Keeping Tabs on Travelers: Using Mobile Device Data to Gather Visitor Demographics

"Understanding what kind of people are visiting a park or protected area is essential for managers, but it is information that is hard to come by. The most common strategy for gathering this kind of data is with written or verbal questionnaires presented to people as they come past entrance gates, visitor centers, trailheads or parking lots. But this approach requires significant time and employee-power to implement and analyze, and can miss certain segments of people altogether. IORT Faculty Fellow Chris Monz and his team present a new, mobile device-based assessment strategy that helps managers determine basic visitor demographics about people coming to protected areas--without the need for face-to-face questionnaires.

With advances in technology, the big question is how data obtained through mobile devices might differ from traditionally gathered demographic information. In the research, Monz and graduate students Noah Creany and Jordan Nesbitt compared results from mobile data with results from visitor questionnaires to see how information from the two methods differed at three urban-proximate park locations in California. He found generally similar results, except in situations where a significant number of visitors may not have entered via the main location, and thus were missed by the face-to-face survey. In fact, the mobile device strategy was likely more accurate in situations where visitors enter parks from multiple, sometimes informal entry locations.

“This new platform lets managers capture demographic information over time, with less burden on visitors who may not want to take the time to participate in a written survey,” said Monz. “It gives managers an expanded ability to monitor and gather information from visitors who cross park boundaries through informal or unofficial entrances.”