

Introducing Online Community Maps

This session introduces Esri's Community Maps Program and describes how users can participate. The purpose of this program is to enhance the quality of the online community basemaps that Esri hosts and makes freely available to users. These basemaps (including World Imagery, World Street Map, and World Topographic Map) are built from the best available sources and include detailed, local data provided by many organizations around the world. Join us to learn more and how you can participate.

<http://video.esri.com/watch/68/introducing-online-community-maps>

Video Transcription

00:01 So I'm Deane Kensok. I'm the program manager for ArcGIS Online, and I'm here with Christophe Charpentier...

00:05 ...who's the product manager for ArcGIS content.

00:08 And we're here today to talk about our online Community Maps initiative.

00:12 Hopefully some of you were able to attend the plenary on Monday and got an introduction to some of the community maps...

00:18 ...through some of the demonstrations that we had or maybe had a chance to visit us in the Online Island and learn a...

00:23 ...little bit about it.

00:25 What we wanted to do today was give you an overview of the Community Maps initiative that we have...

00:30 ...provide a fairly detailed overview of the community basemaps that we're actively maintaining with our users.

00:37 And then talk about how you can participate in the Community Maps Program if you'd like to.

00:41 And there's some things you can do this week while you're at the UC to get started if you would like...

00:46 ...and we'll talk about some of those options.

00:49 And then, Internet willing, we'll do a demonstration of the maps.

00:54 So the purpose of the community basemaps really is to enrich the quality and detail of the online maps that Esri has...

01:02 ...been providing to our user community.

01:04 As many of you know, Esri has been providing access to a set of online maps for the past few years through ArcGIS Online.

01:11 It includes maps like imagery and streets and topography.

01:15 And the feedback we've gotten from many users in the past two or three years was, in some cases, they have better data locally...

01:22 ...that they would like to see online and included in those maps than what we were providing perhaps from...

01:27 ...our national or commercial sources. So we created a program.

01:31 Initially, it was focused on imagery, but it allowed us to have a process through which we could integrate user content...

01:38 ...or partner content into the online maps that we're making available.

01:42 So the purpose of this program really is to support that initiative.

01:46 So, one, we're trying to provide useful and authoritative basemaps for your interest areas...

01:52 ...your communities, that you can access.

01:54 We want to build that with the best available authoritative data that's coming, in many cases, from our GIS user community.

02:01 In many cases, the best source data is coming from the local GIS agency...

02:06 ...that's responsible for compiling that information and maintaining that information.

02:10 We want to make sure our maps reflect as much of that as we can.

02:13 And then we also wanted to provide a high quality of cartography...

02:17 ...that could be used to support a variety of mapping applications.

02:20 So our basemaps reflect some of the best practices that we have for generating high-quality cartography using ArcGIS...

02:26 ...and we've tried to encapsulate that cartographic design into templates that we can share with our users...

02:32 ...and then they can use that to apply to their own data.

02:35 And then the results of that can be used internally or then shared back with us to publish in our online maps.

02:42 We set up a program to support this work. The program really is just a means to an end.

02:47 It's a method that we can use to improve the community maps that Esri hosts and then provides back freely to our community.

02:54 As I mentioned, when we started the program a couple years ago, the initial focus was on imagery.

02:59 We had a number of organizations, states and counties, who said they'd acquired some

imagery for their community...

03:06 ...that in some cases was more current than what we had available through ArcGIS Online...

03:11 ...and they were interested in seeing that imagery online in place of what was available.

03:15 So we set up a mechanism where they could make that imagery available to Esri and then we would blend that into our map.

03:21 Since then, we've expanded the program to cover two additional basemaps beyond imagery...

03:26 ...our World Topographic Map and our World Street Map...

03:30 ...which are the three most popular maps that we host through ArcGIS Online.

03:34 And the primary goal of the program is really to extend the coverage, add coverage to the maps...

03:39 ...where we don't have high detailed content...

03:42 ...or to add additional detail to areas where we do have something but we'd like to go to larger scales.

03:48 So for imagery, we'll talk about what content we have.

03:51 In many cases, that means adding coverage of high-resolution imagery where we only have...

03:55 ...say, 15-meter resolution imagery now.

03:57 For street maps, it might be going down to larger scales down to 1 to 10,000-scale street map data...

04:03 ...rather than 1 to 100,000-scale data where it might only be available now.

04:10 In terms of the benefits of participation.

04:11 As we've talked to a number of organizations and they've kind of explained to us what their interests are...

04:16 ...what their motivations are for working with us, kind of summarized some of...

04:20 ...the key benefits that we see that might pertain to, you know, what you would be thinking about...

04:24 ...and why you might want to participate.

04:26 The first is, most organizations are interested in having a detailed basemap available for their community that's online.

04:34 They'd like it to have high-quality cartography that reflects their data.

04:38 So some of our users have very good data...

04:40 ...but they don't have the cartographers in their organization to invest significantly in the

presentation of their data.

04:47 They like the quality of cartography they see in the online maps, and they'd like to apply that to their own data.

04:52 And that's been a positive outcome of many of the collaborations that we've done.

04:56 Some users are looking for higher performance or higher availability on their maps.

05:00 They're looking to have maybe a public-facing web application that publishes their data online...

05:06 ...but they don't have the infrastructure to deliver the level of service or performance that they'd like to deliver.

05:12 And they're happy with what they've seen through online, so they'd like to...

05:14 ...contribute their data online so they could receive those capabilities without having to invest in them.

05:20 And then related to that are the hosting costs.

05:22 Many of our organizations that we're working with are cities and counties, some states...

05:28 ...that have a GIS team that's responsible for building and maintaining the data, but they don't have the infrastructure...

05:33 ...or sometimes the resources to invest in the kind of server environment that might be needed to support a reliable online service.

05:40 And so with the online basemap that we host, there's no hosting costs or other...

05:45 ...infrastructure support required from the contributor.

05:49 Another benefit is the basemap is freely available to any ArcGIS user or even web users for their noncommercial use.

05:57 So if you do participate in the basemap, if you want to use that throughout your organization, you can do so freely.

06:03 You can share that basemap outside your organization to your local community.

06:06 Even casual users via the web can use that content freely; there's no cost for any noncommercial use.

06:13 And then, lastly, some of the organizations that we've talked to have wanted to build web applications...

06:19 ...that feature their community.

06:21 Last year, New York City did what they called a Big Apps competition...

06:23 ...where they encouraged local developers to build some interesting applications for the New York community.

06:29 And they had a competition for the best apps.

06:32 And part of that was providing online maps that could be used to support those apps.

06:36 Other cities were inspired by that, or similar initiatives, and were interested in doing that type of thing...

06:41 ...encouraging their local community to build interesting applications that could be used...

06:45 ...in web browsers, on iPhones, that type of thing.

06:48 And the online community basemap provides a nice foundation layer to do that type of thing.

06:52 Maybe it's finding, you know, doing economic development applications or finding points of interest within the community.

06:59 The basemap's a nice foundation layer for that type of thing.

07:01 So there's a developer API from ArcGIS, our JavaScript, Flex, Silverlight APIs...

07:07 ...in addition to the REST and SOAP APIs, that are freely available to use for development purposes.

07:14 So now let's transition and talk about some details on the community basemaps.

07:17 So as I mentioned, these are the three primary basemaps that we're supporting currently...

07:21 ...and I'd like to kind of give you a status of what we have currently in the system.

07:25 So the World Imagery Map is the most popular online basemap that Esri hosts currently.

07:31 We're serving over 300 million maps a month.

07:34 Probably 40 percent of those are image map requests that we get. So it's very popular in terms of our online maps.

07:41 The current status of the imagery map is that we have worldwide coverage down to 15-meter resolution.

07:47 For the United States, we have a nationwide mosaic of imagery that goes coast to coast.

07:52 That's a blend of imagery from a number of sources; I've listed some of them here.

07:57 In terms of the community map, a lot of the imagery in the U.S. coverage is coming from organizations...

08:02 ...such as the USDA Farm Services Agency, the USDA FSA, that maintains the NAIP program.

08:08 We have a relationship with USDA where they make available the imagery to us...

08:13 ...and we do the processing of that imagery and we publish it online, along with the other sources of imagery for the U.S.

08:19 We also have data from the USGS. Their cities program has been blended into our mosaic.

08:24 And then different states and counties, such as the State of Utah, County of San Bernardino...

08:29 ...are participating, and they've made available imagery for their communities that have been blended into the map.

08:34 And then, in addition to this, we've also blended in recently commercial imagery into this map...

08:40 ...that Esri has licensed the right to include.

08:42 If you attended the ArcGIS Online session, we talked about that.

08:45 That was an enhancement we made to the World Imagery Map a few months ago...

08:49 ...where imagery that was formerly available only by subscription is now part of the free World Imagery Map.

08:53 And I'd encourage you to take advantage.

08:55 So when we did that, a lot of really recent high-resolution, submeter resolution, imagery...

09:00 ...was added into our free World Imagery Map that greatly improved upon the quality that we have in the U.S.

09:07 Internationally, we have content for over...we added content for over 2,000 cities and towns around the world last year...

09:14 ...before the User Conference, and then this year, we've added content for a number of nations.

09:20 I've listed several of them here that have been added for nationwide coverage.

09:23 And this imagery was made available to us through our Community Maps initiative.

09:27 In this case, it was interestingly provided by a commercial organization that was willing to provide some of their...

09:33 ...imagery to us to use through the Community Maps Program and make it part of this free image map.

09:37 So that's kind of a current status of the world imagery.

09:41 Our World Street Map, our second basemap...

09:43 ...is a multiscale street map for the world that goes down to about 1 to 150,000 scale worldwide.

09:50 And then, in selected areas, we go down to larger scales, 10,000 scale or larger in some metropolitan areas.

09:57 We do that for North America, U.S. and Canada; Europe, most of Western Europe and central Europe is covered...

10:05 ...at that scale level.

10:07 And then beyond those areas, we've been working through our Community Maps initiative...

10:10 ...to expand coverage elsewhere internationally.

10:13 And I've listed a few countries for which we've recently added coverage.

10:17 And these are, in many cases, datasets that have been added through our international distributor network.

10:23 ESRI Japan, for example, worked with our local national mapping agency with their local national mapping agency...

10:29 ...and compiled data, authored it using our template, and then blended that into our online street map.

10:37 Lastly, with our World Topographic Map, I want to talk about this in a little bit more detail.

10:41 So this is our newest basemap.

10:43 Last year at the User Conference, when we met we had just started the development and deployment of this online map...

10:50 ...and it was kind of in its infancy then.

10:52 And we were encouraging some users to look at the map, think about whether they'd like to participate...

10:57 ...and we've been very encouraged by the level of interest that we've had since then...

11:01 ...and the map has been growing pretty rapidly.

11:04 This basemap is one, you might also refer to it...have us refer to as our community basemap.

11:09 And this was featured heavily during the Plenary Session.

11:12 This is a map that's intended for use as a general purpose basemap to support a variety of applications.

11:19 So it's designed with pretty neutral background colors; we're not using bright reds or dark black colors that would...

11:26 ...that would make it difficult to overlay other information.

11:28 It's got a neutral background with muted colors that allows you to overlay other information effectively on the map.

11:34 We designed a cartographic template for this map that we've been refining a little bit as we work with users.

11:41 And then we've compiled a number of datasets from best available sources that are blended into this map...

11:46 ...and that's what we'll talk about here today, the process of doing that.

11:49 So this is really a collaborative effort with the ArcGIS community.

11:52 And we're trying to work with our community to extend the map to add coverage and detail...

11:57 ...and I'll show you some examples of what we've been able to achieve.

12:00 So when we met here a year ago, the status of the map was that we had global coverage down to about 1 to a million...

12:06 ...and we had U.S. coverage down to 1 to 20,000.

12:09 And we had, I think, two cities that went down to larger scales.

12:12 So it was really kind of a demonstration of what could be done, but it wasn't the full realization of what we intended to do.

12:18 This year we've made tremendous progress in moving that map forward.

12:21 So we now have global coverage down to 1 to 150,000 scale like we do with our other street basemap.

12:27 So we have a very good global foundation layer built.

12:31 We've extended the 1 to 20,000-scale national coverage from the United States to now also include Canada.

12:36 We worked with ESRI Canada who worked with their local national mapping agencies...

12:41 ...Natural Resources Canada, for example, and blended that data into our map template and then into our map.

12:47 And then more recently we've added 1 to 20,000-scale coverage for all of Western Europe...

12:53 ...and large parts of central Europe as well.

12:55 So for North America and Europe, we now have down to 1 to 20,000-scale map coverage...

13:00 ...in the World Topographic community basemap.

13:03 And then we've been working in particular quite a bit with more local organizations, cities, counties, regional organizations...

13:11 ...to extend the map to these even larger scales, down to as large as 1 to 1,000 scale for selected areas.

13:18 And you can see a list of some areas; many of them are cities, for which we've added that level of detail.

13:25 We've been doing monthly updates to the World Topographic Map for the past several months...

13:30 ...going back to the beginning of the year, and we intend to be doing monthly updates for the remainder of 2010.

13:35 There's a significant number of maps that are currently in development from our user community...

13:40 ...and those are rolling in to Esri weekly, and we're doing some work to blend those into our maps.

13:46 So you can expect to see additions, additional updates throughout the remainder of the year along the lines of what's here.

13:52 So I've listed some of the updated areas that have come online here just in the last few months.

13:59 And this kind of gives you a little bit of a schematic illustration of the map...

14:03 ...just to kind of give you a mental framework for thinking about it.

14:05 So what we tried to do with the community basemap is kind of build a foundation to start, so we've built...

14:12 Esri has compiled with some public source data from USGS and NASA and the United Nations FAO and other organizations...

14:21 ...some commercial organizations, a global basemap that now, as I mentioned, goes down to about 1 to 150,000 scale.

14:27 So we have that as kind of a foundation.

14:29 There's some of these medium scales that we could certainly improve upon still, working with local national mapping agencies...

14:35 ...and there's enhancements that can be made to the quality, the detail of the data.

14:39 But we have a good solid foundation, we think, to build on.

14:42 And then beyond that, we've added more detailed coverage, as I mentioned...

14:45 ...for the United States, Canada, and Europe down to the 1 to 20,000 scale.

14:49 And a big focal point for us in the next year or two is going to be to extend at those larger scales...

14:55 ...to other parts of the world, Latin America, Asia, Australia.

15:00 And there's some efforts we have ongoing now that will extend us in Latin America and Asia and...I'm sorry.

15:06 ...Latin America, Australia, and New Zealand, in particular, at those scale levels.

15:10 And then lastly, at the kind of the top of this pyramid, we have some illustrations of different areas that have been added.

15:16 So as I mentioned, we've been adding coverage for a number of cities and counties recently...

15:21 ...and we'd like to extend in those areas.

15:22 So that's really where a lot of the effort is invested right now, at these large scales...

15:27 ...national coverage and regional coverage going down to as large as 1 to a thousand.

15:35 So at this point, I'm going to check and see if the Internet is cooperating.

15:38 I'm not sure... It does not look promising.

15:39 I'm not sure the Internet is back because the [unintelligible] is not back.

15:42 It kind of came back and then went away again, and so I...

15:46 Well, I'm not sure. That'll be unfortunate if we can't. Yeah, it looks like we're not going to have it right now.

15:52 I think what we should do is proceed on and then... Apologize for that. Hopefully it will come back.

15:57 It was working fine in the last session, so...

16:00 What I was going to demonstrate for you; I'll just describe it briefly and then hopefully we'll have a chance to show it at the end.

16:05 But there is a tour of ArcGIS Online community basemaps that we've authored that was built using ArcGIS Explorer Online...

16:14 ...and it's a map that you can actually discover at ArcGIS.com. I was going to show you that at the end of the tour.

16:20 But you can search for community basemaps and you'll find a map that's been authored.

16:23 And if you run that in presentation mode, it gives you a tour of the community basemap...

16:27 ...and shows you some of the areas that we've talked about here.

16:30 So hopefully we'll have a chance to come back to that later.

16:32 If not, then we can come down to the island and I can show you in the Online Island later on this week.

16:39 Okay. With that, I'm going to hand it over to Christophe, and he'll talk more about the how-tos...

16:42 ...how to participate in the Community Maps initiative.

16:49 Hello. Can you hear me? Yes.

16:51 So first, I can't resist to wish you a very happy Bastille Day for the 14th of July.

16:58 What is always surprising to me, I've been living in the U.S. for the past three years, is that I don't understand why...

17:05 ...you want to be very nice to us, but you shoot the fireworks on the 4th of July; that's 10 days in advance.

17:10 Sorry, I just don't get it. Before we start...

17:15 So how can you participate to building that map?

17:17 Well, there is many ways, and we're going to try to go through those different ways...

17:22 ...because the process is a bit different whether we're talking about the World Topo Map...

17:27 ...or talking about the World Imagery or the World Street Map.

17:30 So first, the goals, is that you can blend your data. And we want to leverage on, you know, the...

17:37 The producers of any kind of authoritative GIS data in the world are GIS users, and it's you who are attending that conference.

17:46 So we want to provide a way so that you can serve your content, the one that you have been working for years...

17:54 ...into one seamless basemap of the world and so that it can improve the quality of the map.

18:01 And the main benefit is because people know that it has been produced by an authoritative source...

18:08 ...someone they trust, a peer, so that they will be willing to use that map.

18:12 And you will feel, yourself, very comfortable in using someone else's data because you know it has been produced by...

18:18 ...people who care about the quality of the data and have been producing good quality data.

18:23 So the workflow, the first thing is, of course, to identify what kind of data you are...

18:28 ...you could be contributing to the community.

18:30 It could be imagery, because maybe you have some imagery for your region, or it could be a topo map.

18:36 And it might be because you own all the layers for one specific region...

18:41 ...or just because you own, you've been producing a layer, for example, of vegetation all across Europe for the past 10 years...

18:47 ...and you would like to blend that into the World Topo Map.

18:50 Or it could be the World Street Map.

18:52 So to get started, there is multiple entry points. And there is one, for example, which is on the Esri web site.

19:00 So you go to esri.com/communitymaps. You'll find a wealth of description of the program.

19:08 You'll find also a participation form that you can fill.

19:12 It goes to an alias, so the entire team, the content team, receives that notification.

19:17 So we'll come back to you within days, and then we'll engage with you...

19:21 ...in figuring out the best way to support you in being able to contribute that content.

19:27 Maybe something that I'd like to ask, I know we did that last time, last time yesterday when we did the presentation...

19:32 ...is to understand if in the audience we have in the room, Who's from...who's a domestic U.S. user? Okay.

19:42 So I guess the rest is international. Okay, good. Interesting.

19:49 So a bit more, we'll say two-thirds/one-third. In the first session, it was like 80/20 more like.

19:57 So we do have a great interest in expanding as Deane introduced, into providing more content for the U.S....

20:03 ...but also expanding and making more content available for the entire world.

20:06 So please feel free either ping us through the participation form, go on the web site, and you...

20:14 ...I'll mention at the end of the presentation some events, additional events that we have today, and you can join...

20:21 ...to enter and join the program.

20:24 So the first basemap you may want to consider supporting is the World Imagery Map.

20:30 As Deane mentioned, we have a worldwide coverage at 15-meter resolution.

20:34 And you can see on the left-hand side of the slide the coverage and what we have at 1 meter or greater resolution in the world.

20:43 So, for example, if you just look at North America, if you're in Canada...

20:47 ...if you're from Canada and you have imagery for Canada...

20:50 ...we'd be more than happy to serve that imagery out and work with that...

20:55 ...with you on finding ways to support the rest of the user community.

21:00 One thing that is important to us also is to provide accurate accreditation...

21:04 ...attribution of who has been providing the content.

21:07 So if you were going to the Resource Center, and you would look at the different maps that we have there...

21:14 ...you will see that we have an Attribution button, an Identify button, and you can find the details...

21:19 ...on, first, what we have and the fact that we provide attribution.

21:23 That could be also for your first step, because you may have some imagery...

21:26 ...and you can't figure out whether your imagery is more recent than the one that we already have.

21:32 That could be the easiest way, because here you'll find the exact date for that, any kind of area in the world...

21:37 ...and you'll see the resolution that we have and who has contributed, and the date from which that imagery has been captured.

21:43 So feel free to go to those pages. You'll find plenty of details on the coverage.

21:48 It's also a good way for you, while the coverage evolves, it's a good way for you to get an update situation.

21:56 So how can you...how can you participate?

22:01 Well, basically, we tried to organize this into a three steps process.

22:07 Once you've identified, you've been to that web site, you've seen that you have something that could be of interest...

22:15 ...and there could be a better than what we already have, then let's get together...

22:22 ...and you deliver us the imagery as a GeoTIFF format.

22:26 We'd like to start with the original format rather than already a compressed format because we'd like to minimize the file.

22:34 If it's a compressed format that you deliver to us and when we convert that into a cache...

22:38 ...then there is a risk that the quality is going to be lower than if we get the GeoTIFF images.

22:45 So you can make that available to us through an FTP or through shipping an odd hard drive.

22:52 Please provide us also with metadata on the imagery, first on, you know, who has been contributing...

22:57 ...but also, you know, the more detailed metadata you can, the better it's going to be in the future.

23:03 Because this way, other users will be able to check...

23:05 ...on where the data comes from, the description of the data, but also, ultimately...

23:11 If you have been in the Plenary Session, you've heard about that notion of mosaic of mosaics...

23:17 ...and what we're working on is making sure that, by exposing as much metadata there...

23:22 ...metadata, sorry, as possible, when we come to the point that we serve out a mosaic of mosaics, which would be...

23:29 ...that will be the Esri mosaic, and then there will be the Bing mosaic, and then there will be someone else mosaic.

23:36 Then we could serve out the service that could be the best imagery of the world.

23:41 So by checking on the date, by checking on the cloud cover, then we can serve out to the user and pool...

23:47 ...the tiles from the different services and secure the file, it's going to be the best image at that time.

23:55 From there, if you provide us with the imagery, then we'll generate the cache.

23:59 We'll generate the cache following what became kind of an industry standard, which is the Bing/Google tiling scheme.

24:08 And that allows an easy mashup if someone is building a web API application.

24:14 And then, if you want, we would be more than happy to share that cache back with you.

24:19 Maybe, you know, for your internal purpose, you don't know how to or you don't have the resources to build the cache...

24:26 ...but you would be interested to serve that cache back to your internal users. It could be of interest for you.

24:32 Well, just let us know, and we could send you back the cache with your hard drive, for example...

24:37 ...and this way you have a, you know, direct benefit of serving your imagery to the rest of the community.

24:44 And then we'll publish the map on ArcGIS Online.

24:46 We'll blend the existing cache for your area...

24:50 ...within the different layers and caches that we already have and then we'll serve it out.

24:55 We're on a, you know... We're on a semiannual base for our madness; we usually update in June and December.

25:03 So it's not going to...you know, if you send us the imagery in July, it's not going to be live in September.

25:09 You'll see it, the live [unintelligible] probably in December.

25:12 And if you send that imagery to us in late October, there is a very limited chance that we could get it live by December.

25:21 So it might more likely be that the next, the following June, that it will be serving your imagery out so...

25:28 ...the earliest, the earliest, you send us the imagery, the better, always.

25:34 Now, speaking of World Street Map, it's a kind of different approach.

25:39 If we look at the map right away, you see that we have much more coverage.

25:43 We currently have all of North America at different level of details, and we're expanding that coverage...

25:50 ...in terms of the zoom levels, especially Canada and Mexico.

25:54 We'll also, in December of this year, we'll have a complete coverage of all of South America or Latin America.

26:02 Currently, we only have Colombia, but we'll expand to get the entire continent.

26:07 We have detailed coverage for eastern and western Europe, and by December we'll have Australia and New Zealand.

26:14 And we'll have an updated version of southern Africa, so South Africa and kind of the region in southern Africa.

26:21 So as Deane mentioned, we're very interested in getting contributions.

26:26 If you own data either internationally or even domestic and could supplement what we have...

26:32 ...or in Canada, then we'd be very, very interested.

26:36 The workflow is not exactly the same as you could imagine. Our recommendation is that...

26:41 ...when we build such a map, we are always using a map template.

26:46 So we always build a map template for the purpose of our production but also to be able to share that template with you...

26:52 ...so that you can use it, and even internally you could use it, to build your own cache.

26:57 So our recommendation is that you would go, still on the Resource Center where you'll find all of those map templates.

27:05 You'll find a map template for small scales, medium scales, and large scales.

27:09 And you can download that packet, let's say, because it's not only an MXD...

27:15 ...it's also a Word document that describes those different features and...

27:20 ...and the different values that we've used in the...in the MXD.

27:23 So that you can easily figure out what we're trying to map and then match that to your database.

27:29 Because most likely, you're not using the same data model than the one we've been using to build that map template.

27:34 So that's why we're providing that detailed description...

27:37 ...so that it's easy for you to get it and to adopt the template. Yes, ma'am.

27:43 [Audience question] Do you have database templates available for the [inaudible]?

27:47 That is a very good question. So the question is, Do you have database template available.

27:51 Not yet, but this is something we're working on for the future release, the next release of our template generation...

27:58 ...so that you can have a geodatabase design that you could use and then preorganize your data in that template...

28:05 ...and then apply the template on top of it, which is going to be straightforward from there.

28:10 The only thing I'd add to that is we do have a database template of sorts for the topographic map so the...

28:16 We have a local government data model, and when we produce the topographic basemap, that's one of the workflows that we recommend...

28:24 ...is adding your data to the local government data model.

28:27 And then from there, we have a map template that references that data model and makes it very easy to symbolize the map.

28:32 So what we're looking to do is generate something very similar from a street map perspective...

28:37 ...where we have more of a street map data model that's generic enough that we can pour other datasets into it. Thanks.

28:45 So and after that, then it's kind of fairly straightforward and easy to cache once you have applied the template.

28:52 And we could also support you in doing this if you have resources issues in terms of accessing the server...

28:58 ...the resources to generate the cache.

29:01 And once we get the cache, then... Once you get a cache, make...

29:04 Depending on the size of your area, it might make sense, if you have...if you're matching a very large area like a country...

29:10 ...you may want to just generate the cache on a portion of that area and then set up a service...

29:16 ...so you can share that service with us, and we can kind of like review what has been done...

29:21 ...and kind of try to guide you if we detect some issues that, you know, some other users went through...

29:26 ...and we can help you address those issues.

29:29 Once we get the entire cache from you, then we can publish the cache.

29:34 You'll ship the cache to us and we'll...same thing; we'll blend it into the existing caches.

29:39 One thing is, one of the challenges here, which is not as much of a challenge with the imagery...

29:46 ...but it is much more of a challenge with the street map and the topo, is the borders.

29:51 You know, you have...whatever the size of your jurisdiction, there is always a border to your jurisdiction, so...

29:57 ...and of course, the tiles are not going to stop at the exact edge of your jurisdiction.

30:02 So I think this requires a bit of coordination, so that's why we early on will be engaging with you.

30:10 And we want to engage with you once you have done that sample caching so we can work out the details with you and how...

30:18 ...and which borders we should use and which borders you should use, and we could jointly use...

30:23 ...so that when we're going to blend your cache into the overall cache, it's going to work fine.

30:31 So the third basemap is the World Topographic Map, so in that case, our purpose is about expanding the coverage...

30:40 ...expanding the coverage and getting broader coverage but also deeper coverage.

30:46 We'd like to, as much as we can, provide detailed mapping down to 1 to 1,000 for the entire topo map.

30:55 Of course, we cannot just do it on our own because when you go to that type of scale, it's usually it's local government datasets...

31:02 ...so that's why we want to work with you and serve that, that content out.

31:09 It could be that you own, you know, you might be a federal agency in the U.S., you might be a...

31:16 ...you might be a country agency elsewhere...

31:19 ...and then you may own just one layer amongst those different layers that we are publishing.

31:25 It could...that example I talk about, I gave about the environmental layer...

31:29 ...someone who would like to have a land classification, for example...

31:32 ...would be a great contributor to some of the medium or small scales of a country.

31:37 So please let us know if you have this, because we'd like to also add this to those small and medium scale layers.

31:47 This is an example of the different key layers that we are using in the World Topo Map.

31:53 So it goes from the admin boundaries to cities and roads to hydrography, rail wood...

31:58 ...railroads, parks, neighborhoods, contours. So we do use many, many different layers so...

32:06 And also, one thing we wanted to highlight here is that if you're a local government or local city map, for example...

32:14 ...that you want to cache from the 1 to 20,000 down to 1 to 1,000.

32:18 And let's assume you looked at that slide and say, oh, yeah. Great presentation, Christophe, but we don't have...

32:24 ...we don't have the building footprints or we don't have the contours, so we're not going to be able to make that map.

32:28 Well, that's fine. You know, it's not...

32:31 We're trying to...to get as close as possible to what we could [contribute]...

32:35 ...the richest map we could provide, but we do understand that not everyone has everything that would go...

32:42 ...that would fit into a world topo map.

32:45 So, in that case, I don't see that as a showstopper. You know, I...don't kind of refrain from participation...

32:52 ...because you don't have the building footprints or because you don't have the contours or because you don't have the elevation.

32:57 First thing we could do is also working with you on this.

33:01 There is data layers that we've been compiling, either licensing or getting from the public domain...

33:07 ...and we could share with you for the purpose of building that map.

33:10 We've done that before; the streets is a good example.

33:13 We've had that situation with some local governments that had all of the layers except a good street layer.

33:21 And they said, well, how can we do?

33:23 Well, our agreement with the commercial data vendors that we are using for the streets allows us to share the content with you...

33:30 ...so that you can cache for your area of interest and then send it back to us.

33:35 So that is...there is always a solution and it's a guide that we're using for all of those layers.

33:43 But I don't see [unintelligible] the comprehensive list as being something that is mandatory...

33:49 ...to be a participant into that program.

33:54 So the steps are, in that case, very similar to what I've described for the World Street Map.

33:59 I download the templates the same way. There are...these are specific templates.

34:02 The difference is that there is a geodatabase model attached to the templates so it gives us a kind of a...

34:08 The World Topographic Map is...might be...we could even...

34:12 ...consider this as kind of a version 2 of our generation of building the Community Map initiative already.

34:19 Once you are done with the authoring, we'll cache...you'll cache it...

34:23 ...you'll share that cache with us and then we'll serve that cache.

34:27 We have an update frequency for the World Topo that is a bit more than twice a year because we want to...

34:35 ...we know that there's a lot of initiatives and so we want to, you know, to show the momentum there is.

34:42 So probably at least through the ending of the year, we'll have a monthly update of that World Topographic Map.

34:53 Something that I've mentioned. You have a Community Map Resource Center, a dedicated resource center.

34:58 So if you go to resources.arcgis.com...

35:02 For those of you, you get used to go to the Resource Center, it is no longer resources.esri.com; it's resources.arcgis.com.

35:11 This is where you'll find a lot of details, a lot of material that you'll need to build a map.

35:17 Also you'll see on the main page what we call the dashboard.

35:21 That shows who has engaged into the program and what is the status.

35:27 And it's funny because, you know, with Deane, that presentation with Deane about a week ago...

35:33 ...and I...this map is already...this screen shot is already fairly no longer updated.

35:40 Because we have our contributions for international countries in Europe, in Asia, in Africa so...

35:48 ...I encourage you to go online and check on the map. It's very interesting.

35:52 Great, great momentum on the program.

35:57 So we know that usually...

35:59 We've been lucky because even before asking for questions, we got some questions today.

36:02 So usually my pitch on this one is long, because the first question is usually hard to get.

36:08 So we've proposed a few questions that we wanted to make sure we would review.

36:13 So the first one is, Can a provider build web apps using online maps?

36:19 Yeah. Well, any user could build a map...an app using the map that we serve on ArcGIS Online...

36:26 ...including the community map.

36:29 But for the community map, especially the World Topographic Map...

36:31 ...we're very cautious about the fact that it's going to be a noncommercial use.

36:36 Some of you, some of your peers who have been sharing content with us have said...

36:43 ...Well, we are okay in sharing our content, but it cannot be into any kind of commercial use.

36:49 So we've set up the service so that...

36:52 ...and we've defined the default would be a noncommercial use of the World Topographic Map.

36:58 And so, Is Esri generating any kind of revenue using our data? And the answer is very simple; it's no.

37:05 The map is freely available to all ArcGIS users for noncommercial use...

37:10 ...and with that community map, we don't allow any kind of revenue generation.

37:14 And we don't want to generate any kind of revenue.

37:19 And so, Will the map be updated to maintain its currency? And the answer is yes. Yes.

37:24 And we want to...we also want to... We've designed the program also to manage that workflow...

37:30 ...to make sure that we'll be able and you'll be able to maintain the map.

37:34 And that's also why we wanted to define those templates so that it's not a one-off operation.

37:39 That's why we want to define those data models and those geodatabase so you can manage your dataset in an easy way...

37:46 ...and you don't have to reproduce everything.

37:49 So there will be multiple updates a year...

37:54 ...and we'll be publishing all those updates as soon as we make progress.

38:01 Then who owns the data that is contributed through the Community Map Program?

38:05 Well, unless...unlike some other initiatives, we don't want to own the data. The data is yours;

it remains yours.

38:13 And you just provide us permission to serve the map out using your data.

38:19 So first, two things. What we serve is a cache.

38:23 So I know that some of you have been very sensitive about...

38:26 ...ooh, does that mean that my vector dataset is going to be out there?

38:31 No. It's a representation of your dataset. So if you want to share your vector dataset, you can still do it.

38:37 If you want to produce a layer package and upload it onto ArcGIS.com, in the sharing portion of it...

38:42 ...yeah, you can do it.

38:43 But what we serve as an online basemap is a representation of your dataset.

38:47 So you still have control on your vector dataset, and most importantly, you still own the dataset.

38:53 We don't want to take ownership of it.

38:54 We're just providing a platform so that your data is usable by others...

39:00 ...in a standardized way with a standardized and unified cartography, but it's still yours and you still...

39:07 ...you only give us permission to serve it out.

39:10 Kind of related to that point is, equally important for us, is to make sure that the end user knows where the data's coming from.

39:16 So there's a couple things we do to enable that.

39:18 If you go to ArcGIS Online, ArcGIS.com, and you search for our World Topo Map...

39:22 ...there's a link to a list of World Topographic Map contributors that has a page that's updated.

39:26 Every time we change the map, we change that page, and we list region by region who the contributors are...

39:31 ...and we provide links back to those organizations' web sites where the data came from.

39:35 And then built into the map is a citations layer, which is a polygonal footprint layer.

39:41 So if you were to zoom in on the map, there's an ability to do an identify on the map...

39:45 ...and get information on who the contributor is at that location.

39:48 And ArcGIS.com has a web mapping application that's registered, which is a citations app...

39:54 ...that has some intelligence built into it where if you zoom in to 1 to 10,000 scale in San

Diego, for example...

40:00 ...and you click on the map, it'll do a query and do an identify and then report what data's visible at that scale for that location...

40:06 ...and give you a list of organizations who've contributed to it.

40:09 So it's very important to us that it be known who the actual owners and contributors are of the data.

40:14 That it's not an Esri map; this is a community map, and it's being built from a number of organizations.

40:19 There's literally dozens of organizations who are already participating in the map and cited.

40:25 And so that's something we'll continue doing going forward.

40:28 Thanks, Deane. So it's really your map.

40:30 We're just providing a platform and the framework to serve your map out to other users.

40:36 So will the service be reliable? Yes. Our hosting environment is a very high-end hosting environment.

40:44 We have a 99.9 service level. It's operational 7 by 24.

40:51 And that is also maybe one of the main reasons why you want to use our infrastructure to serve your data out.

40:57 You may have a kind of a mandate that you have to share your data, but that certainly becomes a burden for you...

41:02 ...because you may...you would or may have to pay for your hosting environment on your own.

41:07 You don't have the people to maintain that environment; you don't have the resources to maintain that hosting facility.

41:13 Well, that's what we do basically with ArcGIS Online. That's the environment that we provide.

41:17 And you probably also in some situations could not even justify spending the taxpayer money...

41:24 ...into serving data outside of your jurisdiction.

41:27 And it could be millions of users who could be interested.

41:31 Our system, in the current...if we look at the current trends, we're serving out roughly 8 million tiles a day.

41:39 And last year, we had over 1 billion transactions, 1 billion requests to our servers to get a map.

41:47 So yes. It's a very robust environment, and so that's also something you can rely on. And that is...

41:55 ...if you look at the different elements, I think we have something nice, because the rest of the user community knows that it...

42:02 ...the quality of the data is very reliable, unlike some other open initiatives of sharing data.

42:09 Well, it's where everybody owns the data, which basically means nobody owns the data.

42:14 So it has been created at some point, but you don't know, if you have an issue, don't know if someone is going to be in charge...

42:20 ...you don't know if somebody's going to take care of fixing the map.

42:24 And here, you know, the users know who's in charge, you know. They know that it's...

42:29 ...and they can see the name of the organization who's maintaining those data layers.

42:34 So that's a great point. At the same time, we do provide the platform that is highly reliable so...

42:40 We've already had some feedbacks of public organizations using that map as a reference map...

42:46 ...because they know that even in a public safety context, they can use the map.

42:51 Because they know the quality of the map is great and the availability of the service is there.

42:55 So they're starting using the map for that purpose.

43:00 And though you... Before we turn the questions to you, wanted to kind of reiterate how to get started.

43:10 So one way is to go to [Esri.com/communitymaps](https://www.esri.com/communitymaps), and you'll have all the details of the program.

43:16 If you want shoot us an e-mail direct, you can always shoot an e-mail to online_content@esri.com.

43:24 That goes to the overall team.

43:27 In terms of more kind of a U.S., U.S.-oriented questions and contributions, usually it goes up into the operational level.

43:38 So you can get in touch with Deane, Deane Kensok, who's copresenting, and Colin Stokes...

43:44 ...who I don't know if Colin's in the room today.

43:47 And if you're from international, please, you can engage with me...

43:52 ...and Paul Yoshitomi who's a colleague of ours.

43:56 We're dedicating our time to international because we know there is more, you know, more complexity in doing this.

44:03 There is some language issues; there is some...

44:05 So before we go into the operational layer, I've...there is usually more topics to review with the contributors...

44:11 ...or with our distributors.

44:14 And I think it's now the last slide before we go to questions, it's kind of a...

44:19 ...you know, we've done that presentation.

44:21 Keep in mind that I on Friday, if you want to go into more details, kind of a...

44:26 ...it's not exactly a hands-on; you're not going to be sitting behind a computer.

44:30 But if you go into the details, we have an all-day seminar starting at 8:30 in the morning.

44:34 So I know it's after the Esri party, so it might be a bit early, but 8:30 to 5:00 on Friday...

44:41 ...the technical team will go through the different steps, will present you the templates, go into the details...

44:47 ...what are the values and what are the different steps, you know, down to generating the cache and publishing the cache.

44:53 So that's a great event. Another one is you can go to the ArcGIS Online Island on the exhibit area.

45:01 We have some colleagues over there full-time if you want to sign up for the program, if you want to kind of...

45:06 ...give us a kind of heads-up - yeah, yes. I don't know the details yet, but yes, we're definitely interested in participating.

45:12 Please go there, and you'll also get there some nice presents.

45:15 So saying that I'm a member, I've got that on my tie. I'm a member of the community map.

45:22 I'm a proud member of the community map.

45:24 And then if you want to meet the team, right after today's presentation, in room 28E, which is on...

45:29 ...going to give us kind of a good 10, 15 minutes' walk because of the other end of the convention center...

45:36 ...we'll have a Special Interest Group meeting.

45:38 So if you want to suggest evolutions, things you'd like to get in the community maps...

45:43 ...in the different community maps, good time to engage.

45:47 And we'll have also a social tonight starting at 5:30, and it's in room...it's in...

45:54 ...on the terrace, on the West Terrace.

45:59 We'll have a, you know, whoever has already contributed, whoever has signed up for the program...

46:03 ...we're going to get all together, kind of exchange experience and getting to know each other.

46:07 You know, it's not only about a one-to-one relationship between Esri and you; it's about also building the community.

46:14 So sharing experiences and...

46:17 ...so if you want to participate, if you're ready to go, there is some people over there who have already done it.

46:22 So if you want to get some feedback from those guys, that's a great time to do it.

46:27 Great. Now if they have any questions?

46:29 Yeah. We should open it up to questions. Yes, ma'am.

46:33 [Audience question] What if you just have, like, one data layer, like for the topographic map or street map?

46:38 Can you get that repurposed to actually populate, like, the whole template?

46:41 Or let's say you had an elevation model or contours for an area?

46:46 So...

46:47 [Audience question continued] Would you be interested in collecting [inaudible]?

46:48 So the question is... And the reason I am repeating the question is because we record all those presentations...

46:53 ...but obviously, the microphone cannot hear your questions.

46:56 So the question is, If I only have one data layer, I, you know, can I still participate, can I still contribute?

47:02 And the answer is yes. If you look at the medium-scale maps that we have, and we do have in the same layer...

47:11 If we had Internet connection, it would be so much easier. Oh, yeah!

47:14 We might.

47:16 So I think we'll be able to show that to you. But the answer is yes, because we do have elevation from some contributors...

47:21 ...and then we have vegetation, and then we have roads from somebody else...

47:25 ...and then we some physiographic features, and then we have landmarks from somebody else.

47:29 So definitely yes. Whether... You could be on a very small territory, you could be nationwide, you could be international.

47:35 The answer is yes. Yes, sir.

47:39 [Audience question] Is there any concern about liability?

47:42 When you put all these maps out and they have varying levels of authoritativeness, or how...how do you cope with that?

47:48 Well, we provide... The question is if we have concerns about liability when we're dealing with various sources of information.

47:54 And that is one that was a concern of ours in terms of how do we deal with it.

47:59 One thing that was important from an end-user perspective is that we not overcomplicate things for them.

48:04 So we wanted to have kind of one standard set of rules that applied to the map.

48:08 So we provide our map under a Creative Commons, noncommercial attribution, share-alike agreement.

48:15 If you're familiar with Creative Commons, they're kind of a public organization that does standard licensing...

48:22 ...for content that's available on the web.

48:23 And many public organizations are now licensing their things through one of the many Creative Commons license agreements.

48:29 It basically defines the ground rules for participation, for liability concerns and warranty.

48:35 And it's fairly standard terminology.

48:37 When somebody requests to participate in the map, we work with them to determine whether the...

48:42 ...permissions that they will give us fit comfortably within the license agreement that we have.

48:47 In many cases with local governments, they'll say, Well, yeah, we have our data; it's online...

48:51 ...we have some online terms of use that are available.

48:54 And we'll look at those, and we'll evaluate whether the terms that they have for their data fit within what we're expecting to have...

49:00 ...and what our end-user agreement has.

49:02 And in most cases, they do, and we're okay to participate.

49:05 If there's something in their terms that are more restrictive than what we have, then we'll address that.

49:10 In most cases, we're able to resolve that.

49:13 It could potentially be an issue that would prevent us from putting something in the map...

49:16 ...so we don't have to change the ground rules for the overall map.

49:19 But in general, you know, the map is provided as is.

49:23 We don't guarantee, you know, there's no warranties, expressed or implied.

49:26 All the standard legal terms that are typically provided by our contributors are reflected in our map.

49:31 What we are providing is an online map, built from a variety of best-available sources...

49:36 ...and we're providing some assurances that we'll be available.

49:38 But we're not, you know, making specific guarantees on individual features, and we're...

49:42 ...advising users to exercise caution in using the map.

49:45 You know, the standard terminology.

49:47 You know, if from that licensing perspective...

49:52 ...if your organization is very familiar with the question of licensing data...

49:56 ...you could go into getting your own licenses, because you have the experience.

50:00 You know, your legal group probably is very familiar with all the variations about what licensing data means.

50:06 If you're not such an organization, I would look into the Creative Commons as a reference license really for whatever you do.

50:13 Because great thing about Creative Commons, it's a kind of a public organization; they do maintain the license.

50:21 They review the license, they do evolve the license. They are experts in licensing.

50:26 So, and those guys are providing a, you know, great public resources for licensing.

50:32 So if you're not very comfortable with the question of licensing for your data, look into this...

50:38 ...because probably your legal group will feel very comfortable with it.

50:42 So the Internet did come back. If you'd like, I can do a very quick whirlwind tour, or we can just continue with questions.

50:47 How many people would like to see the tour now? All right. More than three, so I'm going to go ahead and do that.

50:54 I was hoping for three.

50:55 Okay, so...watch out. You just don't want to... Here. Don't break the Internet.

51:00 Okay, so as I mentioned, this is a map that you can go to and, if you saw, I popped it up on ArcGIS.com...

51:05 ...I searched for community basemap, and this map showed up.

51:08 I'm running it in presentation mode, but this is something you could run from...

51:11 ...your laptop here or when you get back to your office.

51:15 So that ArcGIS Online provides access to a variety of basemaps coming from Esri and the community.

51:20 We build them using best available sources.

51:22 And these are all, as we talked about, multiscale, global maps with increasing level of details as you zoom in.

51:29 It includes our World Imagery Map, so you can see an example of our world imagery here in the downtown San Diego area...

51:36 ...as well as our World Street Map; you can see an example here of the street map for the same area of interest.

51:41 And our World Topographic Map. And there's some layers that you could, you might have noticed...

51:45 ...that are similar between them, like the streets, for example, exist in both the street map and the topographic map.

51:49 And there's even an overlay for the imagery layer.

51:52 One question we got yesterday is if I contributed my street data, would it be used, could it be used in multiple maps.

51:58 And the answer to that is, Sure.

52:00 If you give it to us and give us permission to use it in our topo map and our street map...

52:04 ...we're more than happy to do that if we can.

52:09 We talked about the World Imagery being a mosaic of sources in the United States.

52:14 We do have content from a number of sources including federal agencies, such as the USDA.

52:19 So you can see here examples of some NAIP imagery that's been provided to us by the USDA FSA, and it's been blended in.

52:26 The NAIP is a very active imagery acquisition program...

52:29 ...and we're working closely with USDA to update our image mosaic based on latest available data.

52:35 We also are compiling data from other organizations such as state agencies.

52:39 The State of Utah, for example, has made available high-resolution imagery for much of the state...

52:44 ...that's been blended into our image mosaic.

52:46 And also at the county level, organizations like San Bernardino County, California...

52:51 ...have provided access to high-resolution imagery.

52:54 This is an example of imagery in Redlands, California, my hometown, and this is the Esri campus in Redlands.

53:00 This is the building that we recently built, our new headquarters building.

53:03 If you've been to Redlands and to our campus, you'll notice it.

53:06 That was built last year, so this imagery is quite fresh.

53:09 It's from within a year ago, and it accurately reflects the composition of our current campus.

53:16 As I mentioned, this imagery is a mosaic from both public and commercial sources now.

53:20 So we do have high-resolution imagery in metropolitan areas.

53:25 And then outside the United States, we've collected imagery from a number of other sources.

53:29 And we have imagery for areas such as Portugal...

53:32 ...that's coming from the local national mapping agency, and it's been blended into the map and is accessible.

53:39 And then also in other areas, we've also worked with commercial sources.

53:42 So here's an example in Brussels, I believe, where...

53:45 ...we're looking at imagery that's come from one of our commercial providers.

53:50 The street map is built largely, as Christophe described, from commercial sources...

53:54 ...for areas such as North America and Europe where we have data down to 1 to 10,000 scale or better.

54:03 In other regions, we're working through our distributors in most cases to compile data from local source providers...

54:09 ...in many cases, national mapping agencies.

54:11 So for example, in Japan, ESRI Japan has worked with their local national mapping agency to collect their data.

54:17 They've used our map templates to author a multiscale street map for Japan, and that's been blended into our map.

54:22 Similar things have been done for Thailand and Colombia working with local source providers.

54:28 With the World Topographic Map, or our community-based map...

54:31 ...as I mentioned, this is our newest map and one that we're focusing on actively.

54:36 The map is designed to be used as a neutral basemap, so it's really intended to be used for mashups...

54:41 ...which is a key pattern that we see and we want to encourage our users to follow.

54:46 So in this kind of cartoonish example, I've just overlaid some points, symbolizing them and...

54:51 ...and the symbology of the map is designed such that the points, you know, pop off the map; the brighter colors...

54:56 ...the bright reds, the bright yellows, are reserved for your overlay layers, not for the basemap itself.

55:01 It's meant to be a multiscale map that would work well at small global scales down to national scales to very...

55:08 ...you know, to regional scales, state or province, down to local levels of detail, 1 to 10...100,000 or larger scales.

55:17 And then, in some areas, down to even larger scales still.

55:20 So here I've zoomed in to Denver, and you can see in the downtown area that we've got a very detailed basemap.

55:26 And in parts of the map, we've featured some special features, so this is the...the state capitol...

55:32 ...and there's even larger levels of detail available here.

55:38 Users who contribute, we've talked about this a little bit.

55:40 Users who contribute can determine what level they want to participate, what map you want to participate in...

55:44 ...but also what levels are appropriate for your data.

55:46 So if you're a city or a county, then you might want to participate at these larger scales...

55:51 ...if your data works at, you know, 1 to 10,000 scale or larger.

55:54 Maybe if you're a state or national agency, it would be more appropriate to participate at the smaller scales...

55:59 ...you know, 100,000 scale or smaller perhaps.

56:04 The data that we include in the community basemap does come from quite a variety of sources...

56:09 ...at multiple levels of government and nongovernment organizations.

56:12 So, for example, globally we have data coming to us from the United Nations FAO...

56:18 ...who've made available for us canopy data that's been blended into the map at small scales.

56:22 In the United States, we've got data from a number of national mapping agencies such as the U.S. Geological Survey.

56:29 From them we've used elevation data that they provide, their National Elevation Data at 30- and 10-meter resolution.

56:35 You can see here, we're in the Appalachians, I believe...

56:38 ...and the interesting topography here is revealed nicely through that elevation data.

56:42 And then also in this map you can see some labels, mountain ranges, ridges, and so forth.

56:49 Those are coming from physiographic place-names that are compiled by the USGS.

56:54 And Esri has worked to bring those into vector form and blend those into our map...

56:59 ...and we have features like that outside the U.S. as well.

57:02 And other agencies such as the U.S. Environmental Protection Agency...

57:05 ...that partners with USGS to deliver a national hydro dataset; that's been blended.

57:09 So you can see here in the New Orleans area the swamplands and...and river basins that exist.

57:16 And then lastly, the National Park Service has some really rich data for many of our national parks...

57:21 ...and we've blended some of that into our map.

57:23 The first one we did was for Yosemite National Park in California. And so you can see an example of some of that data.

57:30 And if you zoom in, you can get down to very large scales looking into Yosemite Village or Half Dome or El Capitan.

57:38 We've also recently added coverage for Sequoia-Kings Canyon National Park using data from the park service.

57:44 And then we also have data from other state-level organizations.

57:47 This is an example from the state of Arkansas; their Geographic Information Office made some data available.

57:52 And then from the city and county, here's an example from Mecklenburg County, North Carolina...

57:57 ...City of Charlotte, North Carolina, that have made data available.

58:00 So we have coverage for all of the county from data that they made available, and then in Charlotte, some additional levels of detail.

58:08 And then that's been enhanced to some extent with some other added cartography.

58:13 So for the football stadium, the American football stadium...

58:17 ...we have some additional levels of detail down to the yard markers on the stadium floor.

58:23 So as we talked about, this is a very active program. We're adding content frequently.

58:28 During this period of active development, we're doing monthly updates to the map, adding a few new areas.

58:33 So I'm just going to quickly show you a few examples.

58:36 Washington, D.C., was one of our first contributors who did the cartography all on their own...

58:41 ...and worked with our templates and made a very nice map, I believe, of our nation's capital.

58:45 So for the District, there's a very nice basemap available that shows a lot of the rich data that they've compiled over the years...

58:52 ...and have rendered using a version of our template.

58:55 We have something similar for New York City that we've assembled.

58:59 The New York City government has a number of agencies that provide different data layers.

59:04 We assembled a lot of those layers and built a detailed basemap for the city that goes down to 1 to a thousand scale as well.

59:11 Similarly, for San Francisco they have a data clearinghouse that provides access to a lot of information...

59:18 ...and we used that to build a nice basemap.

59:21 And then in areas like the Golden Gate Park area we've done some expanded cartography...

59:25 ...to show some of the rich features there that are of particular interest to visitors.

59:31 Seattle, Washington, is one of our more recent contributors.

59:33 They added content here just in the last month that's been blended into the basemap.

59:38 A very nice example of a city basemap using the template.

59:42 Boston and Cambridge, Massachusetts, were also added here just in the last month.

59:46 And in Cambridge, we went a little bit farther with the...

59:51 This is Jack's alma mater, Harvard University, went to landscape architecture school so...

59:56 ...and they have some beautiful data at the university that we were able to work with, so that's been added into our template.

1:00:02 So they have a very nice, now, campus map that hopefully they would help us maintain.

1:00:07 And then Redlands, California, my hometown. Redlands is a small city; it's about 70,000 people in Redlands.

1:00:15 We do have a GIS department in Redlands, and they've built a number of datasets...

[1:00:18](#) ...so they've made those datasets available and we've built those into our map.

[1:00:22](#) And Redlands being the hometown of Esri, we couldn't resist doing something a little bit special with our campus.

[1:00:28](#) So this is the Esri campus. You can recall the building that we saw in the imagery; these are the same buildings.

[1:00:34](#) Jack, when he was at Harvard, he went to landscape architecture school, so he's got a very personal interest.

[1:00:39](#) You can't trim a tree at Esri with Jack signing...without Jack signing off on it.

[1:00:43](#) And he personally places every boulder that's scattered around the campus and makes sure they're done properly.

[1:00:49](#) That's not a joke. That's not a joke.

[1:00:51](#) Yeah. The cranes'll come in and Jack's like, you know, "Two inches to the left."

[1:00:56](#) And then outside the U.S., we have a few examples that are coming online now.

[1:00:59](#) This is a great one from Toronto, Canada.

[1:01:02](#) ESRI Canada, as I mentioned, built a nationwide basemap for Canada.

[1:01:05](#) They then, when they finished that, they didn't...they rested for a week, I think, and then they moved on to local governments...

[1:01:10](#) ...and have started working with local governments in Canada.

[1:01:14](#) And Toronto was the first of them that they've come online with...

[1:01:17](#) ...a really nice basemap with some detailed buildings and elevation and lidar data.

[1:01:23](#) And then, lastly, Hong Kong is also...they had participated first in our street map.

[1:01:29](#) They were very interested in having a very large-scale basemap for their community.

[1:01:33](#) Hong Kong is one of the more dense cities in the world, and even 1 to 5,000 scale is not sufficient scale to...

[1:01:40](#) ...show all the full feature density that they need to have in their basemap.

[1:01:44](#) So they were anxious to work on a map such as the topo map that allowed them to work at very large scales down to 1 to a thousand.

[1:01:50](#) And they've done that and done a very nice job with their map using the local data that they have available.

[1:01:56](#) So it's, as we mentioned, this is one way to get started.

[1:02:00](#) While you're at the UC, I would encourage you...

1:02:01 ...if you're interested in participating, to spend some time at the online GIS island.

1:02:05 There is a couple colleagues of ours, Colin Stokes and Tiffany Cronin, who are down there to answer questions...

1:02:10 ...and to actually sign you up in the program if you like. You sign up today, there's a social this evening.

1:02:15 You could have a chance to meet with more people in the program and other people on the team.

1:02:21 So with that, let's go back. I think we've got nine minutes for questions, then we have to start trekking over to the SIG. Sorry.

1:02:28 [Audience question] When you navigate around here, are you just, in general using Explorer Online then?

1:02:33 That's basically what you're doing?

1:02:34 Yeah. Correct. Yeah, so just in ArcGIS.com, as I mentioned, I searched for community basemaps.

1:02:40 I found this item, community basemaps, which is an ArcGIS Explorer Online web map.

1:02:44 When I opened it up, it opens up in Explorer, and then you'll see that during my free time I authored a little presentation.

1:02:53 So all of the little maps we were going through have been captured as slides in a presentation.

1:02:59 So if I wanted to capture a new slide, I go in, I edit the text; I won't do this.

1:03:08 And then I could capture a new slide, and it adds that to my presentation, and then that shows up.

1:03:13 And then if I play, it shows up. So it's a very simple tool to create a mashup.

1:03:18 In this case, I was just switching between basemaps so I didn't have to create much of a mashup...

1:03:21 ...but I spent a few minutes going through different places, adding some text to it...

1:03:26 ...saved it as a presentation that now lives in ArcGIS.com.

1:03:29 And then a user who discovers that, such as yourself, can open it up and run it in presentation mode and do the self-guided tour.

1:03:35 [Audience question] Well, last year, that same functionality was just in ArcGIS Explorer 900 then. Is that right? [Inaudible]

1:03:42 Correct. So last March when we released ArcGIS Explorer 900...

1:03:46 ...which is a desktop application we introduced to this presentation capability...

1:03:50 ...but that was only running in our desktop software at the time. And 900 then 1200 had the same thing.

1:03:56 Just with the release of ArcGIS.com, we introduced ArcGIS Explorer Online...

1:04:01 ...which is a browser-based version of that application.

1:04:05 A lot of the same functionality, but it runs purely within a browser.

1:04:07 So you just need to have a Silverlight plug-in on your browser, and which most current browsers do.

1:04:12 So it's great, 'cause, you know, desktop...

1:04:14 A lot of users downloaded ArcGIS Explorer; there's hundreds of thousands, but not everybody can do that.

1:04:19 And if you want to share a presentation, you can't expect everybody to have it installed.

1:04:23 So this is a great way, and this is a real pattern.

1:04:26 And it's kind of a sidetrack, but I feel pretty strongly that it's a great way to tell a story.

1:04:31 You know, if you liked what we did in this presentation, it's great to be able to articulate a story about your map...

1:04:37 ...but still give the user control over the map. You know, it's not a bunch of static PowerPoint slides.

1:04:42 They can stop at any point, pan and zoom, zoom in and out, take control of the map, and then continue to play the presentation.

1:04:48 So we use this a lot. When I'm briefing Jack, I typically use tools like this to kind of run through.

1:04:54 And it gives us flexibility, so after the first slide when he sends me on a detour, I can, you know...

1:04:58 ...go that direction and then get back to where I started pretty easily.

1:05:02 So I think it's a great way to tell stories with your maps. And there's also, if you go to ArcGIS.com...

1:05:08 ...and you go to the gallery...sorry. Go to the gallery; there's some interesting maps in here; one for, say, San Diego County.

1:05:17 This is one of the participants in the map, and for many of the maps that we're adding to the Community Maps Program...

1:05:23 ...we are encouraging users to not only just create the map but to create a web map that tells the story of the map.

1:05:33 So for San Diego County, after we published the map online, we created what we call a web map...

1:05:39 ...an Explorer map that tells a little bit of a story about the place.

1:05:44 And so sometimes the maps are really vehicles to tell a story...

1:05:47 ...and in the case of a city, you might want to tell the story of your community.

1:05:50 So this is an example of that, and I'm running it in automatic loop mode right now...

1:05:54 ...so it's just going to go through the different slides.

1:05:57 But it's a great way to publish your map and then tell the story of your community. Yes, sir.

1:06:02 [Audience question] Will you be facilitating or have the ability for a community to suggest error corrections?

1:06:09 Great question.

1:06:10 Yeah, that's a good...good question.

1:06:11 So the question was, Will we be facilitating an ability for the community to suggest error corrections?

1:06:17 And the answer is yes, we definitely want to do that. We...

1:06:21 What we envision is having a web application running at a new site, like CommunityBasemap.org...

1:06:27 ...that allows users to use the maps but also to comment on the maps and, you know, make notes or geotags...

1:06:34 ...where they see issues, and that information will then get recorded back into a central geodatabase.

1:06:40 And then that information will be vetted and then forwarded on to the data providers.

1:06:44 We're going to do that through some of the new capabilities in ArcGIS 10 with its ability for feature services.

1:06:50 So the reason it doesn't exist today, 'cause we didn't have the tools to do it until recently but now we do.

1:06:55 And so that's something you can look to see later this year.

1:07:00 [Audience question] Is the topographic base that's being...caches are being generated by the contributors...

1:07:05 ...does the template require Maplex, and would additional, more detailed hillshades...

1:07:10 ...be possible to incorporate in the caches?

1:07:13 The question is if we're using...if the user is generating the cache, do they...does the template require Maplex.

1:07:19 And could you repeat the last one?

1:07:20 [Audience question] Are hillshades one of the layers that can be added at higher resolution?

1:07:25 And are hillshades one of the layers that can be added at high resolution.

1:07:28 The answer to the first one is, yes, we do encourage users to use Maplex...

1:07:33 ...because it does do some advanced label placement, stacked labels and so forth. That is part of the template.

1:07:38 For users who are participating, we have made some special arrangements to get them a license of Maplex...

1:07:43 ...for the purpose of this, if they don't already have it.

1:07:45 But yeah. We would encourage users to do that.

1:07:48 And then, yeah. Hillshade, we do... As Christophe mentioned, there's a few layers of information...

1:07:52 ...that Esri has separately licensed rights to use and can be made available for blending in. Elevation is one of those.

1:07:59 We have access to 5-meter-resolution elevation for most of the United States and large parts of Europe...

1:08:06 ...that could be blended into a map that's generated at very large scales.

1:08:10 And we also have access to lower-resolution elevation for larger areas. Sir?

1:08:16 [Audience question] Okay. Before the Internet...'net came up, you alluded to one basemap that described the program.

1:08:23 Could you just show where that is?

1:08:25 I think the one I was referring to was this...

1:08:29 Presentation. ...this presentation.

1:08:31 The ArcGIS Explorer Online Community Maps presentation.

1:08:35 So what I would suggest is go to here, ArcGIS.com, search for community maps, and there's this Community Basemaps map.

1:08:44 That was the one I ran through.

1:08:45 The other one that's a little bit more abbreviated version is also featured in our gallery.

1:08:50 This is one that Bernie Szukalski authored, a Community Maps tour.

1:08:54 And it's...it tells a similar story but in a more abbreviated version. I'm longer winded than Bernie is, I guess.

1:09:02 Got a few more minutes. Any other questions? Yes, sir.

1:09:04 [Audience question] Is there a possibility to use these maps in a GPS?

1:09:08 The question, Is it possible to use these maps in a GPS? And, yes. You could.

1:09:12 There...the map... If you have a GPS-enabled device that's able to display...

1:09:17 ...that has Internet connectivity and is able to display an online map, then yes, you could.

1:09:21 And the ArcGIS for iOS application that was released recently would...

1:09:26 ...you know, iPad devices and iPhones with GPS is a great of example of how to leverage this with a GPS, so...

1:09:33 ...that would be a great way to use especially in rural areas for hiking and...and so forth.

1:09:36 Did you have a question, ma'am? No? Yeah.

1:09:39 [Audience question] Where...where is this island that you're talking about [inaudible]?

1:09:43 Sure. There's...there's a main showcase area down on the first floor in Hall C where the...

1:09:49 ...the product islands are and the partner showcase exhibits are.

1:09:53 In the product area with the white signs are a set of product islands...

1:09:59 ...and there's one called Online, which is right in the center right behind the Product Info booth.

1:10:03 The Online Island is where we're talking about ArcGIS Online, ArcGIS Explorer, and the Community Maps.

1:10:09 So if you go to the Online Island down in the showcase.

1:10:11 It's right in the middle.

1:10:13 Right in the middle. Yeah, we got great location. Yes, sir?

1:10:17 [Audience question] Could you just repeat what you said about what I would do as a community...

1:10:21 ...if I wanted to share my vector maps as vectors.

1:10:26 Right. So the question is, What would you do if you wanted to share your vector maps as vectors?

1:10:30 So if you had a vector layer that would fit into one of our maps, but it wasn't sufficient to support the full map...

1:10:38 ...you would typically deliver the vector layer to Esri...

1:10:42 ...and then we would do the work of authoring that vector layer into the appropriate map.

1:10:46 So let's say, for example, it's parcels. You have parcels for your community.

1:10:49 You'd deliver the parcel data to us with permissions to blend it into a map...

1:10:54 ...and then we would author that into one of our maps at the appropriate scales and then cache it along with other layers.

1:10:59 The important point being that the maps that we're looking at...if I go back to, say, San Diego.

1:11:08 At a given scale, the map will have a number of different layers in it...

1:11:12 ...and so we generate the cache with a composite of all those layers combined together.

1:11:17 So we don't generate the cache until we've built the full map.

1:11:21 [Audience question] [Inaudible]. The broader question, though, is...

1:11:25 ...is there a facility outside of this program for me to contribute that...

1:11:31 ...and allow some other user to download the vectors [inaudible].

1:11:34 Yes. Okay. Good follow-up. So the broader question is can, outside of this Community Map[s] Program...

1:11:40 ...is there a mechanism to share that vector data with other users.

1:11:43 And the answer to that is also yes. And that can be done through ArcGIS.com.

1:11:48 So if you go to ArcGIS.com, one of the types of items that you can add and share is what we call a layer package.

1:11:55 And a layer package is something you can create from ArcGIS Desktop where you take, say, a vector layer, a shapefile.

1:12:00 You apply some symbology to it; you right-click on it, create a layer package...

1:12:04 ...and it packages up the vector data and the symbology.

1:12:06 You can upload that and then you can share that.

1:12:08 There's hundreds of those that have been shared by users so...

1:12:11 ...definite, that's a great way to do it.

1:12:12 And for maps that don't fit into the topo map, somebody might say...

1:12:15 ...Well, I've got some great, you know, ecoregions data that I'd really like to get out there.

1:12:19 It may not fit into one of our basemaps, but that's a great way to share it with users.

1:12:23 Author a layer that would overlay on a basemap and then create a layer package and share that or publish a service with it.

1:12:28 It's also a great way for you to create your own community, because on ArcGIS.com, you could create a group.

1:12:33 So if you have a group, if you're a member of a community of the ecoregions, you could

gather your peers...

1:12:40 ...and create a group, manage that group, open the group either to everyone or just to your community, and then each of...

1:12:48 ...each of you...each of you as a member could contribute this data to that group.

1:12:53 And then you would have access to all the data of the entire group.

1:12:56 So here's a good example of that. This is a group in the site that's featured, National Maps for USA.

1:13:01 Has data from a number of federal users, and if you look at the list, there's some like alternate...

1:13:07 ...alternative fuel stations and diabetes rates that are layer packages that have been published.

1:13:11 And so if I were to select one of these and open it, it would open up in...with my ArcGIS Desktop application.

1:13:17 [Audience question] Does ArcGIS Explorer Online consume layer packages?

1:13:21 Question is, Does ArcGIS Explorer Online consume layer packages? And the answer is no.

1:13:25 You can do that with ArcGIS Explorer Desktop.

1:13:27 To consume a layer package, you need a desktop client like ArcGIS Explorer Desktop or ArcGIS Desktop. Yes, sir?

1:13:36 [Audience question] Think you addressed this in an earlier question.

1:13:39 We upload a boundary, city boundary, see, like in the topo map, you know...

1:13:45 ...it's an old...they have no boundary for us, how is that going to be solved at their level?

1:13:52 In other words, you overlay it or as it would be in that map, it's going to look kind of funny...

1:13:58 ...'cause it shows, you know, maybe a shade for the city boundary, but our boundary would be much bigger.

1:14:06 The best would be to let us know that you have that boundary layer, and the best way to do it would...

1:14:12 ...go on esri.com/communitymaps and then complete the form that we have there.

1:14:18 [Audience participation] Okay.

1:14:19 And then we'll know that you have that dataset.

1:14:20 So you may want to share it as a vector and as part of ArcGIS.com...

1:14:25 ...but you may also want to let us know that you have that so that we know and we could provide the data [unintelligible].

1:14:32 [Inaudible audience participation]

1:14:35 Yeah, we would try to facilitate that. I mean, sometime...boundaries are a controversial thing; not everybody agrees on boundaries.

1:14:40 But we would certainly facilitate the communication to say there's a disputed boundary here and...

1:14:46 [Audience question] And through that mechanism you discussed in that other question, the answer?

1:14:50 You said about coming to the form.

1:14:52 Yes, right.

1:14:53 Yes. That would be the...that would be a great... Yeah. ...vehicle to do that.

1:14:55 So yeah. We want that ... That will be one of many capabilities we intend for that web site.

1:15:01 But that will be a key one, for users to report feedback.

1:15:03 [Audience participation] Thank you.

1:15:04 I think we've run out of time. Ma'am, you had your...

1:15:07 [Audience question] Yeah. I just was wondering, what percentage of the maps that are part of the online...

1:15:11 ...map services are also available to download?

1:15:15 So the question is, What percentage of the maps that are available online are also available for download?

1:15:21 That's a good question. I have a hard time quantifying that.

1:15:24 Right.

1:15:25 Most of the maps, say our imagery map, the volume of imagery is so substantial...

1:15:29 ...that delivering it as an online map is a much more efficient distribution mechanism.

1:15:33 And so in that case, very little of the data is available for download.

1:15:37 On the other end of the spectrum, with our street basemap, many of the layers that you see in our street map...

1:15:43 ...like country boundaries, county boundaries, major roads, highways, landmarks, parks...

1:15:50 ...those are available to download, and you can get to them through ArcGIS.com.

1:15:54 Another group that's in ArcGIS.com that you may not be familiar with is an Esri Data & Maps group.

1:16:00 And if you're an ArcGIS user and have been for a while, you've probably received the DVD

in the box.

1:16:05 We now have many of those layers, in fact almost all of those layers are now layer packages on ArcGIS Online...

1:16:11 ...and you can download them.

1:16:12 So you could download the counties and countries and parks and landmarks as layers from ArcGIS.com.

1:16:18 But it really depends on them being small enough to transport via the Internet.

1:16:22 And most of those vector layers are, but in pieces like imagery, it's not typically feasible.

1:16:28 Well, thank you very much for your attendance. Feel free to join us at the SIG, I guess in 28 E.