Smart Communities Communities Turn to GIS to Achieve Civic Inclusion

INDUSTRY PERSPECTIVE



Introduction

Depending on whom you ask, you'll hear various responses about what makes a community smart. Much of the dialog around the definition of smart tends to lead directly to a long list of technologies – ranging from autonomous vehicles to the Internet of Things (IoT) to connected infrastructure.

What's missing from these descriptions is the whole reason for building a smart community in the first place: people. Simply put, smart communities make the lives of their citizens better through technology. Armed with location-based data, they rely on a series of interrelated technologies, such as AI, IoT and particularly geographic information systems (GIS) to holistically address issues that matter most to residents. Smart should never lose focus on the human element.

Communities that keep their eye on their smart journey recognize smart never focuses on a single app or implements technology for technology's sake. And every jurisdiction will move toward smart at its own pace.

Civic inclusion stands out as a major technology tenet that strengthens planning and engineering, operational efficiency and data-driven performance.

State and local governments are increasingly becoming aware that civic inclusion helps provide governance and benchmarks for their smart community strategy. Citizens and staff benefit when they consistently look to ask the question, "Are we achieving equity through technology?"

GovLoop partnered with Esri, a leader in GIS, to delve into the specifics of civic inclusion: what it is, why it's important and how communities such as King County, Washington, Johns Creek, Georgia, and Topeka, Kansas, are leading the charge in this area.

Esri's Smart Community Information System establishes four technology tenets governments need to deliver smart communities. They are:

Planning & engineering



Operational efficiency



Data-driven

performance





Civic inclusion

What Is Civic Inclusion and Why Does it Matter?

What occurs in a community is geographically personal. Regardless of who you are, as a resident of your community, you care about where you live. You want access to quality schools, safe neighborhoods, clean drinking water and the assurance that your local government leaders hear and respond to your concerns.

The question with respect to civic inclusion is: How do we support the whole jurisdiction while taking into consideration whether we fully understand our makeup or, more importantly, are we providing opportunities for all? Are we leaving anyone behind?

Civic inclusion should be driven by goals that can be measured and revised as needed. At its core, civic inclusion is about providing transparency, keeping the public informed, encouraging public participation, embracing civic engagement and placing an emphasis on equity for all.

By including the public early and often in decisionmaking, community leaders provide greater accountability and transparency. They also can learn where people are speaking up and where they are not, and what neighborhoods are at risk of falling behind. They can also cultivate ongoing public input to help build stronger, smarter communities.

The elements of civic inclusion are:

- Transparency and accountability through a more informed public
- Civic engagement through public information products, online community hubs, and interactive storytelling
- Addressing social inequities using data and feedback

Communities that invest in civic inclusion know their residents and can make data-driven decisions based on the needs in a particular neighborhood.

Take, for example, the work to eradicate homelessness in San Bernardino County, California. The county embraced tools to collect field data for the annual point-in-time count early on, but recognized the need to shift efforts to daily input from county staff and crowdsourced information from residents. This information feeds into operational dashboards that connect individuals experiencing homelessness to programs – as staff come across an encampment or individual. These dashboards provide feedback on how well they are doing and allows for adaptations of tactics to achieve greater results.

This level of focus on citizens doesn't just happen by chance. Governments must ask themselves a new set of questions: Do my policies support atrisk populations? What does the public think about the new development? How do I get volunteers to actively participate in government activities?

Prioritizing public engagement as a facet of your smart community information system, or the collection of technology powering your smart efforts, provides an opportunity to evolve how you think about improving the lives of citizens and improving the effectiveness of staff.

Ultimately, communities can more proactively address issues of civic and social inequity based on feedback and data rather than assumptions. A smart community avoids losing sight of the very reason it exists: to serve citizens, all of its citizens. Data and analysis through a location-based approach ensures all things are considered, such as at-risk populations, neighborhood input and alternative feedback mechanisms to council meetings. This approach also ensures that more opportunities to inform and engage are extended, and that communities always put their best foot forward to create equity and reverse social injustices.



How GIS Achieves Civic Inclusion

GIS has been acknowledged as a foundational platform in building smart community strategies worldwide. Having a location-centered view about your community is critical to meeting the needs of residents, whether you're making decisions about public transportation, designing a new stretch of roadway or deciding where to place public parks.

For example, communities that embrace GIS technology not only engage and collaborate with residents in transformative ways, but they can also express the value of what's being done – through data – to support all citizens.

A location-centric Smart Community Information System provides a robust set of tools and apps that support more complete workflows of the projects you are working on. It includes:

- Open data hubs to provide transparency and engage citizens in projects the community is working on
- Data that can be collected and tagged by location and combined with the data stored across your GIS and business systems
- Story maps to keep the public informed

- Public feedback tools that allow for comments with a context of where and what issues are being addressed
- Social equity performance dashboards that aid in goal-setting and resource allocation

The technology mentioned above for achieving civic inclusion is designed to integrate with the other three tenets of the Smart Community Information System: planning and engineering, operational efficiency and data-driven performance.

Let's say a public transit agency is deciding whether to build a new transit station. Before moving forward with the project, there should be a clear understanding of the population that would be impacted by the project and whether it serves the needs of or increases ridership in certain neighborhoods. Demographic and lifestyle information can help you better understand where those who rely on public transit service live and where they work.

Furthermore, 3D modeling and planning tools can help you plan, design and review the proposed new station. Public information tools can also ensure the community is able to weigh in on the project.

Civic Inclusion Success Stories



King County, Washington

Challenge: Like many communities nationwide, King County, Washington, has wide economic, environmental and social diversity. But the inequities created by these differences could threaten King County if left unchecked. Among the issues the county is working to tackle are digital equity and illegal dumping - both of which have detrimental impacts on communities. "When you look at the numbers, we have inequities in all areas," said Nicole Franklin, Chief Equity Officer at King County's Department of Information Technology (KCIT). "We need to consider the histories and the places people are in. The reality is we all benefit from decreasing the relative inequities in our region." To reduce its growing inequities, King County created a strategic plan to increase equity and social justice using GIS and other tools.

> Solution: King County started using GIS to understand and visualize its location data. Franklin said that the resulting insights have helped county officials decide

where its resources are needed most. "GIS does the equity analysis, and it puts out the map and says, 'Here's where the problems are,'" Franklin said. "If we can figure out how to solve these problems in an algorithmic way, we can move progress forward on equity and social justice much faster." For example, King County is using GIS to understand which of its school districts have low internet access and adoption. Lack of internet access can be a precursor for lack of employment opportunities or upward mobility.

Outcome: King County is tackling inequities with valuable information and maps generated by its GIS tools. For instance, King County leaders are hoping to use GIS to map where people are illegally dumping the most waste. The reason? Illegal dumping can lead to blight, environmental concerns or lower property value in a neighborhood. Gradually, GIS will help the county's employees ensure that parts of their community aren't suffering from more illegal waste dumping than others. "The big opportunity for GIS around social justice and equity is to think about how this could work holistically," Franklin said. "It's a tool that cuts across lines of business."

Johns Creek, Georgia

Challenge: When Johns Creek became incorporated in 2006, the new city needed a way to give residents the local control they desired to create the future they wanted. Johns Creek also wanted a government that could cater to that need and function much like a startup, said Chief Data Officer Nick O'Day. "There's a great encouragement by the citizens to experiment with new ways of delivering services," he said. "They're very interested in making sure that we're being as efficient as we can be, but also being responsible with the tax dollars that we collect."

Solution: The city deployed a suite of Esri GIS tools to be transparent with citizens about what was happening, and to be a lot more data-driven when making decisions. Using data from different

Topeka, Kansas

Challenge: For Topeka, Kansas, one of its top goals was to become a model capital city. Central to that goal was being more open and transparent and to provide residents with better access to data. High on its priority list was transforming the way residents interacted with the city's budget, which was either through hardcopies or more than 200 pages of static PDFs online. "We knew all along that we had good ideas," but too often government has too much data trapped in dull, unsearchable documents, said Deputy City Manager Doug Gerber. "We knew that we wanted to make the data real and be able to tell stories behind the data."

Solution: Gerber said the city felt strongly that revamping access to budget documents should be a high priority. "Fundamentally, the budget reflects a community's priorities, it reflects the direction the community is moving, what the future of the community looks like, and we wanted that to be our centerpiece," Gerber said. Using Esri's ArcGIS Hub, the city was able to take advantage of its existing GIS investments to make data publicly available. "We realized everything we did on our GIS platforms would be possible and already available to us through the open data hub at no additional costs," he said. departments, Johns Creek built an open data portal, called the DataHub, to visualize and present data in a meaningful way for citizens. "What we hope to do is through that understanding, to motivate people to get involved with projects that they might really be interested in, or just educate folks so that they know what's going on," O'Day said.

Outcome: To take those efforts to the next level, Johns Creek built a virtual assistant skill that ties into the DataHub and can access the city's wealth of data sets.

In Johns Creek, residents don't have to be techsavvy to take advantage of this feature or power up a computer to visit the city's website – and that was the intent. They can use their virtual assistant device to find out when the next city council meeting is or the zoning for a particular location. The skill is also tied into the city's call center, so if someone calls after hours, they can receive information through this feature rather than waiting until the next morning for an answer. It's all about proactively addressing residents' needs.

Outcome: Simple, clear and easy to understand data delivered to residents in format they could use. For example, the city's more than \$300 million budget is now in a searchable, visualized format, complete with tutorials on multiple ways of slicing the data. "We never thought everyone needs to use open data, but we think everyone should have the opportunity if they want it," Gerber said. Residents can also search dynamic – as opposed to static – documents that show the city manager's monthly financial report in an engaging and user-friendly way. In addition to budgets, residents can view the status of ongoing city projects and see when their street is getting swept. By prioritizing

initiatives that impact the daily lives of residents, Topeka is staying true to its goal of leading as a model city.

Empowering Your Organization With the Right Tools

Smart communities are all around us. We are witnessing the rise of state and local governments that are answering the call to improve the lives of their citizens. Jurisdictions like the ones mentioned in this piece are taking a purposeful approach to deliver a smart community, and are using the following tools to take the next steps toward achieving civic inclusion.

- ArcGIS Online is the foundational cloudbased mapping and analysis solution. Use it to make maps, analyze data and to share and collaborate.
- ArcGIS Hub is an easy-to-configure community engagement platform that organizes people, data and tools through informationdriven initiatives. Maximize engagement, increase transparency and hold stakeholders accountable by tracking progress and improving outcomes.
- ArcGIS Community Analyst is a webbased application that gives you access to demographic, lifestyle and socioeconomic data that helps you better understand your community. Prioritize projects, allocate resources for greatest impact and understand who is impacted by your decisions.

- Operations Dashboard for ArcGIS is a configurable web app that gives you real-time situational awareness of people, services, assets events and conditions.
- ArcGIS Solutions for State and Local Government are a set of more than 450 readyto-use solutions you can deploy in days, not months. From monitoring equity performance to addressing homelessness or the opioid crisis, these templates, many of which were built to address social inequities, help you serve the needs of your entire organization.
- Survey 123 for ArcGIS is a complete, formcentric solution for creating, using and analyzing surveys to improve civic engagement and get the community involved.
- Esri Maps for Public Policy is a complementary resource where you can explore your community, gain insight and learn how to better apply maps and analysis to your decisions.

Conclusion

Civic inclusion puts a human face on "smart." It ensures that investments in planning and development, addressing humans in crisis or any other community-based initiative are focused on people.

Location provides a context for multi-faceted issues that require more than data alone to tell a complete story. But to effectively engage with the community, governments must ensure that transparency and accountability are driving those interactions.

Smart communities place a high value on incorporating reliable data, analysis, intuitive technologies – such as GIS – and mechanisms that facilitate open communications with the public into their strategy. But placing an emphasis on people and location makes smart worth the journey.

To learn more, visit: go.esri.com/achieve-civic-inclusion



When Esri was founded in 1969, we realized even then that geographic information system (GIS) technology could make a difference in society. Working with others who shared this passion, we were encouraged by the vast possibilities of GIS.

Today our confidence in GIS is built on the belief that geography matters - it connects our many cultures and societies and influences our way of life. GIS leverage geographic insight to ensure better communication and collaboration.

Explore our website to discover how our customers have obtained the geographic advantage by using Esri software to address social, economic, business, and environmental concerns at local, regional, national, and global scales. We hope you will be inspired to join the Esri community in using GIS to create a better world.

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For more information about this report, please reach out to <u>info@govloop.com</u>.

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