

Qikiqtaruk:

# ARCTIC AT RISK

WebXR Experience 2023

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## INTRODUCTION

# Qikiqtaruk: Arctic at Risk

‘Qikiqtaruk: Arctic at Risk’ is an immersive virtual reality (VR) experience that brings the pressing issue of climate change in the Arctic to the forefront.

Developed by a team of scientists and storytellers, this project leverages cutting-edge VR technology to showcase the rapid environmental changes happening on Qikiqtaruk Island in the Canadian Arctic.

In 2023 a WebXR version was released for use in the classroom. It has since won several awards and garnered attention worldwide.



THE EXPERIENCE

# Experience the Change

The 'Qikiqtaruk: Arctic at Risk' VR experience transports you to the heart of the Arctic. You'll walk through thawing permafrost, witness the encroachment of shrubs, and see the impacts on local wildlife—all rendered through stunning visual and audio captured directly from Qikiqtaruk.

In the current WebXR version, the user is immersed in the arctic landscapes and gets to experience climate change as it's happening all around. All the environments are 3D scanned from real life environments, and all the data and science happening around the user is based on true scientific data.





TARGET GROUP

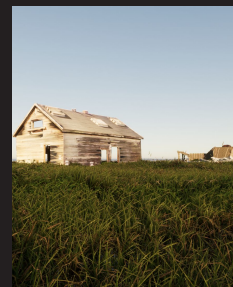
# Youth, classrooms & decision makers

At the heart of "Qikiqtaruk: Arctic at Risk" lies our mission to engage youth and classrooms, the torchbearers of our planet's future. Today's students are tomorrow's decision-makers, scientists, and community leaders.

By immersing them in the awe-inspiring stories of climate change, we don't just offer an educational experience; we sow the seeds of environmental stewardship. In reaching out to them, we're not just sharing a tale of ice and time – we're catalyzing a movement towards a sustainable future.

VR is taking more and more space in the classroom, but there is a huge gap for quality content. We mean to fill that gap with engaging content about the important subjects of the future.

The current experience has also been used at several high-level events such as World Economic Forum in Davos, to reach decision makers and show them the perils of climate change in the arctic.



3D Assets inside the experience



Classroom & Events

USAGE

# WebXR Experience

Functionality has been a key design parameter throughout our creative process. We intentionally chose an HTML5-based web-tour with animations optimized for streaming to allow broad accessibility to our VR experience once it is released to the public.

We have also incorporated extensive feedback from limited public demonstrations in Denmark and in the Canadian Arctic. The experience works as simply as putting on any headset with a browser and navigating to a link.



# In media

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## 'Seeing is believing': VR project immerses viewers in climate change on Yukon's Herschel Island

Project uses real visuals and sounds to show people how things have changed in recent decades

The Canadian Press - Posted: Jul 12, 2023 2:41 PM EDT | Last Updated: July 12, 2023

**Aarhus University**

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## AWE Visualize award to Jeff Kerby and the 'Qikiqtaruk: Arctic at Risk' team

At the Augmented World Expo (AWE), Jeff Kerby and his collaborative and diverse team "Qikiqtaruk: Arctic at Risk" won a Best of Category: "Visualize" for their visualization of climate change.



20 JUN 2023 BY LISA BERTZ

The "Qikiqtaruk: Arctic at Risk" is a collaborative project that has united scientists, researchers, park rangers, northern community outreach officers and immersive content creators across the world to create a virtual journey to Qikiqtaruk, an island in the Canadian Arctic on the forefront of climate change.



**THE UNIVERSITY OF BRITISH COLUMBIA**

## UBC Faculty of Forestry

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News - Exploring the Arctic's Climate Crisis through Virtual Reality

## EXPLORING THE ARCTIC'S CLIMATE CRISIS THROUGH VIRTUAL REALITY

June 22, 2023 | Author: UBC Forestry



Qikiqtaruk - Herschel Island along the Arctic Coast of the Yukon Territory, Canada is at the forefront of climate change. (Credit: Jeff Kerby)

Virtual reality (VR) technology continues to push the boundaries of innovation, and its potential to create meaningful experiences is being harnessed in a project that recently won the "Best in Category: Visualize" at the XR Prize Challenge: Fight Climate Change. Led by UBC Forestry Professor **Isla Myers-Smith**, the collaborative effort between National Geographic Explorers and local communities resulted in the development of "Qikiqtaruk: Arctic at Risk." This ground-breaking VR project offers an immersive journey to Qikiqtaruk, an island in the Canadian Arctic, which serves as a poignant backdrop for exploring the impacts of climate change.

**EYE ON THE ARCTIC**

COURTESY CATEGORIES LINKS/FORMS VIDEO REPORTS REGARD SUBSCRIPTION

## VR project brings the realities of Arctic climate change in Canada to viewers

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**NATIONAL NEWS**

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## Researchers are visualizing climate change through virtual reality

By Sara Connor  
Aug 01, 2023



It's a place few have even heard of, and even fewer will get to visit.

But thanks to new a virtual reality project, "Qikiqtaruk: Arctic at Risk," people from around the world will now get the opportunity to see how climate change is impacting the Canadian Arctic first-hand.

The virtual project transports viewers to Qikiqtaruk, a remote 116-square-kilometre island located five kilometres off Yukon's northern coast in the Beaufort Sea.

Also known as Herschel Island, Qikiqtaruk has ancestral ties to the Inuvialuit who continue to use the site


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XR INDUSTRY NEWS & INTELLIGENCE

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LATEST NEWS March 21, 2024 | WI Games and Meta collaborate to expand open-source Godot ecosystem on Meta Quest

## AWE announces 11 finalists for its \$100,000 XR Prize Challenge

May 4, 2023 On 2023, Augmented Reality News, Creative, Development, Events, General XR News, Mixed Reality News, News, Virtual Reality News



In *General XR News*

MARCH 22, 2024 LATEST NEWS

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## In virtual reality, watch climate change unfold on an Arctic island

With a headset, you can see, hear, and soon maybe even smell the change on an island off the Yukon coast.

Oliver Williams - July 12, 2023

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## The AIRX Social Impact Award

Some projects may have smaller budgets, however, that doesn't stop them from making a significant social impact on the world around them.

The AIRX Social Impact Award is given to companies or individuals that produce and execute either an experience, product and/or service which has resulted in positively impacting a cause for social good.

Finalists

- IVAR Studios/ Team Shrub/ Arctic Research Centre - Qikiqtaruk: Arctic at Risk
- Kost Lab - Body of Mine
- Lucid Reality Labs / The American Red Cross - Lifeguard VR
- NUMENA / Spectra Cities - Spectra Cities
- TIME Studios / Flight School Studio / Meta VR For Good - MLK: Now Is The Time

# Team & Partners





## Isla Myers-Smith



A global change ecologist at the University of Edinburgh, Isla has dedicated her career to studying the impacts of climate change on Arctic ecosystems. Her work, spanning over a decade, focuses on the tundra regions and involves collaborations with Indigenous communities to blend traditional knowledge with scientific research.



## Jeff Kerby



Jeff is a scientist and visual storyteller with a keen eye for the subtle changes occurring in Arctic biodiversity. His expertise in drone photography and ecological research at Aarhus University enables him to capture the stunning yet alarming transformations of the Arctic landscape.



## Martin Edström



An immersive storytelling pioneer, Martin Edström's expertise in virtual reality brings the 'Qikiqtaruk: Arctic at Risk' project to life. His work for National Geographic and beyond has focused on connecting people to remote and endangered ecosystems through innovative storytelling techniques.



## Richard Gordon



Senior Park Ranger in the Yukon and a respected member of the Inuvialuit community, brings an essential perspective to 'Qikiqtaruk: Arctic at Risk.' With extensive experience in the Arctic's changing landscapes, his insights bridge traditional knowledge and scientific research. Richard's role is crucial in documenting the environmental shifts and sharing the cultural narratives of the Arctic, making his contributions invaluable to understanding and addressing climate change in these critical regions.



## Kelly Kamo McHugh



Aurora Research Institute's new outreach coordinator, plays a crucial role in connecting Arctic research with Northwest Territories communities. Her initiatives, including presenting the 'Qikiqtaruk: Arctic at Risk' VR project at GeoWeek and organizing science nights, exemplify her dedication to making science accessible. Since joining in Autumn 2022, Kelly's efforts to bridge the gap between scientists and local communities have been vital in communicating the impacts of Arctic research.

This project was made possible thanks to a grant from the National Geographic Society.



#### Team Shrub

The Team Shrub research group is led by Prof. Isla Myers-Smith at the University of British Columbia (honorary professor at the University of Edinburgh). Team Shrub uses data synthesis, ecological monitoring and advanced technologies like drones to study the impacts of global change on plant communities and ecosystem processes, with a particular focus on tundra ecosystems. Team Shrub works collaboratively with Indigenous communities, international research teams and photographers to capture and communicate the impacts of climate change around the Arctic and beyond.

Read more at  
<https://teamshrub.com/>



#### IVAR Studios

IVAR Studios, launched in 2016 by the Edström brothers in Stockholm, specializes in immersive storytelling. We make the complex accessible through innovative 360-video, VR, and advanced 3D technologies. With prestigious clients like National Geographic, we're redefining how stories are told, focusing on science, culture, and environmental narratives. Our passion? Creating impactful experiences that bring audiences closer to the unseen wonders and urgent issues of our planet, turning observation into interaction.

Read more at  
<https://ivar.studio/>



#### Meridian Treehouse

Meridian Treehouse specializes in developing multi-platform immersive experiences, content, and partnerships to educate and entertain – all with the goal of fostering curiosity. As immersive storytellers and event producers we work across various mediums and platforms, so that our cinematic nonfiction storytelling can be free from outdated spatial and logistical constraints. Our goal is to harness the power of immersive experiences and novel technologies, going beyond escapism to forge deep connections between audiences and the wonders of our world.

Read more at  
<https://www.meridiantreehouse.com/>



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