

**Presenters:**

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Note: Q&A transcript begins on page 7

The webinar recording and transcript will be available to everyone soon after the webinar. For now, we will disengage the chat function, and we will re-engage it during the Q&A session.

During this webinar hour, we will focus most of our time on the main topic, Arches Collector and the Q&A session. Since we announced the webinar two weeks ago, we have received a number of questions in advance, and we will try to cover most of the questions during the Q&A session. As I noted, the chat feature in the webinar will be engaged so you can chat us your questions at that time.

So now we will begin with a brief intro to this new Arches webinar series.

Our intent is for this webinar series to complement the existing Arches forum, where community members can post their questions or search on topics that may be of interest to them. And the forum is known, as well, as a community support group.

Also, this webinar series is a supplement to the resources and materials available on the Arches project website.

Your topic ideas will be considered for future webinars so we encourage you to submit questions for topics. In the future, if you would like to present a topic our idea is to also invite guest presenters to share their experience using Arches or feature an Arches customization. Regarding frequency, our plan is to have regularly scheduled webinars so your feedback is very much appreciated.

You may already be familiar with Arches, and have probably already visited the Arches website. Arches was developed jointly by the Getty Conservation Institute and World Monuments Fund. Arches is an open source platform for cultural heritage data management.

Although our main topic today will be on Arches Collector, the new mobile app, the Q&A session is general Arches-related. We can also explore Arches topics that are not only related to the mobile app.

We will now begin with a preview of Arches Collector.

So what is Arches Collector? Arches Collector is a new data collection mobile app. And more specifically, it's a companion app for the Arches platform. It is a tool specifically designed for projects in the field, such as surveys. Data can be collected in both online and offline mode. And the data is synced to your existing Arches system.

In the next few slides, we will preview Arches Collector including compatibility and requirements, capability and features. And we will also share the status of the community testing phase. And look behind the scenes into the admin tool, Arches Collector Manager, where data collection projects are created.

I am going to engage this video, but one moment, ok, sorry about that. We prepared a short video, as you see here, of a few highlights of Arches Collector.

Here, we're actually in the Valley of the Queens in Egypt, and we are showing some geospatial capabilities, as well as the feature of uploading photos directly from your phone, and editing resource data in the app. So that concludes the video highlights.

Arches Collector is compatible with both iOS and Android devices. And will be available in the Apple store and Google Play Store in early September.

To use Arches Collector, it is required to have an existing Arches instance version 4.4.2. And the data can be collected in both online and offline mode. Once the data is collected, it's saved locally on your device. Thereafter, you can sync to your Arches instance once you have Wi-Fi or network connectivity.

As Arches is an open source platform, the app is free, and there are no license fees associated with the use of the app.

Another benefit-- if you have a project that is crowdsourced or you have a large number of volunteers, the app can handle an unlimited number of users.

Regarding project parameters and permissions, Annabel will go through our admin tool, Arches Collector Manager, and give more details on that.

So here we have an example of a list of resources that were created in the app. In the next slides, we will see an example of features by looking at one of these heritage resources shown here. And I'll show you that.

So here we are in Editor mode. And we have an example of a heritage resource created in the app. This resource is the Kasbah of Taourirt in Morocco. The fields you see here are based on a data model we created for this Arches instance. These fields, including resource name, place,

description, condition assessment, and reference images, depict the type of data to be collected for this specific project.

In this screen view, we are in a Resource Report mode, and we see a different view of the Kasbah of Taourirt resource data. Here you can see a report of all existing data, plus the data that has been collected and entered in the app.

You can also edit data in this mode, as seen by the Pencil icon on the right of each field. If you want to see an overview of the current data in this specific resource, which is the Kasbah of Taourirt, this Resource Report view is where you can see it. And if I were to scroll down on the screen, you would see all of the additional data that's been collected for this resource.

Similar to the Arches platform, Arches Collector has geospatial capabilities. To identify geographic locations, you can pinpoint locations on the map, draw a polygon of an area or building. And one note that I wanted to mention-- offline maps are an option for when you are working in an offline environment. One thing to consider is that offline maps should be downloaded while you are connected to a Wi-Fi or network and before you start work in the field in offline mode.

Another feature of Arches Collector is the ability to capture images directly in the resource you are collecting data for. And have it saved locally on your phone until the app is synced to your Arches instance. Here we have an example of multiple images captured in the mobile app, as well as images uploaded from the phone's photo library.

Last, but equally important, here we are featuring the ability of the app to sync data from the mobile app seamlessly to your Arches instance. Again, please note that a Wi-Fi or network connection is required to sync. But you can collect data in offline mode.

Before the sync occurs, the data is saved in memory on your device. Based on how you set the permissions in your admin tools, the data will be held provisionally or auto-publish to your Arches instance. Project parameters and permissions are set up in the admin tool, Arches Collector Manager, and it will be previewed in the next section.

Arches Collector is currently in the community testing phase. We're about two weeks into the community testing phase. We have 20 Arches community members are participating in testing the app in over five countries. We are providing support during this testing phase. And testers are submitting their issues and feedback. We expect to conclude the test in another week or so.

Once the app is approved for release on the app stores, we will announce it to you all. And we expect the app to be available in early September.

So this concludes the section of the Arches Collector preview. If you have any questions about everything that was featured in this section of the webinar, please chat us during the Q&A session.

Now I will pass on the presenter mode to my colleague, Annabel Enriquez. And she will preview the behind-the-scenes admin tool, Arches Collector Manager.

Hello. Good morning, at least in Los Angeles, where we're at. Dennis isn't actually in San Francisco. So we're all on the West Coast here.

Thank you for attending this webinar. And I will be presenting the Arches Collector Manager, which is part of the Arches interface which actually manages what projects and how you configure your mobile data collection projects to be used on your mobile devices via Arches Collector.

So the Arches Collector Manager creates the data collection projects to be deployed on your mobile device via the Arches Collector app. And it defines specifically who will be taking part in the survey or mobile data collection project because it might not be a survey. It could be a crowdsourcing project or just some project in which you want to deploy users to or enable users to collect data, specifically for your Arches instance. And so it helps you to find that, what data will be collected, where your projects will take place, and when your project will be active.

I will be giving you a demo on this, but before we do that, I want to talk a little bit more globally about how this process actually works. So once you've set up your Arches instance, which includes your data models and how you will be managing your data and what data-- so you would typically do that through the Arches designer. And anyway, once you set that up, so once you set up your Arches instance, it's very easy to then define your local data collection project parameters using Arches Collector manager because Arches Collector manager just pulls information from your Arches instance in a selective way based on your own parameters for the project, and then deploys that to your mobile device. And as Alina mentioned, that can be an iPhone, iPad, Android device, an Android phone or tablet.

So that is the overview of how you deploy an Arches Collect project to your phone. Now I will actually now launch into a demo of how this works just to show you how easy it is to set up a mobile data collection project. So I will escape our of this and actually show you how it works.

So what you're seeing on the screen right now is the Arches Collector manager interface. So this is part of the Arches user interface. So if you have an Arches instant version 4.4.2, you should be able to access this now. And you see here that there are two surveys in front of us-- Global Heritage Survey and Global Heritage Survey Test-- and those are some existing surveys that we have for this particular instance of Arches.

Again, everything that I'm going to be showing you is specific to this instance of Arches. Your Arches instance might be very different. You might have many different projects going on. But for this instance, these are the projects that we have.

So to actually create a project to the point onto your mobile device, I'll go ahead and select New Project. And what you're seeing now is the projected dashboard. You'll see that it's unnamed because I haven't set the parameters yet, and I'm going to go through that process now. So on the left-hand side, you'll see that I've got a menu of items, or basically settings that I'm going to need to fill out for the mobile data collection project. So I'm going to go ahead and move through those now.

So for settings, I need to name this. What is this going to be called? So I'm going to call this Webinar Test Survey. Moving along, Arches allows you to define what your projects start and end dates are. So these are the dates for which you will be able to or your users will be able to collect data using Arches Collector. And today's the 15th, and let's say that I only want this project to be active for a month. So I will set it to the 15th of September as the project end date.

And then I will describe it so that the people who you are using Arches Collector and are hooked up to this particular incident will know which project this is because one thing to note is that you may have multiple projects going on at the same time, and users might also be participants in multiple projects. So it might help to have this description. So this is the description for this project.

So now I'm going to go to the right-hand corner and save this and move on to the next parameter to set, map extent. At the moment, I have a default map extent that defines an area, basically the metropolitan area of Lincoln in the United Kingdom in England. So that's not the project area that I want to be collecting data for, and so I'm going to-- I selected that boundary and I'm going to delete it.

And now on the survey that I'm going to do is actually going to be in Los Angeles, California, in the United States. So I'm going to go ahead and go there. Oops, I selected Chile. Not that one. Let's go to Los-- not the real Los Angeles. They're both real Los Angeleses. Let's go to Los Angeles, California, where Alina and I both are sitting.

So now I'm going to draw a boundary around my project area, and I'm going to save that. So this defines the area for which we will be collecting data. The next parameter to set-- and I won't go into this too deeply, but Alina mentioned that you will be able to have online and offline access to the app and be able to collect data whether or not you have a signal. And for that you would need both online and offline maps. And this area gives you the ability to define where Arches Collector will pull those maps from, whether they're offline maps files or linking to an online map service. So that's a parameter that you can set. I'm not going to set that now, and I'll move forward.

This next one called Models-- basically, what this parameter is, is defining what actual data entry fields you want to be collecting against using Arches Collector. And as I mentioned earlier, this is based on your Arches instance. So whatever data models you have set up in your Arches instance, Arches Collector manager will look at that and allow you to decide which models you want or resource types you want to collect information for, and not just that, but what particular data should be of cards and forms within your data models. So I'll show you what I mean by that.

So for this particular survey, I know that I want to collect information for my global heritage resource type. So again, all of this is customizable and highly dependent on how you have your Arches instance set up. Clicking on the Global Heritage Resource in the left-hand navigation, you'll see that I have data entry forms for five different types of-- five groups of information. The first is Name, Place, Description, Condition Assessment, and Reference Images. So that's how I have it set up in my Arches instance, but for this data collection project I don't want to collect information for all of these forms.

So what I'm going to do is I'm just going to select what I want to collect out in the field, and that would be name, place, description, and reference images. Basically, I've decided that I don't want to collect on condition for this particular month. I'll save that.

And then the next parameter to set is whether or not I want my mobile data collection project participants to be able to download data from my Arches instance. So let me toggle that on. And as a note, this might be useful in a couple of instances. Number one, if you are augmenting existing records and you want your users out in the fields or with their devices to be able to augment existing records, or also alternatively they can serve as reference. Information in existing records in your Arches instance might serve as records or reference material for your collection participants.

So you'll see here that I'm able to select these parameters. But also, too, if I want to be a little bit more pointed about what information my surveyors have in the field, I can perform a search within Arches. So for example, in this example here, what you're looking at now is the regular Arches search screen, and I've done a search for mid-century modern heritage resources in Los Angeles, and I've got 30. And perhaps these are the 30 resources that I want my surveyors to actually go out and resurvey or augment with additional information.

So for me to be able to have them access these resources, what I'll do is now I've performed this search within Arches, and now I will select-- I will go ahead and copy the URL of the search, go back to this interface, and paste it. And so what that means now is that when my users pull this survey on their phone, they will download those 30 resources to collect out in the field or to reference out in the field.

And then the last parameter that I'm going to set is, OK, who are these users? Who do I want to participate in this particular project? And it's defined first by groups, and these are groups that - there are some default groups in Arches, but also groups that you can set. Again, all depends on your Arches instance. But for this project, I know that I have a group under my RDM administrator group. So these are people in my group who are setting controlled vocabularies, and I know that that is the group that I'm going to be pulling from for this particular survey.

And going to the left-hand navigation, I see that I have six people in this group. But I don't want them all to be part of this survey. So I'm going to say I'm going to click off Alina because she has better things to do than be out in the field. And so now I only have five participants in this group that will be collecting data. So I'll save those edits.

And then now going back to the dashboard, if I scroll down, I'll see that my users are me and some other people that I want to be part of this particular survey, so only five people. And then to actually deploy this hue those five users' mobile device, I would go ahead and toggle this and activate the project. So I'll do that.

So for the most part, that's all you need to do to set up a mobile data collection project using your Arches instance. So that concludes the demo portion, and I'm going to switch now to my PowerPoint. And we're going to now pivot to Q&A. Dennis will be the main speaker during this section, but I will also be monitoring and moderating questions.

So we have some questions that were sent to us before the webinar, but also Alina will be enabling the chat feature so that if you have any questions regarding anything that we've presented, you can chat them to us. So just type them in the chat, and I will be making sure that I'm monitoring that. But also, too, we also have some questions ready to go. So if I don't see any questions-- and I don't see any right now, but again, you can chat them at any time during this Q&A period, and I'll be monitoring that.

So Dennis, let's get started. So as I mentioned before, Dennis is in San Francisco, and hopefully this works. I mean, it worked last night. So Dennis are you-- let's see. So Dennis are you-- let me unmute you. Hi, Dennis.

Hi, Annabel. Can you hear me?

### Questions and Answers\*

**Community Question 1a, 1b:** Why Arches? How is the Arches Platform different and efficient than GIS applications and MIS? What are other advantages of Arches other than that Arches follow standards?

**Response from Dennis Wuthrich:** Those are, I think, really pretty relevant questions. Makes sense that'd be sort of the first thing somebody would ask about Arches. And especially if

you're used to working with the GIS and you have a history of managing your social heritage data with GIS, it seems like a natural question. Why shouldn't we ask that?

I think Arches provides a couple of compelling reasons why you might want to consider it. The first is Arches does more than just manage the geospatial aspects of cultural heritage data. It does a couple of things in addition to that. So as well as managing the where part of cultural heritage, it also manages the what and the when, I think in a pretty flexible and pretty formal way.

So one of the things Arches does natively that is really not in the preview of GIS is managing the temporal aspect of cultural heritage data. So it's pretty common to have to worry about when a particular resource had a particular typology or when it was produced, and often that time is pretty uncertain. And so Arches implements and tools that let you manage, let you describe the uncertainty of time in a very formal way.

So for example, it's often the case where you might want to record a building as a culturally significant resource, but you're not 100% sure of the time at which was built. It may be it's something as nebulous as the 1790s, or maybe you know it was in the spring of 1882. This is a legitimate concern for managing cultural heritage data. And Arches selection lets you input that degree of uncertainty, and it will automatically index that into time so that you can do time-based searches on resources that are fuzzy. You can use fuzzy dates.

Arches also implements a true resource management system as opposed to the typical GIS, which really is just worried about controlled words like word lists. So one of the benefits there is being able to define multiple labels using multiple scripts in multiple languages for a single concept. And that's a way of ensuring that you have a lot more flexibility and data input. It increases the flexibility and the user experience for searching.

But probably most importantly, it enhances the interoperability of the data that you collect with Arches, which is, I think, perhaps one of the key points in Arches. It lets you build semantic models. So that is to say, you can think of this as a way of embedding the description in the metadata of your model into the dataset, and this is one of the key things that Arches is trying to do. And that is to let you create information about your cultural heritage that will outlive the software. And Arches uses these semantic models and is able to output data as Linked Open Data which is a way of greatly increasing interoperability to your dataset. This is something that you just can't beat with the traditional GIS.

As for what are the other advantages of Arches besides following standards, I think the key one is that Arches is open. It's open source, which means you get all the benefits of open source software. That is to say, it's extensible. you can review it, look at the code and review it and assure yourself of its quality. You're not locked into a single vendor. You can choose to extend the software on your own. You can engage, really, any developer who has expertise in Python and JavaScript.



Arches is designed to be a rapid application development environment, so it's a platform on which you control applications very, very quickly. And it's really useful for measuring cultural heritage data, but really many, many other datasets as well. So that's the, I guess, relatively short thumbnail of why you might want to consider Arches as a tool in your cultural heritage data management efforts.

**Community Question 2:** [Regarding Arches Collector] Can you have multiple projects that a contributor can take part in, more than one project at a time?

**Response from Annabel Enriquez:** Yes. So I will just go and answer that question. You can have contributors that take part in more than one project at a time, and hopefully that answers your question.

**Community Question 3:** Would users have the ability to import data from another platform?

**Response from Annabel Enriquez:** So this is a general Arches question. For example, if we are using a different app to survey an area and decide to switch to Arches, could we import the data we've already collected?

So this is Susan, I believe. Yes. So Susan, we're actually going to answer that question. But the short answer is yes. We're going to talk about-- there's a question that we have later on, and maybe we should just go to it now, about deploying Arches. So if you have legacy data from another project or collected via another process, you can import that data into Arches.

And so I'm actually going to-- since that is a nice question to move into this other question regarding deploying Arches. Dennis, you want to go into deployment, the whole process, and maybe wrap that in? I mean, again, the answer is yes. You can import data from other platforms, other data collection apps, whatever. There is a process for it, but you can do that.

**Response from Dennis Wuthrich:** Yeah. Thanks, Annabel. And I think it's a good question because almost everybody comes to Arches from some existing data management system. It might be GIS, it might be Excel spreadsheets, it might be a legacy database, and that information is super valuable and you'll want to get it into Arches. And so arches is designed to let you import data into it from, really, a multitude of different formats. So that's, again, the short answer.

**Community Question 4:** What's the process for deploying Arches?

**Response from Dennis Wuthrich:** I think there's a series of at least considerations that are worth mentioning when you're thinking about how to deploy Arches. And really, this is, I think, probably germane to deploying really any enterprise-level information management system.

So at least if it was me, the first thing I'd be asking is you know is this tool, Arches, really the right fit for our projects? And do I have access to the resources I'm going to need to deploy it properly? So those resources will include technical expertise. It'll probably include some level of budgeting. So do I have the monetary resources or access to the time of people to implement the system? So that's a key first question.

Once you've answered that question and you concluded that Arches is a good fit, you'll want to decide how to host the software. So will that be on your own internal servers or will it be on the cloud? Arches is happy either way, but that's a key decision that you'll need to make.

Once you've determined where you want to host Arches, it's a matter of installing the software and its dependencies. And this is, I think, a good time to ensure that your in-house resources, if you have them, so your system admins, for example, get familiar with the technology stack and the terminology that Arches uses.

Once you've got the software running, you'll want to think about how to model your data. And this is true, really, any time you're thinking about moving from one information management platform to another, and it's actually a really good opportunity because it gives you a rare chance to think about how are you going to use your information, your cultural heritage information. Who are the stakeholders and how are you going to represent the complexity of the real world in your information management system?

Arches gives you a really good set of tools for doing visual modeling of your cultural heritage status, so you don't need to know any code. You don't need to know any SQL. You can do this with the built-in Arches editor, and it's a key step in deploying really any enterprise information management.

So once you've got your models, you get to, really, the biggest question, which is the data import. I think if you've ever done this before, you're probably already aware of how challenging or at least non-trivial this could be. This is usually an opportunity to clean and restructure data for import. It's tempting to minimize the effort here, but really, in my experience, this is where really the bulk of the work is going to be.

So once you've imported your data, [INAUDIBLE] position to use Arches, which means that you're really going to be in a long-term use and maintenance phase. The key point here is you'll want to think about this as an ongoing process. It's not a one and done thing. As you start to use Arches and rely on it for managing your information, realize that the software is continually being upgraded. We're enhancing it, we're fixing bugs, we're releasing newer versions. This all requires ongoing maintenance, and it's something that you want to be ready for and plan for.

So I guess I'll end by saying that it's definitely something that requires some thought, recognize that it will take resources. They may be in-house or outside experts. But you'll need to be sure that you have access to the resources you need to deploy Arches in a successful way.

Thank you, Dennis. And I'm going to let everyone here participating know that don't worry. You didn't have to write all of that down. We are going to be not only posting the recording of this webinar, but also hopefully being able to do a transcript, at least of some of the questions, especially the lengthier answers to the questions. So we'll make sure that all of that information is available to you. But yeah, that is a lot of great information.

**Response from Annabel Enriquez:** So with deploying Arches, because it is an enterprise-level software platform, there are lots of considerations and steps, and part of that is because it is such a powerful platform that you are deploying on your own servers.

**Community Question 5:** Does Arches own our data once it is collected and used in Arches?

**Response from Annabel Enriquez:** I will say, 100% no.

Because you are deploying this on your own server or however you decide to deploy the Arches software, the Arches project does not have any access to that data. We don't even know who all has actually deployed Arches. We have a good idea, but we have no idea who's taken the code to even take a look at it. So we're not aware of what-- we have no ability to actually access your data.

And in addition to that, once you deploy Arches, you have you have all sorts of controls to determine how you publish that data, whether you publish it to the web or you keep it on in an internal server to only be accessed internally, or whether you want to deploy it out to the world with certain parameters. Maybe you only want a certain group of information to be available to the public while having the full suite of information that you have in your Arches instance available to, say, your administrators.

So I think that was a really great question from yesterday, and I want to make sure that you all got to hear that answer.

**Response from Dennis Wuthrich:** I guess the only thing I would say that the Arches software is open and it allows you to manage the data, but the data is not open. You own your data that you create and collect, manage with Arches. So it's really truly up to you to decide whether you want to share it, and if so how much you want to share and with whom you want to share it. So you have a lot of control over how you expose your data or whether you expose your data.

**Community Question 6a:** Can you give an overview of displaying spatial data in Arches for a non-GIS audience?

Yeah. So this is a question we get a lot, and it's a good one because it really points, again, to this question of importing or access and data from Arches, to within Arches, but from a different system. So I said earlier, Arches is more than just the GIS because it can manage time and

topology and all these things. I didn't mean to imply that it isn't the GIS because it really is. At its base, Arches provides all the same features and functionality that you would expect from an enterprise-scale GIS. And that includes being able to display spatial data, both data managed by Arches and data that you might be managing in a traditional GIS system as well.

And the bottom line is, Arches has all the tools that you need to identify, sort of define the data that you want to publish on a map, and the ability for you to define how it's styled, so what colors and where the zoom levels and all the kind of detailed cartographic decisions that you can make, Arches can implement an open specification for defining all that. So the short kind of non-technical answer is, you have really all the same flexibility that you would have with the traditional GIS in deciding what you want to show on a map and how do you want to style it so that it shows off or displays the important aspects of your data to best effect.

So hopefully, that's a reasonable answer. If people want to go into more detail, I'll wait to see if someone posts a question to the chat.

**Community Question 6b:** What is the process for converting a shape file to an overlay and for a dynamic layer based on an ESRI REST service?

Response from Dennis Wuthrich: So this is a related question, and also a really good question because this is something that people want to do all of the time. And this is really a four-step process. So the specifics of the specific question of, OK, I have a shape file and I want to add that as an overlay to my maps in Arches. How do I do that? And really there are a number of ways to do it.

One pretty straightforward way really follows a series of steps. The first step is you'll want to make that shape file available via a URL. So that is to say, you're going to want to publish that shape file via a web server. And there are a number of web servers you can use. Arches includes a web server, so really one way to do this would be to just import your shape file into Arches post-GIS database. And in a very straightforward way, this is something that people do all the time. It's extremely well documented, and it's a pretty straightforward process for importing your shape file directly into post-GIS and creating a spatial table.

And the second step, then, with that table, once you've imported your shape file, is registering that table as a map source in Arches. Again, that's super well documented in the Arches documentation. The third step, and really probably the most time intensive step, is deciding how you want to style the data in your file, so back to the cartographic bits. What do you want to show? What zoom levels do you want show it at? What colors do you want to choose? Do you want to style different elements in your shape file differently?

Let's say you've got a shape file of houses. Maybe you want houses of good condition to be styled in one way and houses with poor condition to be styled in an alternate way. So the third

step is just making those decisions. And you implement that using the-- Arches uses the map box styling specification, which is an open specification that's quite standard and quite flexible.

And then the last step is really just pointing Arches to that style specification that you've created, so once you've made those decisions, registering the location of where you've stored that information with Arches. And at that point, Arches is able to take your information and display it as an overlay or as a base map, however you choose.

So I realize that there's a bit of technical jargon in there. But the point I wanted to make is that it's a really, I think, well-documented four-step process with plenty of choices for you to use existing technology if you prefer it. And that basic process is true whether you're importing your shape file or you're accessing data dynamically from a web server like the ESRI or GIS online service, or your own ESRI list services, or really any other map services that follow standard publishing protocols.

**Community Question 7:** Regarding Arches customization and regarding Arches functions, can you explain Arches Functions and how it works? Include use cases and concrete examples.

**Response from Dennis Wuthrich:** So let me start by giving a little bit of background, a bit of context to help understand the purpose of the question. So Arches provides lots of capabilities right out of the pin, if you will. But there may be times when you want to do you want to do some very specific kind of data processing or business logic that you want to implement, and Arches gives you a number of ways to do that.

And one way that you can implement your own custom data processing in Arches is to use something called Function. Since Arches is basically server side logic, and you can think of them as akin to triggers in the database. So they're similar to trigger functions in a database. If that the jargon is useful to you, then perhaps that'll help you understand what Functions are trying to do.

The rest of us, what are Functions in plain English? They're a way of making sure that you can process information in a consistent way. So let me give you a concrete example. Arches lets you define your own data models, which is a great thing. But part of that is you need to let Arches know where it needs to look in your data model for key information. For example, what field in your model do you want to use to name a instance of a model? Or where should we look in your model description of the object so that we can reflect that in search results. These are key things that you like to be able to do.

And we support that out of the box in Arches using Function. So every single model has access to a Function that lets you define where to look for a name, where to look for a description, and where to look for map pop-up content for any model in Arches. And that's deployed as a Function. So I guess I'll stop there. I'm kind of worrying that I might be getting a little bit too deep into the technical weeds at this point.

**Community Question: 8** How Arches stands for next-gen technology?

**Response from Dennis Wuthrich:** OK. Good one. So I think what the nugget of this question is all about is, say, how well is Arches positioned to adapt to the future? Is it something that will be able to evolve as technology continues to move forward? And what I can't say is that Arches technical team has spent really quite a lot of time and effort thinking about how to build Arches in a way that lets it take advantage of near-term technical improvements and longer-term technical improvements in the technology. And so we've tried our best to be forward looking while making sure that we build Arches on really super stable, super secure technology that has longevity.

So again, I think probably sounds like a bunch of jargon. Let me see if I can put this back into plain English. So one of the things we do when we're thinking about building Arches is we look for technologies that we believe are mature and also growing, and that's growing in terms of its capability and also in terms of its user base. And I give you a couple examples.

So one of the things we've decided in developing Arches is to use an emerging, and I think super powerful, standard we've talked about already, which is this Mapbox styling specification for working with and publishing and presenting geospatial data. This is something that I think we get a good bet on this because it's become a pretty ubiquitous standard and it's going to be here for the foreseeable future. It's really a way of sharing and presenting geospatial data in vector format versus raster format, which makes it faster, more interactive, and more interoperable. So that's one example.

I guess a second example I could give is when we started working with Arches, we were thinking about how to make search and retrieval of information as fast as possible. We selected a technology called Elasticsearch, which at the time seemed like it was a really up and coming option. And it's turned out to be an extremely good choice. I think we've got the right horse here.

And we use Elasticsearch for all sorts of things-- excuse me-- not the least of which is making Arches able to manage and display and retrieve hundreds of thousands or millions of records from your cultural heritage database in a really snappy and interactive way. So that's, I guess, philosophically what we're trying to do and a couple examples of how we've actually done it.

Thank you, Dennis. That's actually our last question from the pre-submitted questions. And so what I'm going to do now is turn it over to Alina. So I think we're going to end the webinar now. And I'll turn this over to Alina.

OK. Well, thank you all for joining. I did want to mention that we are going to figure out how we can make this information best available to you. Most likely, the presentation and this actual

video recording will be on our website. And we will make sure to communicate when it is available.

So thank you all for joining our first Arches webinar. We hope you found the information helpful, and we appreciate all the questions that we received in advance. To continue the conversation, you can find the Arches community on the Arches forum, and you can also find the Arches project on social media, including Facebook, Twitter, and LinkedIn. We regularly post product information or activity happening in the community regarding implementations around the world. And so please find us there.

And we do look forward to your feedback on today's webinar, so I've made this our email address available for you. It's [contact@archesproject.org](mailto:contact@archesproject.org). Send us your feedback. Give us some suggestions. And also we hope you will join us in the future.

So thank you all for your time today. It was great to be here and to also follow you all in this chat area. And we hope you join us again. Thank you all, and goodbye for now.

Thank you.

Thanks, everyone.

\*Part of the Q&A transcript was modified from the original version for formatting purposes.

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