro videogame console ($400)
- *Dreams* videogame software ($50)

Estimated total: $5,000

6. **Please indicate how you will evaluate success of your project.**

Although it would be easy to compare our average view count for recorded videos and live story time events before and after this project takes place, over a similar 3 month period, it is difficult to say if those changes can be attributed to season traffic changes or other factors outside of the library's control, such as YouTube's recommendation algorithm.

Instead, this pilot project will compare the average view time of story time videos across out entire YouTube video library to see if online audiences react differently or are more engaged overall with story time videos that use XR storytelling equipment.

7. **Please indicate how the project will be sustained after the grant term is over.**

If proven successful with our community, and beneficial to staff engaged virtual in public outreach, we hope to expand the use of this XR Storytelling workflow and this experimental hardware setup to other online library services including eSports programs for teens and virtual instruction for adults and seniors.

As previously mentioned, 2D and 3D content created by the library during this pilot project will also be published on our website for future remixing and reuse by libraries worldwide.