

GeoDesign: Fundamental Principles

On day one of the 2010 GeoDesign Summit, Michael Flaxman explains the fundamental principles of GeoDesign and discusses routes forward.

<http://video.esri.com/watch/106/geodesign-fundamental-principles>

Video Transcription

00:01 I had the honor and privilege of being at the very small table in Jack's office with Bill Miller...

00:06 ...about four years ago when the term GeoDesign was coined...

00:10 ...maybe getting my chronology slightly wrong, and from a glimmer in our eye...

00:15 ...I'm really just very pleased to...to see the progress that's already been made in four years...

00:21 ...starting with a bunch of small prototypes, and I wanted to just go over the...

00:27 ...what I think is the key idea that...that we started with...

00:30 ...and reraise the issue of are we there yet, and is this the right starting idea?

00:37 We...we basically came at this from the point of view of why aren't more landscape architects...

00:45 ...why aren't more designers, why aren't more architects, using GIS to inform their design decisions?

00:51 And doing that humbly and saying, what is it that these people know in their working methods that...

00:57 ...that we don't know and haven't applied in GIS, and one of the first things we came up with through observation is sketching.

01:04 And the notion that if you look at what separates designers, using the term loosely from other types of analytic tasks...

01:12 ...the notion of generating many ideas and then being ruthless about filtering them out...

01:18 ...is one of the operating creative characteristics of design.

01:21 And we felt that GIS at the time was not supporting that well, and we came up with a notion of geospatial design...

01:30 ...or now GeoDesign, that I would define basically as a design and planning method...

01:36 ...which tightly couples the creation of design proposals with impact simulations informed by geographic context.

01:43 So that's...that's the tightest I could get in a sentence, and the...the focus really was on all of these pieces...

01:53 ...the tight coupling, the impact simulation, and the geographic context.

01:57 I think we've seen some good examples this morning of how...pieces that might work.

02:02 So as some of the earlier speakers, we noticed disciplinary and professional divisions separating design from evaluation...

02:10 ...design from construction or from facilities management, and felt that that led to a lack of information flow back to design...

02:18 ...to bad design, or important conditions...considerations being ignored...

02:22 ...and to slow inexpensive workflows from basically the long-deferred evaluations.

02:28 You build the project and then you figure out that channelizing the river isn't a great idea.

02:33 And so an initial kind of use case was how do you build a green neighborhood...

02:40 ...and how do you know that you're building a green neighborhood?

02:43 Similar to the...the idea's really from the '60s of integration of science...

02:51 ...we...we knew that we wanted to be able to bring scientific information, and also regulatory information...

02:55 ...and we knew that this information was needed...basically the sooner the better.

03:01 So we wanted basic screening and vulnerability models, which we feel are often sufficient for preliminary design...

03:07 ...and we asked, why waste time considering infeasible options?

03:11 And the summary of this is in this diagram, which basically set...sets up the pieces that we're thinking of.

03:22 The idea was, first of all to separate technically the cons...the idea of sketching from the idea of evaluation...

03:32 ...and yet to bring back the results of impact modeling into the design environment, here called Sketch Client.

03:38 And rather than to consider this as a pipeline flowing just one way once...

03:44 ...to really concentrate on the bottom half of the diagram in terms of in-design feedback, the possibility for external reviews...

03:52 ...the thought process the designer is going through when laying down a single polygon...

03:57 ...or doing a policy decision, and essentially using as a metric, the cycle time.

04:04 How many times can you get through this and get valuable, useful feedback?

04:09 So the mantra was design it anywhere, evaluate everywhere, feed back quickly.

04:14 And that was really the initial conceptual idea...

04:17 ...and...and still one that I think has some traction and a little bit of room left to go.

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