



# THE AXOLOTL ON YOUR SHOULDER: How Mobile Augmented Reality (AR) Can Bolster Conservation Education

## PROGRAM OVERVIEW

- Effective conservation education programs are designed to achieve 2 main goals: raise awareness & promote action.
- These goals are notoriously difficult to achieve, and as attention spans continue to shorten, it's imperative that conservation educators utilize diverse tools to convey our critical messages.
- Enter augmented reality (AR): By blending virtual elements with the physical world, AR can uniquely convey critical messaging and elevate conservation education programming.
- In partnership with Verizon Innovative Learning & NYU Tandon School of Engineering, Belle Isle Aquarium brought an axolotl to life via AR, which enabled us to educate over 1,000 aquatic enthusiasts on its habitat, unique adaptations—and most importantly—conservation actions users can take to help global and local amphibians survive and thrive.



## WHY DID WE DO IT?

### Axolotl Background

- Axolotls naturally occur in southern Mexico City, but are rarely seen in person.
- These fascinating amphibians can regenerate their heart, lungs, and parts of their brain.
- Though common in the pet trade, wild axolotls are threatened with extinction due to habitat loss and the introduction of predatory species such as tilapia and carp.
- Axolotls have become extremely popular thanks to features in Roblox, Minecraft, Fortnite, Pokémon, TikTok videos, movies, and even a Girl Scout patch.

### Belle Isle Aquarium Background

- Belle Isle Aquarium hosts multiple axolotls in our gallery and participates in Detroit Zoological Society-led research on the mudpuppy, a North American aquatic salamander that is a species of concern in Michigan.
- Belle Isle Aquarium, which is free to the public, is only open Friday-Sunday, so eager aquarium-goers miss out on engaging with the axolotl most weekdays.
- In an effort to solve this access challenge, while honoring our commitment to offer free admission to the public, Belle Isle Aquarium leveraged our existing partnership with Verizon & NYU to design an AR pilot that would ensure 24/7 mobile access to axolotl and amphibian conservation education, free of charge.

### Benefits of AR

- Enhances interactive learning
- Increases engagement
- Improves knowledge retention
- Promotes real-world applications
- Personalizes learning
- Fosters accessibility & inclusion
- Broadens global & cultural perspectives

## HOW DID WE DO IT?

1. Finalized main goals & user call to action
2. Compiled axolotl content & imagery
3. Storyboarded user flow
4. Guided 3D animation
5. Conducted internal/external review & testing
6. Launched publicly April 2024 (4 months from conception to launch)
7. Featured QR code inside & outside the aquarium, along with interpretive engagement

## MEASURING IMPACT

- Total users: 1,671
- Average engagement time: 1m 53s
- Total views: 16,466
- Shared by 158 users 450 times



85% noted AR enhanced their aquarium visit

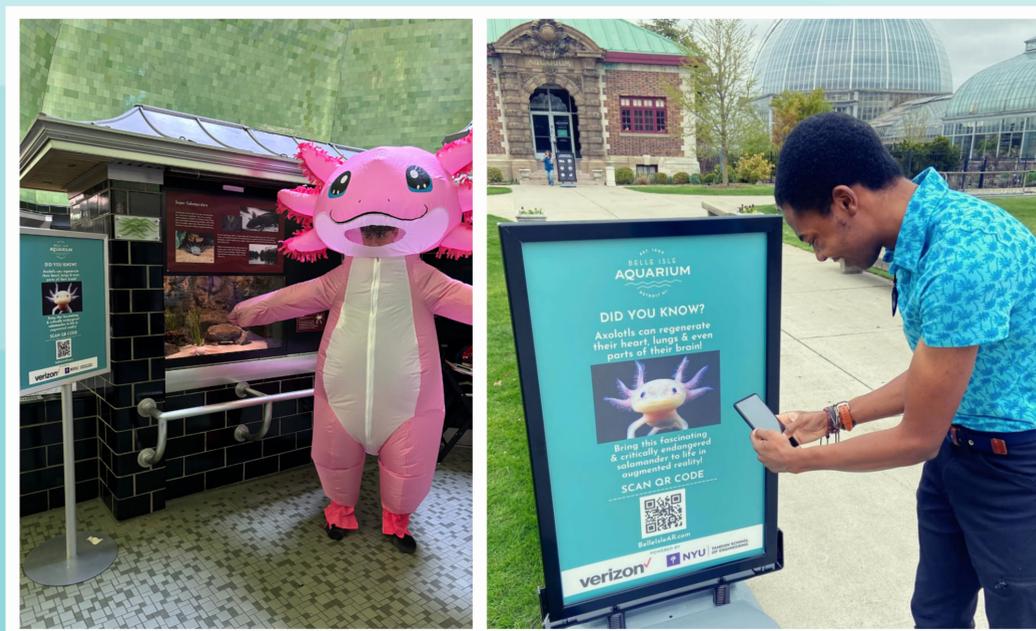


80% interested in more AR experiences



75% responded positively about spreading this conservation message

\*Data collected from Google Survey of 20 respondents



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*"I took a picture of the QR code so I could bring an axolotl home to share!"  
—outside aquarium visitor*

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