



Information Resources Exchange Group Highlights

Wednesday, June 13, 2018

The 107th meeting of the Information Resources Exchange Group (IREG) was called to order at the Delaware Valley Regional Planning Commission's office by IREG Chair, Phil Pierdomenico, from the Philadelphia Water Department. 70 people were in attendance.

Key Points

- With big data on the rise, it only makes sense to let the stories it tells to drive changes in public policy. Ken Steif from the University of Pennsylvania presented three case studies in which he leveraged machine learning to do just that.
- Richard Quodomine, Lead GIS Analyst for the City of Philadelphia's Public Property Department, explains the efforts the city is undertaking to get smarter everyday. By implementing the Integrated Workplace Asset Management System (IWAMS), asset management has become a breeze by making building data more accessible than ever.
- Brett Fusco, Manager of Long-Range Planning at DVRPC, explains what Smart Cities are and some examples of how we're already seeing them pop-up across the globe. What initiatives can Philadelphia undertake to work towards getting it on those same lists?
- Setting up real-time data collection methods gives you a plethora of material to work with as you try to find patterns and factors that influence them. To demonstrate this, Daniel Wickens, a Solution Engineer for ESRI, analyzed crowdsourced Waze data to provide evidence on where road improvement projects should be focused in Charlotte, North Carolina.
- Big data has become the latest buzzword, and wrapping your head around the concept can be overwhelming. Clinton Andrews, professor of Urban Planning at Rutgers University, proved that it doesn't have to be. Citing two case studies, he explains how his research team used consumer-grade sensors and citizen science to collect high-quality data to solve the problems ahead of them.

Presentations

Machine Learning Better Public Policy | Ken Steif, PhD, University of Pennsylvania
(kenneth.steif@gmail.com)

One of the biggest obstacles in implementing changes in public policy is no secret—hoops need to be jumped through and proposals need to meet rigid structures and guidelines. But with big data and machine learning pushing the boundaries of what is possible, the results don't always fit into the box that they need to in order to create actionable policies. Creating a framework that can be followed can help alleviate those issues, and Ken presented the one he has developed and proved its efficacy by providing a model to determine where to place new opioid clinics for the greatest impact in Providence, Rhode Island.

Smart Assets in Philly | Richard Quodomine, Lead GIS Analyst, City of Philadelphia Public Property Department (richard.quodomine@phila.gov)

Being smart doesn't stop at knowing what you have, but what you can do with it. In a city as large as Philadelphia, that is no easy task. Richard demonstrated how the city leverages their public property database, known as Integrated Workspace Asset Management System (IWAMS), to reduce the amount of departmental data siloing that is common place when you have an organization as large as the city government. Having a unified platform for the entire city allows problems to be addressed before they cause serious issues and allows for increased sharing capacity to empower decisions.

What Kind of Place is a Smart City? | Brett Fusco, Manager of Long-Range Planning, DVRPC (bfusco@dvrpc.org)

With more technology and information at our fingertips than ever before, urbanists across the globe are trying to forge new ways to make that data work for citizens by making their life easier, better, and more enjoyable. Brett provided examples of how these new technologies were being implemented in Smart Cities to do just that. But with these improvements, new challenges arise. In this new evolving landscape, planners are starting to think many steps ahead to anticipate problems before they even develop.

Applying Real-time Data and Analytics with Waze and ArcGIS | Daniel Wickens, Solution Engineer, ESRI (dwickens@esri.com)

Why collect data yourself when you have crowdsourced information at your fingertips? Daniel demonstrated how applications like Waze can make your life easier by allowing others to do the hard work for you. The easy part comes in with ESRI's suite of online products that make analysis a breeze. Using Waze data in Charlotte, NC, Daniel showed how to analyze data in ArcGIS Online to come away with clear conclusions on where to prioritize road improvement projects in the city. But the buck doesn't stop there—analyzing the data is only half of the battle when you have to communicate your results in order to make a proposal. Using the new Insights tool in ArcGIS Online, making a dashboard to convey your analysis results is as simple as dragging and dropping, and the result is a beautiful display that can be used to provide evidence to make your case.

Collecting Your Big Data | Clinton J. Andrews, Professor of Urban Planning, Rutgers University (cja1@rutgers.edu)

Big data doesn't have to be as intimidating as it sounds—technology is becoming more accessible everyday for the average Joe. By using this approach to study issues common in public housing—the effects of heat waves and the cost effects of defective structures— Clinton was able to prove that big data is attainable with consumer-grade products.

Information Items

- MAC URISA 2018 Conference is taking place in Atlantic City from October 24-26
- Southeastern Pennsylvania GIS Users Group - Summer Meeting will take place on Thursday July 26 at The Microsoft Technology Center in Malvern

The next scheduled IREG meeting is Wednesday, September 12th, 2018.

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