NC C360

NC DIT offers innovative resource to virtually explore state's natural and cultural sites

Category:
Emerging and Innovative Technologies

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Completion: February 2019*

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NC DIT

*While the project launched in February of 2019, it is a living project with plans for future expansion.

Executive Summary

NC360 is an immersive experience that allows anyone around the world to virtually discover many of North Carolina's most popular natural resources and cultural attractions.

The project website, launched by the North Carolina Department of Information Technology (NC DIT) in February of 2019, offers a collection of 360-degree imagery as a resource for anyone interested in virtually exploring the varied natural resources and historic sites in N.C.

To date, NC360 is the largest-scale and most comprehensive state-led 360-degree imagery project in the country in terms of sites covered, variance of sites and proposed uses.

Over a more than three-year period, a team led by the NC DIT's Innovation Center (iCenter) executed this project to ensure that the state's resources and attractions are accesible to all.

In two phases, the team mapped more than 50 historical and cultural sites across the state using a Google Street View Trekker, a backpack with a mounted Google Street View camera. Thanks solely to this endeavor, Street View imagery of the trails and walking areas in and around these sites is now incorporated into Google Maps and is available to anyone researching the parks and attractions featured in the project.

Following the trekking portions of the project, NC DIT compiled the Google Street View imagery and created a project website to house the imagery and tell the project story. The website, housed under NC.gov and launched in February of 2019, aims to provide a platform where interested parties can virtually explore all our state has to offer for a variety of purposes. The project has potential applications for education, tourism, accessibility, and safety and emergency response. Often IT is looked upon as an administrative entity, but it can--and should-- be much more . This project demonstrates how technology can directly provide people with an innovative and valuable service.

NC DIT looks forward to growing this project. Future plans involve independently (outside of Google Trekker Street View) expanding our imagery repository using other 360-degree cameras and working with state agencies and other stakeholders to help them implement the technology.

For more information and to view the project, visit nc.gov/nc360.

Concept

The NC360 project is an imagery initiative with the goal of providing an immersive experience of the natural and cultural sites within North Carolina. The project includes 360 degree imagery from the Google Street View Trekker, that is available on Google Street View, as well as indoor imagery from other 360-degree cameras.

Inspired by the upcoming 100th anniversary of North Carolina state parks in 2016, NC DIT's iCenter set out in October of 2015 to find a way to use technology to highlight these natural resources and make them more accessible to those who were unable to visit them easily.

The iCenter partnered with Google to participate in the Street View Trekker program: an initiative where Google loans hikers a Google Street View Trekker, a hiking pack with a mounted Street View camera.
The NC360 project was a joint effort between several groups within NC DIT, with

assistance from personnel from the NC Department of Natural and Cultural Resources (2016) and interns from North Carolina State University's College of Natural Resources (2018).

For several months in early 2016, NC DIT staff and personnel from the NC Department of Natural and Cultural Resources coordinated with the parks and then traveled the state to capture imagery from 30 trails with the Google Street View Trekker during the first phase of the project.

In 2018, the Trekker returned to North Carolina to kick off the project's second phase. A team comprised of DIT employees and interns captured imagery of 20 more sites, focusing on cultural and historic sites as well as parks.

The team also began exploring ways to expand the project to include 360-degree imagery from other cameras, including those that capture indoor imagery.

The iCenter collaborated with the NC DIT Digital Solutions and the NC DIT Legislative and Public Affairs (Communications) department to document the process and create a website where all of the imagery would be housed in one location.
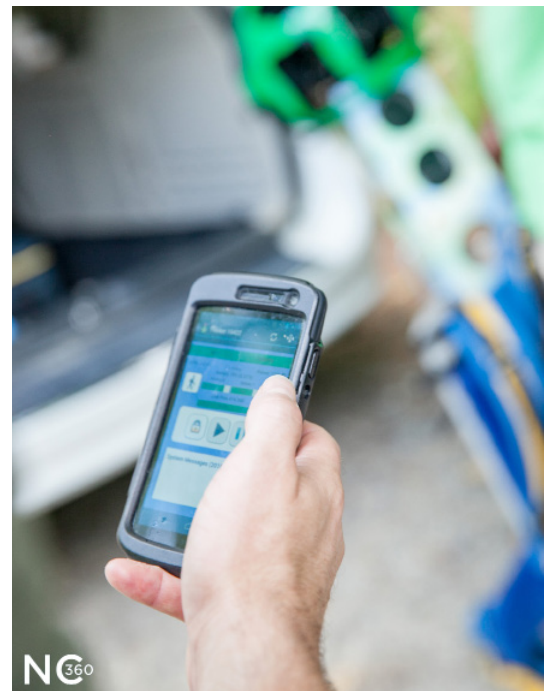
The site is part of NC.gov, the state's primary portal for government information and services. It includes all of the Google Streetview Trekker sites, displayed in regional groups, on a map and in a list; samples of the indoor imagery; behind-the-scenes interviews, photos and footage.

Significance

NC360 is the largest-scale and most comprehensive state-led 360-degree imagery project in the country in terms of sites covered, variance of sites, and proposed uses. Other states have partnered with Google for smaller-scale projects, related to a specific region or a particular campaign, and some have used 360-degree cameras to capture imagery of inside sites. However, with fifty Google Trekker Streetview sites and a total of 145 miles trekked (hiked and boated), North Carolina leads the pack in terms of creating a large-scale collection of 360-degree imagery with plans to expand already under way.

This project demonstrates how government, through the application of technolgoy, can directly provide people with an innovative and valuable service. By using this technology, NC DIT was able to create a resource for other state agencies, residents, potential visitors, and anyone interested in exploring the state virtually.

It also demonstrates successful collaboration with a private partner and with other state agencies.

Impact

In addition to showcasing North Carolina's natural and cultural resources, NC360 has applications in the realms of education, tourism, accessibility, and safety and emergency response.

Education:

Teachers will be able to use the website as supporting material for lessons, particularly lessons in environmental science, geography, social studies and North Carolina history, while also encouraging students to interact with emerging technology.

Teachers in one region of the state can virtually show students parks, trails and attractions in another region of the state, adding to the educational experience by incorporating an immersive element. For example, a teacher in the mountains of Madison County could use our imagery of Jockey's Ridge State Park in a lesson about the Wright Brothers.

NC360 will also allow for students to see parts of the state that they otherwise might not be able to see, due to personal financial restrictions or tighter school district budgets resulting in less frequent opportunities for field trips.

Accessibility:

NC360 can be used as an accessibility tool. It can help park-goers determine whether a trail is easy, intermediate, or advanced, as well as what attire or equipment they might need by allowing them to view the terrain ahead of their trip.

For the elderly, people with disabilities, disabled veterans, or anyone who may have temporary or long-term physical limitations that prohibit them from walking, hiking or kayaking or from traveling long distances, it allows an opportunity to virtually explore the trails and waterways without leaving home.

Tourism:

NC360 is a great way for the world to experience North Carolina's culture and landscapes.

Tourists can view trails before visiting and better plan and prepare for their trips.

Safety and Emergency Response:

Depending on cell service, lost visitors can view trails via mobile devices in real time.

First responders can become more familiar with terrain ahead of time and can gauge the difficulty of rescue missions.

In a natural disaster, emergency management could use to become more familiar with the terrain ahead of time and, following the event, use it as a metric to assess damage.

Commerce:

North Carolina has always attracted a wide range of people with an even wider range of talents. In fact, our state is home to some of the best and brightest minds in the country—minds that are directly shaping the future by solving some of the world's toughest problems. Companies looking to move their business to North Carolina can use NC360 to virtually check out the state from their boardrooms, whether they're in Hong Kong or New York. It's a great way to check out quality of life that's so important to today's young workforce.

What's Next:

NC360 will continue to have a positive impact on the state long past its release. We look forward to continuing to grow the project to include indoor, underwater and drone imagery to improve this project as a resource for North Carolina residents and beyond.