# UMB-IT Technovator

AY 2022 Year in Review

April 2022

Introduction to Innovation:

The Technovator was officially founded in Fall of 2021 in the Wheatley Building 3rd Floor Room 136. This space was previously used as an IT Computer lab and has been transformed into an innovative center for Faculty, Staff and Researchers to discover new Technologies and to experiment with new and innovative tools for learning. Currently the Technovator is staffed by Zack Ronald and PACE Apprentice David Martinez.
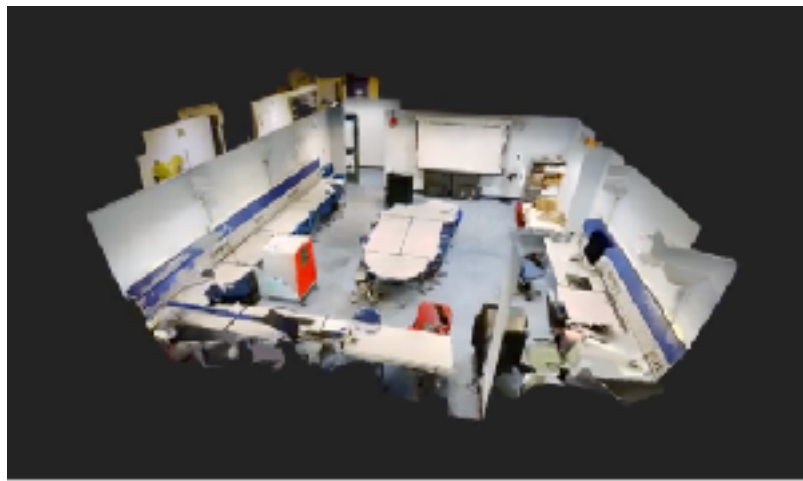
During the Fall semester of 2021 we developed the Technovation Website with the on going and continued assistance of Lisa Link-Senior Web Designer/Specialist Peter Tattlebaum- Senior Web Developer and IT PACE apprentice Yensis Pena-Gonzalez. With the assistance of Peter Tattlebaum we were able to add a unique form for faculty, staff and researchers to request Technovation projects. Our logo was creatively designed by PACE apprentice Allison Gross.

Current & Ongoing Projects:

360 Tour/Virtual Reality Field Trip Old North Church:

History Department approved project with Professors Maryann Brink and Jonathan Chu. Project awarded by College of Liberal Arts Pedagogical Innovation Grant providing the Technovator with a new Insta360 OneX2 Camera and Occulus Quest 2 VR Headset along with all accessories needed to capture images for a 3D/VR Tour. Project is starting with 3 unique field trips of the Old North Church for the History of Boston and Revolutionary Boston courses. Once completed the field trip with be available on Kuula and other platforms including embedding within Blackboard for viewing. Pedagogical and ADA Advice being provided by Linda Sudlesky, Sr. Instructional Designer from UMB eLearning Team.

*Project in progress to be completed Summer 2022

Nursing Reframing Aging:

Professor Suha Ballout, Nursing Undergraduate Program Director, requested via a Technovation Form assistance with finding a solution for a Nursing and Gerontology Reframing Aging Grant project, to include videos, quizzes, and certificate of completion. Upon reviewing several options the decision was made to go with Linkedin Learning content creation. Technovator staff will be assisting Professor Ballout throughout the process of adding videos and quizzes to Linkedin Learning.

* Project is ongoing and expected to be completed Fall 2022.

360 Tour of Biology Lab for Karla Schallies:

Professor Karla Schallies in Biology requested a 360 degree tour of her two Biology labs in Wheatley (W-2-073 & W-2-082) These tours are hosted on Kuula and will be available embedded within her course shells on Blackboard for students to view prior to coming to lab for the first time in the Fall of 2022.

*Project 95% completed, audio narration and still photography in progress to be completed Summer 2022.

Padlet Pilot:

Professor Lusa Lo provided a Technovator form request for a single instructor pilot license for Padlet , a student engagement and boarding tool. The Technovator assisted with the process of securing the funds for a single license for Professor Lo to review and to share her thoughts on the tool with EdTech. We are also working with Professor Lo on use cases for Wakelet as an alternative for future courses. *Project funded with Technovator Start-up funds from IT. Review of tools in progress and ongoing.

Investment into VR Expeditions 2.0:

With the current Lenovo VR Headsets being sunsetted we researched and invested nominally in a solution to allow those to be used with VR Expeditions 2.0 by RobotLabs. Unfortunately, we were only able to revive 7 of the 10 Lenovo VR Headsets. Since the investment, Expeditions 2.0 is now allowing offline tours, the Technovator team are looking into ways to utilize that software without headsets and with the use of possible other headsets including the Occulus Quest 2. *This project is currently on hold and we are re-strategizing ways to improve outcomes.

Augmented Reality with iPads:

The Technovator Team focused efforts on the new iPad in the Classroom Program on finding new Augmented Reality applications for University faculty and students. Current applications include: Visible Body, Civilzations AR, and Froggapedia. The college of Nursing and Health Science are currently interested in Visible Body which is an application funded jointly by the Healey Library and UMass Amherst Library. *Project ongoing with additional workshops being offered in late Spring 2022.

Nearpod Pilot:

Professor Lusa Lo provided a Technovation request for Nearpod. We were able to work with Nearpod to secure a 6 month Gold trial license that we provided to Professor Lu for the pilot.
*Pilot is still on going and will revisit in Summer 2022

iPad in the Classroom 2.0 Program:
Relaunch of the successful iPad in the Classroom Program. Building upon the previous successes but with an additional focus on using Mirroring360 for the faculty instruction and use cases for Augmented Reality. Assistance with project being provided by Theresa Nelson-Miller, Educational Technologist and Linda Sudlesky, Sr. Instructional Designer both from eLearning. Along with Mobile Device manager Henry Lay and consultation by previous program creator AVC John Mazzarella.
*Project currently in re-development with 2 instructors currently signed up. Continued outreach and training for all faculty interested.

360 photos of all UMass Boston Classrooms & Meeting Spaces:
Project requested by John Jessoe, Director of Classroom Technology and AV Services to obtain 360 degree photos for 25Live of all classrooms and meeting spaces on campus to aid those who would like to view a room prior to booking or instructing in a location.
* Project expected to be completed by Summer 2022.

BeaconFlex Camera for Discussion Based Classes:
Project request from Associate Provost Hannah Sevian for her BeaconFlex class held on Wednesday mornings. The Technovation team is working on trialling different types of cameras for student discussion based BeaconFlex classes. Professor Sevian kindly donated a Swivl Camera and iPad to the Technovator to use for this project, and project co-sponsor John Jessoe, Director of Classroom Technology has provided an Owl Camera Pro for testing.
*Once Spring semester 2022 is complete we will review the cameras and decide the best course forward for BeaconFlex Discussion based classes.

FrameVR:
Continued faculty and staff showcasing use cases for FrameVR for different types of projects including Art, Student Life, and University Advancement.
*Adoption has been level however Professor Cat Mazza, Chair of Art is looking into doing a virtual environment for Summer 2022 and discussions have begun regarding that project.

Completed Projects:

Occulus Rift S- Oxford Medical Simulation:

Our first official project for Fall 2021 came from the Technovation Form on our website from the Center for Clinical Education and Research (CCER) at the college of Nursing and Health Sciences. Rosemary Samia, Director of the CCER requested the Technovation Teams assistance with training, instructional guides, and piloting a Virtual Reality Nursing Simulation using a software called Oxford Medical Simulation. We met with Rosemary regarding the project and worked with her and her team to create documentation and quick guides, trained the team on using the Occulus Rift S VR Headsets and provided technical assistance with the roll out. The VR headsets are currently being used for the ABSN program on Saturday mornings for the Spring 2022 semester.
* Project completed. Future needs being discussed with Oxford Medical regarding Occulus Quest 2 wireless headsets and how we can assist.

Visible Biology Pilot:

Fall 2020 pilot for Visible Biology , from the creators of Visible Body: Human Body Atlas. Technovation team met with Biology Faculty member Karla Schallies and Visible Body representative for a 60 day trial of Visible Biology. Software was met with favorable use from Biology faculty, with discussions regarding the use of Augmented Reality in the Classroom and 3D printed models by IT-Makerspace to add to the curriculum.
*Pilot completed, discussions ongoing regarding adding Visible Biology to Current Visible Body library license.

360 Photo Camera usage for 8bit Python UMass Boston game: Professor
Shen Jiang approached the Technovation Staff for assistance with finding a way to document UMB hallways and classrooms for a first person 8 bit python game called UMassAdventure. Technovation Pace Apprentice David Martinez assisted with trial software and best practices for 3D model creation with a 360 camera.
*Project Completed and Professor Jiang will be presenting at conference regarding tool in Spring 2022.

Projects in Research & Development:

Dojo360/Echo360 Engage Pilot:
Currently in discussion with Echo360, who purchased Dojo360, regarding an engagement pilot for Dojo360/Turnin live polling. Hopeful to have a pilot program in place for Summer 2022 with rollout Fall 2022. Piloting for BeaconFlex and other in-person classes. The Technovation Team will be providing assistance and documentation for this pilot along with training.

UMass Boston BeaconFlex Zoom SDK:
Beta design of custom program using Zoom's SDK. Currently in conversational development. A branded experience Technovation project with Professor Shan Jiang from Computer Science, who taught BeaconFlex in Spring 2022. To develop and beta test a Zoom experience which allows 2 cameras and screen sharing at the same time and a chat ticker designed by Professor Jiang for his BeaconFlex class for Spring.

LittleBits Pro Library:
AVC John Mozzarella and Makerspace provided a Little Bits Pro Library to the Technovator. Currently in conversations with Engineering and Physics to work on ways they can incorporate the library into class or lab activities.

Photo from Old North Church : Old North Church Steeple with Lanterns for History of Boston.

Screen Shot of FrameVR: UMass Boston Frame.
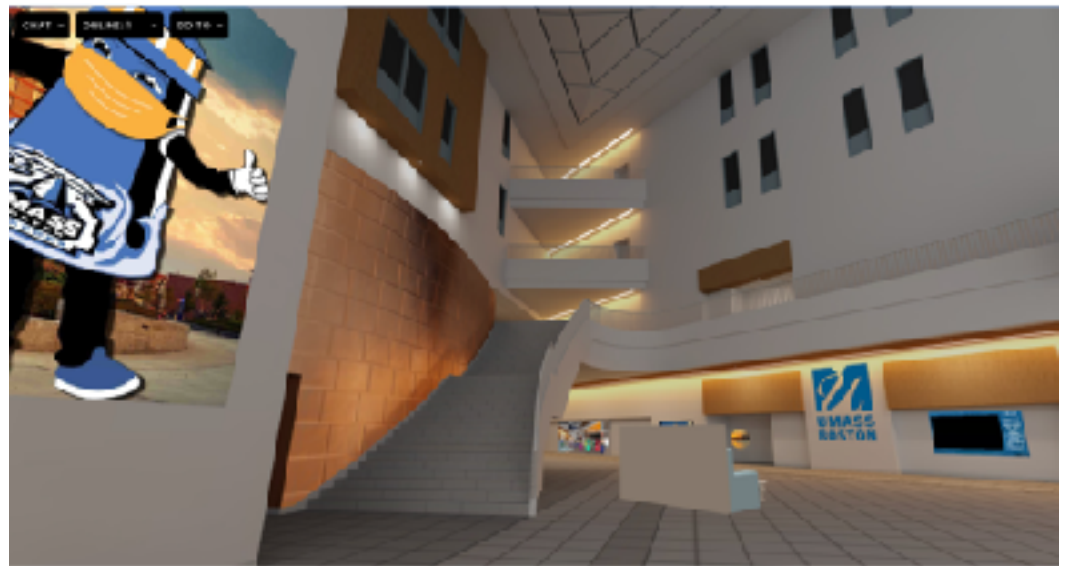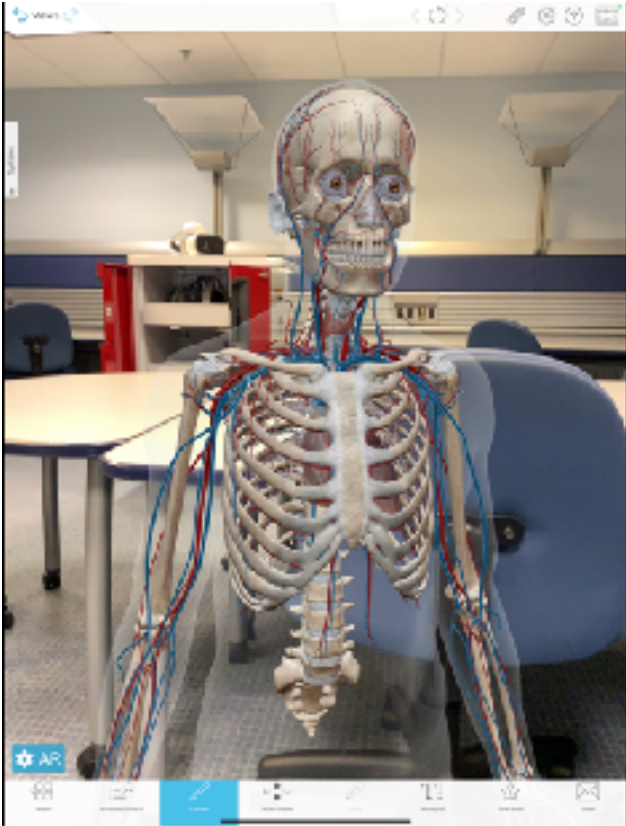
Screenshot of Augmented Reality: Visible Body and Civilizations AR using an iPad.

Screenshot: Oxford Medical Sim VR