

VRARA education forum 2023 April 26

Session Summaries

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I recently attended the online VRAR education forum on 26th April 2023 and here are some of my key takeaways of the sessions I attended. For those of you who missed it there is a [paid option](#) to watch the recordings.

Session on: The benefits and challenges of education in VR

Ethan Fieldman - Founder & CEO, [CurioXR](#),

Mark Woolwine - Assistant Director, [REACH Learning Resources](#), University of Louisville,

Caroline Dias - Director, [PLUS Program](#), Eastern Washington University

- New students come and go. Using VR/AR requires constant training – this should be done in-house by technical staff and should not be done by a teacher.
- Students really keep their focus in VR. They are not distracted by their phones when using VR.
- Building in playtime helps to get past the distractions when in VR.
- Technology is still an issue, so things like wi-fi, microphone pickups when in multiuser experience still require technical knowhow and patience.

Session on: Brining XR to your classroom

David Burch – Sales Director @ [ArborXR](#)

Challenges using XR – 3 main questions that teachers ask when using XR in their classroom.

1. What device to use?
2. Where do I get educational content?
3. How do I manage XR devices?

Session on: Get started creating XR without code (panel)

Alex Grady - VRARA Education Co-Chair & Education solutions @ Unity

Joel Sadler - Stanford University, Educator - AI + XR tools for education

Emilie Joly – Co-Founder - (templates, interactive content) - <https://zoeimmersive.com/>,

Thomas Winkley – Technical Marketing Advocate - Social Impact - Education @ Unity - <https://www.thomaswinkley.com/>

The prospect of creating XR content can be daunting and overwhelming for beginners. Here are some highlighted insights into the most effective strategies, platforms, and resources for initiating the process.

- students are going to be way more advanced than us, the sandbox generation will expect a lot of us, and we won't be ready.
- Use generative AI to code to help you.
- AR foundation, visual scripting is included in Unity.
- Expert educators need to know the craft.
- The content developers should be the teachers and the students and not the provider. Currently the providers are creating the content as it is not available or shared with the content providers.

Session on: Creating a VR ecosystem in an academic library

Luka Starmer – Multimedia Production Specialist, University of Nevada

<https://library.unr.edu/specialty-rooms/at-reality>

Walking With Reality Film: <youtu.be/Nxml3p5fbmU>

VR Projects: <library.unr.edu/virtual-reality>

Mathewson-IGT Knowledge Center @One: <library.unr.edu/atone>

Library Basket Digital Collection: <unr.dgicloud.com/islandora/object/baskets%3Aroot>

@Reality was created primarily because there was no centralized space on the campus for this type of work. Although many faculty members were using VR technology for research and in their classes, they were working independently and without awareness of what others on campus were doing.

- the library hosts a yearly event to pitch their projects all based on VR to tackle the silos in each faculty.
- Teachers share their experiences using headsets and share their resources.
- Use lightning talks to pitch the projects.
- Benefits of VR in academic libraries:
 - Fosters a community of exploration and innovation.
 - Provides access to objects and environments.
 - Strengthens relations with faculties and students.
 - Supports academic research and grants.
 - Strengthens ties within local communities.
 - Immersive / interactive medium for preservation and instruction.

Session on: Large Scale XR deployment in education

Rob Theriault – [Georgian College](#)

<https://www.georgiancollege.ca/blog/newsroom/indigenous-language-preservation/>

<https://www.healthysimulation.com/>

<https://www.vet.cornell.edu/news/20190508/college-designed-ar-app-sparks-new-level-learning-veterinary-students>

Integrating XR technology in education is a challenging task, but Georgian College has emerged as a global pioneer in this field by deploying XR in nearly 20 program areas and providing almost 400 VR headsets.

Here are some of the points shared in this session:

- You need buy in at the faculty level.
- First introduce XR to teachers, then go to the students.
- % steps done correctly: VR vs Standard 63% vs. 25%. *Blumstein, G., et. Al*
- Knowledge retention in VR group: 50% vs 11% *Blumstein, G., et. Al*
- According to a PwC soft skills Study:
 - 40% of virtual reality learners saw an improvement in confidence compared to classroom learners and 35% improvement over traditional e-learners.
 - VR costs are 52% less than classroom costs.
 - VR learners completed training 4 times faster than classroom training.
 - VR learners felt 3.75 times more emotionally connected to the content than classroom learners.
 - VR learners were 4 times more focused during training than their e-learning peers and 1.5 times more focused than their classroom colleagues.
- To see if the student is doing the procedure/task correctly is very important to include analytics.
- VR assessment – You either need a teacher to be with the student or analytics needs to be used to get the results.
- Using a randomised control group in a medical scenario – the recall was up by 50%! Vs 11%
- Students need to be incentivised to use the XR technologies.
- Multiplayer is a must in medical scenarios. Try and reflect the real world as closely as possible.

Session on: Guiding Design Principles for Immersive Education with AI

Paula MacDowell – University of Saskatchewan

Book – Immersive Education Designing for Learning

https://www.google.nl/books/edition/Immersive_Education/ZwaIEAAAQBAJ?hl=en&gbpv=1&dq=immersive+education+design+for+learning&printsec=frontcover

Immersive Education: Design Principles

1. Focus on the learning: put student needs first
2. Redefine engagement to support creativity
3. Empower students as immersive storytellers
4. Teach critical perspectives about XR
5. Create for a cause; XR for good
6. Inclusive design: accessibility matters

Session on: Creative Immersive Technology Experiences (CITE) for Interdisciplinary Curriculum Enhancement

Prof. Heather Barker - Professor of Design at California State University Long Beach

<https://www.csulb.edu/design/page/heather-barker>

<https://www.citeprograms.com/cite-programs/>

<https://www.smarteducationlabs.com/>

<https://www.csulb.edu/design/immersive-design-research-lab>

Pedagogies of Experience: Teaching tools that cross realities (XR)

Step 1: Build your team.

Become co-creators of immersive technology (use the faculties and their experiences)

Step 2: Campaign the technology.

Show the value, provide pitches, inclusivity, data metrics, future ready skills, VR AR combining, research opportunities, impacts, know your audience, see how this works for them, education always uses simulation, VR is excellent, context is key, find the connections within the faculties.

Step 3: Create empathy.

Incorporate it into the dialogue.

Step 4: Location matters.

Interdisciplinary collaboration is important.

Step 5: Baby steps for the curious.

Create an easy win, create your avatar, let them play first, earn a badge, reward them, incentivise this experience, focus on the outcomes. Create workshops.

Step 6: Share the successes.

Session on: Common Challenges Deploying XR at Scale in Education

Luke Wilson - <https://www.managexr.com/>

<https://vedx.io/>

luke@managexr.com

Deploying headsets in the education sector presents numerous challenges. Here are some primary challenges you will or have faced and some solutions that can tackle these challenges.

- You realise it's nearly impossible to set up 30 headsets with curated content.
- You can't see what all the users see at once / even just one sometimes.
- It only takes one device that needs trouble shooting and this takes away valuable learning time.
- There are 4 key pillars to a successful VR Deployment: *Don't invest heavily until your 4 pillars are set up correctly.*
 1. Content (Software, apps),
 2. Hardware,

3. Management,

4. Team

- To highlight point **4. The Team**. Using VR in the classroom requires a dedicated team who is ready to take on the challenge / available.
 - Key players in a team are:
 - Teachers (who are educated on how to use VR)
 - IT team (they are your friends)
 - Administrators
 - Vendors / Content creators
 - Key tasks in the team:
 - Designing the curriculum and providing the professional development
 - Additional assistance
 - Someone in charge of managing the headsets (delivery, ready for use, ready for storage, maintenance, updated)

Some interesting links shared in the chat that are worth a mention:

Educational Spaces in Hubs: <https://hubs.mozilla.com/labs/exhibitions-that-educate/>

Educational Metaverse: <https://www.victoryxr.com/>

White-label Metaverse platform: <https://captic.io/>

<https://www.linkedin.com/feed/update/urn:li:activity:7056383029618880512/>

- shared in chat, Jeff Meador, "I recently worked with a group of students at Michigan State University prototyping what I think the future of conversational AI in VR training will look like."

Emilie Joly (templates, interactive content) [Zoe | Immersive 3D Creation Platform \(zoeimmersive.com\)](https://zoeimmersive.com)

Mobile AR development: <https://learn.unity.com/pathway/mobile-ar-development>

Teaching VR/AR: Stories from the classroom <https://learn.unity.com/course/create-with-vr-for-educators>

Immersive and interactive learning experiences: <https://zspace.com/>

Social Virtual Spaces : <https://www.vrspaces.tv/>

Spatial AI: <https://eonreality.com/platform/> , [Augmented and Virtual Reality Solutions - EON - EON Reality](#)