

대학도서관의 가상현실 (VR)서비스 가이드라인

2021 대학도서관 직무향상 교육 '대학도서관 공간 및 시설활용 전문가 과정'

한남대학교 문헌정보학과 권선영 교수

2021.5.27

- 가상현실
- 도서관 사례
- 가상현실 서비스 가이드라인

가상현실 개요



Virtual Reality has come a long way. From the world's top R&D facilities to the nostalgic days of plastic-cased digital entertainment in the 1980s, virtual reality has been through quite a bit to get to where it is now. It took some refining, now VR is poised to revolutionize the way we do just about everything, including the way we work...

Sensorama
Morton Heilig writes paper on world's first immersive VR system and makes mechanical prototype in 1962.



1956

The Ultimate Display
First helmet-mounted display to incorporate tracking. Produced at Harvard University by Ivan Sutherland.



1968



1961

Phileo Corporation's Headsight
Headset-based VR system developed by electronics company Phileo Corporation for remotely directing hazardous operations.



1982

DataGlove
Thomas Zimmerman patents his optical flexion sensing glove for human-computer interaction, a device that is still in use today.



1985

VPL, Inc.
Jaron Lanier founds VPL, Inc. and popularizes the term "virtual reality." VPL begins manufacturing the DataGlove and other VR companies bloom around the movement.

Virtual Interactive Environment Workstation (VIEW)
Researchers at NASA's Ames Research Center work on a multisensory, interactive, immersive 3D VR system for robot teleoperation and human-computer interface research.



1984

USAF Super Cockpit
The US Air Force develops the Visually Coupled Airborne Systems Simulator (VCASS) for flight simulation and ergonomic studies.



1985

Virtuality
Dr. Jon Waldern founds W. Industries, which leads to Virtuality Group, and sells complete real-time interaction virtual reality systems for arcade gaming.



1987



1987

Scientific American
The Scientific American publishes a piece on VPL and the DataGlove, marks beginning of swelling global hype surrounding VR tech.



1990

First WorldViz Tech
Andy Beall, then a doctoral candidate at the University of California, Santa Barbara, builds his own immersive headset, motion tracking system, and software to conduct research with VR pioneer Jack Loomis.

Teletact Glove 1
Advanced Robotic Research Center (ARRC) develops first haptic feedback glove, the Teletact Glove 1.



1991

First VR in Space
What later became WorldViz technology, powers the first use of VR on a shuttle science mission in space.



1996-1999



1995

The Internet
Widespread use of the internet distracts the public from the failed promises of consumer virtual reality.



1999

ReCVEB
ReCVEB, the first research lab to use VR for social psychology, is founded by Jim Blascovich and Jack Loomis and co-directed by Andy Beall at UC Santa Barbara.

PCs Power VR
Personal computers become powerful enough to drive immersive virtual reality, opening the floodgates for VR research and technological development all over the world.



2000



2002

WorldViz Founded
WorldViz begins servicing universities, research labs, engineering firms, defense contractors, and other large commercial and academic entities with custom VR solutions.



2002-2012

VR in the Workspace
Like those who first adopted PCs for the workspace, a small but prescient group of companies begin implementing turnkey VR solutions into their workflows and projects.

Oculus Rift is Invented
Palmer Luckey, a young VR enthusiast, builds a revolutionary headset that is cheap and lightweight yet advanced enough to support compelling immersive VR experiences.



2012

Facebook Buys Oculus
Social media giant Facebook purchases Oculus for \$2 billion to support people in "shar[ing] unbounded spaces and experiences with the people in your life."



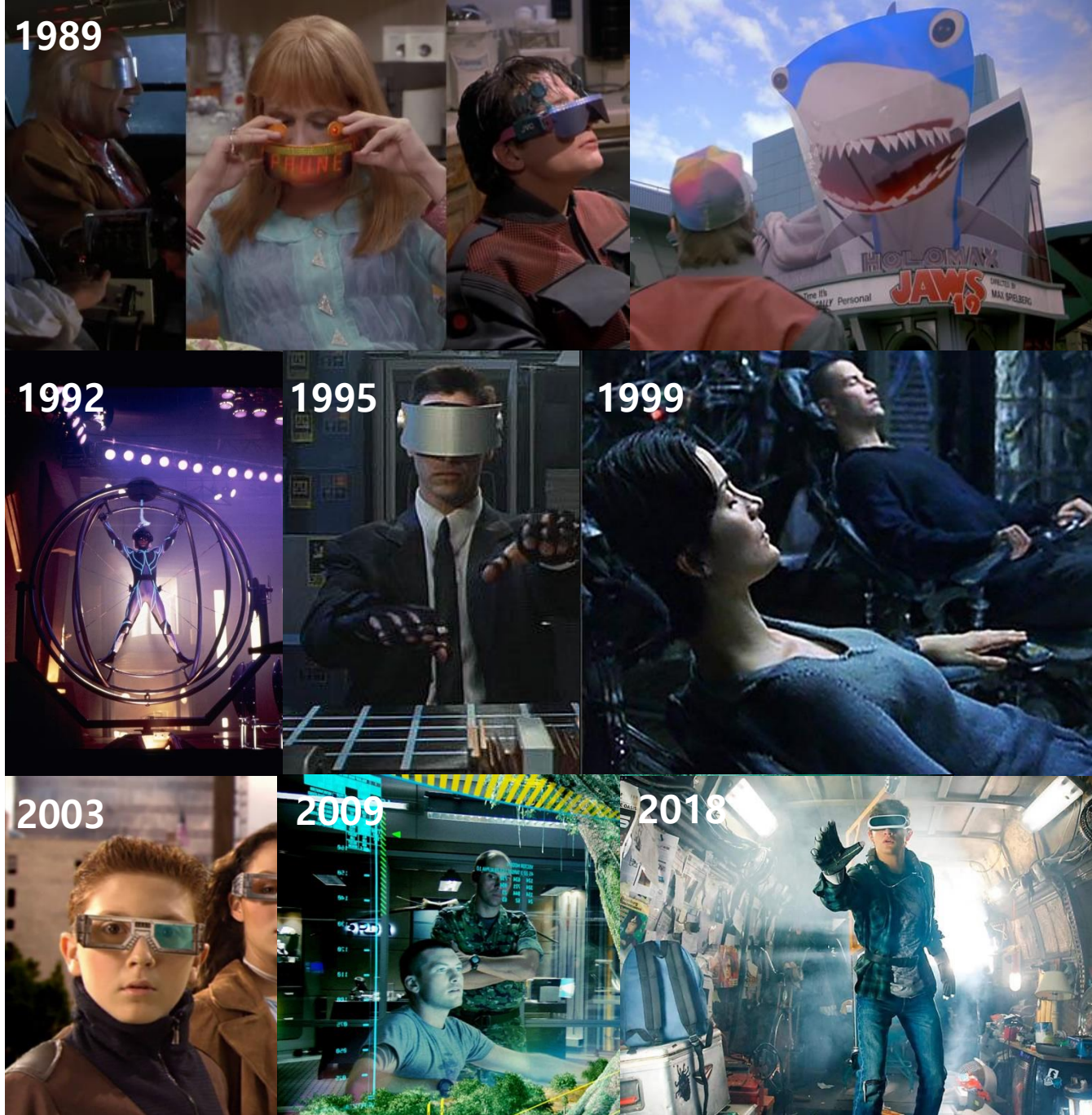
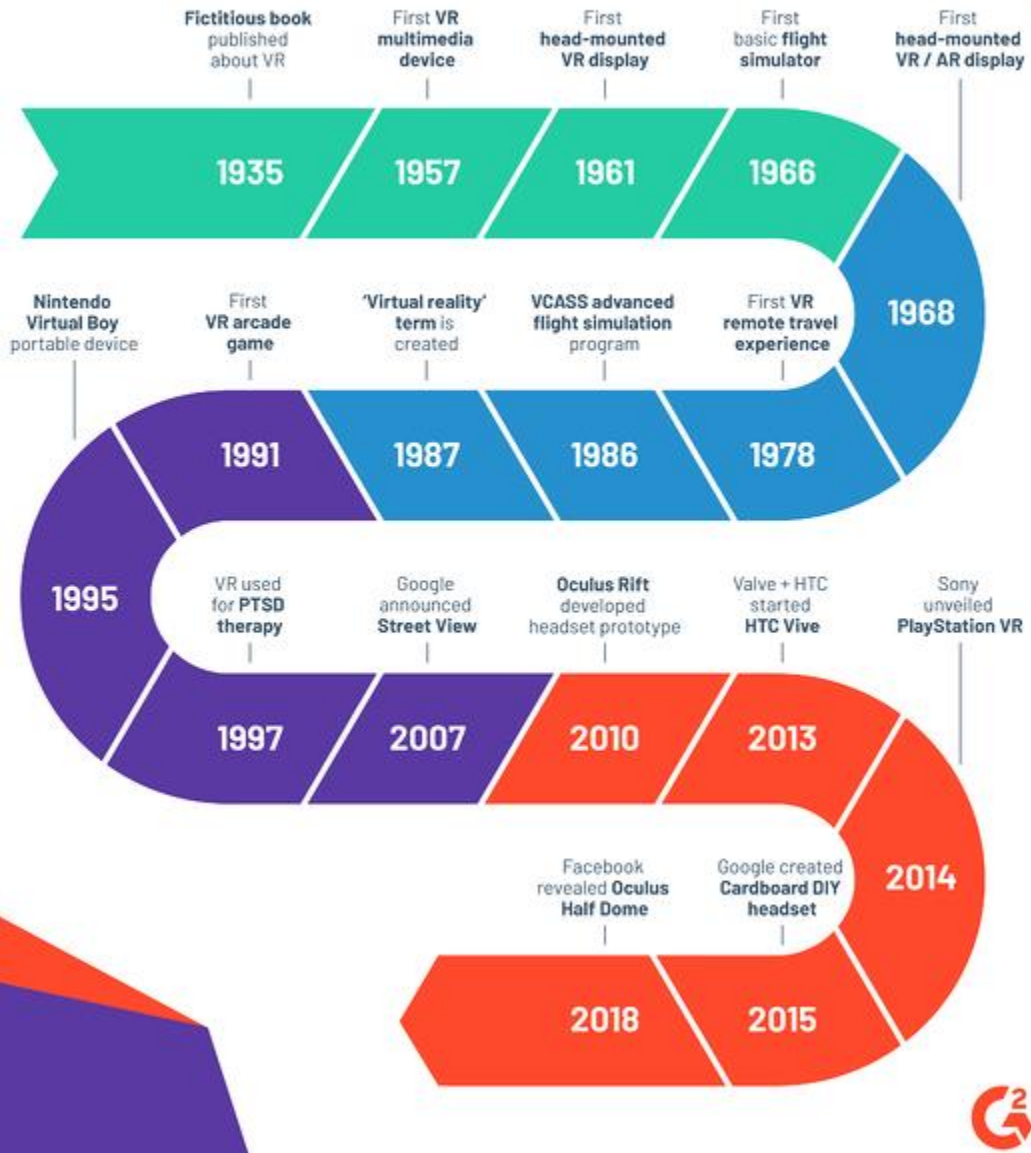
2014



2015

Major Players Enter
While Google, Microsoft, Sony, HTC, and Samsung join the VR movement, WorldViz announces VizMove™, its hardware-independent approach to modular enterprise VR solutions.

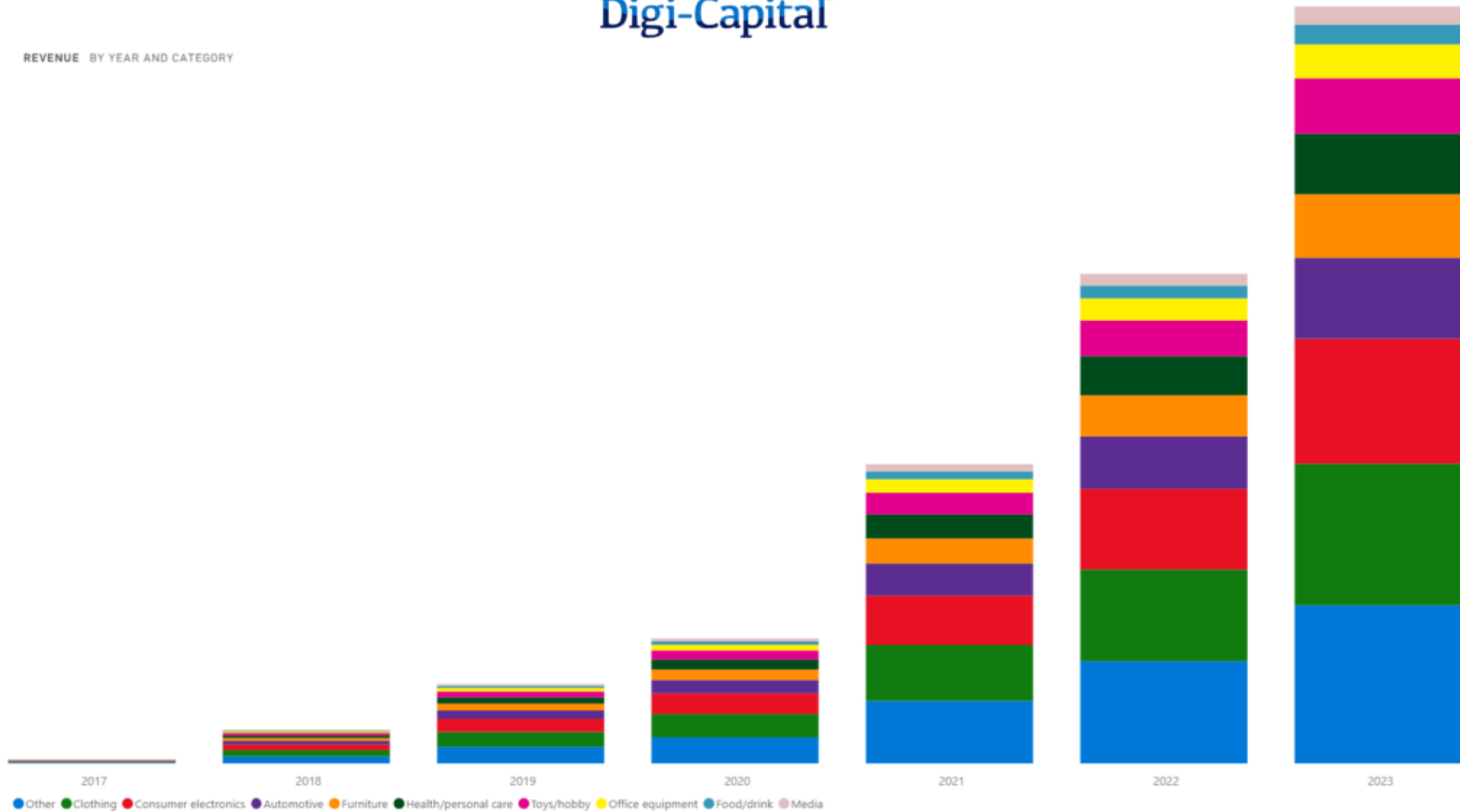
History of Virtual Reality



How Hollywood Has Predicted VR in Movies <https://vrscout.com/news/how-hollywood-predicted-vr-in-movies/>

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REVENUE BY YEAR AND CATEGORY

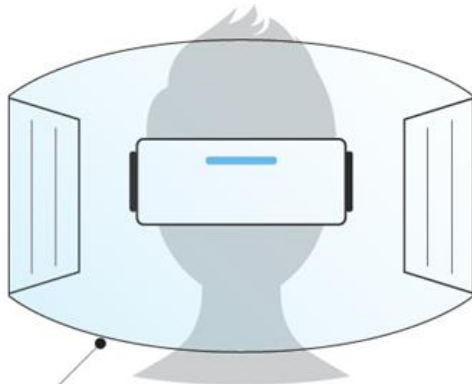
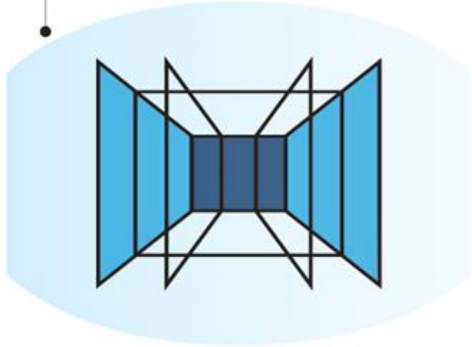


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\$80+ billion AR/VR market could diverge before converging <https://www.digi-capital.com/news/2019/05/80-billion-ar-vr-market-could-diverge-before-converging/>

VIRTUAL REALITY (VR)

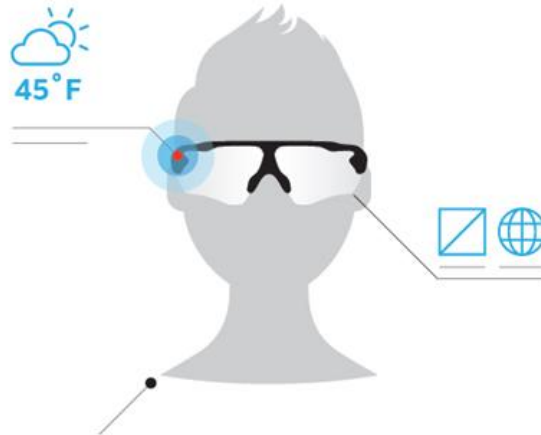
Completely digital environment



Fully enclosed, synthetic experience with no sense of the real world.

AUGMENTED REALITY (AR)

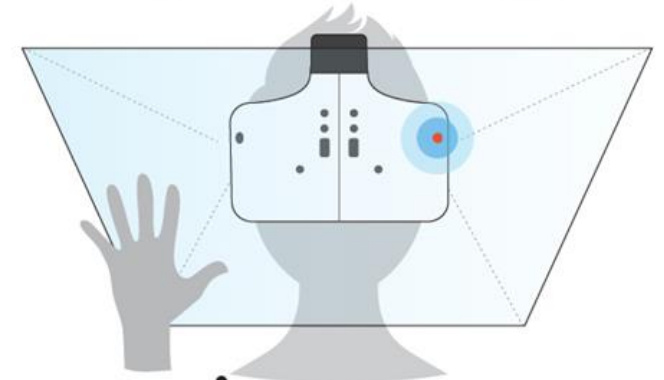
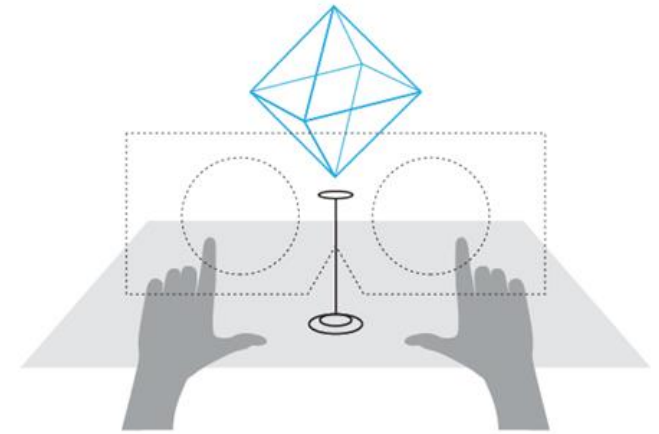
Real world with digital information overlay



Real world remains central to the experience, enhanced by virtual details.

MERGED REALITY (MR)

Real and the virtual are intertwined



Interaction with and manipulation of both the physical and virtual environment.

VR/AR/MR 비교

구분	가상현실(VR)	증강현실(AR)	혼합현실(MR)
개념	- 자신(객체)과 배경, 환경이 모두 현실이 아닌 가상의 이미지를 사용하여 현실세계 차단하고 디지털 환경 구축	- 현실의 이미지나 배경에 3차원 가상 이미지를 겹쳐서 하나의 영상으로 보여주는 기술	- 현실 정보 기반에 가상정보를 융합
특징	- 가장 보편화된 형태 - 현실과 완전히 분리 - 가상세계에서의 몰입과 상호작용 강조	- 현실과 유기적으로 결합된 확장세계에서의 지능적 증강과 직접적 상호작용 강조 - 현실공간 위에 가상의 오브젝트 제공	- 현실의 물건과 가상의 물건이 실시간으로 영향을 받는 새로운 공간 구축 - 아직 상용화 되지 못함
장점	- 컴퓨터 그래픽으로 입체감 있는 영상 구현 - 몰입감 뛰어남	- 현실세계에 그래픽을 구현하는 형태로 필요한 정보를 즉각적으로 보여줌 - 3차원 모델링의 부담 경감	- 현실과 상호작용 우수 - 사실감, 몰입감 극대
단점	- 현실세계와 차단되어 있어 현실과 상호작용 약함 - 별도로 컴퓨터 그래픽 세계를 구현해야 함	- 시야와 정보분리 - 몰입감 떨어짐 - 실시간 정보와 콘텐츠를 제공해야 하는 기술적 어려움	- 처리할 데이터 용량이 커서 다루기 어려움 - 장비나 기술적 제약 있음 - 가격이 매우 비싸 개발자용에만 국한
적용 분야	- 게임, 의료, 광고, 산업, 시뮬레이터, 교육, 관광, 테마파크	- 게임, 로봇, 내비게이션, 쇼핑, 스마트글래스, 의료	- 의료, 교육, 엔터테인먼트 제조, 항공우주, 쇼핑
대표기업	- 바이두, 삼성전자, 알리바바, 구글, 오쿨러스	- 애플, 엡손, 삼성전자, 페이스북	- MS, 구글, 인텔, 매직리프, 삼성전자
제품	- 오쿨러스HMD	- 포켓몬고	- 매직리프 원, 홀로렌즈

<자료>: ETRI 기술경제연구본부, 2019. 1.

Sumerian
Amazon
November 27, 2017



XR

X = Variable

VR Virtual Reality



oculus

Oculus Go
Facebook

October 11, 2017



Windows Mixed Reality
Headsets
Microsoft

October 17, 2017

MR Mixed Reality



HoloLens
Microsoft

March 30, 2016

AR Augmented Reality



ARKit iOS 11
Apple

September 19, 2017



ARCore
Google

August 29, 2017

XR: Extended Reality

- Extended Reality (XR) refers to all real-and-virtual environments generated by 컴퓨터 그래픽, 웨어러블에 의해 생성된 모든 실제, 가상 현실을 의미.
- XR의 X는 확장(extend) 뿐 아니라, 모든 것을 포함할 수 있다는 의미
- XR은 Augmented Reality (AR), Mixed Reality (MR), Virtual Reality (VR)을 모두 포함

XR: Extended Reality

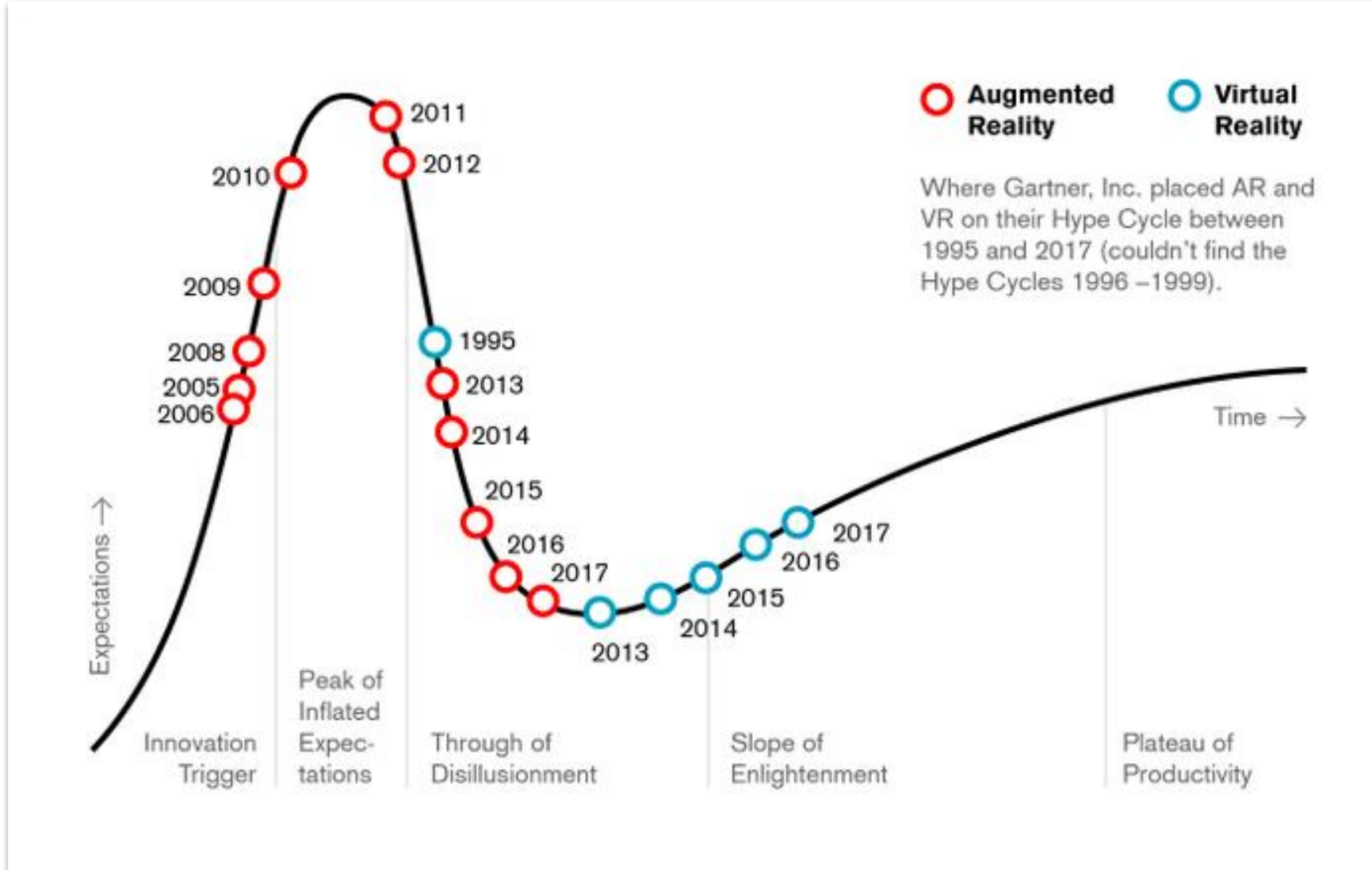
- Libraries have long served as points for the public's first exposure to **new technologies**
- Virtual Reality will continue to be a tool for **creative storytelling**



- **Interactive VR(쌍방향 VR)**
- **360° VR Video : interactive and immersive content that completely surrounds a user as if they are standing in the middle of a scene.**

동영상 더보기

AR and VR on Gartner Hype Cycle 1995 - 2018



1	기술 촉발 (Technology Trigger)
2	부풀려진 기대의 정점 (Peak of Inflated Expectations)
3	환멸 단계 (Trough of Disillusionment)
4	계몽 단계 (Slope of Enlightenment)
5	생산성 안정 단계 (Plateau of Productivity)

Gartner Hype Cycle 2020, Multiexperience

Top 10 Strategic Technology Trends for 2020

People-Centric



Hyperautomation



Multiexperience



Democratization



Human Augmentation



Transparency and Traceability

Smart Spaces



Empowered Edge



Distributed Cloud



Autonomous Things



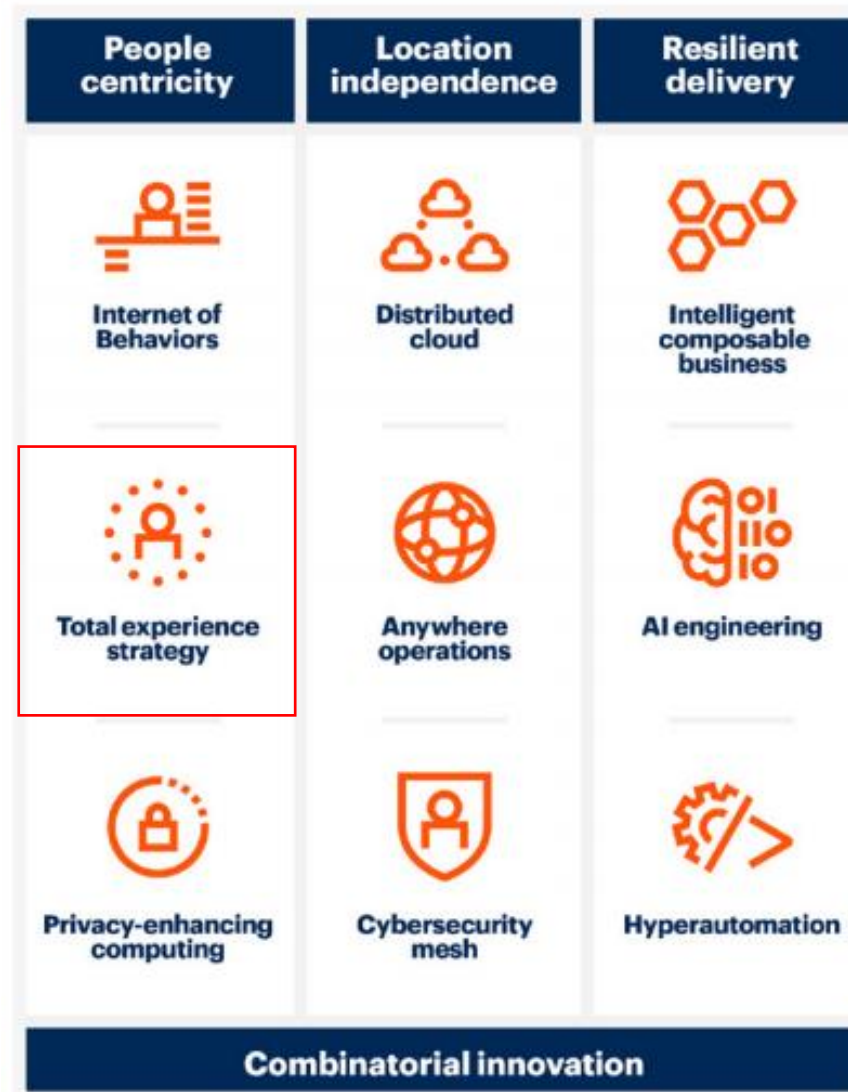
Practical Blockchain



AI Security

Source: Gartner
ID: 432920

Gartner Hype Cycle 2021, Total experience



VR HMD



Vive Pro



Oculus Rift S



Valve Index



Pimax 8K



Vive Cosmos



Oculus Quest



Oculus Quest 2



Gear VR

AR HMD



MS Hololens 2

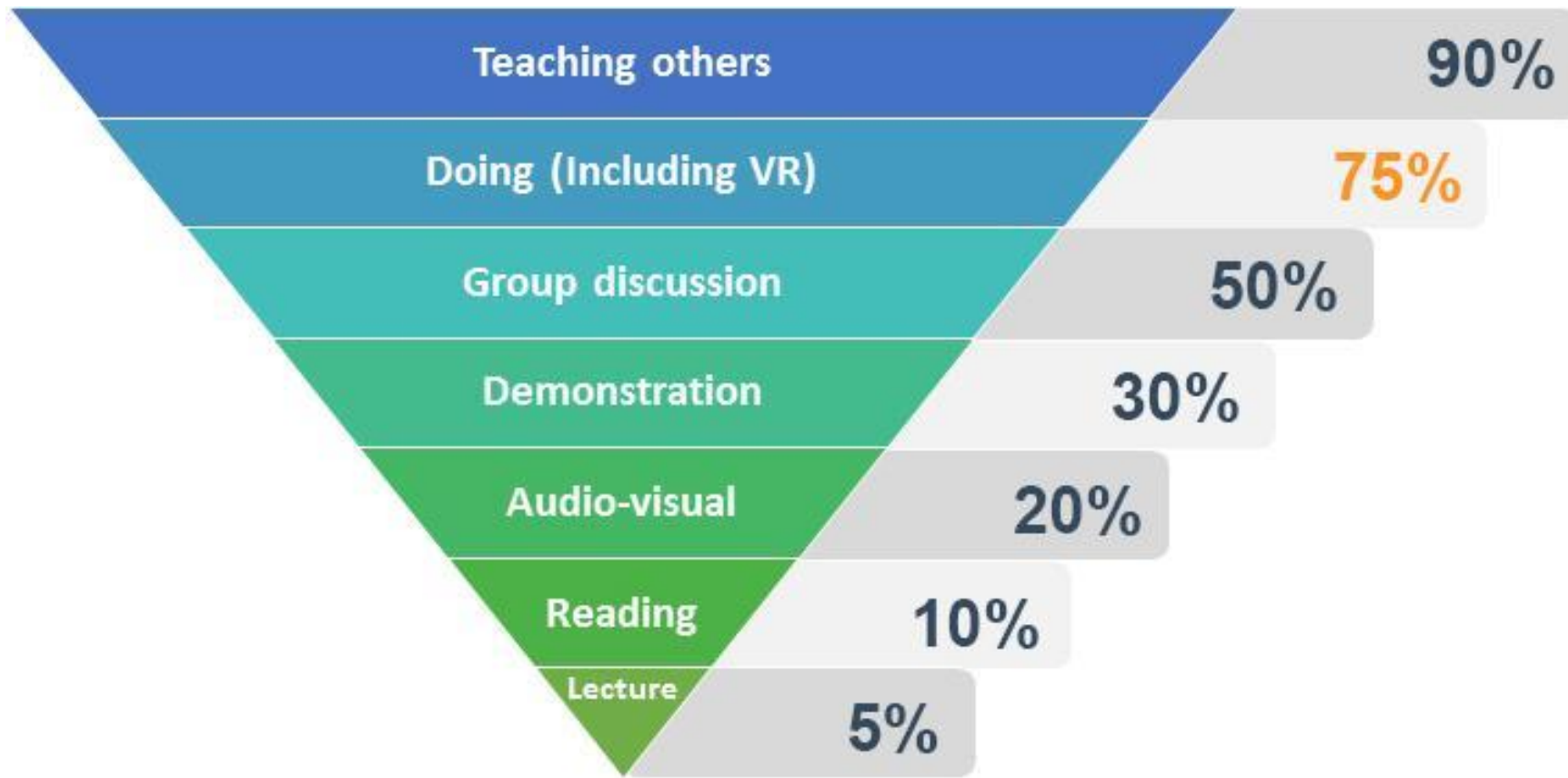


Magic Leap



Google Glass2

VR works in education



Futurism

Total experience(Gartner, 2021)

Digital Experience & Digital Reality(Deloitte, 2020)




NEW REALITIES:

How VR, AR and MR Stack Up



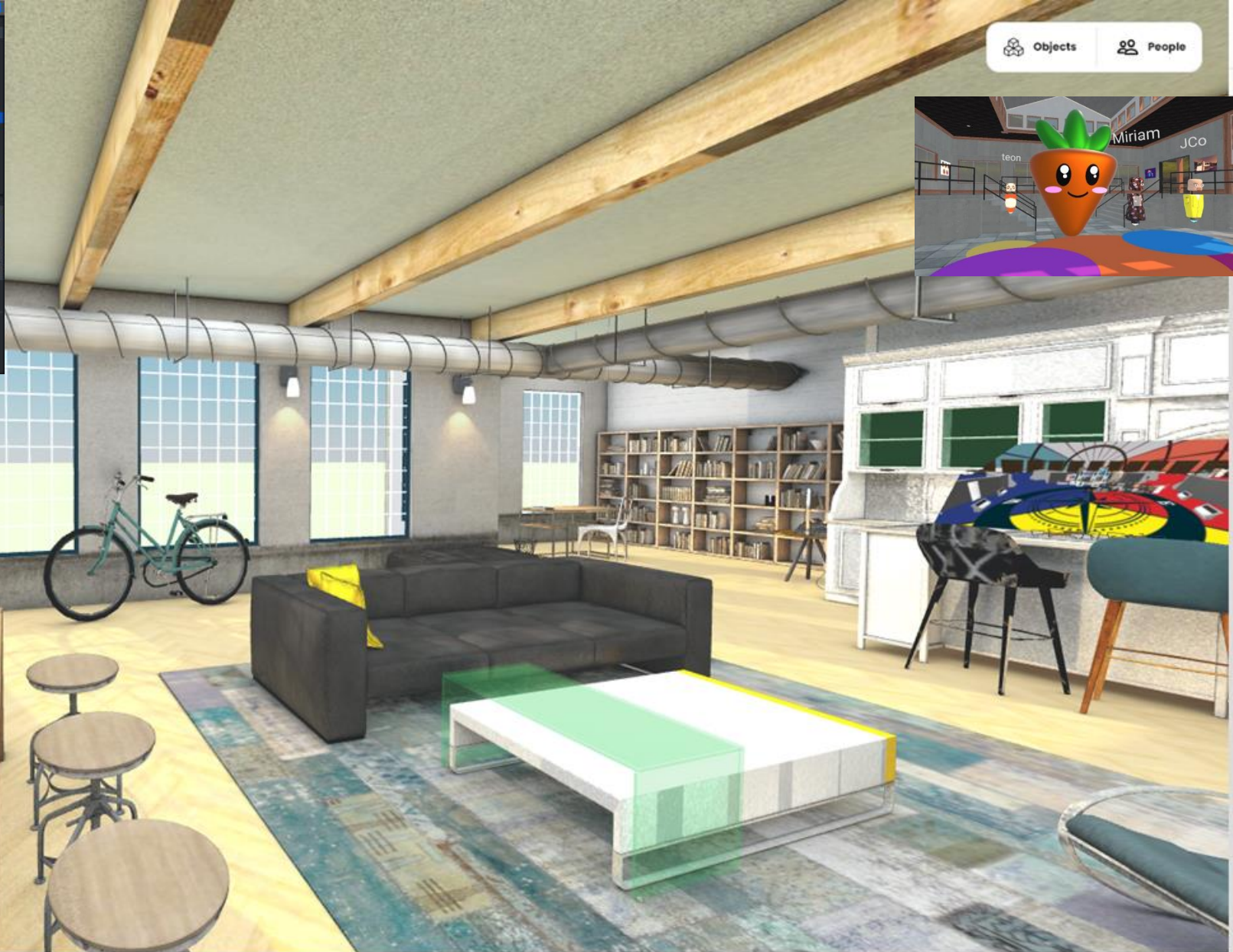
What is Epic Games' Metaverse, and Is It Worth Billions?

Sony and other tech companies just gave Epic Games a collective \$1 billion to build effectively the next evolution of the internet.

 By [Rebekah Valentine](#)  Updated: 16 Apr 2021 5:20 am  Posted: 16 Apr 2021 5:00 am

Earlier this week, [a bunch of companies gave Epic Games a big ol'](#)

<https://www.ign.com/articles/what-is-epic-games-metaverse-and-is-it-worth-billions>



Mozilla hubs room <https://hubs.mozilla.com/ByCBb8o/>

전국 대학도서관 중간관리자 및 실무자급 사서 대상
대학도서관 공간 활용, 문헌정보 큐레이션
 일시 2021. 05. 27(목) 13:10 ~ 5.28(금) 17:30 (8시간)
 방법 온라인 실시간 화상교육 플랫폼(URL 제공)

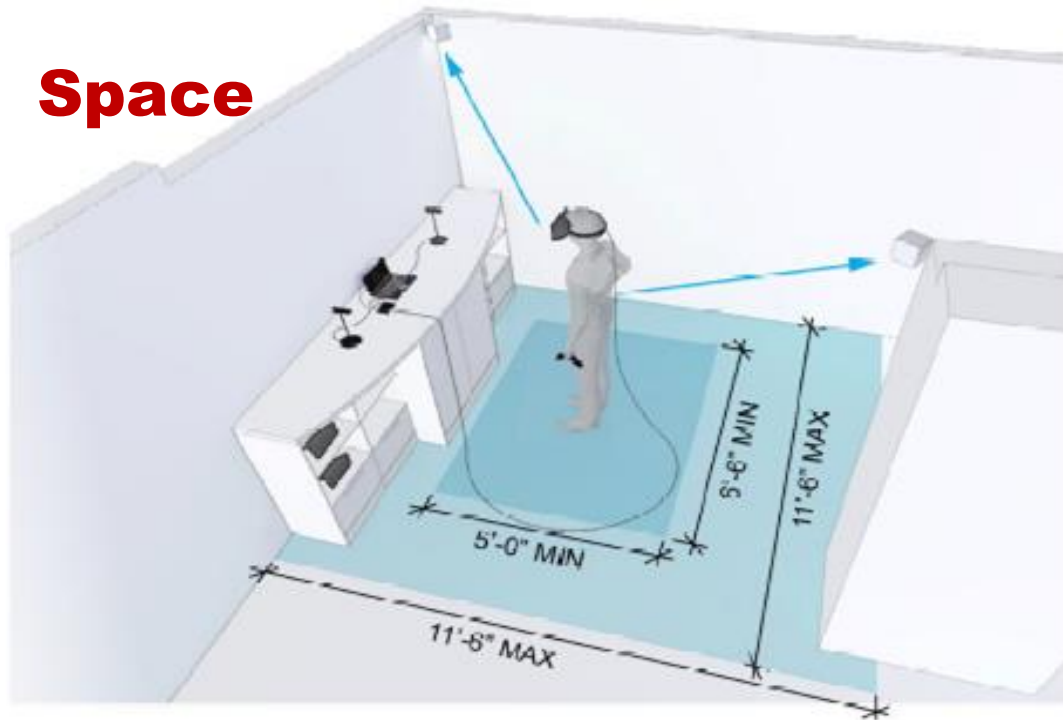
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한남대학교 문헌정보학과 권신영 교수
 2021. 5. 27

Case studies VR in the University Library

Space



Cost

	MOBILE <i>Oculus Go</i>	STAND ALONE <i>Oculus Quest HTC Focus Plus</i>	PC VR <i>Oculus Rift S HTC Vive</i>
COST	\$10-300	\$300-500	\$2000+
BENEFITS	Low cost. Can be deployed en-mass. Easily portable.	No PC required. Easily portable. Full world/ controller tracking.	Highest fidelity. Advanced object tracking. More engaging experiences.
DRAWBACKS	Low fidelity experiences. Minimal user interaction. Less open distribution platforms.	Medium fidelity experiences. Less open distribution platforms.	Higher cost. Less portable. More work to setup.
REQUIREMENTS	Phone to setup account. Wifi access.	Phone to setup account. Wifi access.	Internet connection. Sensor mounting.

Technology



Rule and Policy



Virtual Reality

This is a guide to orient readers to the uses of virtual reality in education.

Introduction

[Introduction](#)

[Types of xR](#)

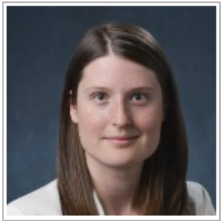
[Hardware](#)

[Software](#)

[Academic Uses of Virtual Reality](#)

[Resources at Penn State](#)

Librarian



Elise Gowen

[Email Me](#)

edg16@psu.edu

Contact:
105 Deike Bldg.
University Park, PA 16802
814-863-7324

Subjects:
Campus: University Park,
Geography, Geosciences,
Meteorology

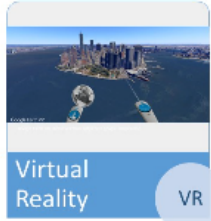
Introduction

This is the Penn State University Libraries' guide to virtual reality. What it is, how it can be incorporated into the learning process, and how it can be accessed on campus will all be discussed in this guide.

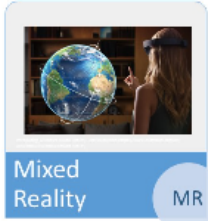
Types of xR

Defining Terms

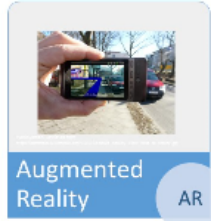
"xR"



Virtual Reality VR



Mixed Reality MR



Augmented Reality AR

Virtual Reality

Virtual Reality is an immersive multimedia or virtual experience. The entire environment that the user can see in virtual reality is a simulation of a real space through digital modeling or 360-video.

Augmented Reality

Augmented Reality allows the user to see the real world in front of them, with an overlay of digital content. Google Glass and Pokemon Go provide some of the most famous examples of augmented reality.

Mixed Reality

Mixed Reality is similar to augmented reality, but incorporates both simulated and real world environments to create an experience where real and virtual objects can interact with each other in real time. At this point, mixed reality is still a concept that it is being worked toward, and is still a long way from being implemented in practice.

Virtual Reality

Oculus Rift

The Rift was one of the first major HMDs out on the market and was initially funded through Kickstarter. It had a few development kit versions that were released before the commercial version released. A later addition added two controllers and the ability for the software to track 6DoF. It uses outside-in tracking when using the "touch" kit they offer, using two cameras pointed at the user to track head and controller movement.



HTC Vive

The Vive is a HMD and controller kit that uses outside-in tracking from two "lighthouses" placed in adjacent corners that give the HMD and controllers 6DoF. A new version of the headset called the Pro increases the resolution of the display and updates the design, adding built-in headphones and support for new controllers and accessories coming soon.



Windows "Mixed Reality" Devices

Microsoft is working with hardware manufacturers from HP, Acer, Asus, Dell and others to create "mixed reality" HMD kits that use inside-out tracking. The benefit to these devices is their low cost and setup, with no external cameras or sensors needed for 6DoF. The downside to them are that the controllers need to be in sight of the two cameras on the front of the HMD for them to be visible in the virtual environment, so holding one below or behind you may make the system lose track of them temporarily.



Despite the name, at the moment the "mixed reality" headsets only provide virtual reality environments.

Repositories

While a lot of commonly available software for xR experiences in this generation of technology are gaming- and entertainment-focused, there are a lot of great and useful educational applications available. Software repositories like those listed below host the software and make installing, updating, and maintaining software less of a hassle:

Listing of software repositories for xR applications

Service	Cost	Notes	Access
Steam	Free to join, free and paid apps available	Largest VR app repository; supports Vive, Rift, and other open source VR headsets (OSVR); while mainly focused on gaming, has expanded its offerings to productivity, educational, and other VR and non-VR apps	Within VR environment and website
Viveport	Free to join, free and paid apps available; subscription available, but not required	HTC Vive's official app store; software works with Vive products only	Within VR environment and website
Oculus Store	Free to join, free and paid apps available	A very loose storefront of apps that work on the Rift products only	Within VR environment and website
Google Play	Free to join, free and paid apps available	VR, AR, and MR apps available, use depends on device connected; supports Android phones, tablets, standalone headsets, Gear VR, and others; includes the Google Cardboard and Daydream apps	Within the Play Store app on the Android device and website
Apple App Store	Free to join, free and paid apps available	VR, AR, and MR apps available, use depends on device connected; supports iPhones and iPads	Within the App Store app on the Apple device and website

Academic Uses of Virtual Reality

Academic Uses of Virtual Reality

Virtual Field Trips

Virtual Labs

360° Videos

3D Modeling

3D Simulators and Animations

Virtual Field Trips

Innovative field trips allow users to recreate the experience of a field trip in a virtual environment. Research has shown that this is as effective in teaching students the material as physical field trips, and it breaks down barriers in access, allowing students who might not have the opportunity to physically travel to experience the sights and sounds of the environment at their own pace, and with additional information at their fingertips.

- Immersive Geosciences at Penn State
- University of British Columbia Virtual Field Trips



Virtual Labs

Virtual labs allow students to simulate a lab experience in a virtual environment; anatomical labs, chemistry labs, and others are all being developed to allow an affordable and accessible way for students to experience lab work.

- Labster
- Stanford Neurological Simulation and Virtual Reality Center



360° Videos

360° video is recorded in all directions at once, allowing viewers to have a more immersive viewing experience. Unlike other forms of virtual reality, 360° videos are a passive viewing experience for the user; viewers can look around the scene in any direction and watch the events unfold in 360 degrees, but cannot otherwise interact with the experience.

- Immersive Experiences at Penn State
- 360° Video Experiences
- Penn State World Campus implements 360-degree videos in online courses
- Tour through human blood vessel



3D Modeling

3D Modeling allows users to create models of physical or chemical properties and explore them in a virtual environment.

- Nomine
- CalcFlow



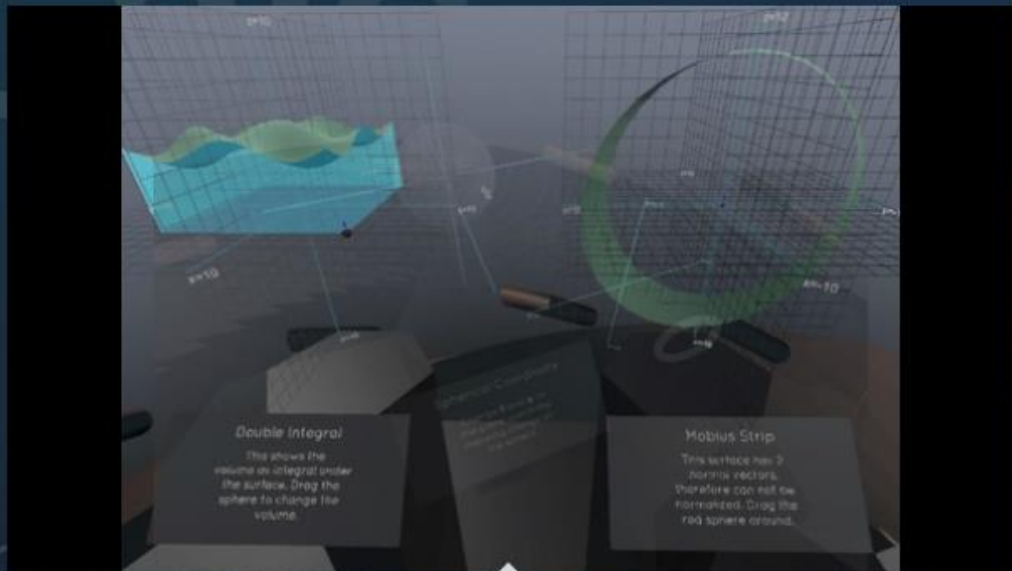
University Park Libraries VR Centers

Location	Featured Software	Hours of Availability	Schedule Room	Contact
<p>EMS Library 105D</p>	<ul style="list-style-type: none"> • CalcFlow • Physical Geology Field Lab (GEOSC 001) • Universe Sandbox 2 • Tilt Brush • Virtual Field Trip • Virtual Kitchen • Volcano Basic • Volcano Advanced • YOU by Sharecare • Stanford Ocean Acidification Experience • Job Simulator • The Lab • Google Earth VR 	<p>Monday - Friday 9:00 am - 8:00 pm</p>	<p>Reserve Online</p>	<p>Elise Gowen 814-863-7324 edg16@psu.edu</p>
<p>Pattee W102B (Sidewater)</p>	<ul style="list-style-type: none"> • Blausen Medical Virtual Reality Modules • YOU by Sharecare • Stanford Ocean Acidification Experience • Job Simulator • Virtual Field Trip • Virtual Kitchen • Volcano Basic • Volcano Advanced • Google Earth VR • Embodied Labs 	<p>Monday - Thursday 11:00 am - 8:00 pm</p>	<p>Reserve Online</p>	<p>Paul Burnell 814-865-2314 pcb15@psu.edu</p> <p>Claire Salvati 814-865-0673 kug509@psu.edu</p>

All Software > Utilities > Calcflow

Calcflow

Community Hub



Manipulate vectors with your hands, explore vector addition and cross product. See and feel a double integral of a sinusoidal graph in 3D, a mobius strip and its normal, and spherical coordinates! Create your own parametrized function and vector field!

ALL REVIEWS Positive (11)

RELEASE DATE: 10 Nov, 2016

DEVELOPER: Nanome
PUBLISHER: Nanome

Popular user-defined tags for this product:



Sign in to add this item to your wishlist, follow it, or mark it as not interested

Notice: Requires one of the following virtual reality headsets: HTC Vive, Oculus Rift, or Valve Index. See the VR Support section for more info.

Use Calcflow

VR Only

Free

Free

Is this software relevant to you?

Sign in to see reasons why you may or may not like this based on your games, friends, and curators you follow.

Sign in

or

Open in Steam

VR Support

This VR game requires a play area of at least 2m x 1.5m.

Requires a play area with 360° tracking.

Headsets

- Valve Index
- HTC Vive
- Oculus Rift

Input

Tracked Motion Controllers

Play Area

Room-Scale

SYSTEM REQUIREMENTS

MINIMUM:

Requires a 64-bit processor and operating system
OS: Windows 10
Processor: i5 - 4590
Memory: 4 GB RAM
Graphics: GTX 780

RECOMMENDED:

Requires a 64-bit processor and operating system
OS: Windows 10
Processor: i7 - 4790
Memory: 8 GB RAM
Graphics: GTX 980

Featured Equipment

- HTC Vive Virtual Reality Headset and controllers (2 at each location)
- HTC Vive Pro (1 at each location)
- High Performance Workstation (1 at each location)
 - Lenovo Thinkstation P520 Tower
 - Xeon W-2125/ 4 GHz, 16GB Ram, 512 GB SSD
 - 1 TB SATA HD
 - EVGA GeForce GTX 1080 Ti SC2 Gaming Graphics Card

Usage Guidelines

- VR Centers must be booked 24 hours in advance
- Before a VR Center booking is finalized, you will be asked to complete the rules and usage module
- [VR Center Policy](#)

Learn More About VR (LibGuides)

- [Virtual Reality](#)
- [Kinesiology, Exercise, and Sport Science](#)

University Park Libraries VR Center Policy

Reservation System

Students who want to use the VR Center need to book the room in advance on LibCal.

- The rooms must be booked on LibCal at least 24-hours in advance.
- You must complete the module in the booking explaining the VR center rules and usage.

Check-out system

EMS Library (105D)

When using the VR Center at the EMS Library, you will need to go the EMS service desk and check out a physical tag for the room with your student ID card.

- This tag represents your responsibility to the equipment while it's checked out.
- This tag must be returned before the group leaves; if not you will be charged a late fee for the room.

Pattee Library (W102B)

When using the VR Center in Pattee, check in with a Welcome Desk and VR staff will be notified. Staff will unlock the space and check out a physical tag for the room with your student ID.

- This tag represents your responsibility to the equipment while it's checked out
- This tag must be returned before the group leaves; if not you will be charged a late fee for the room.

Consequences for broken/missing equipment

- Broken or missing equipment will incur a fine of \$25 plus the cost of the equipment that was missing/broken.
- Students who violate the rules of the space repeatedly may lose the privilege to use the room.

Rules for use of the VR Center

- You're responsible for the equipment while the VR Center is checked out to you.
- You will be charged for any lost or damaged equipment while the room is checked out to you.
- EMS Library: Don't lose or damage the One Button Studio equipment.
- The maximum number of people allowed in the room while someone is using the headset is three (or more with special permission).
- Don't leave the room open and unattended while you have it checked out (One member of your group has to be in the space at all times or the students need to lock the room when they leave).
- No food or drink is allowed in the space.
- You may book the room for up to 2 hours.
- Come to us for troubleshooting help with the equipment (do not attempt to fix it yourself).

Safety and sanitation

- By signing up in LibCal, students indicate that they understand the risks (motion sickness, etc.) of VR.
- Be aware of the recommended length of use: "At least a 10 to 15 minute break every 30 minutes, even if you don't think you need it."
- There is an area for backpacks and other personal items (outside of the boundary) for belongings.
- Wear the face masks and wipe down the things when you're done.



360°/VR Headset Tutorials

Speed Up Panning in YouTube VR on the Oculus Go

Speed Up Panning in YouTube VR on the Oculus Go Launch the YouTube VR app: The app is available in your Library, accessible from the bottom navigation. Load and play a 360° video. You will notice a Grab screen to move suggestion as the video begins...

Search for 360° Video Content in YouTube VR on the Oculus Go

Search for 360° Video Content in YouTube VR on the Oculus Go Launch the YouTube VR app. The app is available in your Library, accessible from the bottom navigation. Select the Search icon (magnifying glass). Select Keyboard from the available options....

Copying Files to the Oculus Go on a Mac

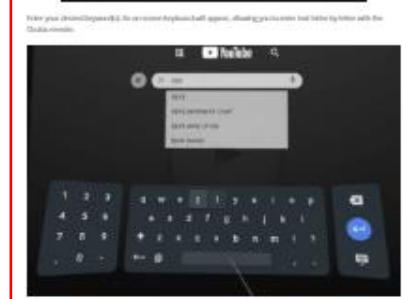
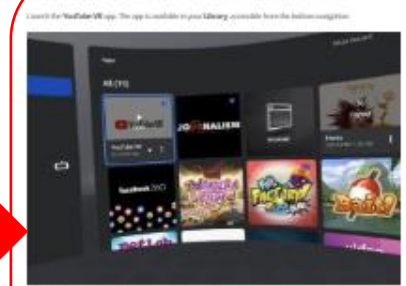
Copying Files to the Oculus Go on a Mac For this process, you will first need to download the Android File Transfer application and install it to your computer.

Copying Files to the Oculus Go on a PC

Copying Files to the Gear VR on a PC First plug your headset into the computer. When you do, you will first need to allow the computer to get access to your files. To



Search for 360° Video Content in YouTube VR on the Oculus Go



Virtual Reality & Augmented Reality

Virtual reality (VR) is a realistic and immersive simulation of a three-dimensional environment, created using interactive software and hardware, and experienced or controlled by movement of the body. Augmented reality (AR) is an enhanced image or environment as viewed on a screen or other display, produced by overlaying computer-generated images, sounds, or other data on a real-world environment.

NC State University Libraries lends VR/AR equipment and hosts spaces for experiences, games, and development. We lend 360° cameras and have programs for creating and viewing 360° videos.

Request a Consultation →

Need Help?

Request a Consultation →

Colin Keenan Colin Nickels

David Woodbury

VR Studio hours

Jun 4	Thu	Closed
Jun 5	Fri	Closed
Jun 6	Sat	Closed
Jun 7	Sun	Closed
Jun 8	Mon	Closed
Jun 9	Tue	Closed
Jun 10	Wed	Closed

all VR Studio hours →

Spaces

- 4K Video Studio, James B. Hunt Jr. Library
- Digital Media Lab Studio, D. H. Hill Jr. Library
- Green Screen Studio, James B. Hunt Jr. Library
- Virtual Reality (VR) Pod, Harry B. Lyons Design Library
- VR Studio, D. H. Hill Jr. Library
- VR Usability Lab, James B. Hunt Jr. Library
- VR Workstation - HTC Vive, D. H. Hill Jr. Library
- VR Workstation - Oculus Rift, D. H. Hill Jr. Library
- VR Workstation - Sony Playstation PSVR, D. H. Hill Jr. Library

Use in the Library

LEO 3D Scanner Samsung Gear VR

Available to Borrow

Google Cardboard H3VR HoloLens Leap Motion Controller

Magic Leap One: Creator Edition MERGE Cube & Headset Kit Oculus Go Quest

Rift Theta V Vive

Colin Keenan

University Library Technician



Ask me about

- Virtual & Augmented Reality
- NCSU Libraries' Virtual Reality Studio
- 3D Scanning
- NCSU Libraries' 3D Scanning Studio
- XR items in our technology lending catalog
- Virtual Reality Content in our Catalog
- Virtually NC State Showcase

919)515-4154

cokeena2@ncsu.edu

Request technology consultation →

Department

- Learning Spaces & Services

Pronouns

He / Him

D. H. Hill Jr. Library

G108
2 Broughton Dr.

Selected Works

- The Naturalist's Workshop: Virtual Reality Interaction with a Natural Science Educational Collection
C. P. Keenan et al., "The Naturalist's Workshop: Virtual Reality Interaction with a Natural Science Educational Collection," 2020 6th International Conference of the Immersive Learning Research Network (ILRN), San Luis Obispo, CA, USA, 2020, pp. 199-204, doi: 10.23919/ILRN47897.2020.9155162.
- Designing for Collaborative Play in New Realities: A Values-Aligned Approach
M. Prieto, K. Unnikrishnan, C. Keenan, K. D. Saetern and W. Wei. "Designing for Collaborative Play in New Realities: A Values-Aligned Approach," 2019 IEEE Games, Entertainment, Media Conference (GEM), New Haven, CT, USA, 2019, pp. 1-4. doi: 10.1109/GEM.2019.8811545

Ricoh Theta V

This camera captures 360° stills and full HD movies. Images can be stitched together into a spherical image with a free downloadable app. The camera has wifi and can live stream 360° (dual fish eye) video to a computer when connected by a USB cord.

Details

- Includes Ricoh Theta V camera, charging cable, quickstart guide, and camera case.
- iOS and Android compatible using the Ricoh Theta V app
- User can control the camera via app on device, or use the camera directly.
- Theta V features 4k video capture and improved directional sound quality over the Theta S

Resources

- Theta V Manual
- Product Website



Virtual Reality (VR) Pod

Building: Harry B. Lyons Design Library
Floor: Second Floor
Rooms: 208

View Reservation Options →

Virtual reality (VR) provides new ways for people to interact with information and media. The VR Pod at the Design Library is a space for experimenting with and creating immersive content. It has one workstation outfitted with an Oculus Rift and Alienware Aurora computer. There are VR software tools and educational experiences available for research and making.

Check out the Oculus Touch Controllers at the service desk.

- How do I reserve and access this space? +
- What's inside? +
- Who do I contact? +

Microsoft HoloLens

Microsoft HoloLens is an augmented reality headmounted device. It is a self-contained holographic computer—no wires, phones, or connection to a PC needed—and allows you to place holograms in your physical environment.

RESOURCES

- NC State University Libraries' custom: HoloLens User Guide.
- Microsoft's included materials with the device: HoloLens Guide.
- Web page about how to: Use Gestures
- Video tutorial: Get Started with HoloLens
- Basics and Troubleshooting: HoloLens Basics and Troubleshooting
- Guide for How to Mirror HoloLens User Point-of-View to an External Display and Download Photos and Videos
- How the HoloLens and holograms work, and more: HoloLens Website
- Developing for the HoloLens: HoloLens Development Website

How can I borrow this device?

You can request to borrow this device. Please allow 24 hours for request processing.

- VR Studio, D. H. Hill Jr. Library
- VR Usability Lab, James B. Hunt Jr. Library

How long can I borrow it?
8 hours

VR STUDIO 시범 운영 안내

[2018.06.25.(월) ~]

중앙도서관에서는 4차 산업혁명 시대를 맞이하여, 대학 구성원들에게 최신 기술의 이해와 체험을 제공하기 위해 VR STUDIO를 조성 하였습니다. 약 2개월 간의 시범운영 기간을 거쳐 9월경 정식 운영할 예정입니다.

VR STUDIO 시설 구성

멀티미디어플라자 내, 9시 ~ 17시, 재학생 및 재직 교직원 이용 가능
VR 체험존 → 다양한 VR 콘텐츠 체험 (당일 현장 이용, 현장 대기)
VR 세미나실 → VR 관련 연구, 학습 공간 (사전 예약)
VR 장비 : HTC VIVE

도서관: 중앙도서관 작성자: 이기영 Posted Dated: 2019/04/05

VR 스튜디오 이용가능 콘텐츠 안내
 관경미디어플렉스 VR 스튜디오 체험존에서는 아래와 같은 콘텐츠를 이용하실 수 있으니 참고하시기 바랍니다.

(이용안내는 [여기](#)에서 확인하실 수 있습니다)

또한 희망하는 콘텐츠가 있으신 경우, 학번(교번)/성명/컨텐츠명/희망사유를 적어 kmulti@snu.ac.kr로 보내주시면 추후 검토하도록 하겠습니다.

※ 문의: 멀티미디어실 (880-1162)

VR 입문용 콘텐츠

- Drummer Talent VR: 드럼 치기
- Fruit Ninja VR: 칼로 과일 베기
- The LAB: 활쏘기, 슬링샷, 여행, 인체스캔 등 입문용 콘텐츠
- Richie's Plank Experience: 고소 공포 체험
- Space Pirate Trainer: 우주에서 총 쏘기
- Tapsonic World Champion VR: 음악 리듬 게임
- VR Fun House: 미니 게임

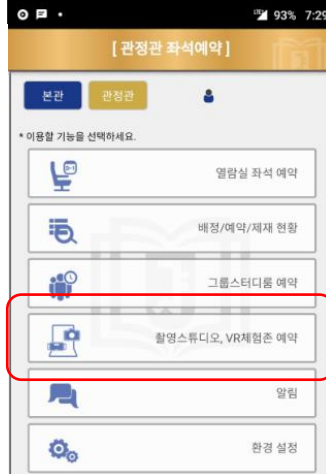
VR 스튜디오 · 창의미디어스페이스 종합 안내

VR STUDIO

구 분	VR 체험존	VR 세미나실
이용대상	재학생(연구생, 휴학생 포함), 교직원	VR 활용 연구·학습
용 도	VR 콘텐츠 체험, 장비 조작법 습득 (R1 : HTC VIVE / R2 : OCULUS RIFT)	(HTC VIVE, OCULUS RIFT 등시 이용 가능 150인치 빔프로젝터, 수강용 책상 등)
이용인원	최소 2명 ~ 최대 4명	최소 3명 ~ 최대 6명(조정 가능)
이용방법	홈페이지 또는 모바일 앱 예약 (예약시간·데스크 방문, 학생증 필요)	이메일 / 전화 신청(승인 필요) kmulti@snu.ac.kr, 02-880-1159
이용시간	최대 50분	3시간
운영시간 (평일)	1회차 09:00~09:50 2회차 10:00~10:50 3회차 11:00~11:50 점 검 12:00~13:00 4회차 13:00~13:50 5회차 14:00~14:50 6회차 15:00~15:50 7회차 16:00~17:00	09:00~17:00

창의미디어 스페이스

구 분	영상 촬영 스튜디오	편집존
이용대상	재학생(연구생, 휴학생 포함), 교직원	편집존
용 도	동영상 촬영, 실시간 방송 (HD 카메라, LED 조명, 오디오믹서, 크로마키 등)	동영상 편집, 포토샵 등 (Adobe 계열 S/W)
이용인원	1인실(STUDIO G,B) 1인~2인 2인실(STUDIO R) 2인~4인	6석
이용방법	홈페이지 또는 모바일 앱 예약 (예약시간·데스크 방문, 학생증 필요)	좌석배정 키오스크 (현장배정)
이용시간	최대 3시간	최대 3시간
운영시간	09:00 ~ 17:00	09:00 ~ 18:00



eXtended Reality
XR Lab. OPEN
Laboratory

학술정보원은 실감미디어 콘텐츠 제작, 영상 편집 작업에 최적화된 하이엔드급 장비와 소프트웨어를 갖춘 XR Lab(eXtended Reality Lab)을 오픈하였습니다.
XR은 VR, AR, MR 기술을 모두 아우르는 개념으로 그 가능성이 무한한 차세대 미디어입니다.



■ 구성 장비

- SAMSUNG Odyssey Core PC & 32" UHD 듀얼 모니터 (6SET)
- SAMSUNG 플립 전차철판 (2EA)
- HTC VIVE PRO Full Kit (1EA)
- SAMSUNG HMD Odyssey+ (2EA)
- Oculus Quest 64GB (2EA)
- SAMSUNG 갤럭시탭 S4 10.5 (2EA)
- * 최신 미디어 장비 추가 구매 예정

■ 위치

- 연세·상성 학술정보관 3F 멀티미디어센터

■ 이용방법

- 사용 당일 좌석배정기 또는 mY-seat2 앱을 통해 좌석 배정 후 이용
- * 수업, 실습 교육을 위한 Lab 전체 대관 및 장비 대여 가능 (사전 예약 필수)

■ 문의

- 학술정보원 미디어서비스팀
* T. 02-2123-6305, 6339
E. mediaservice@yonsei.ac.kr



학술정보원 대학혁신지원사업

**2019 Yonsei VR/AR
콘텐츠 아이디어 공모전**

대상 : 실감미디어에 관심있는 연세대학교 학부생 *후학생 신청 가능
인원 : 과장별 선착순 20명
장소 : 연세·상성 학술정보관 3층 멀티미디어센터 미디어교육실
문의 : 02-2123-6305 / mediaservice@yonsei.ac.kr

교육일정 및 상세 커리큘럼

원데이 360° VR 촬영 콘텐츠 제작 원데이클래스 (6H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 360° 영상 재성을 위한 U 작업
- 360° VR 영상 매핑 작업 및 360 카메라 처리
- 360° VR 촬영 영상 플레이아웃 콘텐츠 제작

원데이 마커리스 기반의 AR 포트존 제작 원데이클래스 (6H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- AR Foundation을 이용한 마커리스 AR 기술 소개 및 환경 설정
- 포트 캐릭터 추가 및 포즈 애니메이션 적용
- AR 포트존 앱 제작 실습

원데이 Unity를 활용한 3D 슈팅게임 제작 원데이클래스 (6H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 1인칭 VR 플레이어를 생성 및 총기 발포기능 구현
- 목표물 생성 및 피격 처리
- 게임 점수 출력 및 게임 재시작

원데이 Unity를 활용한 AR 이력서 제작

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 무브리아를 이용한 이미지
- 이력서 마커 데이터베이스
- AR 이력서 앱 제작

입 문 360° 영상 제작 과정 (24H)

세부내용

- 360° 영상 촬영의 특징
- 360° 영상의 이해와 사례
- 360° 영상 촬영 실습
- 360° 영상 후반 작업
- 스티칭 소프트웨어 사용법

입 문 VR/AR 포트폴리오 제작 과정

세부내용

- Photo Scan 이론 및 개념
- Photo Scan 방식의 사진
- Unity 엔진 소개
- Unity 기반의 AR 콘텐츠
- Unity 기반의 VR 콘텐츠

심 화 Unity 기반의 실감미디어 콘텐츠

세부내용

- VR 환경설정 및 하드웨어
- VR 상호작용 및 제작 실
- AR 제작을 위한 개발환경
- AR 포트존 콘텐츠 제작

대상 : 실감미디어에 관심있는 연세대학교 학부생
인원 : 과장별 선착순 20명
장소 : 연세·상성 학술정보관 3층 멀티미디어센터 미디어교육실
문의 : 02-2123-6305 / mediaservice@yonsei.ac.kr

교육일정 및 상세 커리큘럼

원데이 Unity를 활용한 3D슈팅게임 원데이 클래스 (4H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 플레이어를 이동 및 발포 기능 구현
- 목표물 생성 및 피격 처리
- 게임 점수 출력 및 게임 재시작

원데이 Unity를 활용한 AR 이력서 제작 원데이 클래스 (4H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 무브리아를 이용한 이미지 마커 AR 기술
- 이력서 마커 데이터베이스생성
- AR 이력서 앱 제작

원데이 360° VR 촬영 콘텐츠 제작 원데이 클래스 (4H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 360° 영상 재성을 위한 U 작업
- 360° VR 영상 매핑 작업 및 360 카메라 처리
- 360° VR 촬영 영상 플레이아웃 콘텐츠 제작

No	주제	교육 내용
1	3D 콘텐츠 개발 기초	<ul style="list-style-type: none"> ◆ 상속과 다형성을 이용한 다양한 캐릭터 구조 설계 ◆ Unity 기초 사용법 및 개발 파이프라인 ◆ 카메라 회전 및 캐릭터 이동 컴포넌트 구현 ◆ 애니메이션 레이어, 블렌드 트리 등 고급 애니메이션 ◆ Unity & C#을 이용한 가위바위보 게임 제작 실습
2	3D 콘텐츠 개발 심화	<ul style="list-style-type: none"> ◆ 파티클 시스템을 활용한 오브젝트 충돌 처리 ◆ 태그 및 레이어를 통한 충돌 감지, 피격 처리 및 카메라 흔들기 피격 연출 ◆ 안개 설정, 사운드 재생, 씬 전환 구현 ◆ 데이터 저장 및 빌드
3	원격 VR 콘텐츠 구현 기술 기초	<ul style="list-style-type: none"> ◆ Vive/Oculus 기반 콘텐츠 제작환경 설정 ◆ 사용자 시선과 일치하는 VR Head Tracking 처리 ◆ 컨트롤러를 활용한 그림, 드럼, 이동 등 기능 구현 ◆ VR 콘텐츠 UI 구현
4	원격 VR 콘텐츠 구현 기술 심화	<ul style="list-style-type: none"> ◆ 다중 사용자 채팅 기능 구현 ◆ VR 원격 렌더링 기술을 활용한 다중 사용자 VR 구현 기술 ◆ 원격 콘텐츠 화면 동기화 기능 구현 ◆ VR 콘텐츠 제작 실습
5	팀 프로젝트 및 기술 지원	<ul style="list-style-type: none"> ◆ 수강생 팀 빌딩 및 콘텐츠 기획 실습 ◆ 프로젝트 수행 및 기술 지원

eXtended Reality
XR Lab. OPEN
Laboratory

학술정보원은 실감미디어 콘텐츠 제작, 영상 편집 작업에 최적화된 하이엔드급 장비와 소프트웨어를 갖춘 XR Lab(eXtended Reality Lab)을 오픈하였습니다. XR은 VR, AR, MR 기술을 모두 아우르는 개념으로 그 가능성이 무한한 차세대 미디어입니다.



■ 구성 장비

- SAMSUNG Odyssey Core PC & 32" UHD 듀얼 모니터 (6SET)
- SAMSUNG 플립 전차철판 (2EA)
- HTC VIVE PRO Full Kit (1EA)
- SAMSUNG HMD Odyssey+ (2EA)
- Oculus Quest 64GB (2EA)
- SAMSUNG 갤럭시탭 S4 10.5 (2EA)
- * 최신 미디어 장비 추가 구매 예정

■ 위치

- 연세·상성 학술정보관 3F 멀티미디어센터

■ 이용방법

- 사용 당일 좌석배정기 또는 mY-seat2 앱을 통해 좌석 배정 후 이용
- * 수업, 실습 교육을 위한 Lab 전체 대관 및 장비 대여 가능 (사전 예약 필수)

■ 문의

- 학술정보원 미디어서비스팀
* T. 02-2123-6305, 6339
E. mediaservice@yonsei.ac.kr



학술정보원 대학혁신지원사업

**2019 Yonsei VR/AR
콘텐츠 아이디어 공모전**

대상 : 실감미디어에 관심있는 연세대학교 학부생 *휴학생 신청 가능
인원 : 과장별 선착순 20명
장소 : 연세·상성 학술정보관 3층 멀티미디어센터 미디어교육실
문의 : 02-2123-6305 / mediaservice@yonsei.ac.kr

교육일정 및 상세 커리큘럼

원데이 360° VR 촬영 콘텐츠 제작 원데이클래스 (6H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 360° 영상 재성을 위한 U 작업
- 360° VR 영상 배편 작업 및 360 카메라 처리
- 360° VR 촬영 영상 플레이아웃 콘텐츠 제작

원데이 마커리스 기반의 AR 포트존 제작 원데이클래스 (6H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- AR Foundation을 이용한 마커리스 AR 기술 소개 및 환경 설정
- 포트 캐릭터 추가 및 포즈 애니메이션 적용
- AR 포트존 앱 제작 실습

원데이 Unity를 활용한 3D 슈팅게임 제작 원데이클래스 (6H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 1인칭 VR 플레이어를 생성 및 총기 발포기능 구현
- 목표물 생성 및 피격 처리
- 게임 점수 출력 및 게임 재시작

원데이 Unity를 활용한 AR 이력서 제작

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 무브리아를 이용한 이미지
- 이력서 마커 데이터베이스
- AR 이력서 앱 제작

입 문 360° 영상 제작 과정 (24H)

세부내용

- 360° 영상 촬영의 특징
- 360° 영상의 이해와 사례
- 360° 영상 촬영 실습
- 360° 영상 후반 작업
- 스티칭 소프트웨어 사용법

입 문 VR/AR 포트폴리오 제작 과정

세부내용

- Photo Scan 이론 및 개념
- Photo Scan 방식의 사진
- Unity 엔진 소개
- Unity 기반의 AR 콘텐츠
- Unity 기반의 VR 콘텐츠

심 화 Unity 기반의 실감미디어 콘텐츠

세부내용

- VR 환경설정 및 하드웨어
- VR 상호작용 및 제작 실
- AR 제작을 위한 개발환경
- AR 포트존 콘텐츠 제작

대상 : 실감미디어에 관심있는 연세대학교 학부생
인원 : 과장별 선착순 20명
장소 : 연세·상성 학술정보관 3층 멀티미디어센터 미디어교육실
문의 : 02-2123-6305 / mediaservice@yonsei.ac.kr

교육일정 및 상세 커리큘럼

원데이 Unity를 활용한 3D슈팅게임 원데이 클래스 (4H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 플레이어를 이동 및 발포 기능 구현
- 목표물 생성 및 피격 처리
- 게임 점수 출력 및 게임 재시작

원데이 Unity를 활용한 AR 이력서 제작 원데이 클래스 (4H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 무브리아를 이용한 이미지 마커 AR 기술
- 이력서 마커 데이터베이스생성
- AR 이력서 앱 제작

원데이 360° VR 촬영 콘텐츠 제작 원데이 클래스 (4H)

세부내용

- Unity 엔진 소개
- Unity 기본 인터페이스 사용법
- 360° 영상 재성을 위한 U 작업
- 360° VR 영상 배편 작업 및 360 카메라 처리
- 360° VR 촬영 영상 플레이아웃 콘텐츠 제작

No	주제	교육 내용
1	3D 콘텐츠 개발 기초	<ul style="list-style-type: none"> ◆ 상속과 다형성을 이용한 다양한 캐릭터 구조 설계 ◆ Unity 기초 사용법 및 개발 파이프라인 ◆ 카메라 회전 및 캐릭터 이동 컴포넌트 구현 ◆ 애니메이션 레이어, 블렌드 트리 등 고급 애니메이션 ◆ Unity & C#을 이용한 가위바위보 게임 제작 실습
2	3D 콘텐츠 개발 심화	<ul style="list-style-type: none"> ◆ 파티클 시스템을 활용한 오브젝트 충돌 처리 ◆ 태그 및 레이어를 통한 충돌 감지, 피격 처리 및 카메라 흔들기 피격 연출 ◆ 안개 설정, 사운드 재생, 씬 전환 구현 ◆ 데이터 저장 및 빌드
3	원격 VR 콘텐츠 구현 기술 기초	<ul style="list-style-type: none"> ◆ Vive/Oculus 기반 콘텐츠 제작환경 설정 ◆ 사용자 시선과 일치하는 VR Head Tracking 처리 ◆ 컨트롤러를 활용한 그림, 드럼, 이동 등 기능 구현 ◆ VR 콘텐츠 UI 구현
4	원격 VR 콘텐츠 구현 기술 심화	<ul style="list-style-type: none"> ◆ 다중 사용자 채팅 기능 구현 ◆ VR 원격 렌더링 기술을 활용한 다중 사용자 VR 구현 기술 ◆ 원격 콘텐츠 화면 동기화 기능 구현 ◆ VR 콘텐츠 제작 실습
5	팀 프로젝트 및 기술 지원	<ul style="list-style-type: none"> ◆ 수강생 팀 빌딩 및 콘텐츠 기획 실습 ◆ 프로젝트 수행 및 기술 지원

Virtual Reality at Gelardin

Why Is VR Important?

VR has infinite uses in entertainment, education, medicine, military, and more. People can play immersive video games, practice dangerous military maneuvers, and simulate extremely complex surgeries by simply putting on a headset and entering a virtual reality. Users can go on a roller coaster, and even fly through space without leaving a room. VR provides the ability to be in places you aren't or even places that do not exist. This allows us to do research that might have been otherwise dangerous or impossible. The ability to virtually walkthrough any museum in the world or on the surface of Mars is unprecedented. Virtual Reality technology still has a ways to go, but Gelardin aims to be at its forefront.

Step 1: Become authorized to use the VR station

To gain access to the VR stations sign up for a VR consultation at [library.georgetown.edu/gelardin/vr/consultations](https://www.library.georgetown.edu/gelardin/vr/consultations)

Once you receive a VR consultation you'll be authorized to reserve and use the VR station!

Step 2: Reserve either the HTC Vive Station OR the Oculus Rift

1. Go to our patron reservation portal at: www.library.georgetown.edu/gelardin/pir
2. Select "Click here to start reserving"
3. In the window that says "Choose Organization":

- For the **HTC Vive** in the Idea Lab, select **Virtual Reality**
- For the **Oculus Rift** in Edit Room 3, select **Gelardin New Media Center**

The screenshot displays a Facebook group interface. At the top, the group name 'Georgetown University VR and Immersive Content Creators' is highlighted with a red box. Below the name, there are navigation options like 'About', 'Discussion', 'Members', 'Events', and 'Photos'. A 'Join Group' button is visible. The main content area shows a post by 'Barrinton Baynes' dated June 1 at 8:28 PM, which includes a link to an article and an illustration of two people using VR headsets. Another post by 'Barrinton Baynes' dated April 2 is partially visible, mentioning 'Microsoft is supplying 120,000 HoloLens-based headsets to the US Army'.

Virtual Reality Lab

****Due to Coronavirus concerns, the VR Lab is closed until further notice. If you have questions, please email ryan.cassidy@ttu.edu.****

The Texas Tech University Library is now offering a virtual reality experience in a new lab available to all students, faculty, and staff.

Our mission is to provide excellent service in helping you develop your ideas and bring them to life. The lab has eight stations equipped with powerful Alienware computer, Oculus Rift headsets, and controllers to help you experience a new dimension in research.

The VR Lab is located on the second floor of the Library, in room 201A, past the DMS.

If you are not sure how to get started with virtual reality, check out some of the resources we have available, or visit the VR Lab and let us help you experience the technology!

If you have any questions, or for information on faculty support for virtual reality, please contact make@ttu.edu.

WELCOME

RESERVE A VR STATION

RESOURCES

POLICIES

VR Lab Policies

Users agree to the following when using the equipment in the Library Makerspace VR Lab:

- By submitting content or objects, the user agrees to assume all responsibility for, and shall hold the Library harmless in, all matters related to patented, trademarked or copyrighted materials.
- The Library is not responsible for any damage, loss, or security of data arising from the use of its computers or equipment, nor for the functionality or quality of content produced.
- The Library reserves the right to refuse the use of equipment or production of any content at any time at the discretion of Library staff.

WELCOME

RESERVE A VR STATION

RESOURCES

POLICIES

Lab is closed until further notice

CONTACT US

Office:
Room 201A, Second Floor
University Library

Email: make@ttu.edu

For Your Safety

- Please remain seated when using the VR equipment.
- It is recommended to take a 10-15 minute break every 30 minutes.
- No food or drinks allowed
- Please view the **health and safety warnings** for the Oculus Rift equipment

If you have any questions regarding the policies on this page, please contact Ryan Cassidy at ryan.cassidy@ttu.edu or call 806-834-4013.

Health and Safety
* These health & safety warnings are periodically updated for accuracy and completeness. Check www.oculus.com/warnings for the latest version.

HEALTH & SAFETY WARNINGS: TO REDUCE THE RISK OF PERSONAL INJURY, DISCOMFORT OR PROPERTY DAMAGE, PLEASE ENSURE THAT ALL USERS OF THE HEADSET READ THE WARNINGS BELOW CAREFULLY BEFORE USING THE HEADSET AND TOUCH CONTROLLERS.

⚠ WARNING Before Using the Headset and Touch controllers

- Read and follow all setup and operating instructions provided with the headset and Touch controllers.
- Review the hardware and software recommendations for use of the headset and Touch controllers. Risk of discomfort may increase if recommended hardware and software are not used.
- Your headset, Touch controllers and software are not designed for use with any unauthorized device, accessory and/or software. Use of an unauthorized device, accessory and/or software may result in injury to you or others, may cause performance issues or damage to your system and related services.
- To reduce the risk of discomfort, adjust the inter-pupillary distance (IPD) for each user before use of the headset, and check the settings before resuming use after a break, to avoid any unintended changes to settings.

<https://securecdn.oculus.com/sr/oculusrift-warning-english>

VR Lab Resources

Hardware

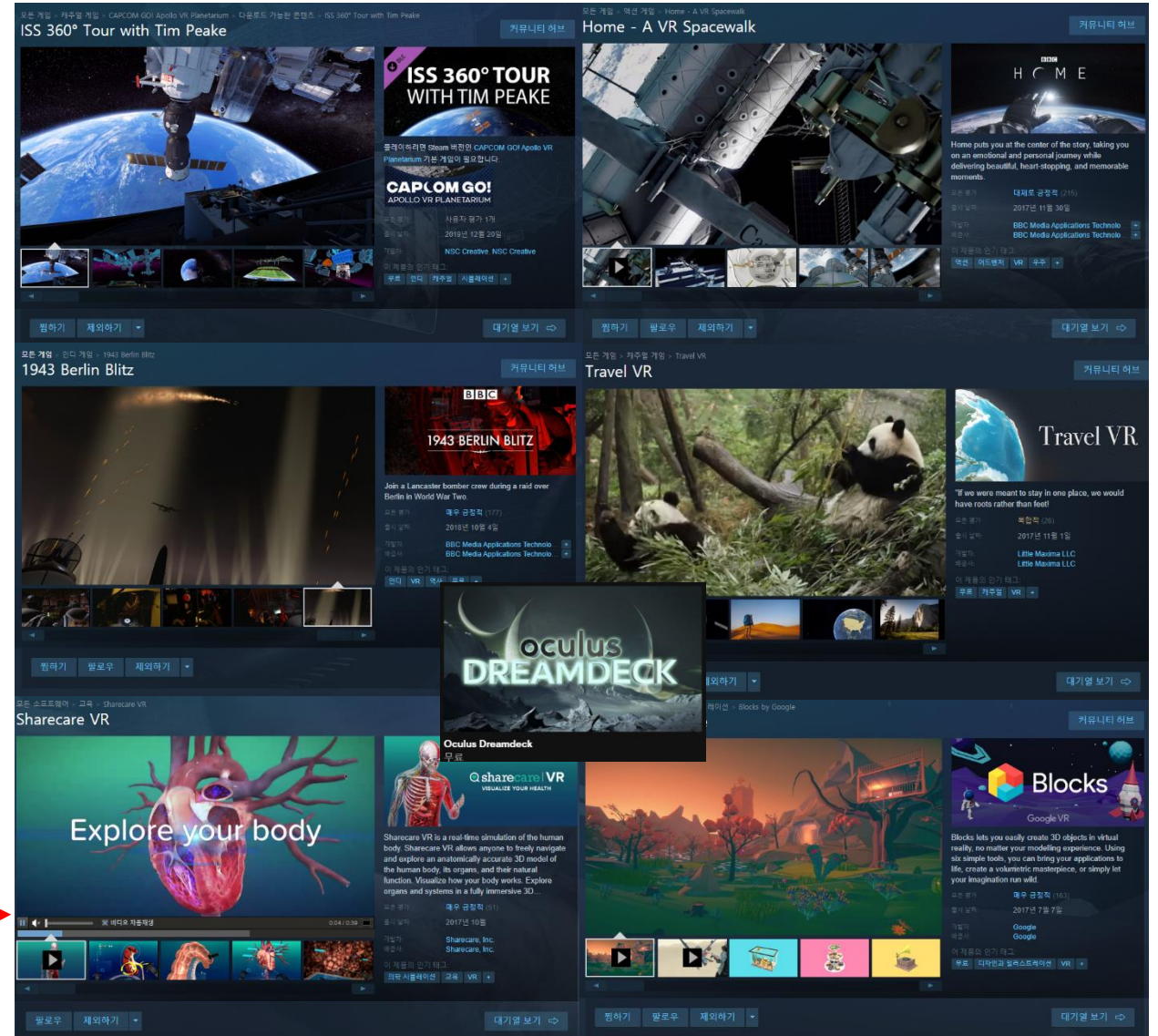
The VR Lab offers the following hardware available for use by the students, faculty, and staff of Texas Tech University:

- Alienware Aurora Computers
 - Intel Core i7-8700 CPU (3.20 GHz, 6 cores)
 - 16 GB of RAM
 - NVIDIA GeForce GTX 1070 Ti
- Oculus Rift HM-A Headset
- Dual Oculus Rift Controllers
- Oculus Rift Sensor
- 27" Monitors

Software

Users are welcome to access web VR content or create/sign in with an Oculus account (free to create). Once signed into an Oculus account, you will be able to access the following software through the Oculus store:

- Google Earth VR
- BBC Home
- Sharecare VR
- Blocks by Google
- Sketchbox
- Travel VR
- Mission:ISS
- 1943 Berlin Blitz
- Oculus Dreamdeck





Making & Makerspaces at Cornell University Library

- mannUfactory makerspace
- Digital CoLab
- 3D printing
- Virtual Reality
- Maker Resources
- Makerspace Creation Resources
- Using Other AV Resources
- Other Makerspaces at Cornell
- Maker Projects
- Earth Week Making Projects
- Zines and Self-Publishing
- Making in Response to COVID-19
- For Instructors

Types of VR

The mannUfactory has the following types of VR. The Google Cardboards are available at any time. To use the HTC Vive, book the [multimedia studio](#), and at the reserved time, come to the makerspace front desk, give the staff your ID card and they will set up the headset for you. The Oculus Gos and Quests are available when they are not reserved for a class; check at the front desk for availability.

- Google Cardboard
- Oculus
- HTC Vive

We don't have these but these headsets also exist.

- Microsoft HoloLens
- Samsung VR
- Playstation VR
- Magic Leap

Educational Uses (& Some Examples)

- [Learning in Three Dimensions: Report on the EDUCAUSE/HP Campus of the Future Project](#)
- [John Ashberry's Nest](#)
See also:
<https://news.yale.edu/2017/06/29/new-virtual-reality-site-creates-sonic-collage-esteemed-poet-john-ashberry-s-works>
- [Virtual Rome](#)

VR 101



- [What's the Difference Between AR, VR, AND MR?](#)
- [The Important Difference Between Virtual Reality, Augmented Reality and Mixed Reality](#)

Experiencing VR

Besides the content available in your smartphone app store or on YouTube and other general platforms, you can also find content specific to various headsets at sites like the following:

- [Steam VR Games](#)
Affiliated with Vive but has content for multiple platforms
- [Viveport](#)
HTC Vive portal
- [Oculus Apps and Games](#)
Oculus portal. Use the tabs at the top to choose which headsets for which to search for content
- [Mozilla Hubs](#)
Platform for VR meeting rooms - can use headset or browser

WHAT'S THE DIFFERENCE BETWEEN AR, VR, AND MR?



Learning in Three Dimensions: Report on the EDUCAUSE/HP Campus of the Future Project

Monday, July 30, 2018 | Briefs, Case Studies, Papers, Reports

Author(s): Jeffrey Pomerantz

Sources(s): EDUCAUSE Center for Analysis and Research (ECAR), EDUCAUSE Learning Initiative (ELI)
Collection(s): Research Hub, Research Report

3D Printing, Accessibility, Collaborations and Partnerships, Collaborative Learning, Emerging Technologies, Extended Reality (XR), Games and Gaming, Instructional Design, Research, Teaching with Technology, Virtual Learning Environment (VLE)

Virtual Reality

NOTICE: The VR services are temporarily closed until further notice. Please contact unclibraryvr@unc.edu if you have any questions.

The **UNC Libraries** provide students, staff, and faculty access to Virtual Reality (VR) hardware and software. We offer different levels of VR service and access at three locations:

VR Gaming Station at the Undergraduate Library

Equipment

HTC Vive (with headset, headphones, and attached Lenovo gaming PC).

Software

VR Games and Experiences: [Our Steam Library has the full list](#)

Availability & Reservations

You must be at least 18 years old and a current UNC affiliate to use the Undergraduate Library's Gaming Station.

[Reserve the Gaming Station](#)

VR Development Studio at Kenan Science Library

***You must complete an orientation before you can use the workstation at KSL. To complete orientation please go to Kenan Science Library and ask at the front desk. Or email them at: kenanmakerspace@unc.edu**

Read more about Kenan's VR Policies.

Equipment

HTC Vive (with headset, headphones, and attached Lenovo gaming PC).

Canbor VR headset

Software

VR Development Tools: Unity3D, Unreal Engine 4, Blender, Maya, AutoCAD, Fusion360, SketchUp Make.

VR Games and Experiences: [Our Steam Library has the full list](#).

Availability & Reservations

[Reserve the VR Studio](#)

Augmented Reality & Virtual Reality (AR/VR) at the Health Sciences Library

The Health Sciences Library offers consultations and demonstrations of Augmented Reality/Virtual Reality (AR/VR) and their use in education, research, and clinical care.

To schedule a consultation or demo, please email digitalhealth@unc.edu.

Join the growing AR/VR community at UNC

Are you interested in learning more about AR/VR research and activities around campus? The UNC Augmented and Virtual Reality Interest Group includes over 250 people from all across campus, including faculty, students, and staff from just about every department at UNC Chapel Hill, and then some. Our goal is to promote innovative teaching and learning, research, training, clinical care, and entrepreneurship through the use of Immersive technologies.

To join the UNC AR/VR Interest Group, as well as UNC's AR/VR Faculty and Student Groups, visit avr.web.unc.edu

Questions or comments?

Your Name *

First and Last Name

Your Email *

oryen@email.unc.edu

Your Questions or Comments *

Text input field for questions or comments.

[Submit](#)

UNCLibraryVR ▾
UNC Library Chapel Hill, North Carolina, United States
Level 4
Add Friend More ▾
No information given.

Recent Activity

- SPIDER-MAN: Far From Home Virtual Reality**
2.5 hrs on record last played on 7 Mar
- STEAM VR**
243 hrs on record last played on 7 Mar
- BEAT SABER**
391 hrs on record last played on 7 Mar

Currently Offline

- Badges 3
- Games 52
- Inventory
- Screenshots 5
- Reviews 51
- Friends 1

Achievement Progress 20 of 26

Screenshots 5

[View All Recently Played](#) | [Reviews](#)

UNCLibraryVR ▾ Games

Recently Played All Games Reviews

Filter games Filter to games you both own Sort by **Playtime** Name

- BEAT SABER**
391 hrs on record
Links View Stats Review...
- SPACE PIRATE TRAINER**
174 hrs on record
Links View Stats Review...
- VANISHING REALMS: Isle of Steel**
74 hrs on record
Links View Stats Review...
- Tilt Brush** by Google
39 hrs on record
Links View Stats Review...
- BUDGET CUTS.**
26 hrs on record
Links View Stats Review...
- BATMAN™: ARKHAM VR**
24 hrs on record
Links View Stats Review...

University Libraries

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University Libraries
Western Michigan University
Kalamazoo MI 49008-5353 USA
(269) 387-5059 for information
(269) 387-5155 for hours

Virtual Reality Lab



Take a virtual tour of the new Student Center.
Now available in the VR Lab.

Learning Virtual Reality

Western Michigan University offers workshops and online tutorials to help you to discover the power of virtual reality and even start making your own VR content. There are no prerequisites for any workshop, although it is suggested that you start with the [Unity tutorials available below](#). All workshops are held in the [Virtual Reality Lab](#) located on the lower level of Waldo Library. Registration is required for most workshops.



WORKSHOPS OFFERED

Check back for dates for the following workshops:

Intro to VR

Get your first look at Virtual Reality and learn about the different types of VR content that are available. We will explore panoramic photographs, VR Video, non-interactive VR content, and fully interactive VR titles.

Creating VR in Unity

Learn how to start making your own virtual reality content using the Unity Game Engine. Attendees will learn how to navigate Unity's interface, create basic objects, enable Unity's VR capabilities, and add VR interactions with the Oculus Touch controllers. See the [Unity links below](#) for downloads and intro tutorials.

Creating Art in VR

Creating art is an amazing experience in Virtual Reality thanks to the many creative applications available. Get an introduction to sculpting in Oculus Medium and 3D painting in Oculus Quill.

Creating 3D Objects for VR

Virtual Reality isn't very engaging without objects to interact with. Learn the basics of creating 3D models for use in Virtual Reality (and many other) applications.

VR: Nursing Simulation Presentation

Learn more about the Nursing Simulation by Kevin Abbott and the students in his VR Studio.

Virtual Reality

Tools for creating and developing virtual

For more information on how to use these

- 3D Modeling
 - Autodesk 3ds Max
 - Blender
- Application Development
 - Unity
 - Unreal Engine
- Content Creation
 - Adobe Products
 - Photoshop
 - After Effects
 - Premiere
 - Audition
 - Fuse
 - Character Animator
 - Illustrator

VIRTUAL REALITY TUTORIALS

UNITY

UNREAL ENGINE

BLENDER

Unity

GET UNITY

[Start Here - Interface Overview](#)

Essential Unity Basics

- [Game Objects and Components](#)
- [Scripts as Behavior Components](#)
- [Introduction to Lighting and Rendering](#)

Using VR in Unity

[Enabling VR - VR Overview](#)

3D Modeling with ProBuilder

- [Getting Started with ProBuilder for Unity](#)
- [Advanced Usage - Building Structures with Interior and Exterior Materials in ProBuilder - Texturing Part I](#)
- [UVs and Unwrapping - Texturing Part II](#)

Unreal Engine

GET UNREAL ENGINE

[Start Here - Intro to Unreal Engine](#)

[Virtual Reality in Unreal Engine](#)

Blender

GET BLENDER

[Start Here - Intro to Blender](#)

Games

- [Arizona Sunshine](#)
- [Beat Saber](#)
- [Brass Tactics](#)
- [Blade Runner 2049: Memory Lab](#)
- [Budget Cuts](#)
- [BlazeRush](#)
- [Dead and Buried](#)
- [DiRT Rally](#)
- [Don't Knock Twice](#)
- [Eagle Flight](#)
- [Echo VR](#)
- [EVE: Valkyrie - Warzone](#)
- [Gray](#)
- [I Expect You To Die](#)
- [Job Simulator](#)
- [Keep Talking and Nobody Explodes](#)
- [Killing Floor: Incursion](#)
- [Lone Echo](#)
- [Lucky's Tale](#)
- [Minecraft](#)
- [Mirror](#)
- [Moss](#)
- [Onward](#)
- [Raw Data](#)
- [Rec Room](#)
- [Rick and Morty: Virtual Rick-ality](#)
- [Ripcoil](#)
- [Robo Recall](#)
- [Space Pirate Trainer](#)
- [Star Trek: Bridge Crew](#)
- [SUPERHOT VR](#)
- [The Climb](#)
- [The Invisible Hours](#)
- [The Mage's Tale](#)
- [The Unspoken](#)
- [Toybox](#)
- [Vader Immortal: Episode I](#)
- [Vader Immortal: Episode II](#)
- [Vader Immortal: Episode III](#)
- [Vr Storyteller Episode0](#)
- [ZR: Zombie Riot](#)

Educational and Artistic

- [Apollo 11 VR Experience](#)
- [Athenian Acropolis](#)
- [Blocks](#)
- [Calcflow](#)
- [Google Earth VR](#)
- [Mission: ISS](#)
- [Oculus Medium](#)
- [Oculus Quill](#)
- [Rome Reborn: The Roman Forum](#)
- [Sharecare VR](#)
- [The Stanford Ocean Acidification Experience](#)
- [Tilt Brush](#)
- [Titanic VR](#)
- [Wonderful You](#)

Entertainment

- [Bogo](#)
- [Breathe Peace World](#)
- [Dear Angelica](#)
- [Dispatch](#)
- [Fears Nightmare Roller Coaster](#)
- [Nature Treks VR](#)
- [Oculus 360 Photos](#)
- [Oculus First Contact](#)
- [WITHIN](#)

Content Creation

- [3ds Max 2018](#)
- [Adobe Creative Cloud](#)
- [Blender](#)
- [Unity3D](#)
- [Unreal Engine](#)

Virtual Reality at Marian University Library

Search this Guide Search

- Virtual Reality Overview
- Virtual Reality Software
- Books and Journals on VR
- Schedule VR for your Class or Group
- VR Unit Request Form [↗](#)
- Check VR Availability

What is Virtual Reality?

Virtual Reality technology (typically the use of goggles or headsets) creates an artificial, usually three-dimensional environment with which users can interact.

Virtual Reality is one aspect of Extended Reality. In addition to Virtual Reality, Extended Reality also encompasses:

- Augmented Reality - technology using real-world imagery along with other displayed information in an interactive environment.
- Mixed Reality - a merging of the two above realities, engaging the user's awareness in detecting the boundaries between real-world and artificial surrounding environments.

Virtual Reality Project Overview


To support our mission to develop a diverse collection of resources in all appropriate formats, Marian University library applied for and received a grant from the Library Services and Technology Act (LSTA) in 2019 to explore use cases for virtual reality technology adoption on campus. The goals of Marian University Library's virtual reality project are:

- To provide an opportunity for Marian University students and faculty, as well as our surrounding community, to explore a new and growing technology.
- To provide Marian University faculty with the opportunity to explore Virtual Reality as an instructional tool.
- To create and maintain this public online resource guide to document and supplement the adoption of Virtual Reality as an instructional tool.

Equipment

The following VR (Virtual Reality) equipment is available:


- Oculus Rift S Bundle - virtual headset and controllers
- Reservable laptop for mobile VR (faculty/staff only)
- Desktop in library for stationary VR
- VR Display - 50" televised display for VR observation





Oculus Rift S headset and controllers

Acknowledgement

This project is made possible by a grant from the U.S. Institute of Museum and Library Services, administered by the Indiana State Library. We gratefully acknowledge their support.

- ### Selected Books
- 

Being Really Virtual : immersive natives and the future of virtual reality by Frank Steinicke [↗](#)
Call Number: Available as an ebook
ISBN: 9783319430782
Publication Date: 2019-11-16
 - 

Beyond Reality: augmented, virtual, and mixed reality in the library by Kenneth J. Varnum [↗](#)
Call Number: Z678 .Q3 .S53 B49 2019
ISBN: 9780838917855
Publication Date: 2019-01-01
 - 

Emerging Tools and Applications of Virtual Reality in Education by Dong Hwa Choi (Editor), Amber Daley-Hebert (Editor), Juli Giovanni Edele (Editor) [↗](#)
Call Number: LB1044 .B7 .E545 2016
ISBN: 9781466698376
Publication Date: 2016-01-18

Installed VR Software / Apps

Art / Humanities
Social Work
Health Sciences
Geography / History
STEM Sciences
Teaching

Entertainment / Relaxation

- **Art Plunge** - Art Plunge is a gallery where you can get the feeling of being inside famous paintings. This is a short but sweet experience featuring VR interpretations of the following five artworks: Mona Lisa, Starry Night, The Birth of Venus, The Creation of Adam and Girl Reading a Letter at an Open Window.
- **Dreams of Dali** - Enjoy the remarkable marriage of art and technology in "Dreams of Dali", a virtual reality experience from The Dali Museum (St. Petersburg, FL), as you explore Salvador Dali's 1935 painting "Archaeological Reminiscence of Millet's 'Angelus'." Immerse yourself in the world of the Surrealist master like never before in this encounter, venturing into the towers, peering from them to distant lands and discovering surprises around every corner. This award-winning VR experience has garnered visitor acclaim, online praise and international recognition through a multitude of industry awards, including the prestigious Cannes Cyber Lion GOLD; a Webby People's Voice award; and a Facebook Silver award for Innovation, among others.

Location: Category: Capacity:

To make a reservation for the VR Mobile Unit:

1. Select your date, using the calendar (Go to Date) or the Day/Week view option.
2. Select the starting time you would like to reserve it for.
3. Select the ending time from the drop-down at the bottom of the page.
4. Click *Submit Times*.
5. Read the *Terms and conditions* on the following page.
6. Fill out the subsequent short form.
7. Click *Submit my Booking*.

Friday, June 5, 2020 – Thursday, June 11, 2020

Sorry, there is no future availability in this category.

FRIDAY, JUNE 5, 2020

	9:00am	10:00am	11:00am	12:00pm	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm
VR Mobile Unit Request (Capacity 20)													

■ Available
 ■ Your Booking
 ■ Unavailable/Padding

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[Report a tech support issue.](#)
 View this page in a format suitable for screen-readers
[Login to LibApps](#)
 English

COVID-19 information: The Library is committed to ensuring that our campus community stays remotely connected with library resources through our [robust online services](#). The physical library is currently CLOSED with limited access by [reservation](#) to GrizCard holders. Find out more on our [updates page](#).

[UM](#) / [Academics](#) / [Mansfield Library](#) / [Technology and Spaces](#) / Virtual Reality Room

Technology and Spaces

- [Tech Support](#)
- [Equipment and Software A-Z](#)
- [One Button Studio](#)
- [Virtual Reality Room](#)**
- [Paw Print](#)
- [Maps and Directions](#)
- [Study Spaces](#)
- [Lightboard Studio](#)

Virtual Reality Room

Reserve the Virtual Reality Room



Our Virtual Reality Room (room 113 on level one) is a space for our campus community to explore ideas, data, content and places in new and astonishing ways. The room is designed to provide access to an immersive, real-time virtual experience for users with no prior experience or training using this technology. Virtual reality can be used to play games, view films in 360°, visualize data, interact with 3D models of objects that may be too microscopic or fragile to handle in real life, and visit places around the globe and even fictional or impossible worlds.

One user at a time can interact with content in 360 degrees, while others can watch and trade off. Students, faculty, and staff can reserve the Virtual Reality Room for three hours at a time and pick up the key and controllers at the Information Center Checkout Desk. [View the Virtual Reality Room's full policy.](#)

We welcome University of Montana faculty, students, and employees to explore the use of virtual reality in their academic and personal lives.

Software

Note that VR applications are added frequently and you may also add your own applications using Steam. The list that follows is just a sample of apps available for your VR experience.

3D Organon VR Anatomy

3D Organon VR Anatomy is the world's first fully-featured VR anatomy atlas. Explore 15 body systems with more than 4000 realistic anatomical structures and organs. You can select, hide, and fade bones, muscles, vessels, organs

Hardware

- Oculus Rift + Touch controllers
- HTC Vive + controllers
- Alienware Aurora with a Core i7-7700K
- NVIDIA GeForce 1080 Ti
- 34" Curved 21:9 UltraWide QHD Predator Monitor

[Employment Opportunities](#)

mitted to ensuring that our campus community stays remotely connected with library resources through our [robust online](#) DSED with limited access by [reservation](#) to GrizCard holders. Find out more on our [updates page](#).

[Us](#) / [Policies](#) / [Classroom and Meeting Room Policies](#)

Mansfield Library Classroom and Meeting Space Reservation and Use Policy

The Mansfield Library facilitates the intellectual and creative pursuits of all members of the University of Montana (UM) community and supports their information, education and cultural development in part by providing spaces within the library for study, collaboration, production and presentation.

The Mansfield Library is a public building which includes classrooms and other designated spaces that may be reserved for use by UM students and employees. Meeting and event spaces may also be available for use by Affiliated Users and Non-affiliated Users in accordance with UMs [Facilities Use and Access Policy](#) and [Facilities Use and Access Procedure](#). Based on the American Library Association's [Library Bill of Rights](#), and [Code of Ethics](#), the Mansfield Library does not restrict room use on the basis of subject matter or the meeting/event sponsor's beliefs or affiliations. The content of meetings, events, and exhibits held in the library do not necessarily reflect the opinions of the Mansfield Library employees.

This document outlines policies and procedures for the use of Mansfield Library classroom, studio and meeting rooms and spaces. Exceptions to these policies and procedures must be approved by the Dean of Libraries.

The five categories of library rooms and spaces that can be reserved for use by the UM community are:

- Group Study Rooms
- Studio and Presentation Production Spaces
- Accessible Technology Room
- Classrooms
- Meeting and Event Spaces



Bringing History to Life

The Vauquois Experience

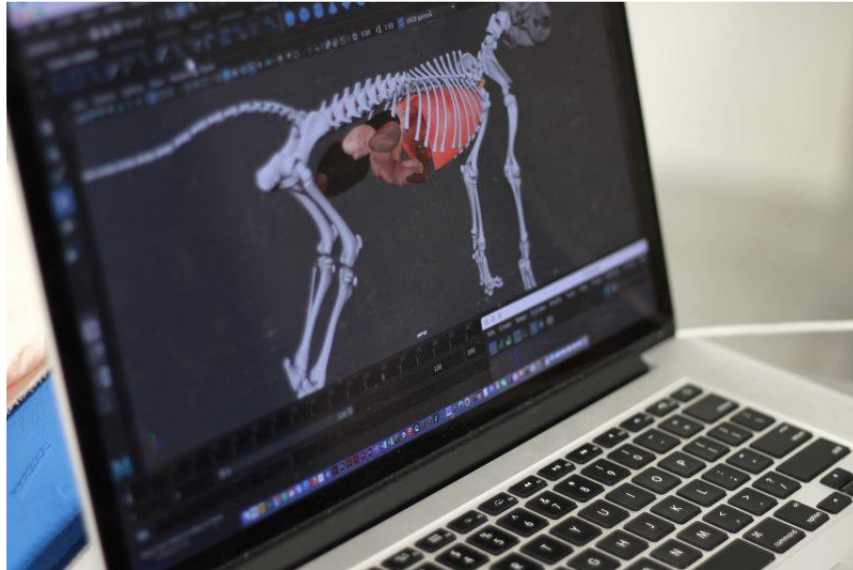
Once a picturesque village in northeastern France with views of lush fields extending several miles to the edge of the Argonne Forest, Vauquois was transformed into a devastated World War I battleground – both above and below the Earth's surface.

This experience gives users a glimpse into the WWI tunnels below Vauquois and how soldiers fought and lived there. [Check out a video](#) about the Vauquois Experience Exhibit created by the University Libraries to showcase this virtual reality project.

Contact

Dr. Todd Ogle

jogle@vt.edu



The University Libraries at Virginia Tech engages emerging technology in its research and scholarship. From bringing history to life to helping veterinary students learn anatomy, the University Libraries partners with groups across campus to fully leverage virtual reality (VR) technology in teaching, learning, and research.

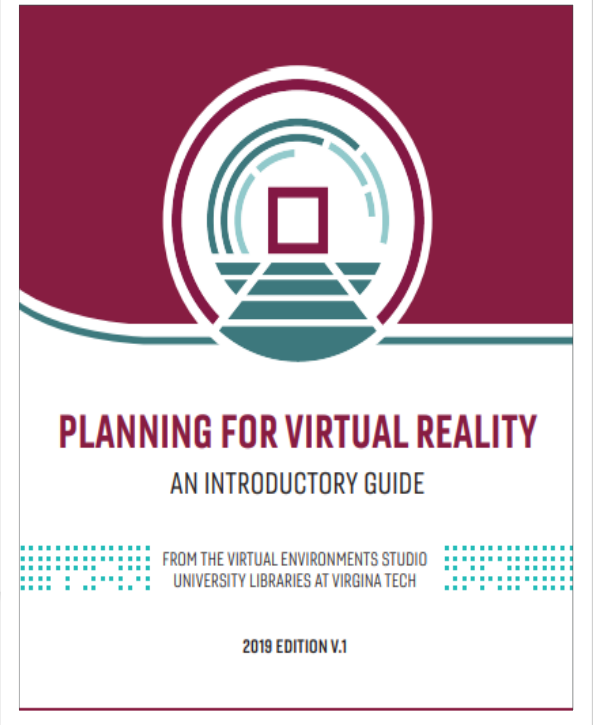
Learn more about virtual reality projects the library and partners across campus create to enhance teaching, learning, and research at Virginia Tech. Also, [access the guide for building a VR lab](#).

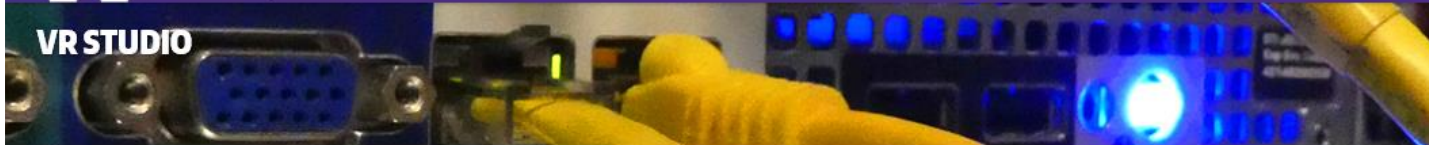
Virtual Reality Animals

Designed to overcome pedagogical challenges specific to veterinary medical education, the VR animals are designed to provide a no-cost, interactive, and three dimensional alternative to flat anatomy images or cadavers. If you are going to use the [virtual reality animals](#), we would love to [hear from you!](#)

Virtual Reality Dog

The Virginia-Maryland College of Veterinary Medicine and University Libraries at Virginia Tech has recently released the Virtual Reality (VR) Dog (Version 1.0).





Virtual Reality in Academic Health Sciences Libraries: A Primer

HOW DO I...?

- Contact a Librarian
- Connect from Off-Campus
- Order
- Articles/Books
- Mobile Resources
- More Guides

TOOLKITS

- Care Provider
- Nurse
- Nurse APRN
- Pharmacist
- Public Health
- Scientist
- Social Work
- More Toolkits

SERVICES

- All Services

RESOURCES

- All Resources

UW Health Sciences Library > VR Studio

Virtual Reality in Academic Health Sciences Library: A Primer

This primer, an investigation of virtual reality (VR) in academic health sciences libraries, offers an extraordinary opportunity to meet and talk with University of Washington (UW) researchers, residents, and clinicians about the future role of research libraries.

IMLS Grant

The University of Washington Health Sciences Library received funding from The Institute of Museum and Library Services (IMLS)'s National Leadership Grant for Libraries, to design and build a Virtual Reality (VR) and Augmented Reality (AR) program and studio for surgical care teams to simulate cardiac surgery in a library environment. In collaboration with the University of Washington Center for Cardiovascular Innovation (CCVI) and School of Medicine, Bioinformatics and Medical Education, HSL will design and create a VR service in the Translational Research and Innovation Lab (TRAIL) utilizing a data wall, stereoscopic headsets, and a laptop. Pyrus Medical's Bosc, the VR and AR software, allows participants to visualize complete patient anatomy in 3D, simulating depth, movement, and structure of the human body more realistically than on a standard computer screen.

The equipment purchased consists of one MSI GT73VR Titan Pro laptop with the NVIDIA GeForce GTX 1080 graphics card. We will

DOWNLOAD HERE

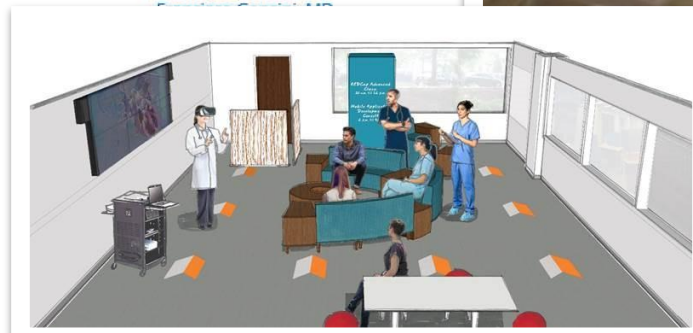
Downloaded 2505 times since Sept 26, 2018.

© University of Washington Libraries, 2018 Seattle, Washington, USA

VIRTUAL REALITY STUDIO DETAILS

PI: Tania Bardyn, MLIS

- Collaborators:
- Gili Meerovitch, CID, IIDA, LEED AP
 - Beth Ripley, MD
 - Aaron Daub, MD
 - Mark Reisman, MD
 - Dmitry Levin
 - Edward Verrier, MD
 - Chris Burke, MD



T. Moore Tania P. Bardyn Adam Garrett
Deric Ruhl Gili Meerovitch

September 2018

MSU Library

- Find
- Request
- Services
- Spaces
- People
- Ask the Library
- Search Library**

Quicklinks

- Articles & Research Databases
- Journal Search
- Special Collections & Archives
- ScholarWorks
- About Us

MSU Library

P.O. Box 173320
 Centennial Mall
 Bozeman, MT 59717-3320
 Administration (406) 994-3119
 Service Desk (406) 994-3139

Ask the Library

Staff Directory

Library Accounts

Accessibility

[Site Index and Site Search](#)

Virtual Reality in the Virtual Discovery Space

What about using Virtual Reality?

The Virtual Discovery Space is equipped with [HTC Vive](#) powered by [SteamVR](#) for an immersive virtual reality (VR) experience.

Where is it?

The Virtual Discovery Space is a public area on the first floor of the MSU Library, across from the Service Desk to the North, near the stairs.

How do I use it?

We have a [simple instruction manual](#) available and an [advanced, detailed instruction manual](#) as linked here as accessible PDFs. Also, check out our [introductory video tutorial](#)! Starting for the fall semester 2019, we will have in-person orientations available!

How do I reserve it?

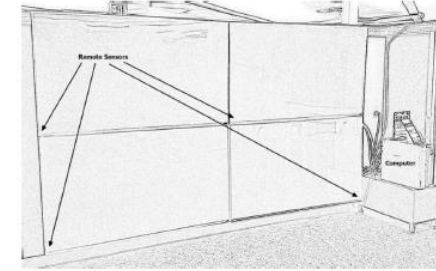
The Virtual Discovery Space Virtual Reality is available for use by MSU faculty, staff, and students. You can reserve the Virtual Discovery Space using the [online scheduling system](#). When not reserved, the Cyberdiscovery Space is available for drop-in use. Please visit MSU Library's Service Desk to ask about drop-in use.

What VR Applications are available?

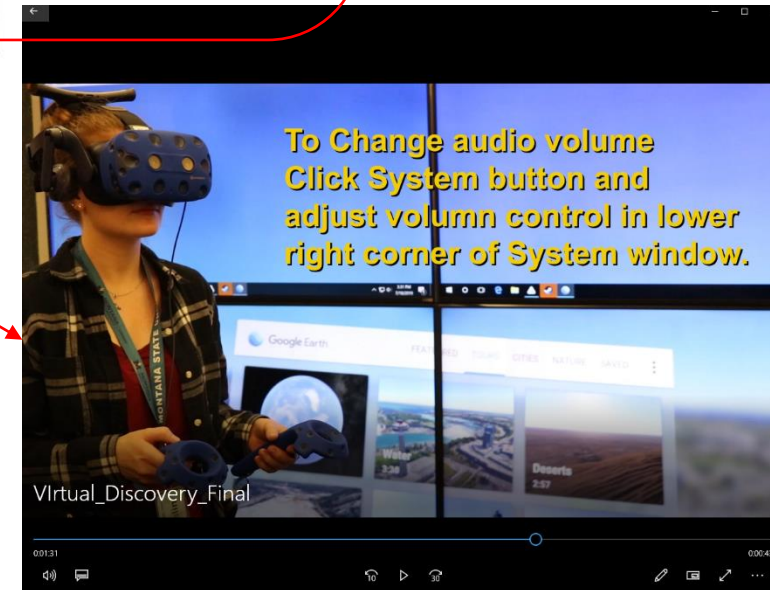
Application Name	Brief Description
3d Organon VR Anatomy	The world's first fully-featured virtual reality anatomy atlas. It is a multi-award winning immersive self-discovery experience into the human body. With <i>3D Organon</i> you can manipulate bones, muscles, vessels, organs and other anatomical structures in an immersive 3D space.
Allumette	Tells a story about love, sacrifice and a deep bond between a young girl and her mother.
Apollo 11 VR HD	An educational experience that takes you on a breathtaking trip to the Moon, virtually recreating the July 24, 1969 mission.
Beat Saber	A VR rhythm game where you slash the beats of adrenaline-pumping music as they fly towards you, surrounded by a futuristic world.

Virtual Reality (detailed instructions)

- Turn on the four CyberDiscovery monitors if they are not already on.
 - The best way to do this is to aim the remote control at the center of the wall of monitors and press the power button on the remote.
 - If one or more of the monitors do not start up, you can attempt to start one monitor at a time by holding the remote close to the remote sensor of a monitor and then clicking the power button on the remote.
 - The remote sensor for the bottom right monitor is located in the bottom right corner of the monitor.
 - The remote sensors for the other three monitors are located in the bottom left corner of each monitor.



- Turn on the computer if it is not already on.
- Turn on the wireless keyboard (the switch is in the upper right corner of the keyboard).
 - You will be using the keyboard to navigate until you switch to the controllers.
- Sign in to the computer using the 'cyberdiscovery VR users' account.
 - Username: .ivr
 - Password: 4libraryvr!
- Connect the VR headset to the battery pack.
- Push the button on the battery pack to turn it on if necessary.
 - Some battery packs power up automatically when they are plugged in.



MIAMI UNIVERSITY
UNIVERSITY LIBRARIES

Research Technology Services Libraries & Collections About

Create + Innovate

Miami University Libraries Subject & Course Guides Create + Innovate VR, AR, & Data Visualization Home

VR, AR, & Data Visualization: Home

Ask Us

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- Search, Menus, & Controllers
- VR Software List
- Course Integration
- Create + Innovate
- Making VR
- Making with Unity
- Making with WebGL

About the Data Visualization & Virtual Reality Lab



VR Software List

SOFTWARE LIST

Bold titles are Vive & Vive Pro and deserve attention

Italic titles are Vive & Vive Pro and are interesting, but may be small, unfinished, less educational, slightly challenging to use, or simply worth a try for a very narrow and accepting audience.

Blue titles are Rift or Quest with Laptop Only

Green titles are available on the Quest

Red titles have yet to be purchased / may be purchased based on interest (please contact Dr. Guynup)

In VR or on the Lab PC, more titles might be seen. In the Steam & Viveport Libraries, grayed out or download required apps were reviewed, for review, and uninstalled. Additionally, other titles might be available as 360 video experiences

Art, Culture, Social Justice

Claude Monet - The Water Lily Obsession

Beautiful filmlike experience, no interaction. Very relaxing, fun, and historically informative. Lasts about 15 minutes

Smithsonian American Art Museum - Beyond the Walls

Only a few pieces of work, but nice information. Teleports you to mini background spaces on the work.

Mona Lisa - Behind the Glass

A deep story-like look at the Mona Lisa. It's good but, one complaint, it also shows the Louvre without really letting you move around in it which is a bit bothersome.

I am a Man

Award winning Civil Rights experience that places you directly in the 1960's through a series of small staged experiences.

Touches on events before and after MLK's death, but puts the focus on you as a person, as an African American man, during the Memphis sanitation strike.

VR Equipment



About

C+I Makerspace - Vive VR

Starting Up / Shutting Down

GETTING STARTED



1 Login to the VR Lab's PC
After a minute, the Steam VR Library should appear
*If off, or a restart is needed, press the Alien Head button on the PC
If monitor is off, turn on TV screens*



2 Use the remotes to turn on the 3 large TV Screens
Power buttons are also on the left side TVs and front of center TV

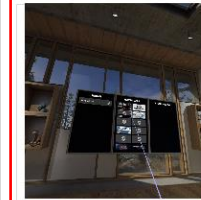


3 Unplug the 3 Red Charging Cables from the Vive Headset and Controllers

Search, Menus, & Controllers

There are many ways to search and open software in VR. Software comes from different sources and or has different attributes which leads to some diversity here. Desktop options are often simplest. Steam VR Menu is the most complete and searchable. Vive Home is the default when just entering VR.

SEARCH & MENUS



Vive VR Home Menu



Viveport VR Home Menu



Steam VR Dashboard

- 1 Steam on the Desktop - Library shows "most" Steam Software
- 2 Viveport on the Desktop - Click on the Viveport icon on the Desktop, Library shows all Viveport Software
- 3 Steam VR Menu in VR - Quick Tap - the Steam Menu Button on the physical controller
Next click on the Library Panel. Click on Search in left side menu OR a Search icon
- 4 Viveport VR Home Menu - A Vive Button is at the bottom of the Steam VR Menu
- 5 Vive VR Home Menu - The Default Starting Point, Software is Listed in a Double Wide Scrolling Column
- 6 Desktop Folders - Some Software Shortcuts are Grouped into Themed Folders on the Desktop

Course Integration VR Guide

There are many paths for engaging with virtual reality and many questions regarding this technology. It is both challenging and rewarding. We are here to help. We can open doors, lay a foundation, and be a partner in your efforts. If you have questions or want to follow up on any of the suggestions below, please email Dr. Guynup

FIRST STEPS

Review the LibGuide VR Software list

- Check out the titles you'd like to try and just drop in or make an appointment.
- You can ask Dr. Guynup about other software in your field.

Schedule a Makerspace tour, VR Lab only tour, or a casual meet-up

- We can meet with you, your department, and/or your class.
- We can schedule a full Makerspace tour, or just grab a cup of coffee.

Create the "My subject + VR/AR" assignment

- Include VR / AR as a topic for a possible student paper or presentation.
- You can suggest (or require) students visit the VR lab.
- Students can meet with Dr. Guynup as well. (Group meetings preferred)
- Meet or email Dr. Guynup yourself to discuss trends and topics for focus.

Virtual Reality: Home

Resources on Virtual Reality, Augmented Reality, and others.

Search this Group Search Guides

Definitions

From the Franklin Institute:

<https://www.fi.edu/difference-between-ar-vr-and-mr>

Augmented reality (AR) adds digital elements to a live view often by using the camera on a smartphone. Examples of augmented reality experiences include Snapchat lenses and the game Pokemon Go.

Virtual reality (VR) implies a complete immersion experience that shuts out the physical world. Using VR devices such as HTC Vive, Oculus Rift or Google Cardboard, users can be transported into a number of real-world and imagined environments such as the middle of a squawking penguin colony or even the back of a dragon.

In a **mixed reality (MR)** experience, which combines elements of both AR and VR, real-world and digital objects interact. Mixed reality technology is just now starting to take off with Microsoft's HoloLens one of the most notable early mixed reality apparatuses.

Books

The following books are available from the Middletown Library Service Center's (MLSC's) Professional Collection.

Interested in borrowing one of these titles? Contact Judy Crooks at the Middletown Library Service Center, judy.crooks@ct.gov or 860-704-2200.

Augmented and Virtual

Trends

Virtual Reality

[In a Virtual World: How school, academic, and public Libraries are testing virtual reality in their communities.](#)

Articles

ACADEMIC

[Implementing Augmented Reality in Academic Libraries](#)

[Augmented Reality in the Library - Gaming Welcome Week](#)

[Augmented Reality: Practical Applications for Libraries](#)

PUBLIC

[Libraries Can Use New Visualization Technology to Engage Readers](#)

[Virtual Reality in the Library: Creating a New Experience](#)

[Oculus Virtual Reality Tech Rolls Out in California Libraries](#)

[Virtual Reality at Evergreen Branch Library and Teen HQ](#)

SCHOOL

[Virtually There: Kids Are Using VR to Explore Worlds and Create New Ones](#)

SPECIAL

[Facing Reality: the Growth of Virtual Reality and Health Sciences Libraries](#)

Apps

Apps for AR

[8 Best augmented reality SDK for AR development for iOS and Android in 2018](#)

Apps for Google Cardboard

[25 Best Google Cardboard Apps for iOS and Android in 2018](#)

Oculus Rift

Thinking about buying an Oculus Rift or just trying it out?

Schedule a visit to the Middletown Library Service Center to check it out!

Contact: Gail Hurley Gail.Hurley@ct.gov or 860-704-2222



Classroom Resources

Kathy Schrock's Guide to Everything: Augmented, Virtual, and Mixed Reality in the Classroom

<http://www.schrockguide.net/augmented-reality.html>

CLASSVR <http://www.classvr.com/>

Google Expeditions

<https://edu.google.com/expeditions/#about>

Note: This list is not a recommendation by the CT State Library

Products

Free Archived Webinars: Virtual Reality for Libraries

The list below contains links to free, archived webinars on the topic of virtual reality, augmented reality, and mixed reality for libraries.

(Note: Some recordings are made available only for a limited time. If there is something on the list below you wish to watch, you are best off viewing it sooner rather than later.)

XR: Virtual, Augmented & Mixed Reality in the Library

An Infopeople Webinar

[View Webinar Archive](#)

When	Start:	July 16th, 2019 12:00 PM	ICAL
	End:	1:00 PM	

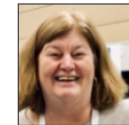
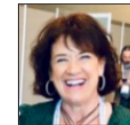
Start Time: Pacific - 12 Noon, Mountain - 1 PM, Central - 2 PM, Eastern - 3 PM

Presenters:

John MacLeod, Director, XRLibraries

Tammy Westergard, Nevada's Deputy State Librarian

Sara Jones, Library Director of Marin County Free Library



XR (extended reality) is the umbrella term for the emerging technologies of Virtual, Augmented or Mixed Reality. Understanding the state-of-the-art for use in libraries is crucial for those considering integrating XR into collections and programming. In this webinar we examine the technology and programs working in libraries today and offer a road map and playbook for either expanding or beginning to use XR in libraries.

Virtual, Augmented, and Mixed Reality in Public Libraries

Format: Webinar, original date January 23, 2019
Hosted by: WebJunction
Length: 1 hour

Libraries have long been at the forefront of providing community access to new technologies. Virtual, augmented, and mixed reality (VR/AR/MR) are now finding a place in library programming and services, engaging with communities in truly innovative ways. Two Maryland libraries are building their programming with straightforward approaches to community discovery and local partnerships. Join us to hear creative ideas for how to get started using VR/AR/MR at your library, as well as practical tips about applications, equipment and potential uses to meet your community's needs.

Presented by: Jen Bishop, Online Services & Emerging Technologies Supervisor, Carroll County Public Library; and Liz Sundermann-Zinger, Virtual and Media Services Manager, Baltimore County Public Library

Virtual Reality at PUL IS SUSPENDED UNTIL FURTHER NOTICE, AS A TOOL FOR SOCIAL DISTANCING.

Virtual reality (VR) is a realistic and immersive simulation of a virtual environment, experienced through interactive software. The service is available to the Princeton University community at the Stokes Library in Wallace Hall.

Home

Available to Borrow/Play

Spaces

Services

Curricula

Recommendations

Virtual Reality at PUL

Virtual Reality (VR) at Princeton University Library is a new initiative that is being launched in the Stokes Library. The goal of this new program is to support education technology, exploration, and new forms of data visualization through emerging technology at Princeton University. Extended reality has an opportunity to immerse users into a new environment. The following services will be provided in support of VR at PUL:

- [Course-integrated programming](#)
- VR headsets available for borrowing
 - Please sanitize each headset before and after use with cleansing wipes provided.
- VR studio for free-play and exploration of virtual worlds
- VR designated workstation for the PC-based Oculus Rift S for free-play and programming
- Hands-on workshops to learn about VR technology
- Curricula support and design of VR learning experiences
- VR exhibition (located in the Engineering Library)

Please contact smporter@princeton.edu with any questions or if you have any ideas to propose.

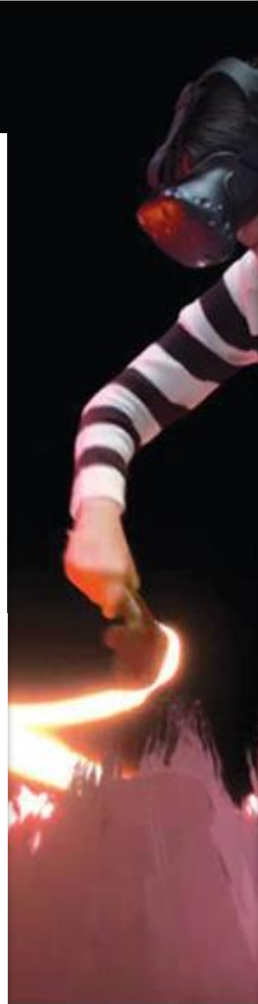
Recommended free applications

Youtube VR

- Youtube VR has numerous free VR videos. I recommend the public speaking functionality where you can virtually practice public speaking skills in front of a crowd.
 - **VR system:**
 - Oculus
 - Phone-Based Headsets

Star Chart

- Users can explore the cosmos with Star Chart VR.
 - **VR system:**
 - Phone-Based Headsets



Search this Guide

Search

Services/Programming

Programming:

The Extend Reality service at Princeton University consults with faculty, staff, and students on applicable aligned virtual reality implementation. This includes course integrated programming, introduction to the technology, and interdisciplinary co-programming outside of the curriculum. Please see the following article for an example of validated programming.

- [Virtual reality programming at PUL offers Princeton opportunities to learn in an immersive extended reality.](#)

Borrowing:

Borrowing and returning VR headsets is only allowed at Stokes library. Please do not borrow a VR headset and return to a different location of PUL. Borrowing privileges and policies can be adjusted for curricular educational programming i.e., instructors may reserve a certain number of headsets for scheduled programming. Please sanitize each headset before and after use with cleansing wipes provided.

Please contact the Stokes Library for further clarification:

- piaprlib@princeton.edu
- (609) 258-5455

Oculus Quest:

- The Oculus quest has a five hour borrowing period and must remain in the Stokes Library.

Oculus Rift S:

- The Oculus Rift S a five hour borrowing period and must remain in the Stokes Library.

Pansonite VR:

- The Pansonite VR has a 24 hour borrowing period but can leave the library.

Google Cardboard:

- The Google Cardboard has a 24 hour borrowing period but can leave the library.

Free-play:

- The hardware is available for free-play within the e-classroom and the Stokes VR Studio.
- Please be mindful of other users in the library. If the application is noisy we ask that this is limited to the designated spaces.

Workshops:

- Virtual Reality Free-Play
 - 10/2/19 4:00-5:00 PM
 - Room 070
- Virtual Reality: Finals Stress Relief
 - 01/23/2020 1:00-2:00 PM
 - Room 070

Digital Media Lab

Media Production

Equipment

Software

3D Printing

Virtual Reality

Reserve a Room

Rules

Patrons will be asked to sign our [terms of use](#) and rules document prior to using VR system. Below is a reproduction for review.

1. I acknowledge that use of virtual reality technology poses inherent risks. These risks include, but are not limited to:

1. potential negative responses to the virtual reality experience, including dizziness, nausea, and disorientation;
2. potential exposure to or transmission of contagions (such as scabies, lice, etc.) through physical contact with equipment such as headsets;
3. risks associated with technology that interferes with senses, such as the risk of losing balance and falling, or tripping over equipment; and
4. other risks that may not yet be fully known or understood.

I understand that these risks may particularly affect persons with preexisting medical or other physical conditions such as asthma, heart disease, motion sickness, high blood pressure, seizures or epileptic symptoms, or pregnancy, or conditions such as a

1. I understand that staff may need to physically contact users to facilitate hardware use or for safety purposes:

1. Connecting headphones to headset
2. Assisting with controllers
3. Adjusting the VR headset cord
4. Staff perceive patron's or another person's safety is at risk

VR Software

We offer a variety of virtual reality applications like games, 360 movies, digital creation, simulations, and learning.

Our Catalog

Reference link for [ESRB ratings system](#).

Arizona Sunshine



Rating: M(mature)

Operation: Standing

Type: Action Game, Adventure, FPS, Horror, Zombies

Description: "Built exclusively for VR, Arizona Sunshine puts you in the midst of a zombie apocalypse. Handle weapons with real-life movements, freely explore a post-apocalyptic world, and put your survival skills to the test in VR - putting the undead back to rest is more thrilling than ever before."

[Steam Store-Arizona Sunshine1](#)

Virtual Reality: Home

This guide give you information on Virtual Reality services provided by the Radcliffe Science Library, along with links to helpful Virtual Reality viewing and capturing resources and tips.

Subjects: [Digital Library](#), [General](#)

- Home
 - Services & Events
 - Borrowing VR equipment
 - VR Headsets
 - Using the
- How to Capture 360 Photos & Video
 - View & Share 360 Photo/Video
 - Oxford VR Exam

VR Lending Services

Important Update: COVID-19

While the Bodleian Libraries are closed to readers, the VR Lending service will be suspended until further notice. We apologise for any inconvenience caused.

For more updates on the Bodleian; <https://www.bodleian.ox.ac.uk/news/2020/keeping-the-university->

What can I do with it?

What are some examples of practical uses for Virtual Reality?

Virtual Reality can be used for yourself in a computer generated environment, this can be used in a variety of forms of simulations and entertainment. Here are a few examples of practical uses in an educational environment:

- **Psychiatry:** Run simulations to reduce anxiety.
- **Engineering:** VR can be used in the design process for engineers to view their designs and gain a greater understanding of how it works.
- **Medicine:** Virtual simulations for medical training and education in a safe environment. Can be used to visualize scans up close.
- **Archeology:** Walk through 3D visualizations of archeological sites.

What is Virtual Reality?

Virtual Reality is a fully computer generated environment.

Gear VR Support Documents

- [Gear VR Manual](#)
- [Gear VR Health & Safety](#)

Contact Us

If you have any questions or would like to discuss using the service, feel free to contact us at newtech.rsl@bodleian.ox.ac.uk.

Related Policies

Usage of equipment and libraries, also falls under the following policies, which would apply for any VR activities in the Radcliffe Science Library:

- [Bodleian Libraries Terms of Use](#)
- [University of Oxford's Rules for Computer Use](#)

Gear VR Setup

1. Take out the Gear VR headset and push the button on the side.



Lending Agreement

Radcliffe Science Library VR Lending Agreement

My signature below indicates that I have read the VR Lending Agreement and that I agree to abide by these conditions of use when borrowing VR equipment from the Radcliffe Science Library:

- I agree to accept full responsibility for the VR equipment (and all accessories) while on loan to me.
- I understand that the loan period for the VR equipment is 7 days and that fines will be charged if the VR equipment is not returned on or before the date due.
- I will pay a late return fee of £10.00 if I fail to return the VR equipment to the Library's Enquiry or Circulation Desk by the time it is due.
- I accept full financial liability for the VR equipment and its accessories, while in my possession.
- I agree to pay all costs associated with damage to, loss of, or theft of the VR equipment and accessories (£400 plus accrued late return fees for the Samsung Galaxy S7, £80 for the Gear VR, £350 for the Gear 360, £54 for the rechargeable battery pack, £10 for microSD card, £40 for the Wireless Controller, £15 for the headphones, £20 for the padded case, £600 for the Vive, £1000 for the laptop, £400 for the Oculus Rift.) while it is checked out to me.
- I agree that costs for any content I purchase for the Gear VR or Vive cannot be returned or refunded by the library and that such content will be erased from the Samsung Galaxy S7 or laptop upon return.
- I acknowledge that failure to pay any amount owing will be considered an outstanding debt to the Bodleian Libraries and will be added to my library account.
- I understand that any documents, photographs, recordings etc. created on or transferred to the Samsung Galaxy S7 or laptop while in my possession will be erased from the device after its return. It is my responsibility to copy any documents, photographs, recordings etc. I wish to retain to another, separate storage medium before returning the Samsung Galaxy S7 or laptop. The library is not responsible for storing, transferring or backing up this data.
- I agree that failure to comply with any of these rules and guidelines will result in the loss of the privilege of borrowing any library VR equipment.

Virtual Reality at UAB Libraries: Information, News, and FAQs

This guide is intended to serve as a source of general information about the virtual reality tools and related services provided by the UAB Libraries. Virtual reality tools and services are intended to support UAB Libraries mission and that of the University.

Information, News, and FAQs | **VR at Sterne Library** | VR at Lister Hill Library | VR Information Resources from UAB Libraries | VR Comment Form

Virtual Reality Studio

To protect the health and safety of the UAB community, the UAB Libraries building closure continues in accordance with the university's limited business model. More information on the limited business model is available on the [UAB Coronavirus \(COVID-19\) Updates & Closures](#) site.

The UAB Libraries are providing virtual reference services online including chat, email, and text through our website www.library.uab.edu. The UAB Libraries Interlibrary Loan Staff (ILL) are working remotely to continue delivering electronic items. For more information on library services currently available please see the library's [COVID-19 FAQ](#) list or contact a librarian <https://library.uab.edu/help>.

Virtual reality and 3D printing are not available during the closure of the UAB Libraries buildings.

Stay healthy!

Lister Hill Library Virtual Reality Studio: Available VR Applications

Experiences on Station 1 | **Experiences on Station 2**

- 3D Organon VR Anatomy**
Virtual models of the body systems in the human male. This VR experience includes recorded modeling of skeletal movement including flexion, adduction, and abduction.
- Buzz Aldrin Cycling Pathways to Mars**
Listen and watch as a Buzz Aldrin hologram provides information on a proposed cyclor method for a manned human landing on Mars.
- Calcflo**
Use this VR calculator to input vector equations, create models, then export shapes for 3D printing.
- COSM**
Virtual art experience that models cellular processes and different magnifications.
- Google Earth VR**
Use this experience to "fly" to any place on earth using Google maps data. Some highly-detailed 3D imaging is available for certain locations in this experience.
- Medicalholodeck FREE**
A 3D viewer for DICOM imaging. Only demo data sets of the head, a beating heart, and the thorax are loaded in this experience on the library's workstations.
- Nano-one**
A collaborative tool for molecular modeling and drug discovery.

Q. Will gaming be allowed in the Virtual Reality Studio?

Answer

Gaming solely for entertainment purposes is not permitted on UAB Libraries augmented or virtual reality equipment. Games and game-like tools and experiences for education will be evaluated for use on a case-by-case basis. If there is a game or virtual reality experience you would like the UAB Libraries to evaluate for inclusion in our virtual reality collections please contact the Emerging Technologies Librarian.

Last Updated
Feb 01, 2019

Views
98

UAB Libraries Virtual Reality Guidelines

The virtual reality spaces at the University of Alabama at Birmingham Libraries support the mission of the UAB Libraries and the University of Alabama at Birmingham by providing access to and support for the use of virtual reality (VR) and augmented reality (AR) technologies. The following are guidelines for the use of the equipment and physical spaces designated for the use of this technology. Users are expected to follow all posted guidelines for studio and equipment use at all times.

- All new VR users will be given a short orientation to the VR equipment at the start of their first VR session. The studio monitors will provide assistance fitting and adjusting the VR headset for individual use.
- Check in with the studio facilitator before using the studio equipment.
- Return the VR headset to the white plastic tray provided at the workstation whenever the headset is not in use. Do not place headsets on the cabinets, ottomans, chairs, floor, or other surfaces when not in use.
- Do not use the VR computer workstations to access the internet or for any other computational function other than virtual reality.
- Report any issues or equipment problem attempt to problem solve an issue with the studio monitor's assistance.
- Use of personal accounts for recreation all UAB Libraries virtual and augmented reality.
- The installation of software of any kind Emerging Technologies Librarian is prohibited.
- Open food and drink containers are not allowed. Please close all containers before entering the studio. Do not eat while using the VR or AR equipment.

Please contact the Emerging Technologies Librarian (dogdon@uab.edu) with any questions or comments regarding the use of the Virtual Reality Studio in Lister Hill Library.

Emerging Technologies Librarian



Dorothy Ogdon

[Email Me](#)

Schedule Appointment with Dorothy Ogdon

Subjects:
Citing Sources, Drug Information, Graduate Biomedical Sciences & JHS Departments

Information, News, and FAQs | VR at Sterne Library | **VR at Lister Hill Library** | VR Information Resources from UAB Libraries | VR Comment Form

eBooks from UAB Libraries

- Augmented reality and virtual reality the power of AR and VR for business
ISBN: 9783030062460
Publication Date: 2019
- Virtual Reality, Augmented Reality and Artificial Intelligence in Special Education by Ange Anderson
ISBN: 9780429679742
Publication Date: 2019-03-29
- Mixed and Augmented Reality in Medicine by Terry M. Peters (Editor), Christian A. Upledge (Editor), Zhi-Yanbo (Editor), Jacqueline Williams (Editor)
ISBN: 9781315157702
Publication Date: 2018-10-26

Related Electronic Articles, Theses, and Dissertations from UAB Libraries

- Effects of virtual reality for stroke individuals based on the International Classification of Functioning and Health: a systematic review. by Palma GC, Freitas TB, Bonuzzi GM, et al.
Publication Date: May 2017
- Corrosion prevention and control training in an immersive virtual learning environment by Rustin Deane
Webster
Publication Date: 2014
- Construction of 3D cardiopulmonary resuscitation emergency scenarios for first responder pre-nursing training on stereoscopic display systems by Alanzo D. Granville
Publication Date: 2014

Print Books available from UAB Libraries

- EXPERIENCE ON DEMAND
Experience on Demand by Jeremy Ballerson (Contribution by)
ISBN: 9780393253696
Publication Date: 2018-01-30
- Unity Game Development Cookbook by Paris Butfield-Addison, Jonathon Manning, Tim Nugent
ISBN: 9781491999158
Publication Date: 2019-04-08
- Learning Transported by Jaime Donaly
ISBN: 9781564843999
Publication Date: 2010-04-10

Virtual Reality & Augmented Reality

This guide provides an introduction to the Virtual Reality and Augmented Reality services provided by McGill Library, as well as other resources to help explore the technology.

- Home**
- Virtual Reality
 - HTC Vive
 - Google Cardboard
 - Oculus Rift
- Augmented Reality
- 360° Video
- VR & AR Creation
- FAQ

How to book VR & AR

Virtual Reality and Augmented Reality equipment is available for booking at McLennan Library (HSSL). This service is available for free to current students and faculty.

To book:

1. [Check availability](#) for VR and AR via McGill's booking service. Booking is required at least 24 hours in advance (not including weekends).
2. Select the time and date you'd like to reserve with the equipment. You will receive a confirmation to your McGill email.
3. Check in with the staff member in the Research Commons (RM-22A, in Research Commons Room B) at the predetermined time. Equipment must be signed out from the Service Counter in the McLennan Library. Please arrive within 15 minutes of the reservation start time or it will be canceled.
 - Before using VR/AR for the first time, you will have to sign a waiver. Staff will provide the waiver and brief instructions when you arrive.

Available equipment

- [HTC Vive](#)
- [Microsoft HoloLens](#) (not available)
- [Oculus Rift](#)
- [Google Cardboard](#)

VR & AR in the real world

Virtual Reality and Augmented Reality can be used for various forms of simulations and entertainment. Here are just a few examples of practical/educational uses:

- **Archaeology:** Walk around 3D visualizations or reconstructions of archaeological sites.

Liaison Librarian



David Greene

[Email me](#)

Contact:
Humanities & Social Sciences Library
514-398-5925

Subjects:
[Architecture](#), [Art history](#),
[Communication studies](#), [Urban planning](#)

Books on VR



[Advances in Virtual Reality and Anxiety Disorders](#) by [Brenda K. Wiederhold](#); [Stephane Bouchard](#)
ISBN: 9781489980236



[Learning Virtual Reality](#) by [Tony Parisi](#)
ISBN: 9781491922804



[Techniques for Virtual Palaeontology](#) by [Mark Sutton](#); [Imran Rahman](#); [Russell Garwood](#)
ISBN: 9781118591253



[Virtual Reality for Physical and Motor Rehabilitation](#) by [Patrice L. \(Tamar\) Weiss](#) (Editor); [Emily A. Keshner](#) (Editor); [Mindy F. Levin](#) (Editor)
ISBN: 9781493909681

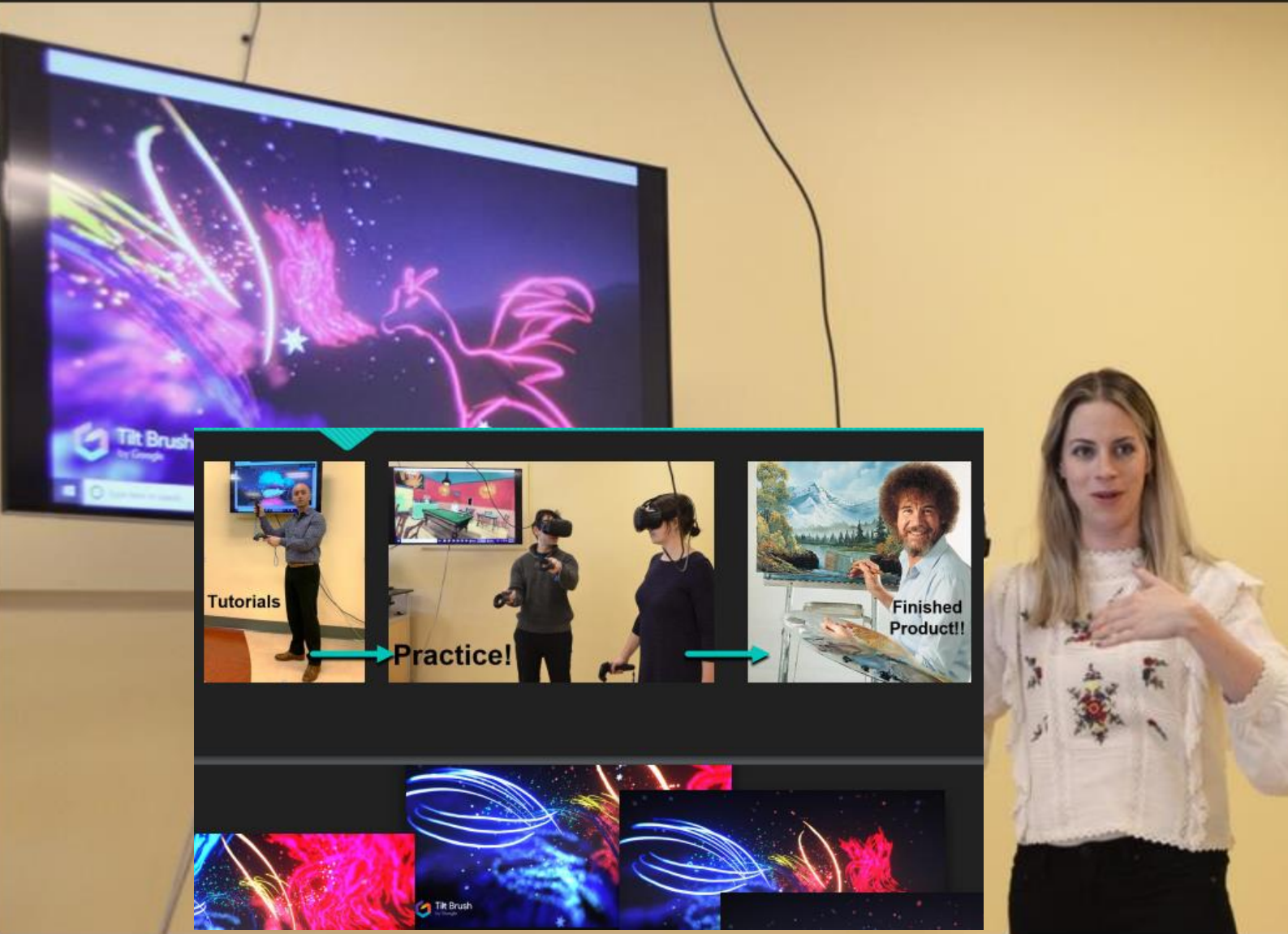
VR in the news

- [Travel World VR Launches Virtual Reality App - MarTech Series](#) [🔗](#) [📅](#) Jun 5, 2020
 - [How The Coronavirus Crisis Will Shape The Future Of Virtual Reality - Forbes](#) [🔗](#) [📅](#) May 21, 2020
 - [Facebook teases a vision of remote work using augmented and virtual reality - The Verge](#) [🔗](#) [📅](#) May 21, 2020
 - [RIT faculty earns NIH grant to use virtual reality to help stroke patients regain lost vision - RIT University News Services](#) [🔗](#) [📅](#) Jun 5, 2020
 - [A New Galactic Center Adventure in Virtual Reality - NASA](#) [🔗](#) [📅](#) Jun 2, 2020
- [Website](#) [🔗](#) | [Feed](#) [🔗](#)

Faculty Collaborations

Faculty Collaborations

- Professor Meredith Starr
- Fall 2018 and Spring 2019
- Drawing I
- 2D Design





Painted with Painting VR
조회수 37회 · 15시간 전



"Derpio" by Sutansan
조회수 97회 · 1주 전



Painting VR - April 14, 2021 -
New transparency
조회수 143회 · 1주 전



Painting in virtual reality -
Pikachu by Sutansan.
조회수 145회 · 2주 전



Painting VR - March21
조회수 866회 · 3주 전



AdventureTime art - Painted
with Painting VR
조회수 118회 · 1개월 전



Painted with Painting VR

조회수 37회 · 2021. 4. 27.

Painting VR <https://paintingvr.xyz/>

👍 4 💬 0 ➦ 공유 📌 저장 ⋮

Planning for potential uses of VR

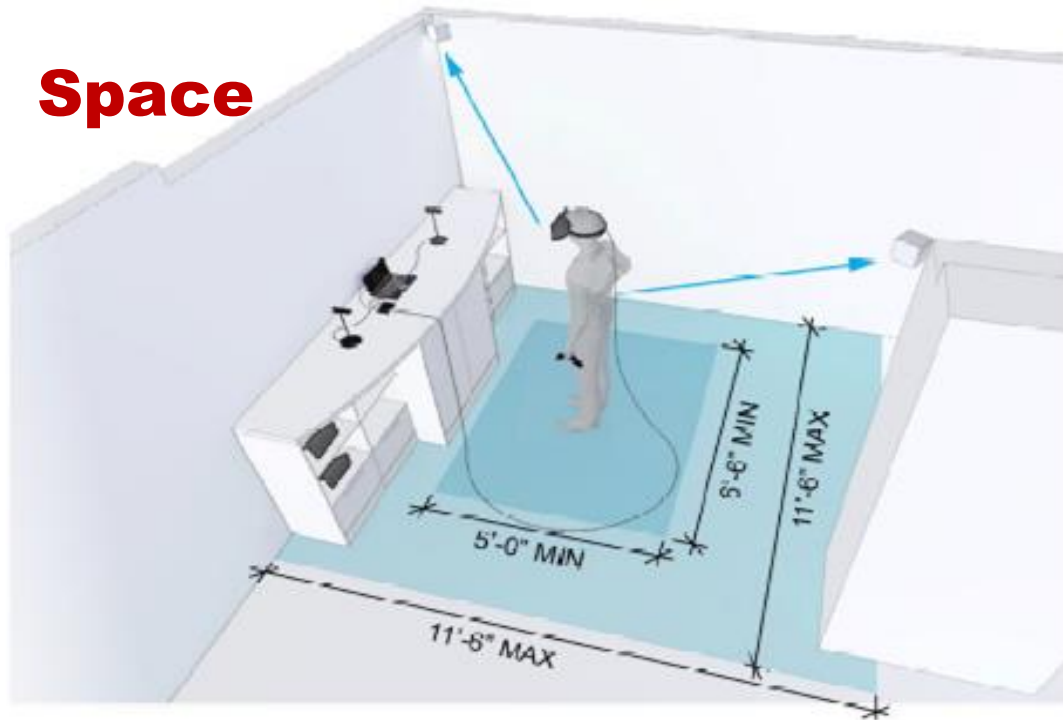


THINK

PLAN

ACT

Space



Cost

	MOBILE <i>Oculus Go</i>	STAND ALONE <i>Oculus Quest HTC Focus Plus</i>	PC VR <i>Oculus Rift S HTC Vive</i>
COST	\$10-300	\$300-500	\$2000+
BENEFITS	Low cost. Can be deployed en-mass. Easily portable.	No PC required. Easily portable. Full world/ controller tracking.	Highest fidelity. Advanced object tracking. More engaging experiences.
DRAWBACKS	Low fidelity experiences Minimal user interaction. Less open distribution platforms.	Medium fidelity experiences. Less open distribution platforms.	Higher cost. Less portable. More work to setup.
REQUIREMENTS	Phone to setup account Wifi access.	Phone to setup account Wifi access.	Internet connection Sensor mounting.

Technology



Rule and Policy



VR 서비스 어떻게 기획할 것인가?

- 국내외 사례
- 가이드라인
 - VR/AR 이용 및 제작 안전 가이드라인 v3.0(과학기술정보통신부 외 2019)
 - 실감형 콘텐츠 활용안내(교육부 외 2017)
 - VR 사용자/개발자 가이드라인 2.0(연세대학교 바른ICT 연구소, 2018)
 - 가상현실 게임 이용 가이드 연구(한국콘텐츠진흥원, 2018)
 - 가상현실(VR) 기술 휴먼팩터 가이드라인 연구(한국교육학술정보원, 2018)
 - 가상,증강현실 기술이 적용된 의료기기 허가,심사 가이드라인(식품의약품안전평가원, 2018)

VR 서비스 어떻게 기획할 것인가?

- 건강 및 안전을 위한 휴먼팩터 요소

분류	휴먼팩터	이용자 가이드라인 적용
신체적 측면	불쾌감(멀미, 어지러움 등), 시각적 피로, 광과민성 증후군, 위생 문제 등 현실과 가상세계의 혼란으로 인한 문제	건강 및 인지 상태 확인 위생점검
정서적 측면	리셋 증후군 ³⁾ , 과몰입, 비인간화 등	콘텐츠 선정 이용상태 확인
안전적 측면	충돌, 넘어짐, 개인정보 보호 등	활용공간 점검

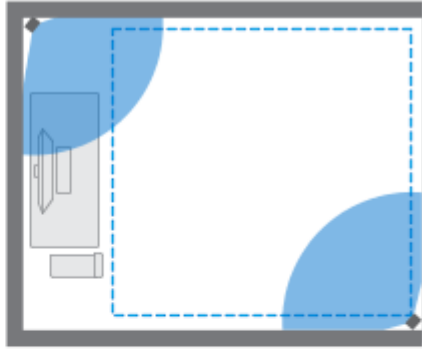
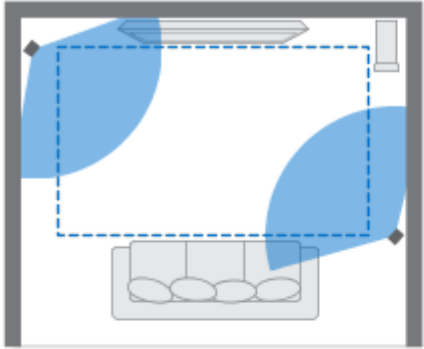
- 사용성 증진을 위한 휴먼팩터 요소

분류	휴먼팩터	이용자 가이드라인 적용
사용기기 측면	편의성(접근편의성) 조작이해 및 숙련도에 따른 조작반응	기기정보 및 상태 확인
콘텐츠 측면	가상현실 내 상황 인지 편의성(사용편의성) 동작 및 이용자 인터페이스 디자인	콘텐츠 선정 이용 상태 확인 활용 공간 점검
이용자측면	개인 특성(성별, 연령) 감각기능에 따른 정보처리	건강 및 인지 상태 확인 위생 점검

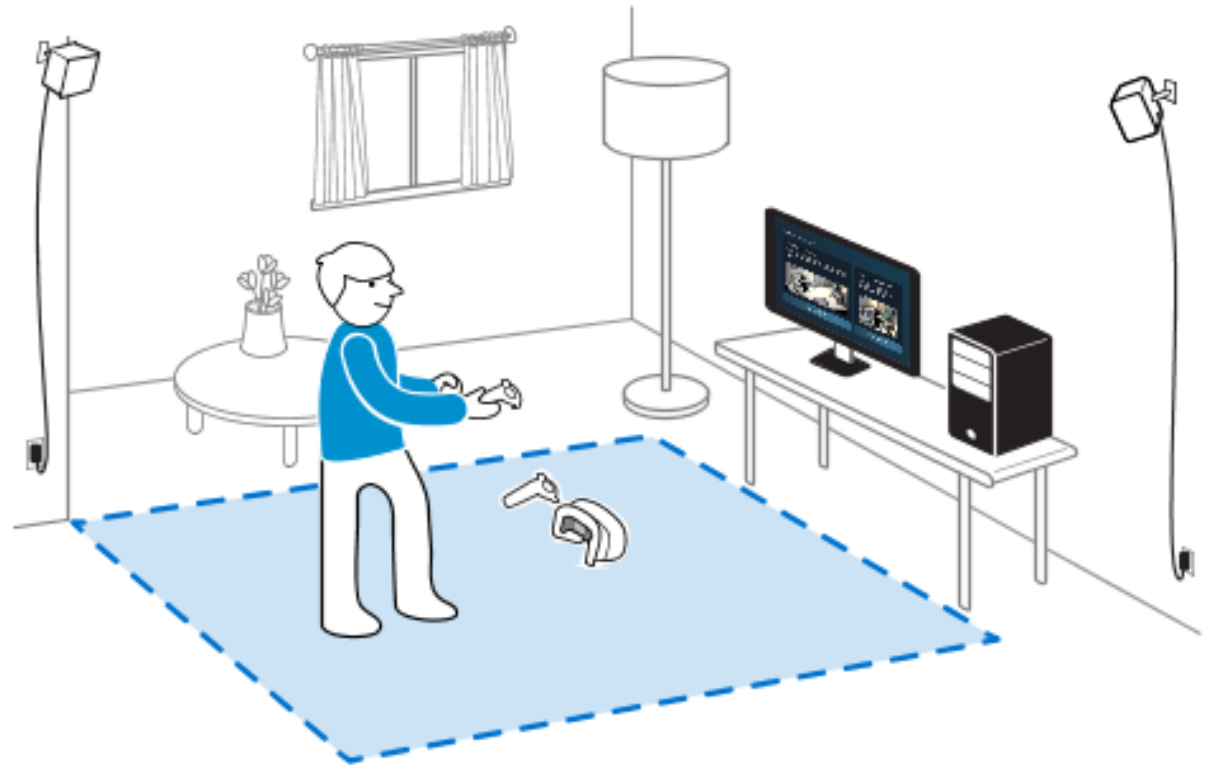
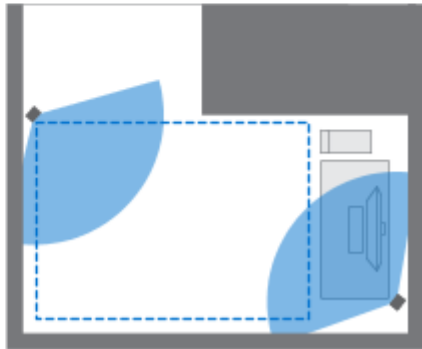
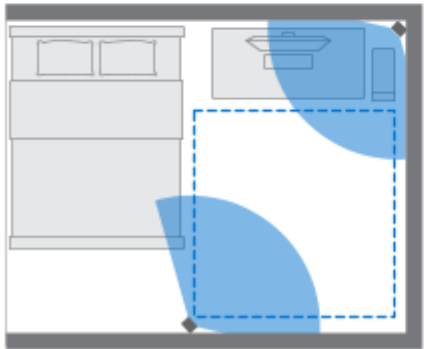
VR 서비스 어떻게 기획할 것인가? 고려사항

- 이용 대상이 누구인가?
- 공간 구축을 어떻게 할 것인가?
- 비용은? 기기(HMD, PC), 기타 기자재(소모품 등), 고장, 파손, 분실, 계정, 라이선스, 소프트웨어
- 어떤 기기를 구매해야 하나? 기기업데이트는?
- 소프트웨어 구입, 계정관리
 - 적절한 소프트웨어는? 어떻게 구매할 것인가?
 - Steam, Oculus store 계정관리(권한, ID/PW, 외부접속)
 - 소프트웨어 언어(한글 지원 유무)
 - 교육용 타이틀은 어떤 것이 있는가? 선정기준은?
- 이용정책(인원/시간 등), 대여정책, 안전, 위생
- 기타

공간



2 m x 1.5 m (6 ft 6 in x 5 ft).



비용

Oculus Rift Minimum Requirements

CPU	Intel i3-6100 or AMD Ryzen 3 1200
GPU	NVIDIA GTX 1050Ti or AMD RX 470
RAM	8GB of Memory
OS	Windows 10

HTC Vive Minimum Requirements

CPU	Intel i5-4590 or AMD
GPU	NVIDIA GTX 1060 or
RAM	4GB of Memory
OS	Windows 7/8/10



번호	분류	제품명	판매가	수량	합계
1	CPU	[AMD] 라이젠9 버미어 5900X (12코어/24스레드/3.7 GHz/풀러미프합/대리점정품) -728029	740,000원	1	740,000원
2	메인보드	[ASUS] TUF Gaming B550M-PLUS STCOM (AMD B550/M-ATX) -680268	173,140원	1	173,140원
3	램(RAM)	[삼성전자] 삼성 DDR4 32GB PC4-25600 -684580	184,710원	1	184,710원
4	SSD	[삼성전자] 공식인증 870 series EVO 500GB MZ-77E 500B/KR -755259	94,500원	1	94,500원

ST4000DM004	MB/ SMR+MTC) -4	117,000원	1	117,000원
NG Trinity D6X 2		3,570,000원	1	3,570,000원
스 스펙트럼 에보	226	63,000원	1	63,000원
Bronze 230V EU		82,000원	1	82,000원

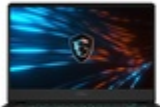
▶ 총 견적금액 5,024,350원 (부가세포함)

최소사양으로는 구동이 힘들...

(최)고사양은 비용이... 코인 열풍으로 인한 부품가격 상승

비용

2 MSI GP시리즈 GP66 레오파드 10UH



SSD 1TB

2,699,000원

15.6인치 / 인텔 / 코어i7-10세대 / 코멧레이크 / i7-10870H (2.2GHz) /
윈도우 / 운영체제(OS): 미포함(프리도스) / 1920x1080(FHD) / 300nit / 240Hz /
PS / 입 / 광시야각 / 눈부심방지 / 슬림형 베젤 / DDR4 / 16GB / 3200MHz /
M.2 / SATA / Me) / 1TB / 외장그래픽 / RTX3080 / VRAM:8GB / 기가비트 유선랜 /
802.11ax(Wi-Fi 6) / HDMI / 웹캠(HD) / USB 3.1 Type-C / USB 3.0 / RGB 라이트
/ 스피커 방향키 / 배터리: 65Wh / 충전단자: DC / 두께: 23.4mm / 무게: 2.38kg / 일반
유통상품 / 용도: 게임용, 그래픽작업용 / 색상: 블랙

노트북을 고려해볼 수도?

[ASUS] GeForce RTX 3090 ROG STRIX O24G WHITE OC D6X 24GB

RTX3090 / 8nm / 스트림 프로세서: 10496개 / PCIe4.0x16 / GDDR6X(DDR6X) / 출력단자: HDMI2.1, DP1.4 / 부가기능: 제로팬(0-dB기술), 멀티 VGA, 8K 해상도 지원, 4K 해상도 지원, HDR 지원, Dual BIOS, HDCP2.3 / 정격파워 750W 이상 / 전원 포트: 8핀 x3개 / 3개 핀 / 가로(길이): 318.5mm / 백플레이트 / LED 라이트 / PWM 커넥터

① VGA 길이 (약 318.5mm)



판매가 3,090,000원

인기도 708/1,000점 ① ↑ 급상승
★★★★★ 4.5 (2건)

적립금 6,180원

카드해택 두이자 할부

배송정보 기본배송 | 당일발송 [오늘 받는 방법](#)

배송비 2,500원(1박스) [백화부류 안내](#)

입고예정 미정

최고사양은 GPU 하나만도...

비용(HMD, 소모품)



VIVE PRO FULL KIT

VIVE Pro 풀-킷 | 전문가용 VR 헤드셋

₩1,640,000 ~~₩1,430,000~~

PC 테스트 하기

구매하기

VIVE 헤드셋 가격 인하
Viveport Infinity 멤버십 2개월 권 증정

* 멤버십 코드는 제품 박스에 동봉되어 있습니다. 기간 한정 제공. 사전 고지없이 변경될 수 있습니다.

Oculus Quest All-in-one VR Gaming Headset – 64GB
by Oculus
Platform : Oculus | Rated: Rating Pending
★★★★☆ 3,908 ratings
#1 Best Seller in PC Virtual Reality Headsets

In stock.
This item cannot be shipped to your selected delivery location. Choose a different delivery location.

Edition: 64GB
128GB 64GB In-Ear Headphones Oculus Link Virtual Reality Headset Cable
Oculus Quest Travel Case

- All-in-one VR: Simply set up the device with your Oculus mobile app and Oculus Quest has everything you need to explore VR, right out of the box
- Insight tracking: Oculus Insight tracking system instantly reflects your movements in VR without the need for any external accessories
- Touch controllers: Oculus Touch controllers precisely recreate your hands, their gestures and interactions, so every game is real enough to reach out and touch
- Beyond room-scale: Oculus Quest works with your environment, so you can play standing or sitting, in spaces big or small

31 new from \$535.00 10 used from \$530.00

Oculus Rift S PC-Powered VR Gaming Headset
by Oculus
Platform : Oculus
★★★★☆ 5,191 ratings
Usually ships within 3 to 5 weeks.
Arrives: Aug 4 - Sep 4

- Top VR gaming library: Blast, slash and soar your way through the top library in VR gaming. Oculus Rift S lets you play hundreds of games and exclusives already available in the Oculus store, with so much more to come.
- Improved optics: Stare down the competition with next-generation lenses and a sharper display. Improved optics deliver bright, vivid colors and reduced "screen-door" effect.
- Ergonomic design: keep your head in the game thanks to a Halo headband redesigned with speed in mind. Rift S stays securely and comfortably in place with a quick twist of the Fit wheel, so it can take-or double take-your fastest reactions.
- Oculus touch controllers: arm yourself with our updated Oculus touch controllers. Your slashes, throws and grab appear in VR with intuitive, realistic Precision, transporting your hands and gestures right into the game.
- Oculus insight tracking: take a step forward with Oculus insight. It translates your movements into VR No matter which way you're facing and provides room-scale tracking without external Sensors.

14 new from \$601.99 9 used from \$619.90

Oculus Quest 2 VR 팩 공식 출시!

이 모든 혜택을 오직 SK텔레콤에서만!



Oculus Quest 2

국내 배송 (무료), 1년 무상 AS

1년 무상 AS 기준 확인 >

Oculus Quest 2 VR팩

*SK텔레콤 고객님 대상

(SK텔레콤 고객용 부가서비스 상품입니다. 부가서비스 가입 후 SKT 회선이 정지되면, 가입이 취소될 수 있습니다.)

*페이스북 계정이 있어야 기기 사용 가능

*일시불 및 12/24개월 무이자 분할 납부로 구매 가능

64GB 모델 (414,000원)

256GB 모델 (552,000원)

24개월 분할 가입하기
(일시 결제)

12개월 분할 가입하기
(일시 결제)

일시납 가입하기
(일시 결제)

안면마스크 : 귀에 거는 형태, 기기 부착형 등 , 스트랩: 교체용 스트랩, 페이스폼: 교체용 아이패드, 기기, 컨트롤러: 보호케이스, 보호가드, 위생용품: 소독, 물티슈 기타.

삼성 XR 서비스 종료 안내

지금까지 Samsung XR 서비스를 통해 주신 고객 들께 진심으로 감사드립니다.

웹, 모바일, VR 2020 년 9 월 30 일 에 최종 종료 될 예정입니다.

지금부터 :

- 360 ° 비디오 업로드 기능을 더 이상 지원하지 않습니다.
- 모든 Samsung XR 및 Samsung VR 비디오 응용 프로그램 더 이상 업데이트를 지원하지 않습니다.

2020 년 6 월 30 일부터 :

- Oculus Go, Oculus Rift 또는 Oculus Quest에서 지원합니다.

2020 년 9 월 30 일부터 :

- 모든 Samsung XR 사용자 계정입니다. 그리고 모든 사용자의 계정 정보 및 관련 데이터는 Samsung XR 서비스 제작자 포털을 통해 서비스 제공 360 ° 비디오를 선택하십시오.
- 모든 360 ° 비디오는 삼성 XR 서비스에서 삭제되었습니다. Samsung XR 서비스 삭제 비디오 옵션 삭제를위한
- 삼성 VR 비디오 앱 삼성 전자는 VR 또는 원도 오디오에서 지원합니다. 이 앱은 오클러스와 마이크로 소프트
- Samsung XR 모바일 앱은 더 이상 안드로이드 기기에서 지원하지합니다. 모바일 앱도 갤럭시 스토어와 구글 플레이

삼성 XR은 지난 2016년 10월에 출시된 VR 영상 플랫폼 서비스다. 삼성 XR은 자연, 과학, 게임, 여행 등 부문에서 VR 콘텐츠를 제공하며 구글플레이스토어 기준 현재까지 500만 이상 다운로드 수를 기록했다. VR 영상 감상뿐 아니라 삼성전자 '기어360'을 이용해 영상 촬영 및 공유, 실시간 방송도 가능하다. 가장 최근 업데이트는 지난 2월로, 갤럭시S20, 갤럭시S20플러스, 갤럭시S20 울트라 등 갤럭시S20 시리즈에 대한 지원 내용이 담겼다.

삼성전자는 XR 서비스 중단과 함께 구글, 오클러스, 마이크로소프트 등 VR 플랫폼 콘텐츠 운영도 종료한다. 사실상 VR 관련 사업을 철수하는 것으로 관측된다. 오는 7월부터는 페이스북 오클러스고 등 오클러스 서비스에서도 삼성 VR 콘텐츠 지원이 중단된다. 오클러스와 마이크로소프트 스토어에서 삼성 XR 콘텐츠는 삭제되며, 구글의 VR 플랫폼 '데이드림' 앱 운영도 종료된다.

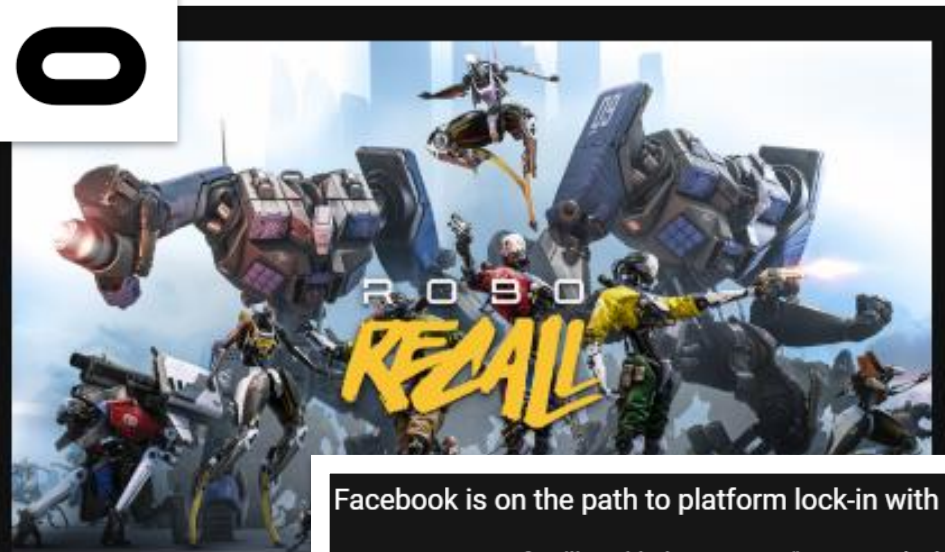
삼성전자는 AR로 무게추를 옮기고 있다. 최근 삼성전자는 AR 기능 활용을 위해 갤럭시S20 카메라에 심도 카메라인 ToF(비행시간거리측정) 센서를 탑재하기도 했다.

한국어(을)를 지원하지 않습니다

이 제품은 귀하의 로컬 언어를 지원하지 않습니다. 구매하기 전에 아래에 있는 지원하는 언어 목록을 확인해주세요.

다른 언어로 된 게임을 찾으려면 언어 기본 설정을 조정해 주세요.

O

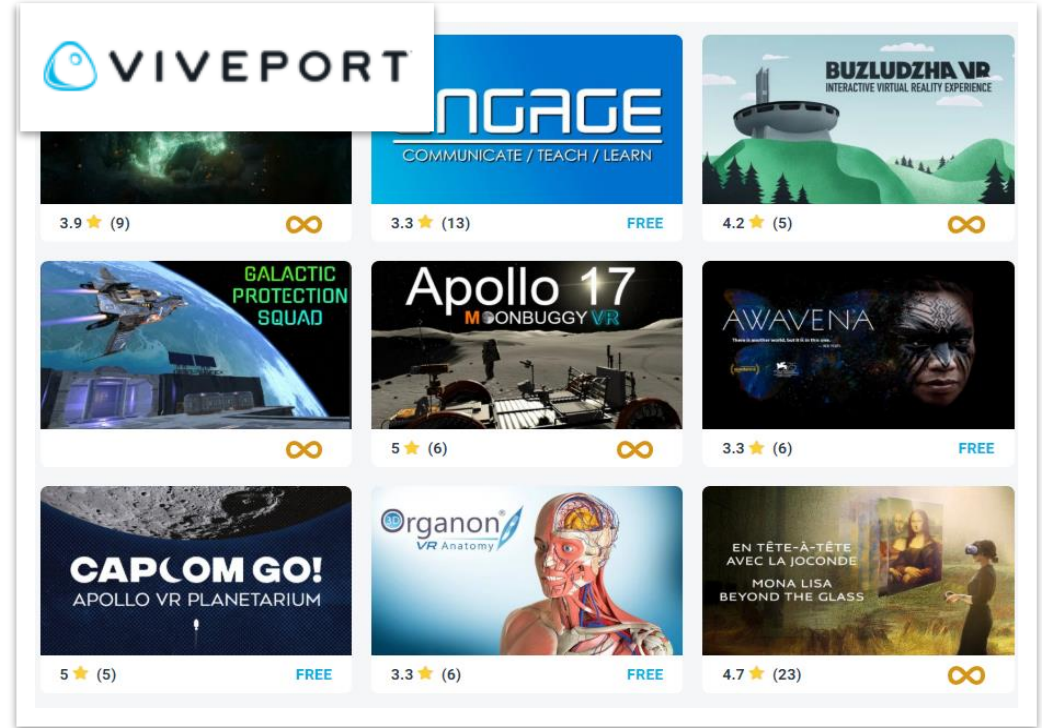


Robo Recall
US\$29.99

Facebook is on the path to platform lock-in with Oculus Quest.

In case you are unfamiliar with the concept, "customer lock-in" is an economics idea that "makes a customer dependent on a vendor for products and services, unable to use another vendor without substantial switching costs."

비용
(소프트웨어구입)



VIVEPORT NGAGE
COMMUNICATE / TEACH / LEARN

3.9 ★ (9)	∞	3.3 ★ (13)	FREE	4.2 ★ (5)	∞
GALACTIC PROTECTION SQUAD	∞	Apollo 17 MOONBUGGY VR	5 ★ (6)	∞	AWAVENA 3.3 ★ (6)
CAPCOM GO! APOLLO VR PLANETARIUM	5 ★ (5)	FREE	organon VR Anatomy	3.3 ★ (6)	FREE
				4.7 ★ (23)	∞



STEAMVR™

2:18 PM

BROWSE ALL

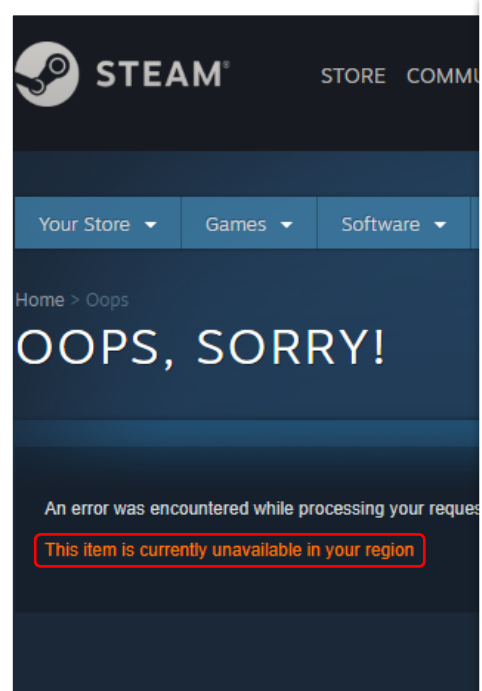
BEAT SABER, B & S, FREE SPIRIT HORSESHOES, EDENWORLD, GORN, SUPER VR

Top Multiplayer

ASSETTO CORSA, DRI: RING, ELVEN ASSASSIN, ELITE DANGEROUS, PR: CA

HOME

<p>월간 무한 구독권</p> <p>₩14,900 /달</p> <ul style="list-style-type: none"> ✓ Pay Monthly ✓ Unlimited Access ✓ Hundreds of VR Experiences ✓ Exclusive Offers and Discounts <p>TRY 14 DAYS FREE</p>	<p>BEST VALUE</p> <p>연간 무한 구독권</p> <p>Annual Commitment</p> <p>₩10,000 /달</p> <ul style="list-style-type: none"> ✓ Annual Plan, Paid Monthly ✓ Premium Titles ✓ Unlimited Access ✓ Hundreds of VR Experiences ✓ Exclusive Offers and Discounts <p>SUBSCRIBE NOW</p>
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Your Store Games Software Hardware News Steam Labs

All Games > Casual Games > Google Earth VR

Google Earth VR

Community Hub



Google Earth VR



Google Earth VR lets you explore the world from totally new perspectives in virtual reality. Stroll the streets of Tokyo, soar over the Grand Canyon, or walk around the Eiffel Tower.

RECENT REVIEWS: **Very Positive** (37)
ALL REVIEWS: **Overwhelmingly Positive** (2,347)

RELEASE DATE: Nov 17, 2016

DEVELOPER: Google
PUBLISHER: Google

Popular user-defined tags for this product:

VR Free to Play Simulation Open World +

Sign in to add this item to your wishlist, follow it, or mark it as not interested

Notice: Requires one of the following virtual reality headsets: HTC Vive, Oculus Rift, or Valve Index. See the VR Support section for more info.

Play Google Earth VR

VR Only

Free **Play Game**

Sign in or Open in Steam

Is this game relevant to you?
Sign in to see reasons why you may or may not like this based on your games, friends, and curators you follow.

어떤 콘텐츠를 제공할 것인가?

- 개발 가능한가?
 - 학과 협력, 프로젝트, 직접 개발(용역, 전담직원)
 - 공모전
 - 메이커스페이스, 교육
 - 기타
- Steam, Oculus, Viveport, App Lab의 다양한 장르 Software
 - 선정기준 필요.(이용자 니즈 분석 필수)
 - 이용자가 선택할 수 있도록 비교적 상세한 리스트 제공
 - 무료 버전을 충분히 활용할 것.

GAMES

Accounting

Aircar

Aliens Attack VR

Apollo 11 VR

the ARK of Horizon

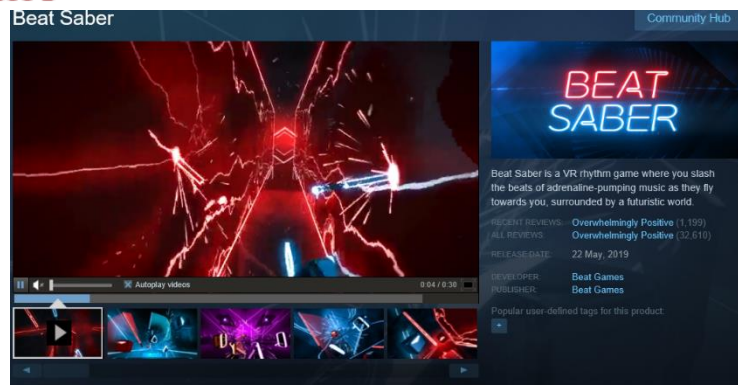
Batman: Arkham VR

Beat Saber

Belko VR: An Escape Room Experiment

Blocks

Blueshift



SOFTWARE

3dSunshine

Altar Show

Buzz Aldrin: Cycling Pathways to Mars

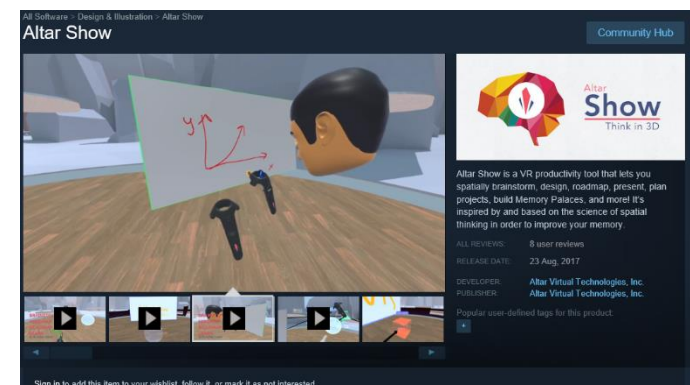
ENGAGE

Fractasia VR

Kodon

MasterpieceVR

PaintLab



VR Game list	Oculus Rift	Oculus Go	Intensity level	Supported controllers	Internet required? (Y/N)	# of players	Languages	Supported Player modes	Supporting tracking modes	Genres	Publisher	ESRB	ESRB details	Describe
1943 Berlin Blitz	X		Comfortable	Oculus Touch	NO	Single	English	Sitting	Front-facing	Documentary & History, Educational, Narrative	Applications Technologies Limited	E 10+	N/A	Immersive Educat
3D Organon VR Anatomy	X		Comfortable	Keyboard & Mouse, Gamepad	NO	Single	English	N/A	N/A	Educational, Exploration, Productivity, Simulation	Medis Media	E	N/A	*Anatomy Atlas
TVR Wonders	X		UNRATED	Keyboard & Mouse, Oculus Remote, Gamepad, Touch (as gamepad)	NO	Single	English	N/A	N/A	Educational, Exploration, Narrative, Simulation, Travel	VR Monkey	E	N/A	Explore the great
ABE VR	X		Comfortable	Gamepad, Keyboard & Mouse, Touch (as gamepad)	NO	Single	English	N/A	N/A	Horror, Movie, Narrative	Hammerhead VR	T	Blood, Violence	ABE VR is an int
Aces High	X		Intense	Flight Stick, Gamepad, Keyboard & Mouse, Other Devices, Racing Wheel, Oculus Remote, Oculus Touch	NO	Single, Multiplayer, Co-Op	English	Sitting	360°	Educational, Fighting, Simulation	HiTech Creations	E 10+	Mild Violence, Users Interact, Digital Purchases	Vintage WW1 &
Adventures in Space: Black Holes and Beyond	X		Comfortable	Oculus Touch	YES	Single	English	Sitting	Front-facing	Educational, Productivity, Utility	VictoryVR	E	N/A	Pilot a spacesh
Airborne VR 1944	X		UNRATED	Gamepad, Touch, Keyboard & Mouse	NO	Single	English, Swedish	N/A	N/A	Action, Adventure, Educational, Simulation	Virtual Light VR	E 10+	Tobacco Reference, Mild Violence	Explore being a pu
Aircar	X		UNRATED	N/A	NO	Single	English	N/A	N/A	Adventure, Casual, Exploration, Simulation	Giant Form Entertainment LLC	E	N/A	Simple immersive
Al Zubarah	X		Comfortable	Oculus Touch	No	Single	Arabic, English, French	Standing	Front-facing	Documentary & History, Educational, Travel	Shiva Games	E	N/A	Explore the ancien
Alpine Ski VR	X		UNRATED	Gamepad	NO	Single	English	Sitting, Standing	Front-facing	Action, Arcade, Casual, Exploration, Simulation	Suchworks Ltd	E	N/A	Brings the thrill o
Alteration	X		Comfortable	Oculus Touch	NO	Single	English, French, German	N/A	N/A	Movie, Narrative	ARTE EXPERIENCE	M 17+	Strong Language, Sexual Themes	Alexandro Volun
Amazing Thailand VR Experience	X		Comfortable	Oculus Touch	NO	Single	English, French, German	N/A	N/A	Action, Fighting, Travel	F.U.U.M. Co., Ltd.	T	Violence	Discover Thailand
American Experience by Boulevard		X	Comfortable	Oculus Touch	NO	Single	English, French, German	N/A	N/A	nal, Narrative, Travel	Boulevard	E	N/A	BLVRD brings an innovation and dy
Anne Frank House VR	X	X	Comfortable	Oculus Touch	NO	Single	English, French, German	N/A	N/A	r & History, Educational	Force Field	E	N/A	Unique and emoti
Anshar Online		X	Comfortable	Gamepad	NO	Single	English, French, German	N/A	N/A	ction, Shooter	OZWE Games	E	Mild Fantasy Violence, Users Interact, Digital Purchases	Anshar Online is i
Apollo 11 VR	X	X	Moderate	Keyboard & Mouse	NO	Single	English, French, German	N/A	N/A	Exploration, Simulation, pace Universe	Immersive VR Education Ltd.	N/A	N/A	The story of the p
Archery Simulation	X		UNRATED	Oculus Touch	NO	Single	English, French, German	N/A	N/A	ion, Simulation	Multiverse Labs	T	Blood, Violence	Survive waves of
Athens in VR		X	Comfortable	Oculus Touch	NO	Single	English, French, German	N/A	N/A	ational, Travel	Lithodemos VR	E	N/A	Lithodemos VR h
Atlas Obscura VR		X	Comfortable	Oculus Touch	NO	Single	English, French, German	N/A	N/A	ational, Travel	Lithodemos VR	E	N/A	important parts of from place to place backed-up by arch birthplace of west
Bait		X	Comfortable	Gamepad	NO	Single	English, French, German	N/A	N/A	Educational, Exploration, Travel	Start VR	E	Digital Purchases	Featuring incredib adventure includin the coming month
							ese, French, German, Italian, Spanish	N/A	N/A	Adventure, Exploration, Sports	Resolution Games	E	Digital Purchases	You're invited to your loyalties bod



Simple : 주제 분야, 타이틀, 설명, 썸네일, 링크(스토어)

Detailed : 주제 분야, 타이틀, 설명, 썸네일, 링크(스토어), Intensity(강도: 조작정도), 컨트롤러, 인터넷여부, 플레이어수, 언어, 동작범위(Seated, Standing, Room)

Title	Description	Price(원)	Subject
Drummer Talent VR	드럼 치기	21000	VR 입문용 콘텐츠
Fruit Ninja VR	칼로 과일 베기	16000	
The LAB	활쏘기, 슬링샷, 여행, 인체스캔 등 입문용 콘텐츠	무료	
Richie's Plank Experience	고소 공포 체험	15000	
Space Pirate Trainer	우주에서 총 쏘기	16000	
Tapsonic World Champion VR	음악 리듬 게임	무료	
VR Fun House	미니 게임	무료	
Fancy Skiing VR	스키 체험	10500	스포츠
Knockout League	복싱 체험	.	애니메이션 액팅
Mindshow	캐릭터를 통한 애니메이션 액팅 및 제작	.	
Youtube VR	유튜브로 VR 영상 시청	.	VR 영상 시청
Sharecare VR	인체 3D 해부도 탐색	.	의학
The Blu	심해 탐험	.	해양
Titanic VR	타이타닉호 탐사	.	
(BATMAN) ARKHAM	배트맨이 되어 스토리성 체험	.	영화
Ready Player One - Oasis Beta	'레디 플레이어 원' 체험	.	
(STAR WARS) ILM X LAB	'스타워즈' 체험	.	
Kingspray Graffiti VR	VR 스프레이 아트	.	예술
Tilt Brush by Google	3D 페인팅	.	
Buzz Aldrin - Cycling Pathways to Mars	달, 화성탐사	.	우주
Go For Launch, Mercury 체험판	우주선 조종	.	
Home - A VR Spacewalk	BBC의 VR 스페이스워크 프로젝트	.	
The BROOKHAVEN Experiment	좀비 죽이기	.	기타
Giant Cop	작은 마을을 수호하는 거인 경찰 체험	.	
Job Simulator	직업 체험	.	
Rec Room	특정 플랫폼에 접속한 VR 유저 간 플레이	.	
Superhot	타격, 총알 피하기 등 다양한 액션 체험	.	
Tiny Town VR	작은 마을 짓기	.	
Ultimate Booster Experience	시티 롤러코스터 등 익사이팅 콘텐츠 체험	.	

HISTORY		GEOGRAPHY		SCIENCE		ART		DESIGN TECHNOLOGY		GALLERIES		MATHS			
SOCIAL STUDIES		ASTRONOMY		<h1>EDUCATIONAL VR APPS</h1> <p>FOR HTC VIVE, OCULUS RIFT AND WMR HEADSETS</p> <p>Icons denote which store each app is available from (Steam/Viveport/Oculus Store)</p> <p>List curated by Steve Bambury // @steve_bambury // www.virtualteach.com // www.youtube.com/stevebamburyvr</p>								STORYTELLING		NARRATIVES	
TEACHING		ECOLOGY		STEM		MUSIC		PSYCHOLOGY		IDEATION		PHYSICAL EDUCATION			

도서관 VR 홈페이지는 어떻게?

- VR, AR 에 대한 전반적인 소개, 안내
- VR ,AR 기기 소개
- VR 소프트웨어 리스트 및 설명(주제별로 구분하기, 플랫폼 색구분 등)
- 사용방법, 가이드,안내서(이용자매뉴얼), 정책, 룰
- 풍부한 콘텐츠(커리큘럼, 프로젝트, Books & journal, Articles, news, Webminars 등)
- 전담직원 소개



VR SAFETY

Consult your doctor if you have a pre-existing medical condition (e.g. heart ailment) or psychiatric conditions (anxiety disorders, or PTSD)

- If you are sick, fatigued, under medication, not feeling well, generally tired, trying VR might worsen your condition.
- Like other gaming products that produces light flashing visual effects, the VR headset may trigger epileptic seizures, fainting or dizziness even if you have no history of these conditions.

Virtual chairs aren't REAL!

- Remember that simulated objects may appear in the virtual world, if you see a chair, don't sit on it!

- 이용 및 휴식 시간
 - 30분마다 10~15분 휴식 권장, 중단없이 장시간 사용 권하지 않음. 충분한 휴식(제조사)
- 이용 환경
 - 주변 정리(넘어지거나, 충돌 방지)(제조사) 및 안전한 공간 확보
 - 케이블 정리, 스트랩 고정

Virtual Reality

SAFETY CONSIDERATIONS



ENVIRONMENT	WALLS	FLOOR	CEILING	DIMENSIONS
	Add padding on walls to protect hardware and participants	Keep clear of obstacles and cabling and ensure good traction	Mount equipment safely on the ceiling to prevent tripping and related injuries	Define dimensions for the play area to keep non-participants at a safe distance
EQUIPMENT	CABLES	HEADSET	CONTROLLER	SENSORS
	Use wireless adapters or attach cabling to ceilings and walls when possible	Wear headsets properly and adjust to fit comfortably	Wear safety wrist straps to prevent controller from being dropped or thrown	Place sensors outside play barriers whenever possible for safety
HEALTH	STRAIN	NAUSEA	INJURY	CLEANING
	Take breaks during long play periods to prevent strain on the eyes and muscles	Inform supervisor if experiencing discomfort from visuals and movements	Avoid colliding with walls, equipment, and other persons or sitting/leaning on virtual objects	Sanitize controllers, clean lenses properly, and replace headset foam regularly

이용 가이드라인 예시

0. 이용신청시 VR개요 등 학습(동영상 및 기타 자료), 이용자 가이드 숙지
1. 이용자가이드라인 확인 및 이용동의서(파손, 분실) 작성, 개인물품 보관, 위생사항(발열체크 등) 확인, 1회용 안면마스크 배포
2. 담당자 안내에 따라 장비 인수 및 기초 사용 방법 숙지
3. 기기 사용
4. 기기 이상 유무 확인 후 반납, 종료

* 이용자 주의사항

- ✓ PC를 VR이외 다른 용도로 사용하지 말 것
- ✓ 이용시 케이블 주의할 것
- ✓ 문제(신체, 기기 등)가 발생시 즉시, 담당직원에게 알릴 것
- ✓ 스스로 문제를 해결하려 하지 말 것.
- ✓ 로그인된 도서관 계정만 사용하고, 개인계정 사용하지 말것.
- ✓ 승인이 되지 않은 소프트웨어 절대 설치하지 말것.
- ✓ 식음료 반입 금지

* 관리 사항

- ✓ 기기 청결도 확인(헤드셋렌즈, 외관, 컨트롤러 외관)
- ✓ 기기 동작 확인 필수(파손여부 등)
- ✓ 기기 충전(Quest)및 컨트롤러 (배터리 충전,교체)
- ✓ 기기, 공간 소독
- ✓ 공간 확인
- ✓ 기타

체크리스트 예시

구분		항목	Check	
			Y	N
이용 전	기기 상태	VR기기가 정상적으로 작동하는가?		
		VR기기가 충분히 충전되었는가?		
	활용 공간	공간이 충분히 확보되었는가?		
		공간내 장애물을 제거하였는가?		
	위생 및 건강	안면마스크, 소독제 등이 준비되어 있는가?		
		이용자의 건강상태를 확인하였는가? (발열체크 등)		
이용자의 건강상태에 대한 자가진단이 시행되었는가?				
이용자 준수사항	이용자가 VR 이용준수사항(이용동의서 등)에 동의하였는가?			
	이용자가 VR기기(헤드셋, 컨트롤러 등)의 착용방법, 조작 방식을 충분히 숙지하였는가?			
이용 중	건강 및 인지상태	건강에 이상 증세를 보이는 이용자가 있는가?		
		가상과 현실에 대해 혼란스러워 하는 이용자가 있는가?		
	이용 상태	이용시간과 휴식시간을 준수하여 사용하였는가?		
	기기상태	VR기기가 이상 없이 작동되고 있는가?		
소프트웨어가 이상 없이 실행되고 있는가?				
이용 후	건강 및 인지상태	이용자의 건강상태에 대한 자가진단이 시행되었는가?		
	기기 상태	건강에 이상 증세를 보이는 이용자가 있는가?		
		파손되거나 작동하지 않는 VR기기가 있는가?		
		VR기기가 오염되지 않았는가?		
	활용 공간	이용 후 공간을 정리하였는가? 이용자 분실물이 있지 않은가?		
위생 및 건강	이용 후 VR기기 및 공간에 대한 소독을 시행하였는가?			

항목	내용	
운영 규칙	1. 운영 시간 *전시 및 출품 준비 기간에는 관계자에 관하여 이름, 시간 연장 메이커 스페이스 / 전시실: 오전 10~12시, 오후 1시~6시	
	2. 공간 예약제 운영 *학교 하이브 를 통해 예약 접수 메이커 스페이스: 1팀 3인 이상 / 1일 2회 / 1회 2시간	
	3. 기기 대여 기준 1) 시간: 1일 1회 / 1회 2시간 2) 대수: 1인 1대 / 1일 최대 2대	
기자재	창작 및 전시	1. VR 헤드셋 및 리모콘 (대수:7) 2. AR 글라스 (대수:5) 3. VR 디자인툴 : 유니티, 퓌트 브러시, 마스터피스VR 4. AR 및 VR 콘텐츠 활용용 태블릿 (대수: 7) 5. AR 및 VR 콘텐츠 활용용 컴퓨터 (대수:5) 6. 이용자 교육용 AR 모니터 (대수: 2) -도서관 1층: 도서관 이용 안내용 -메이커 스페이스: 메이커 스페이스 이용 교육용
		전문사서 (메이커) 기술 활용 교육: 1명 (전시) 전시 기획 및 큐레이팅 서비스: 1명
전담인력	일반사서 (메이커) 기술 안전 교육, 기기 및 공간 관리: 1명 (전시) 기기 및 공간 관리: 1명	
	근로학생 (메이커) 기기 및 공간 관리: 3명 (전시) 전시 기획 및 큐레이팅 서비스: 2명	
	교수 (메이커&전시) 기술 자문: 1명 (메이커) 기술 활용 교육: 1명	
	정책 지원금	1. 콘텐츠 창작 지원금 : 팀당 40만 원(± 10) *단 지원금은 신청한 팀에 한하여(한하여) , 학기 당 7팀으로 제한한다.(총 280만 원)
비용	창작	2. 우수 작품 공모전: 상금(총 100~200만 원) 1. VR 헤드셋 : 1대당 40만 원(총 280만 원) 2. AR 글라스: 1대당 60만 원(총 300만 원) 3. 랩탑 : 1대당 120만 원(총 600만 원) 4. 태블릿 : 1대당 25만원(총 175만 원) 5. 이용자 교육용 AR 모니터 : 확인 X
		환경 조성 비용 (기기) 전시 비용 회당 : 50만 원 (장소 설비 비용 + 기타 자재비용)

비용	기기: 약 ... 만원 콘텐츠 개발: 미정 (유동적으로 변화할 것이라 예상)
이용대상	고내 재학생 및 교직원 중심 (일반 이용자 포함)
이용자니즈	<ul style="list-style-type: none"> 복합문화 공간 및 교육 전문적인 지식과 자료(전자) 제공. 쉬운 도서(논문) 검색, 교육적 측면 강조 (학습효과 증진) → 목표: 다양한 기술과 시스템을 마련해 전공지식을 활용한 창작 활동을 자유롭게 생산, 이용, 활용 할 수 있게 함
공간구성	'VR/AR 체험실' 형성 : 기기를 그 용도에 맞게 설치하되(ex. AR 위치서비스- 서가) 도서관 내에 메이커 스페이스라는 전문 창작 공간 + VR AR 체험공간을 만들 필요가 있음 스트레스 관리실: VR 체험실 언어&문화 체험: VR 체험실 도서관 가상 투어: 주로 온라인 활용 전공심화콘텐츠: 따로 하나의 룸을 사용 장서찾기 서비스: 서가를 중심으로 하되, 도서관 표본트에 태블릿 비치
VR 서비스 내용 (공간 형성)	<ul style="list-style-type: none"> 스트레스관리실: VR은 실제 장소에 가지 않아도 그 장소에 있는 것 같은 시각과 청각을 제공할 수 있다. 이런 특징을 이용해 원하는 여행지의 풍경과 소리를 들을 수 있는 콘텐츠를 제공한다. https://www.youtube.com/watch?v=HI7mTlxNotQ <ul style="list-style-type: none"> 언어&문화체험: 학습하고 싶은 언어를 사용하는 국가를 바탕으로 문화를 체험하는 동시에 회화 가능 서비스 주입식 언어교육의 문제점을 보충할 수 있으며, 언어연수나 유학보다 시간-경제적 절약이 가능하다. https://m.post.naver.com/viewer/postView.nhn?volumeNo=23

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- ISU Libraries Virtual Reality (VR) Idaho State University <https://isu.libguides.com/virtualreality/vrexplained>
- Lab NEXT, University of Calgary, <https://library.ucalgary.ca/vr/>
- Making & Makerspaces at Cornell University Library, <http://guides.library.cornell.edu/makerspaces/vr>
- Maureen and Mike Mansfield Library University of Montana <https://www.lib.umt.edu/tech-spaces/vr.php>
- Media Lab, University of Massachusetts Amherst <https://www.library.umass.edu/dml/vr/>
- Multisensory VR Mask <https://www.indiegogo.com/projects/feelreal-the-world-s-first-multisensory-vr-mask--2#/>
- Newman Library, Virginia Tech VR Research & Projects <https://lib.vt.edu/research-teaching/vr-research-projects.html>
- The Future Is Now: Virtual, Augmented, and Mixed Reality in Public Libraries <https://www.webjunction.org/events/webjunction/vr-ar-mr-in-public-libraries.html>
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- XR Library Playbook: Best practices for successful XR program integration <https://infopeople.org/civicrm/event/info?id=858&reset=1>
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