REPORT

REPORT TO: Mayor Bonnette and Members of Council

REPORT FROM: Lee Puddephatt, Community Librarian

DATE: May 28, 2018

REPORT NO.:   LIB-2018-0005

RE: Virtual Reality

RECOMMENDATION:

That Report No. LBD-2018-010 dated May 28, 2018 regarding Virtual Reality be received for information.

BACKGROUND:

Public libraries are often the conduit through which community members gain access to new and sometimes cost-prohibitive technology. In 2017, the Halton Hills Public Library introduced, at no cost to our patrons:

- circulating internet hotspots (WiFi To Go)
- Cricut cutting machine – die-cutting machine
- Playstation 4 gaming system
- Laptops for in-house use
- Osmo gaming system – iPad accessory for gaming
- Ozobots – miniature robots

Virtual Reality (VR) is the latest innovative technology trend that has the potential to enhance the library's program offerings across all demographics and promote digital literacy throughout the Halton Hills community. Through the Improving Library Digital Services (ILDS) Grant received from the Provincial Ministry of Culture, Tourism and Sport, the Halton Hills Public Library has purchased Virtual Reality (VR) equipment and software applications that will improve access to digital resources and services in the Halton Hills community.

COMMENTS:

What is Virtual Reality?

According to industry professionals, Virtual Reality systems make it possible to experience nearly anything, anywhere, anytime through immersive technology that can convince the human brain it is somewhere it is really not. Users wear head-mounted displays that immerse them into a fully interactive, virtual world. Using state-of-the-art digital software applications, users can participate in virtual activities that range in scope from gaming, to artistic pursuits, to cultural experiences.

Virtual Reality systems in public libraries have become increasingly common since their launch in 2016, primarily as a means to provide free and equitable access to new and emerging digital resources. There are many ways in which libraries can offer Virtual Reality programming. The Halton Hills Public Library has implemented three different access points to Virtual Reality, all designed to accommodate on- and off-site programming and outreach opportunities: HTC Vive room-scale Virtual Reality system; Bluetooth-enabled mobile Virtual Reality headsets with smartphones; and the Play Station 4 Virtual Reality Gaming system.

What are the benefits?

The Halton Hills Public Library has used this VR equipment to facilitate digital innovation, recreation, and education opportunities through demographically-targeted program and outreach opportunities, including:

- Collaborating and partnering with local youth (age 12-18) to form a Teen Advisory Committee responsible for conducting a Virtual Reality "focus group" that tested the equipment and games, helped identify problems associated with proposed programming ideas, and offered solutions to some of the challenges faced in engaging the youth demographic;
- Coordinating and facilitating Virtual Reality programs in partnership with Off the Wall and Open Door Youth Centres.
- Developing Virtual Reality "pop-up" children's programming ideas to incorporate access to technology and digital resources using educational apps, such as Google Expeditions;
- Facilitating a library-wide "Retro Gaming Day" high profile event in partnership with The PC Gaming Museum to educate the community about the history of digital technologies, and provide free access to the latest technology trend, Virtual Reality;
- Partnering with schools and community organizations to showcase Virtual Reality as a digital literacy initiative at open houses, trade shows, and other public events held throughout the Town of Halton Hills;

- Coordinating and facilitating Virtual Reality programs in partnership with long-term care facilities for seniors with cognitive, physical, and emotional challenges that prevent them from experiencing the world outside their residential facility;
- Coordinating and facilitating Virtual Reality programs in partnership with recreational active living centers for older adults to encourage new experiences using technology, and engagement with their community resources;
- Training staff members on Virtual Reality technology and applications, troubleshooting the equipment, developing accessible user guides, and instructing members of the public on its use.

The demographic group that Virtual Reality programming has impacted the most in the Halton Hills community is older adults over the age of 55. Seniors who are limited by accessibility or cognitive issues can gain access to films, concerts, museums, and travel destinations through Virtual Reality programs in the library, at senior's centres, or out in the community. Following an extensive research period on the social and emotional benefits of Virtual Reality applications for isolated seniors, The Halton Hills Public Library partnered with Extendicare, a long-term care facility serving seniors in Georgetown, to provide an outreach program geared to residents with limited mobility.

First, Library staff visited the long-term care facility to conduct training with Extendicare employees on the use of mobile Virtual Reality headsets with seniors. Then, staff from the Library returned and coordinated with Extendicare staff to offer monthly VR programming sessions for residents. Residents participated in hour-long sessions, in which they were offered multiple opportunities to experience various Virtual Reality experiences.

The results have been remarkable. One resident in a wheelchair enjoyed a VR travel application where she could take virtual trips around the world, including to the Cayman Islands where her son and his family had recently travelled. Another resident, who lives with aphasia, spun in circles while taking a virtual trip to Paris, reaching beyond her Virtual Reality headset and repeating "Oh la la!" An application allowing viewers to virtually attend The Royal Ballet transfixed a resident for the entirety of a performance. Staff will continue to facilitate this program to long-term care residents, providing access to the Virtual Reality equipment for a minimum of ten participants at least once each month.

In addition to providing access to these digital resources at long-term care facilities, the Halton Hills Public Library has also partnered with the Hillsview Active Living Centers in Acton and Georgetown to provide Virtual Reality programming for older adults using these recreational facilities for social interaction. Staff has coordinated themed weekly drop-in programming opportunities using the mobile VR headsets to expose participants to various Virtual Reality experiences, including: sports events; music concerts; plays and theatrical productions; and visits to areas of cultural interest, such as art galleries, operas, and museums.

Both of these facilities will host a Virtual Reality Extravaganza event to celebrate National Seniors Month in June, and have invited the Halton Hills Public Library to set

up the HTC Vive Virtual Reality Gaming system for participants to experiment with room-scale VR experiences, such as creating virtual, three-dimensional artwork using the Google Tilt Brush application.

How to access?

HHPL staff has been showcasing the Virtual Reality equipment through in-house library programs, and participation in local community events. Following the official launch date of the Virtual Reality system on June 9th, 2018, HHPL will host scheduled programming timeslots each week at the Georgetown and Acton branches for all members of the Town of Halton Hills community to participate, free of charge.

These Virtual Reality systems have already dramatically changed the ways in which the Halton Hills Public Library can interact with the local community. The addition of specialized Virtual Reality technology equipment solidifies our position as an innovative digital hub that provides access to high quality programs and services, and an essential space for people to access technology, cultural experiences, and community connections. We have expanded our ability to engage with members of hard-to-reach demographics through partnerships with local organizations, and proven that our Library can evolve alongside new and emerging technology.

HHPL's Teen Librarian established small focus groups with the Teen Advisory Committee and created survey questions to ascertain the most effective ways to engage the youth demographic. Staff learned that teens prefer collaborative games and bookable programming time slots versus our original premise that this age group would prefer single-player games and drop-in sessions; this data has influenced the ways in which our summer programming for youth will be offered.

In addition to providing access to digital resources within the Library, the portable nature of this technology allows a greater outreach impact. The Library has taken the Virtual Reality system out into the community to engage members where they live, work, and play, expanding our ability to provide services and resources. Staff are able to bring the system to schools, events, and youth centers, such as the Open Door Georgetown Youth Drop-in and the Off the Wall Acton Youth Drop-in, for off-site programming opportunities. As noted above, the Community Librarian has taken the VR equipment to long-term care facilities where isolated seniors are able to experience the world outside their residences.

RELATIONSHIP TO STRATEGIC PLAN:

The recommendation within this report supports the Town's Strategic Goal:

1. Municipal Service Delivery: Effective, efficient and economical delivery of the Town's existing services.
2. Sustainability: Address the Social Sustainability Pillar focused on improved services for seniors, youth and the disabled.

It supports the Halton Hills Public Library Board's Strategic Plan 2017-2022 related to:

1. Cultivate and deliver leading-edge resources and expertise so residents can realize their life goals and contribute to a healthy and thriving community
2. Deliver the distinctive HHPL experience where key audiences gather
3. Position the Library as a significant contributor to the local cultural sector and, as a trusted vital community asset
4. Raise awareness of the Library's many non-traditional programs and services
5. Strengthen connections with partners and community innovators

FINANCIAL IMPACT:

There are no direct no financial impact directly associated with this report.

CONSULTATION:

Staff consulted with other Library systems that have launched similar Virtual Reality services including the Kitchener Public Library, Toronto Public Library, Idea Exchange, and Wellington County Public Library. Staff also consulted with businesses offering Virtual Reality platforms, including CTRL V in Waterloo and Guelph, and Google in Waterloo.

PUBLIC ENGAGEMENT:

There has been no public engagement associated with this report.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The recommendation outlined in this report advances the Strategy's implementation.

This report supports the Social Well-being pillar of Sustainability and in summary the alignment of this report with the Community Sustainability Strategy is excellent.

COMMUNICATIONS:

There are no direct communication implications associated with this report.

CONCLUSION:

There has been a significantly positive response since introducing the Virtual Reality system to the Halton Hills community. The Library's social media platform statistics illuminate the online engagement of our followers when information about our Virtual Reality equipment acquisition was shared. During the month of April, HHPL's Marketing

and Communications Specialist published four posts on the Library's Facebook and Twitter pages, resulting in an online reach of 4336 users, and a total engagement of 102. The Independent Free Press newspaper ran a story on the upcoming launch of Halton Hills Public Library's Virtual Reality launch and associated programming on April 20th, 2018, which helped raise the profile of the Library's digital resources acquisition and create buzz about our upcoming launch. We have also been able to share the new and dynamic programs and services that the Library offers its members by providing access to digital resources at community events, including the At Home in the Hills show where 103 attendees tried Virtual Reality in a public space.

As the library continues to expand the depth and breadth of Virtual Reality programming, increased exposure to innovative digital resources and services will make a difference in our community for youth, seniors, and lifelong learners

Reviewed and Approved by,

Geoff Cannon, Director of Library Services

Brent Marshall, CAO