Realizing the Untapped Potential of VR/AR for Libraries

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A Bit About Me

- Senior Program Manager at the University of Michigan Library
- Previous experience at small academic, corporate, and special libraries
- Edited books focused on library technology
    - Top Technologies Every Librarian Needs to Know (2014)
    - Exploring Discovery (2016)
    - New Top Technologies Every Librarian Needs to Know (2019)
    - Beyond Reality: Augmented, Virtual, and Mixed Reality in the Library (2019)
- Editor of *Information Technology and Libraries*

Beyond Reality:
Augmented, Virtual, and Mixed Reality in the Library

Case studies about **“Realities”** in the Library

Plus a chapter on U.S. legal considerations

Topics today

- What libraries are doing today
- What we should keep in mind



DEFINITIONS

Definition: Reality

REALITY

The real-world services, tools, items, and interactions that humanity has grown up understanding, living in, and working with.

Definition: Augmented Reality (AR)

AUGMENTED REALITY

An enhanced version of reality created by the use of technology to overlay digital information on an image of something being viewed through a device (such as a smartphone camera)

EXAMPLES

Heads-up displays in cars, Pokémon Go, Layar, Google & Apple Translate tools

https://www.merriam-webster.com/dictionary/augmented%20reality

Definition: Virtual Reality (VR)

VIRTUAL REALITY

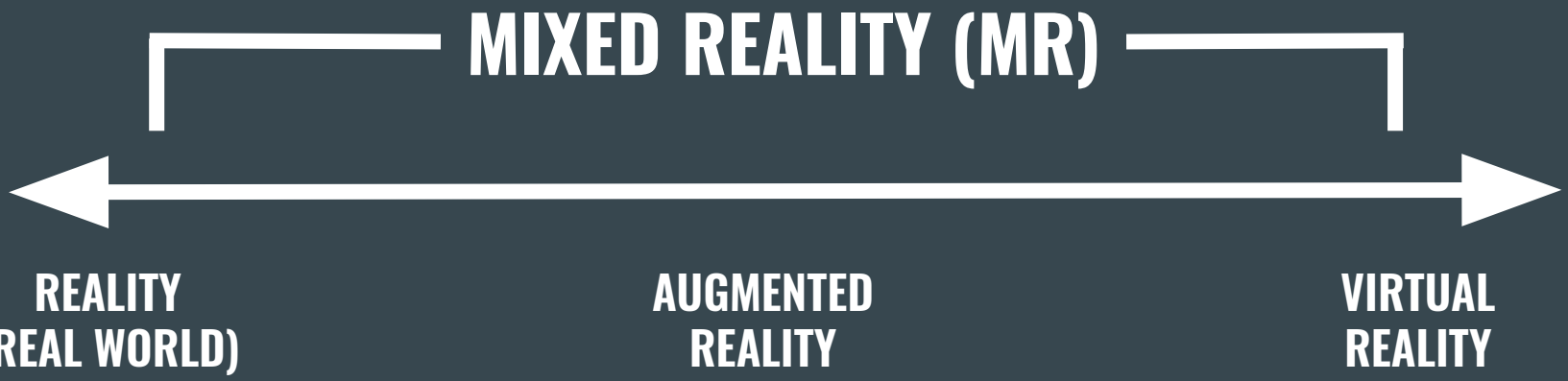
An artificial environment which is experienced through sensory stimuli (such as sights and sounds) provided by a computer and in which one's actions partially determine what happens in the environment

EXAMPLES

$$$ Oculus (Rift or Quest), HTC Vive, Sony Playstation VR
¢¢ Google Cardboard

https://www.merriam-webster.com/dictionary/virtual%20reality

Mixed Reality: The Entire Continuum



The continuum of experience that extends from slightly augmented experiences to something completely virtual.

Based on http://www.teachingthroughmuves.info/ by By Giovanni Vincenti
CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=14956549

STARTING POINTS

Provide the Experience — Entry Level

Headset:
Google Cardboard & a smartphone

Content from lots of sources

I like the *NY Times* VR experiences, but there are many.



https://www.vice.com/en_us/article/539epa/google-cardboard-mars-vr

Provide the Experience — Virtual Library in the Community

Put your library's local history into the community

Have a historical image collection? Geotag it so that users can see what the street looked like "back then"

Add information about historical figures to places they lived, worked

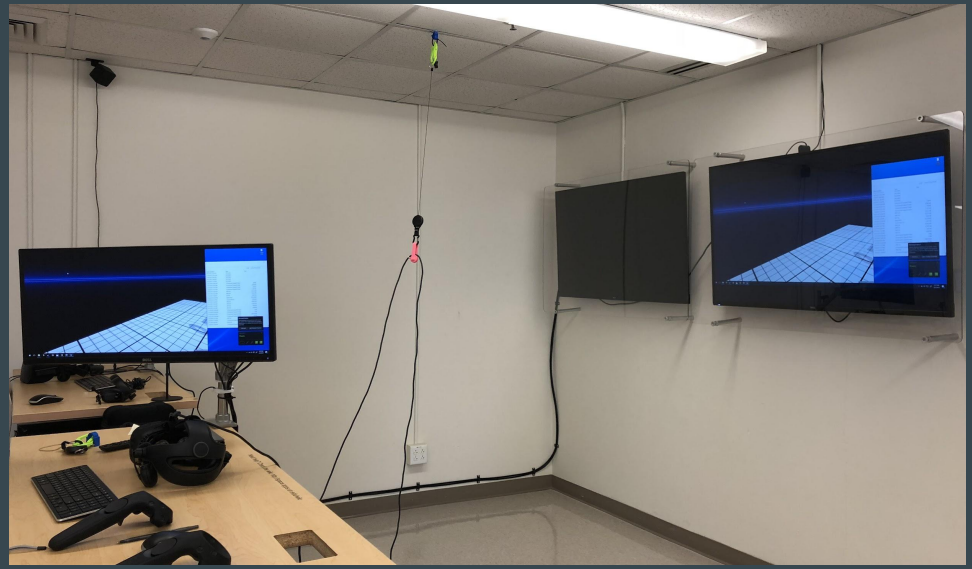


https://www.vice.com/en_us/article/539epa/google-cardboard-mars-vr

William Denton, "Libraries and Archives Augmenting the Virtual World," *Top Technologies Every Librarian Needs to Know*, ALA TechSource 2014.

Provide the Experience — High End

Headset: HTC Vive, Oculus Rift, etc.
Dedicated space (6’ x 5’)
Dedicated hardware



Bohyun Kim, “Virtual Reality for 3D Modeling,” *Beyond Reality: Augmented, Virtual, and Mixed Reality in the Library*, ALA Editions 2019.

Virtual Meeting Space — We're Suddenly There

Anybody recognize this virtual world?

Way for library patrons to meet virtually -- job interviews, education

So many social norms for the majority of us to figure out



https://upload.wikimedia.org/wikipedia/commons/c/c6/Second_Life_11th_Birthday_Live_Drax_Files_Radio_Hour.jpg
HyacintheLuynes [CC BY-SA 3.0 (https://creativecommons.org/licenses/by-sa/3.0)]

CONSIDERATIONS

Practical Considerations

Budget

Space -- we will be back together one day

Training (library staff & library users)

Security

Staying up to date

VR can make some users motion sick; hasn’t been completely solved

Social Considerations

Augmented, Virtual, Mixed Reality - this is all new

Digital divide could grow even greater

Common sense a great guide

Legal Considerations

A great deal about intellectual property law and virtual reality not yet decided (legally)

Many parallels to 2D image and print world

Who owns rights to one's digital avatar, digital creations?

What can be included in a created virtual space?

How do legal considerations change if the library is "publisher"?

Michael Riesen, "Augmented Reality and Virtual Reality and their Legal Implications for Libraries," *Beyond Reality: Augmented, Virtual, and Mixed Reality in the Library*, ALA Editions 2019.

{ DYSTOPIA
or
UTOPIA }

Dystopian or Utopian?

We've seen movie examples of virtual reality used for better and/or worse.

- *The Matrix*
- *Avatar*
- *Ready Player One*

As a species, we excel at taking technologies to extremes

Anything good (or bad) we do in the real world WILL happen in the virtual

People are people: any challenges you might have with library users in the real world will have a virtual

Extended Reality Is Here — It's Just Not Evenly Distributed. Yet.

However it shapes up, augmented & virtual reality are that: reality

A lot to figure out

But so many opportunities to take part and expand the library's presence

With apologies to William Gibson for being the umpteenth person to misquote him.

Thank You

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