Case Study

Healthy Communitites

User

South Australia Department for Communities and Social Inclusion

Challenge

Provide real-time parking information to drivers with physical limitations so that they can remain mobile and have access to buildings and functions, enabling them to participate as active members of society

Solution

Foster community engagement through a GIS-based crowdsourcing app designed to alert drivers to the availability of handicap accessible parking spaces

Results

524 app downloads
2,582 handicapped spots added

Handicapped Parking: More Than a Parking Spot

Finding a parking space is a challenge that all of us face at one time or another, but it can be even more challenging for disabled persons. Mobility means everything when it comes to having a normal life. Being mobile can be as simple as being able to get in and out of a wheelchair or a lift or just having the ability to get in and out of your car, which can mean the difference between going to a facility or staying at home.

The Challenge

Research indicates a growing need for handicap accessible parking, but current regulations do not support this demand. Collecting information that supports the ability to count, validate, and demonstrate this growing gap to governments, businesses, nongovernmental organizations (NGOs), and the broader community will help to increase the number of spaces to meet the needs of people with disabilities so that they can enjoy greater independence and participate as active members of society.

In South Australia, an initial research gap analysis using geographic information system (GIS) technology was performed. The study identified about 70,000 disability parking permit holders and discovered that they are having difficulty finding handicap accessible parking spaces, particularly in unfamiliar areas.

The Solution

Armed with this knowledge, the Department for Communities and Social Inclusion (DCSI) Business and Location Intelligence team collaborated with Disability South Australia to deliver an application called BlueBays. While these two business agencies serve different functions, they partnered, to work on this

initiative. DCSI is a government agency that strives to help South Australians build communities where people participate; contribute; and feel connected, safe, and supported. Disability South Australia is responsible for facilitating disability inclusion initiatives.

The two agencies realized that they needed a crowdsourcing app that determined how many spaces are available, whether the bays are extra wide, whether there is extra space to the left or right, and where the spaces are located in relation to a building. The end result was the creation of BlueBays.

BlueBays was created using Esri's Web AppBuilder for ArcGIS®. Twenty days were invested to get the BlueBays application from concept to full production and, finally, to deployment in app stores. The consultation with stakeholders consumed most of the project's time, while the proof of concept took approximately 22 hours of one developer's time. With a total 42-hour investment, the developer was able to collaborate with Esri to incorporate some win-win features into the final BlueBays product and deliver a back-end, customized data monitoring and management tool.

DCSI also wanted to monitor the information as it was submitted, so the agency staff built an executive view using Esri's Operations Dashboard for ArcGIS. With this dashboard, operators are able to monitor the total points captured along with historical information such as the number of data points that were uploaded over a certain period of time. The two agencies are using this information to understand the following:

- How, when, and where spaces are being added
- Whether there is a requirement to do field spot checks to make sure the data is correct
- Whether the stakeholders' investment is returning value to the community
- Where the community can be mobilized to collect data about new spots

"This is another example of technology increasing accessibility options for people with disabilities. The app is a creative use of technology to increase choice and independence."

Hon. Leesa Vlahos MP
Minister for Disabilities in South Australia

The Results

The BlueBays solution provided for a crowdsourcing app that empowered not only all who are interested to participate but also, more importantly, people with a disability placard to contribute to data collection and the ongoing refinement of a system that improves their access to the community and independence. Since the solution's deployment in March 2016, there have been over 500 downloads, and 2,582 spots have been added. Most recently, the BlueBays app received a South Australian Spatial Excellence Award.

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