

TalkTech 2018:

Exploring Culture with Digital Reality

A Collaboration Project between
Politehnica University of Timisoara and Bentley University

Description

Digital reality (augmented and virtual reality and other immersive multimedia experiences) have brought about new forms of engagement in a variety of industries in recent years as advances in mobile technologies have raised awareness and usage of these technologies.

Bentley students in IT 101, introduction to information technology, and UPT students in TMM (Technology of Multimedia) will participate in groups of four (2 students from each school) as members of international teams to explore uses of AR and VR as related to sharing cultural experiences.

With your international partners, you will use web-based collaboration and communication tools to meet both synchronously (in real time using voice, video, and chat) and asynchronously (via email, or messaging) to create and share artifacts of augmented and virtual reality, and then determine best use cases for these technologies.

Each team will create one shared augmented reality experience and one shared virtual reality experience for their international partners. Your international partners will review your AR and VR experiences during a video call.

Your group also will create a digital "note board" using a content curation tool to share your group's multimedia and research. Each member of your group should contribute to this note board.

For this project you will use OpenVM, an online collaboration tool managed by UPT, to share your group's progress with each other and with your instructors. To access this account please check the email message you received with your login information.

Please upload the video files that you create to OpenVM in addition to your digital note board, so that we have them.

Topics

Prepare an augmented and a virtual reality experience related to one of these topics:

1. Bus or Train Station
2. Church cathedral, or other house of worship
3. City or State Government Building
4. Coffee Shop or Fast Food
5. Exhibit at art or other museum
6. Historic Building
7. Outdoor Market
8. Public Square or Green
9. Public Statue, Sculpture, or Artwork
10. Sports Arena or Stadium
11. Tech Retail (Apple Store, etc)
12. View from the top of a tall building

Think about how you would present this location or topic to someone who has never visited before. For example, consider these questions (and come up with your own):

- What is its historical, business, or cultural significance?
- Where is it located?
- If a business, what is the company's products or services? What element's of the company's brand are similar? What are localized?
- Who visits?

Research and discuss the content of your presentations with your team, so that the content is similar based on your location. For example, both teams are going to create AR and VR experiences related to a coffee shop. You might show common local content (ie, menus, inside the shop, links to websites, etc.) Incorporate your findings into the AR and VR Scenes you create.

Deliverable: (Due by October 8)

Sign up for your topic. We will notify you if there is a change after you sign up, should we need to balance the team members.

Teamwork and OpenVM

Complete your profile on OpenVM so that you and your partners can reach connect by email, or some other method that you choose.

Set up a first meeting time when you can discuss how you will work together as a team.

- How will you communicate and make decisions?
- Who is responsible for which tasks?
- Set up accounts on file sharing, messaging or social media apps for your team. Many Bentley students use GroupMe, for group work.

Post a summary of your conversations, text messages, on OpenVM each week as you work on the project.

- Please be advised of the following National Holidays as you plan your meeting times.
Nov Nov 22-26, - Bentley Thanksgiving Holiday
- Nov 30 - 1 Dec - National Day in Romania

Deliverables:

- Create your own account and profile on Open VM. (Due by October 10).
- Reach out to your team to setup a first meeting. (Due by October 13.)
- Set up your first meeting for the week of October 15, if not before.

Online Note Board

Use a content curation tool to present your location in a collaborative “note board”. Each person in your group should contribute to the note board. Include photos, videos, text, or other multimedia. Select any one of these tools (or another of your choice, approved by your instructors). Customize it with a background image related to your topic.

- Wakelet <https://wakelet.com/>
- ThingLink <http://thinglink.com>
- Padlet <http://padlet.com>
- Lino <http://linoit.com>

Use OpenVM to document your team’s process and your online note board to present your location / topic.

Deliverables: (Complete by October 19)

- One person in your team creates an online note board for your team’s project.
- Post the web address to your online note board to the blog page of OpenVM and to the [sign up sheet](#)
- Share or invite members of your group so everyone can post to it.
- Also invite your instructors to post to your note board at the email address talktechproject@gmail.com .
- Each person from the group: read about uses of Augmented and Virtual reality that can be applied to your topic, and prepare a short note with a summary of any of these and a link to such an article or website. Feel free to add a photo or other multimedia if that would help illustrate your point.

Augmented Reality

Determine a scannable base image you can use to represent your location. It can be a photo of a street sign, map, landmark, or other image that scans easily.

Read about and select one of these AR-creation tools with which to create your AR experience: (Presented intentionally in reverse alpha order, with no bias from the instructors as to which one you should use)

- [Zap.works](#),
- [Roar](#)
- [Layar](#)
- [Blippar](#)
- [HP Reveal](#)
- Something else you find (Mark or Diana must approve) See <https://catchar.io/categories/ar-editors-builders-studios> for suggestions.

Create an AR experience to enhance the base image with additional information.

Deliverables:

By October 26:

- Research and discuss and select one AR creation app. One person from the team, write a short (100 words) blog post describing which apps your group chose to use, and why. Post it to OpenVM. Include comments from other group members by name from your discussion.

By November 2:

- UPT and Bentley students each create one AR experience for your location.

By November 9:

- Share your base images with your partners.
- Post the starting image to the note board along with instructions on how to scan it (what program to use, what account to follow, etc. You can add links or QR codes if that helps.)
- Create a short video (30 seconds or less) showing the AR experience your partners created for you
- Record a short (about 3 minutes) video conversation with your partners, where you talk about the AR artefacts you created and what you learned.

- Upload the videos and base AR image to the uploads section of your group's OpenVM page.

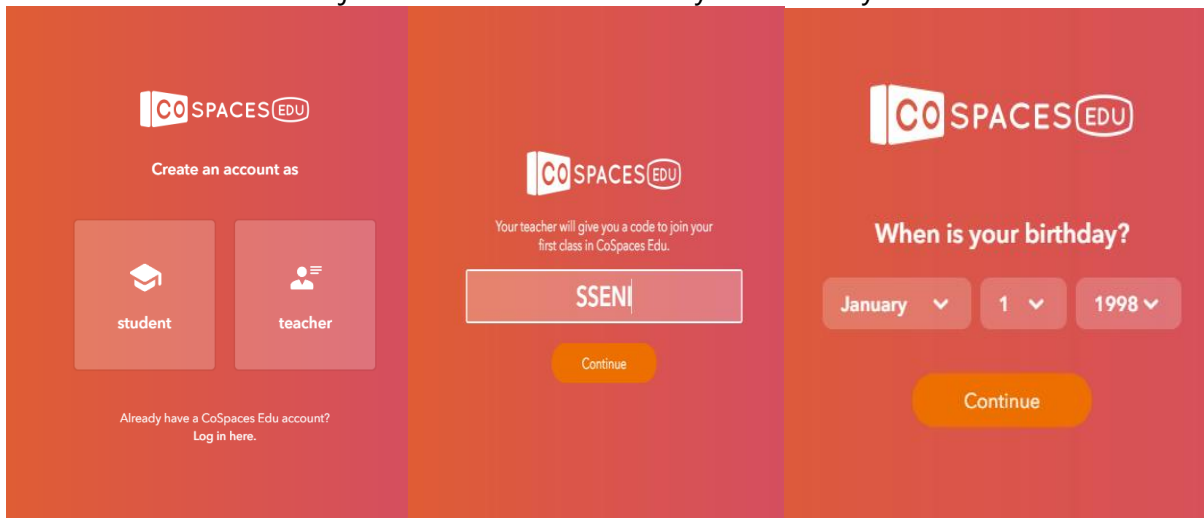
Virtual Reality

To create 360 degree images or videos, find a 360 degree camera app on your mobile device's app store. Bentley students can borrow a 360 Camera from Prof. Frydenberg.

Use [CoSpaces](#) to create your VR experience. Watch the first three minutes of [this video](#) for a quick introduction. CoSpaces enables you to animate your VR world without too much difficulty using Blockly, a block-based visual programming environment from Google. Since the UPT students have programming experience, they are required to do this, and can help the Bentley students to animate their VR worlds. Bentley students can ask CIS Sandbox tutors for help.

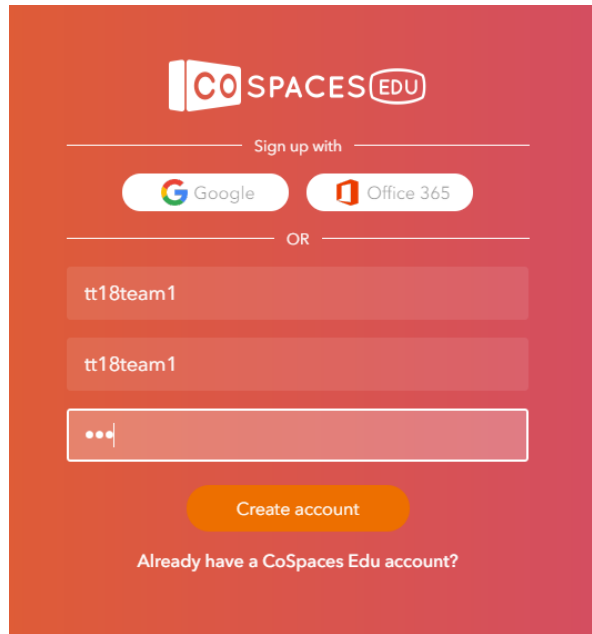
Your team will create one VR experience in the same CoSpaces project containing at least one scene from the US and one scene from Romania. Include a "teleport" button to switch between them.

One person on your team will create an account on CoSpaces for your entire team to share. Enter the code **SSENI** to join our class. Then enter your birthday.



Finally, accept the terms and conditions.

Set your name and username to be **tt18teamX** (where you replace X with your team number). Select a password for your team, and share it with all members of the team so you can work together on the same VR project.



Deliverables:

By November 9:

- Link to your groups CoSpaces space posted on note board and OpenVM

By November 16:

- Keep working on your combined VR experience in CoSpaces, and be sure to add
 - animations, avatars, signs, or dialogue to tell the story of your location or topic
 - a teleport button to switch between scenes created by you and the other group
- Share with your partners, watch it in VR using Google CardBoard or on your screen

By November 30:

- Create a short (60-90 seconds) video showing your group's VR scene, describing what your partners created
- Create another short video (about 3 to 5 min) in which you discuss cultural differences and similarities
- Post the videos to the online note board and upload the file to OpenVM

Individual Reflections (Due by Dec 7)

- Each person: write an essay or blog post (about 250 words) on OpenVM describing your experience on this project.
 - What did you learn?
 - For conveying what type of information or content is AR most suitable?
 - For conveying what type of information or content is VR most suitable?
 - What you learned from watching the VR experience.
 - How does VR add to your learning experience?

In Class Presentations on Monday Dec 10

We will discuss your work on the project on December 10 i class.

Grading

Post the final versions of all of your work files on OpenVM so we have them.
Share transcripts of your chats, email messages, or other communication as evidence of your collaborative efforts.

Tasks and Milestones

Step	Who	Description	Due By Date
Topics		Sign up	Oct. 8
Teamwork	Each	OpenVM account and profile	Oct 10
		First Contacts	Oct 13
		First Meeting	Oct 15
Note Board		Create and customize appearance of note board Post web address to Open VM and sign up sheet Share and invite team and instructors	Oct 19

	Each	Post a note about applications of AR/VR to your topic / location/ industry	Oct 19
Augmented Reality		Blog post on OpenVM about why you chose your AR app	Oct 26
	By School	Create AR experience for your location Post base image to note board	Nov 2
	By school	Video of you using AR created for you By your international partners	Nov 9
	Team	Video conversation about what you learned from each other's AR posted to OpenVM	Nov 9
Virtual Reality		Link your CoSpaces space to notebook and OpenVM	Nov 9
		Work on VR experience, add teleport button, and share with international partners	Nov 16
	By school	Video of VR scene posted to OpenVM and note board	Nov 30
	Team	Video of cultural similarities and differences posted to OpenVM and note board	Nov 30
Individual Reflections		Your Individual Reflection on OpenVM	Dec 7

There is room for some flexibility but everything must be completed by Dec. 10. We will have presentations in class on Dec. 10.

Holidays:

Nov 22-26, - Bentley Thanksgiving Holiday

Nov 30 - 1 Dec - National Day in Romania

Grading

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