Technology Instruction A-Z
Learning Objectives

By the end of this presentation, attendees will be able to...

● Define virtual reality and augmented reality and integrate VR & AR programming into library services, if/when possible
● Compare, contrast and discuss New Canaan Library’s approaches to technology instruction and how they compare to that of one’s own library
● Articulate the different components of a lesson plan
What is virtual reality?

The computer-generated simulation of a three-dimensional image or environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors.

- Merriam-Webster
What is augmented reality?

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

- Merriam-Webster
In Short

Virtual Reality creates an artificial environment to inhabit. Augmented Reality simulates artificial objects in the real environment.
Why AR/VR now?

- Aligns with mission
- State of technology
- Affordable
Things to Consider

- Costs
- Business Proposal
- Equipment (Oculus, Vive, Samsung, etc)
- How will it be used / Space
- Booking Procedure
- Policy / Waiver
- Age limits
- Sanitation
- Health
Equipment

- Oculus Rift
  - headset, L/R controllers, 2 sensors
- Oculus Go
- Robust PC with high-end video card
- Furniture
Letting the World Know

- Website
- Digital Newsletter
- Social Media
- Newspaper
Successful VR Class

- Timely
- Engaging
- Beginner-friendly
<table>
<thead>
<tr>
<th>Month</th>
<th>VR Theme</th>
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<tbody>
<tr>
<td>September</td>
<td>VR Outreach</td>
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<tr>
<td>October</td>
<td>Halloween VR, Face your Fears</td>
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<tr>
<td>October</td>
<td>College Tours VR, Google Earth VR</td>
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<td>November*</td>
<td>DiscoveryVR: Florida Everglades</td>
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<td>December</td>
<td>Notes on Blindness</td>
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<tr>
<td>January</td>
<td>Alpine Ski VR</td>
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<td>February</td>
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VR Program Growth

- Monthly VR newsletter
- Circulating Google cardboards
- Oculus Go
- Collaborations with other departments or for larger events
VR As Outreach

- Assisted living facilities
- Local school system
- Hospitals
How can we make our art exhibitions more interactive?
Augmented Reality

Librarian preparation required:

1. Learn **HP Reveal App**
   - Create public & private accounts

2. Interview artists with a video camera and upload files to Google Drive

3. Create ‘auras’ in private account, where you match video clips with the appropriate artworks, and make them public
Introducing to the Public

- Announced at art openings
- Directions on display
- Headphones freely available
- Drop-ins to teach public how to use the feature post-art opening
- Social media plugs
  - Facebook Live, Instagram
Tech Instruction to Seniors
5 Tips for Teaching Tech to Seniors
By Monica Dombrowski, PLA Op-Ed

1. Take time to build rapport
2. Address the elephant in the room & give a confidence boost
3. Connect the dots (gradual release model)
4. Tell, show, watch
5. Provide handouts, visuals, etc.
Tech Instruction to All Adults
Tech Instruction Services @ NCL

- Book-a-Librarian
- Open Tech
  - Tech classes based on Open Tech Data
- On-the-fly instruction in our tech center
Tech Topics

- **Digital literacy** - the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills (ALA)
- **Digital citizenship** - a person who develops the skills and knowledge to effectively use the Internet and other digital technology, especially in order to participate responsibly in social and civic activities (dictionary.com)
- **Emerging and future tech** (AR, VR, AI, etc.)
- **Social media & ‘Big Tech’**
- **Privacy**
## Recent Tech Classes

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
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<tbody>
<tr>
<td>July</td>
<td>Google Drive Boot-camp</td>
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<tr>
<td>August</td>
<td>Microsoft Office Boot-camp</td>
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<tr>
<td>September</td>
<td>Emerging Tech Meetup: Filter Bubbles</td>
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<tr>
<td>October</td>
<td>N/A</td>
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<tr>
<td>November</td>
<td>‘Artificial Intelligence: Ethics, Impact &amp; the Applications of AI’</td>
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<td>lecture by John Preli, IBM</td>
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<tr>
<td>December</td>
<td>The Dark Web: Nefarious Cyber Criminals in the Shadows</td>
</tr>
<tr>
<td>January</td>
<td>New Year, New Smartphone Settings: Data Detox</td>
</tr>
<tr>
<td>February</td>
<td>Screen Time &amp; Personal Well-Being</td>
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Things I’ve Learned

- Think about what could go wrong *before* it does
- Suggest that people take notes
- Encourage large groups to work in pairs when confused
- It’s okay to say “I don’t know the answer to that question”
- Two-day classes and workshops are great
  - You can answer people’s questions from day 1
  - You can cover what you didn’t have time to in day 1
Lesson Plans
Parts of a Lesson Plan

1. Learning outcomes
2. Teaching Strategies
3. Learning theories & learning preferences
4. Assessment
Learning Outcomes

SWAT statements

Students will be able to...

Think about what the *enduring understanding* should be
Learning Theories

- **Behaviorism** - teacher-focused; students are directed; instructor breaks down learning into smaller chunks
- **Constructivism** - student-focused; learners gain information from social/cultural connections and must engage, do, and socialize to understand
- **Cognitivism** – puzzle-like thinking; active process in brain where learner connects bits of information
- **Action learning** – ‘you do’
- **Andragogy** - adult learners want to use their life experiences as a resource for learning; adult learners want to be able to control their learning; adults want to learn skills that they can use to solve problems (Knowles)
- **Connectivism** – Learners learn by making connections in technology-enabled environments
- **Facilitation** - facilitate learners arriving at their own solutions; show congruence, empathy, and respect towards learners (Rogers)
Learning Preferences

- Watching/thinking/doing/feeling (Kolb)
- VARK: visual/auditory/read & write/kinesthetic
Teaching Strategies

- Demonstration
- Video
- Creative exercises
- Brainstorming session
- Lecture
- Partner/group work
- Game
- Etc……..
Assessment

● Informal assessment
  ○ Observation
  ○ On-the-fly check-ins
  ○ Q & A so that you know they are following along

● Performance assessment
  ○ Did they do X?

● Formal assessment
  ○ Survey after-the-fact-- what did you learn?
What combination is best?

The keyword is *combination*!

→ Vary your teaching strategies and the learning theories you use to frame a lesson in order to appeal to a class of people with different learning styles!
Questions?