Cape Cod Scenario Planning Using CommunityViz and DIY Touch Tables

Ken Snyder from Place Matters presents "Cape Cod Scenario Planning Using CommunityViz and DIY Touch Tables" at the 2011 GeoDesign Summit.

http://video.esri.com/watch/186/cape-cod-scenario-planning-using-communityviz-and-diy-touch-tables

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Video Transcription

00:01 Alright, thank you. And thank you for this opportunity.

00:06 I'm Ken Snyder, the president and CEO of PlaceMatters, a nonprofit organization based in Denver.

00:12 And we work on ways to help communities prove their decision-making processes.

00:19 Particular focusing on land-use planning and community development issues...

00:24 ...and we look at the ways to help engage them in planning process.

00:27 So geodesign is central to a lot of what we do.

00:32 My Lighting Talk is about a project that we started just a few months ago and we'll be wrapping up in just a month.

00:39 And then later on, we took that information and we incorporated it into the CommunityViz model.

00:41 A very quick project looking at climate change scenario planning in Cape Cod...

00:47 ...linked to transportation and land use and growth in jobs and housing over the next 20 years.

00:54 It was a project with...a pilot project with multiple agencies, federal agencies, the EPA...

01:03 ...Department of Energy, National Park Service, NOAA, and Fish and Wildlife Service...

01:08 ...to name a few, and managed by the Volpe Center which is based in Boston.

01:16 We worked closely with Placeways, the developers of CommunityViz, with this project and they have a session tomorrow afternoon...

01:24 ...on CommunityViz if you're interested more in the CommunityViz tool.

01:31 We basically went through a scenario planning process that allowed us to look at different phases.

01:44 And so what we have here is a three phase project, 12 weeks, so probably accelerated...

01:52 ...multiple times in normally what time scale you want to do.

01:55 But the first phase was the research and baseline creation.

02:01 Jack Dangermond mentioned that a lot of time is often put into the collection of data.

02:07 This was the panic phase for us, phase two was getting ready for those workshops on working with the community...

02:14 ...in creating scenarios, and then the third phase is to, through the scenarios that were developed in the workshops...

02:22 ...hone in on a preferred scenario for the final report.

02:27 I'm not going to talk in great, great detail about all of the tools and models we used...

02:35 ...but the main point is we used CommunityViz for the scenario planning.

02:39 We used TransCAD data for...as part of the input and the analysis.

02:44 Jason Lally, on my team, was critical in really developing and integrating work that's...

02:53 ...been done by a number of organizations and agencies around...

02:57 ... how do you look at VMT reductions as a result of different design and land-use and transportation elements...

03:06 ...called the 5D analysis.

03:09 So Reid Ewing and Robert Cervero in particular have been sort of leading researchers on this five-day process and the EPA has funded it as well.

03:18 And basically it's...in real short terms, it creates elasticity associated with those five Ds...

03:26 ...the density, diversity, design, and destinations, and that those five Ds each...

03:35 ...depending on those different elements, you'll see a certain amount of decrease in vehicle miles traveled...

03:41 ...if you move in a positive direction in terms of, for instance, density, increasing the number of houses and jobs in an area...

03:51 ...the diversity, looking at the job/housing balance; and the design elements and...

03:57 ...destinations and distance to transit are also incorporated into that, into that analysis.

04:03 So a key part of the scenario planning, essentially scenario planning is really...

04:12 ...geodesign in so many ways, but it's helping people look at your data...

04:22 ...we have a lot of reference data that's from, anywhere from wellhead protection to critical habitat to...

04:30 ...in this case, maps that were drawn up looking at sea level rise as a result of climate change.

04:36 All of those become layers of information that will help inform the process and then looking at different choices...

04:45 ... creating indicators with your community ideally and scoring the scenarios against those indicators.

04:52 And then through that iterative process, coming out with a preferred scenario that you then can become...

05:00 ...then the next part of your sort of implementation and strategies component.

05:08 So now do...I'm going to go ahead and step out here a bit and move over to the...to talk about the interface here that I'm using...

05:22 ...and so what we have here is a low-cost touch screen that we created to try to solve several challenges we had.

05:32 We really felt that the technology needed to be much more accessible and interactive.

05:37 We've done a number of meetings where we're using computers at each roundtable...

05:42 ...for roundtable discussions and then often have to resort to using flip charts at the...

05:47 ...same time so that people can see what's being discussed or jotted down and...

05:51 ...people are frustrated because they can't see the same things that are on the computers.

05:58 So we really wanted to be able to have some sort of interface where people could see stuff and we've used projectors on the wall...

06:06 ...we've used touch screens like Matt was using earlier.

06:10 But we became very fascinated with this technology that was a hack done...

06:17 ...that was really pioneered by Johnny Lee, who was at MIT at the time, that uses a Wii remote and an infrared pen...

06:26 ...and that enables you to track the motions of that infrared pen.

06:32 And so with that, then we were able to create a setup where we could have four...

06:37 ...simultaneous meetings happening in breakout groups to do the scenario planning with the group.

06:43 And each table then would be working with those, with the tools and adding jobs and housing to the map.

06:53 And then instantaneously, they could run the scenario analysis and see the results of that with the CommunityViz tool.

07:09 So what it did was it created a very...almost intuitive setting.

07:15 And in fact, there was different ways that we used the same, the same tools and the technologies in that environment where we allowed...

07:25 ...at one point, people wanted to draw on the map instead of using the computers and the technology.

07:31 And so we simply just put a piece of flip chart paper onto the table, and then they drew directly on the paper.

07:45 And so all of those different techniques are really helpful in bringing this stuff together.

07:53 So in the last two minutes that I have, I just want to talk about sort of that broad concept of...

08:04 ...how do you bring technology into a planning process.

08:07 One of the challenges is that you're going to have some people that feel very alienated and distanced by the technology.

08:12 And so sometimes you want to do mapping exercises that have no technology at all.

08:15 So for instance, in Wichita, we worked with Goody Clancy in using low-tech mapping exercise as shown there.

08:24 And other times, it's really important to have the geo digital data accessible and available as part of the scenario planning process.

08:35 And so we used this interface to bring that about.

08:40 And then finally, other tools that we use...a brainstorming tool that allows people to...

08:46 ...quickly generate lists of information and prioritize those lists with drag and drops...

08:53 ...and then once they...at any point, you can convert those lists into keypad polling slides...

08:59 ... and do a vote with the group to further prioritize those lists.

09:07 Those lists could then become, for instance, the values that are then translated into the indicators...

09:16 ...that you then use when you're rating those scenarios.

09:20 So that's just a quick overview.

09:22 I've got like 15 seconds and it's just a quick overview of ways to bring the technology interfaced with the decision support.

09:34 Thank you very much.

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