

KWPF 10th Anniversary Conference

Toward a
New Decade
of Inspiration

ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Moderator

Diego Angel-Urdinola, Senior Economist and Skills Global Lead, Education Global Practice, World Bank













SECRETARÍA DE
EDUCACIÓN SUPERIOR,
TECNOLOGÍA E INNOVACIÓN



ARTECH
TECHNOLOGY & EDUCATION









WORLD BANK GROUP

VR

ENCOURAGING PARTNERSHIPS

Tsa chila



SANTO DOMINGO



Ecuadorian Professor Visiting Namseoul University





Jearim Jung

Professor Minik Kang & Namseoul University





INSTITUTO SUPERIOR
TECNOLÓGICO LOJA

INSTITUTO SUPERIOR
TECNOLÓGICO LOJA
¡Dijete lo futuro!

ACTIVAR 2.0
DESARROLLO HUMANO INTEGRADO
www.itsl.com





Teacher Professional Development



Esta sala inmersiva ha sido desarrollada para ustedes por



INSTITUTO SUPERIOR TECNOLÓGICO

Tsa chila

Secretaría de Educación Superior,
Ciencia, Tecnología e Innovación





Student Training

ENCOURAGING WOMEN



GILLERMO LASSO – PRESIDENT OF ECUADOR



ACTIVAR

The word "ACTIVAR" is written in a bold, sans-serif font. The letters are primarily purple, with a gradient effect that transitions to a teal color towards the right. The letter 'V' is uniquely designed, containing a white icon of a VR headset with a lens and a strap. The background is a solid dark blue.

KWPF 10th Anniversary Conference

Toward a
New Decade
of Inspiration

ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Presentation

Robert Dean, Associate Professor, Namseoul University



1. ActiVaR

Overview



ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America



ActiVaR 1.0

2 XR Laboratories

- **Auto Mechanics**
(Cotopaxi Technical Institute)
- **Industrial Risk Prevention**
(TsaChila Technical Institute)



ActiVaR 2.0 (Ecuador)

Auto Mechanics curriculum implemented at 4 additional technical institutes.

Impact Evaluation on the effectiveness of using virtual and augmented reality in the TVET classroom.



ActiVaR 2.0 (The Caribbean)

A virtual campus created in the metaverse to serve Eastern Caribbean Colleges.

An XR laboratory set up at Sir Arthur Lewis Community College in Saint Lucia.

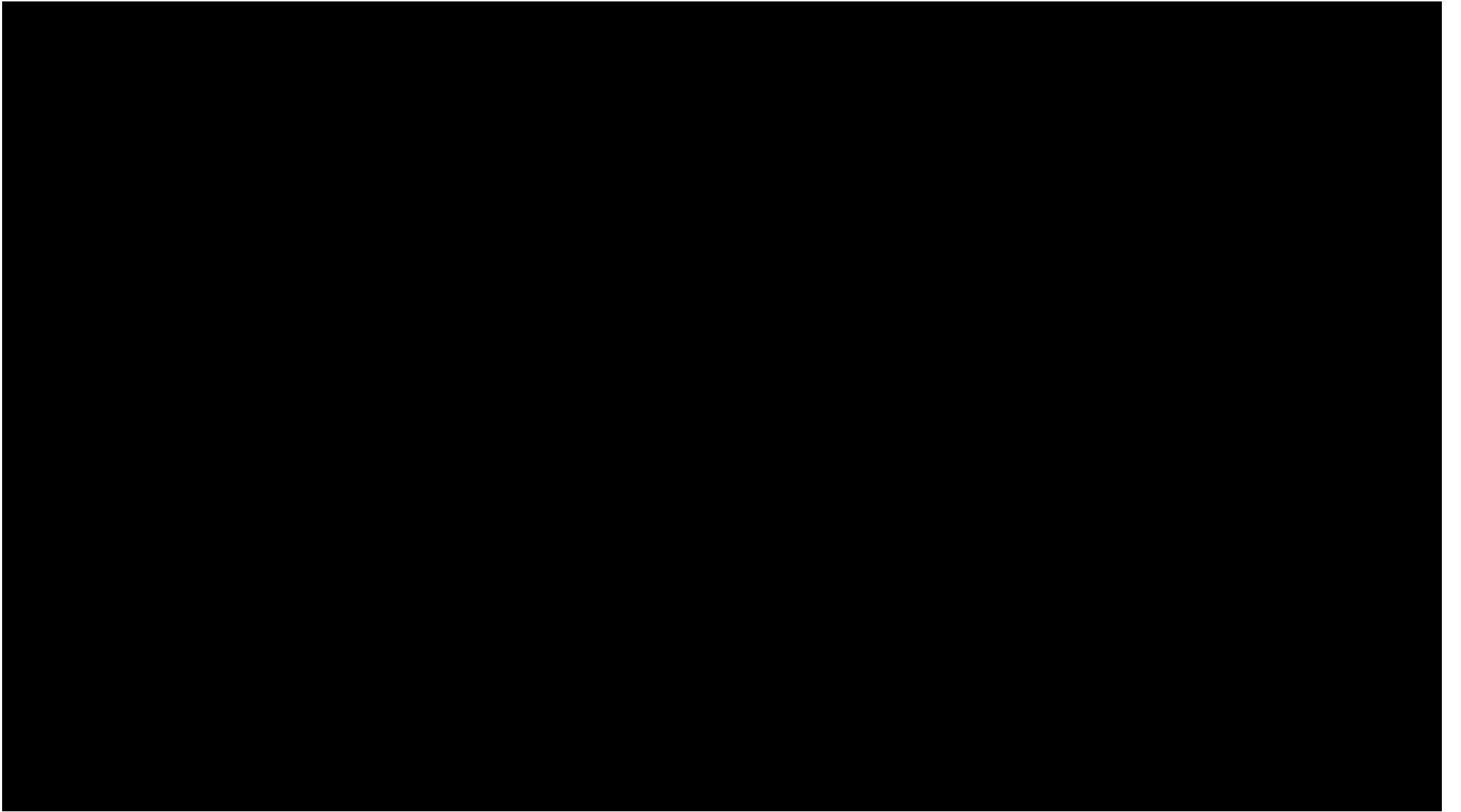
Development of curriculum-aligned AR/VR simulations in commercial fisheries and marine technology.

Professional training of local faculty in AR/VR development.

2. The Metaverse

Virtual Campus





ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Metaverse: A Virtual Campus

OECS national colleges can capitalize on the Metaverse as a building block to fostering collaboration and pulling limited resources (such as teachers and counselors) - to improve the effectiveness of online instruction, using an immersive and engaging 3D world.



Events Supported

June 3, 2022

Antigua State College
Customer Service Role Play: 16 Participants

June 7, 2022

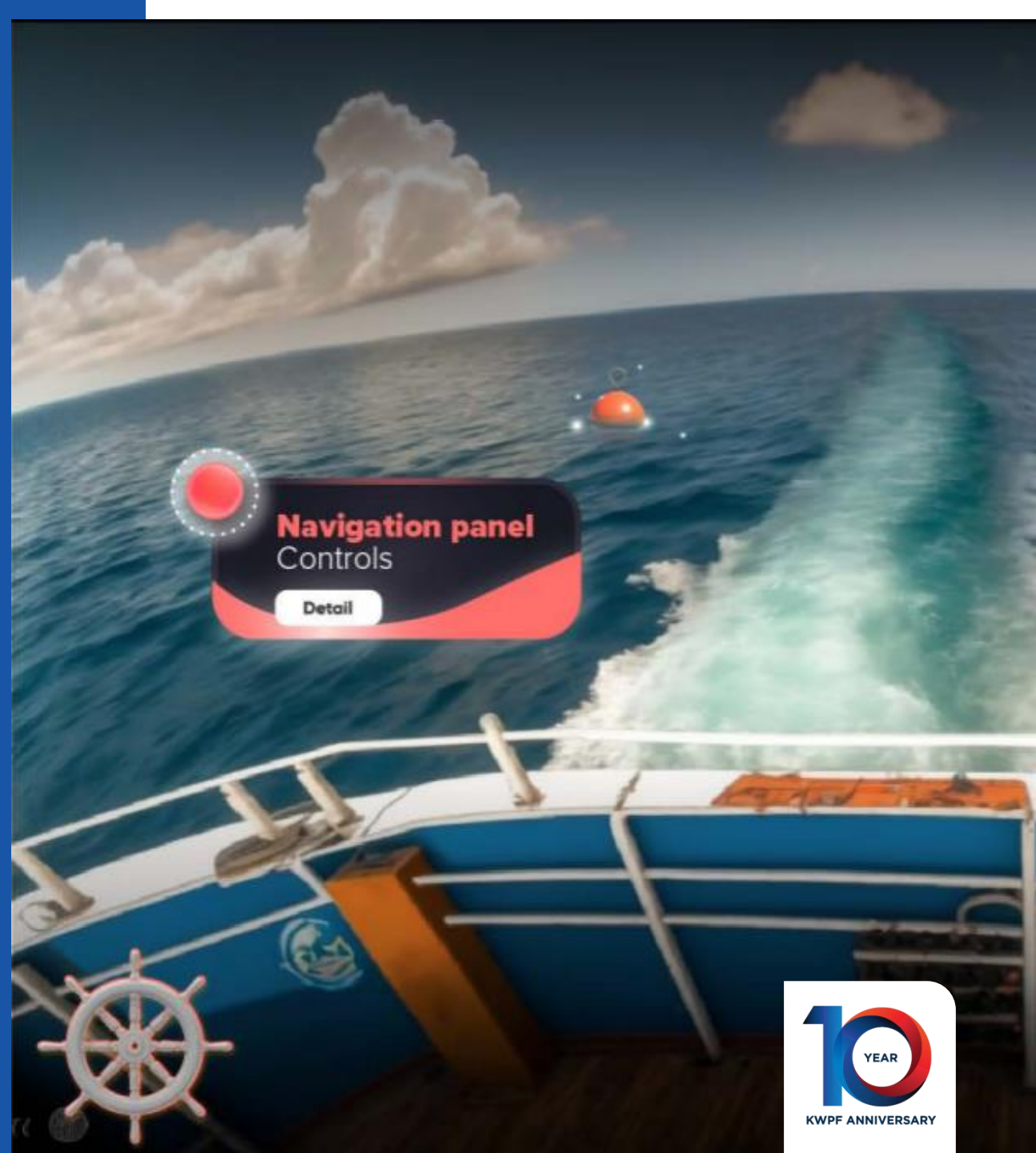
UWI Open Campus, St. Lucia
Library Orientation: 20 Participants

February 2, 2022

T.A. Marryshow Community College, Grenada
Solving Equations: 22 Participants

3. XR Laboratories

The Blue Economy

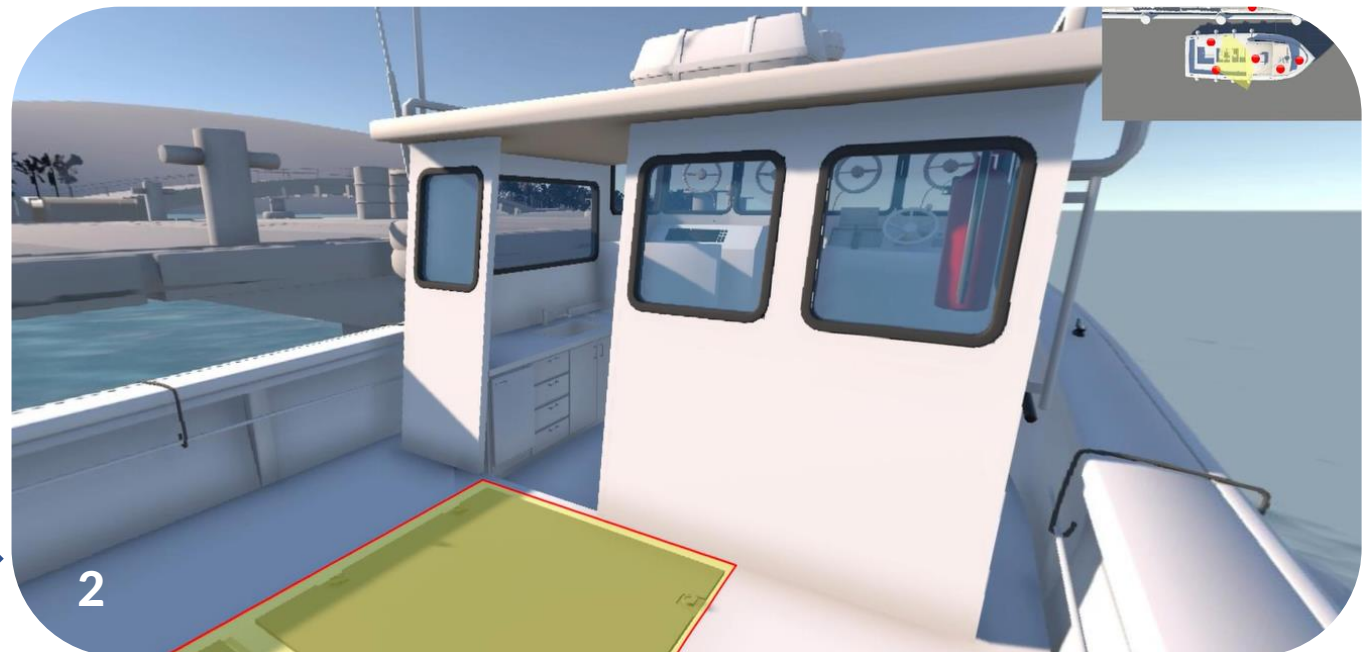
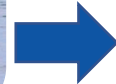


ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Mission: Modernize St. Lucia's Fishing Industry

Using curriculum-aligned VR support modules, the goal is to train the next generation of fishers to use modern commercial fishing vessels thereby stimulating the local fishing industry and promoting food sustainability.

- 1 Currently used vessels
- 2 Virtual Vessel for training
- 3 Vessel targeted for future use



ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Competency-Based Curriculum

The curriculum begins with a webXR application that guides students through the process of operating a commercial fishing vessel. This component provides educational scaffolding in the form of text and/or audio clues that guide students through the lessons. The students then switch to a fully immersive application. This is the practice component that gives students the opportunity to apply what they have learned.

The curriculum was developed with input from:

- Sir Arthur Lewis Community College
- Saint Lucia Ministry of Fisheries
- The Caribbean Examinations Council
- The Caribbean Fisheries Training & Development Institute

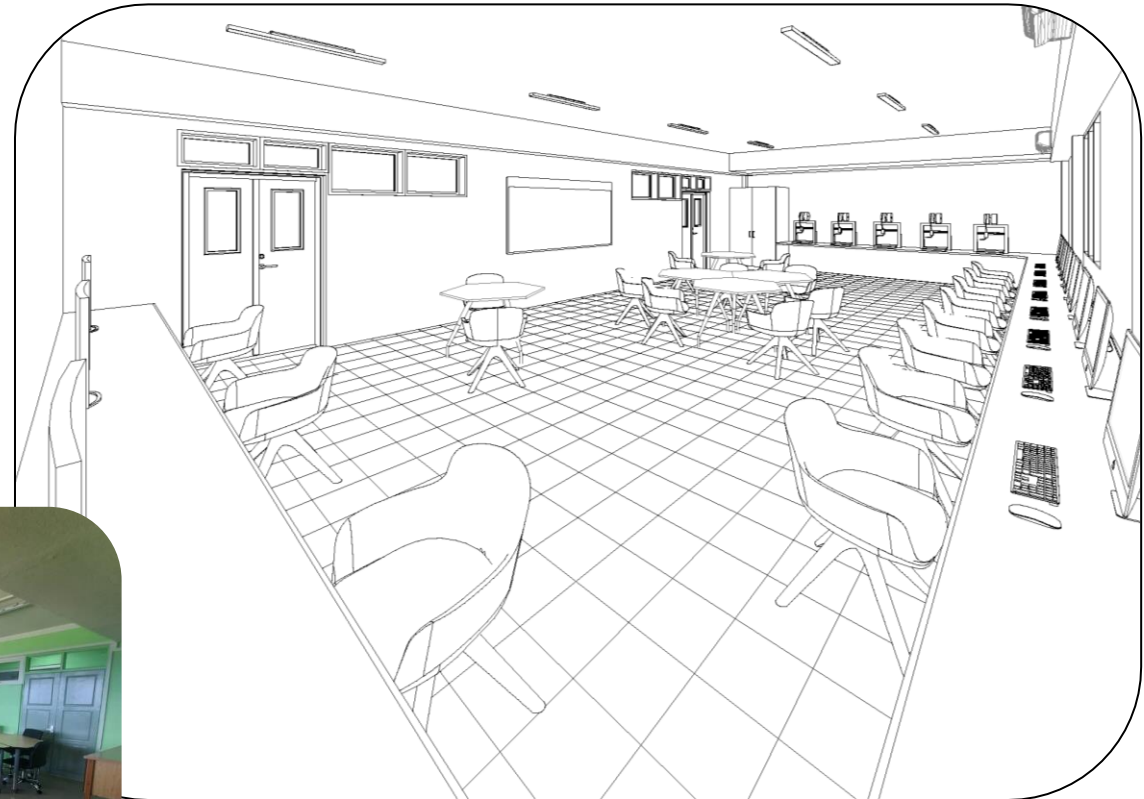
8 Learning Modules

1. Pre-Departure Check
2. Departure
3. Navigation
4. Weather
5. Emergencies
6. Fishing Grounds
7. Return
8. Maintenance

ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Development: Facilities

A space at Sir Arthur Lewis Community College has been chosen to house the inaugural OECS XR Laboratory. Plans are now underway to begin re-designing and retrofitting the space to accommodate the new technology.



ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Development: Software



Environment modeled on Castries Harbor, St. Lucia



Fishing vessel prototype based on modern vessels available and used in the OECS region

4. Professional Development

VR Master's Program



ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Professional Development

In order to ensure that the XR labs are fully sustainable, it is important to train local educators to create their own VR content. Four faculty from Caribbean colleges are completing their Master's in Virtual Reality at Namseoul University. They will form the nucleus of a development hub that will continue to create VR/AR educational content for the region.



Clendon Biscette
Sir Arthur Lewis
Community College
(St. Lucia)



Dean Vidal
Dominica State
College
(Dominica)



Ted Sandiford
Sir Arthur Lewis
Community College
(St. Lucia)

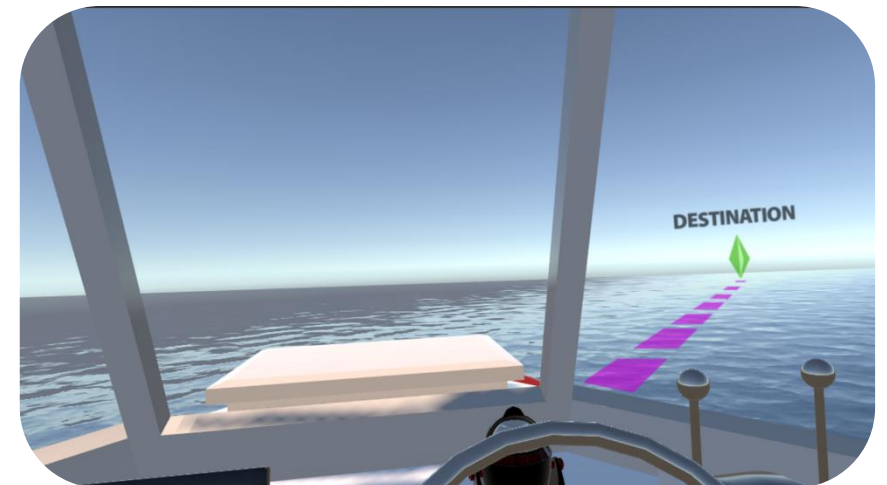
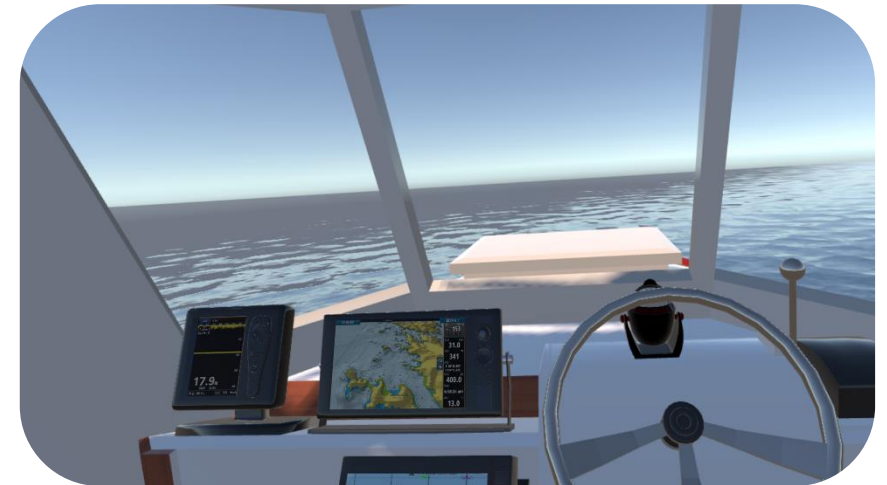
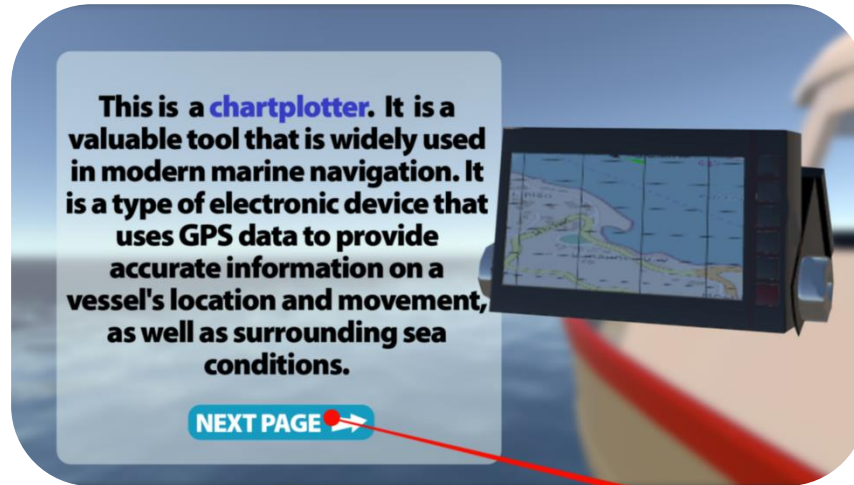


Malisa Richards
Dominica State
College
(Dominica)

ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Thesis Project

Currently in development, the Master's candidates are working on a fully immersive VR simulation to teach the use of navigational equipment aboard commercial fishing vessels. This will be included in the curriculum of the inaugural XR laboratory.



KWPF 10th Anniversary Conference

Toward a
New Decade
of Inspiration

ActiVaR 2.0: Scaling up Active Training Using Augmented and Virtual Reality in Latin America

Panel Discussion

Sangbin Lee, Dean of International Affairs, Namseoul University

Ted Sandiford, Faculty, Saint Arthur Lewis Community College



Thank you!

