Interview 5

Interviewee	05-Esri-D
Interviewer	Ashraf Shaharudin (TU Delft)
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Interviewer
First of all, again, thank you for agreeing to be interviewed today. My first question is more about your background. Could you please describe your role in [Esri distributor in country D]?

Interviewee
I'm working for [Esri distributor in country D] for the last <redacted> and since the beginning I am on the <redacted>, previously it's called <redacted>, now it's called <redacted> and I'm specialized as a <redacted>. So I'm actually -- this function in the company, what I do has to do a lot with open data and we are trying to create a local content for [Esri distributor in country D] and publish it in the Living Atlas of the World.

Interviewer
OK, now I'm gonna talk about open data services offered by [Esri distributor in country D]. Could you please describe the open data services offered by [Esri distributor in country D], including who are the services for?

Interviewee
We have various service types. We are searching for open data across the country. We are talking mostly about authorized data from authorities and organizations. And it can be totally different kind of data, like environmental data, cadastre data, traffic, some weather data, and statistic and so on. We publish them as feature services in ArcGIS Online. And then a big selection of these services are published into Living Atlas of the World, which is actually a public application which everyone can access. It's not easy to define all the different data we have, but it mostly has to do with geographic data and we are serving them as a layer.

Interviewer
So data in the ArcGIS Online is much more than in Living Atlas?

Interviewee
The biggest amount of this data are also in the Living Atlas, but some are offered just for the ArcGIS Online. Because there are some troubles -- if you want to keep data in the Living Atlas, it has to be up to date and really good curated. So if we think that a data set is not worth the work, then we just leave it in ArcGIS Online for other purposes, but not for public.

Interviewer
But then ArcGIS users can use the ArcGIS Online data as well?

Interviewee
Yes, unless if we don't have it publicly available. It could be for, for only the organization sometimes.

Interviewer
Apart from these two platforms are there any other platforms that [Esri distributor in country D] provides open data?

Interviewee
And we also curate a so-called open data site which is a part of ArcGIS hub. With this software you have the ability to create pages, to create sites in the open data logic where you have a search engine and you can put tags and categories into it and then you can also download. The reason we do it is not only to demonstrate ArcGIS Hub, but also to give the ability to our users to download the data in Esri friendly formats, for example File Geodatabase or shapefiles. There are so many geodata in [country D] which are offered as open data but they don't have Esri friendly formats, they might be VMS or other OGC formats, or maybe an Excel table and it's not easy to use.

Interviewer
But data from ArcGIS Online and Living Atlas can also be downloaded in Esri friendly format?

Interviewee
They can be copied and maybe if you publish it yourself as an item, then you can download the item. But if you want to download it directly as a File Geodatabase or shape file for example, the best way possible is to do it using ArcGIS Hub.

Interviewer
Alright, apart from these three platforms, do you do other services related to open data, for example providing data providers with consultancy service to publish open data? Are there any services like that from [Esri distributor in country D]?

Interviewee
Can you repeat the question?

Interviewer
Apart from these three platforms, do you also provide consultancy service to data providers to publish open data?

Interviewee
Until now, we don't have this service and mostly due to lack of resources.

Interviewer
My next question, how do you think open data services provided by [Esri distributor in country D] benefit users?

Interviewee
Like I mentioned it, it helps ArcGIS Esri users to take data directly into their project. Because if a service is offered in the Living Atlas, you can directly link it to a map and use it for your work. And beyond that, it also, I think creates a data environment where the Esri community can exchange information and benefit for the work, not only for Esri. For example, the Living Atlas is a very good example of a landscape where open data can be gathered and offered in various formats and also directly used. So you don't need to process the data, you can just directly use it.

Interviewer
What are the main technical and nontechnical activities that actually [country D] has to carry out in order to provide this open data services?

Interviewee
It's a bit challenging because like I said in [country D], the landscape is the open data landscape is not like <redacted>, for example, where there is a this central provider for the whole country. So in [country D] they are divided in <redacted>. So each <redacted> has its own policy. Some offer open

data, some offer less than other <redacted>, and some <redacted> offer no open data at all. So we have to be cautious with the license of the data and we have to go through different portals and sources to find the right data. And since we do that, we have to process them with ArcGIS Desktop Pro for example to be able to publish it as a service, as a layer. This is done mostly once, and then we have to kind of automate the process to keep the data up to date and this can also be a bit challenging if the source has a format which is not easy to receive and it also depends, most of the time, on the source. We are willing to curate and update the best data available but we are not taking any responsibility of the quality of the data because we are not the provider, we are just the ones who process the data and make it friendlier for GIS users.

Interviewer
So the <redacted> that you mentioned, meaning that the data format, data standards are also different?

Interviewee
There are some standards. For example, most of the <redacted> data like cadastre data, they are offered in a specific OGC formats like GML but it can vary. I personally go through a lot of different links and sources before I found the more the most practical one to process.

Interviewer
And since when has [Esri distributor in country D] been offering open data services?

Interviewee
Approximately since 2015. It is a year where I also started working in the team and we also started the so called Community Maps program. I don't know if you have heard of this. Except for the Living Atlas where we have a services and maps ready to use, Community Maps program is a program where local data from authorities or private, can be contributed to make the base map offerings of Esri better. For example, if the city has a very good tree register, with all the points where the tree information is included, you can you can make a contribute to Esri and say I will, I would like to include this on the base map. This benefits both Esri and the provider because then user can have access to this info so it's ideal if you think projects like smart cities and so on.

Interviewer
So is Community Maps something that is quite unique to [Esri distributor in country D] or other Esri does it as well?

Interviewee
This is actually a project from Esri Inc in Redlands and most distributors also contributing to this. In the case of [Esri distributor in country D], we are contributing a local data to base maps and also services like geocoding or elevation service but we do it ourselves. We do it like with services in the Living Atlas, we also take this data and process them with Community Maps program to be offered in the base maps, for example. But there are other distributors who perhaps can pursue the authorities or the organization to contribute the data themselves without the distributor being -- doing the work. So maybe for explaining a bit the work: Community Maps program is just a part of the Living Atlas of the World application.

Interviewer
Which means that everybody can access it as well even non ArcGIS users can access as well?

Interviewee

Yeah, because for example, base maps are free for all, and if I take the building polygons of <redacted> and put it on the map, then it is everywhere to see.

Interviewer

And how many staff are involved in the open data services in [Esri distributor in country D] and what are the skills of the staff?

Interviewee

I work in a team of <redacted>, but only <redacted> of us are working with providing data and services. And that's <redacted>, who is apart from being the team lead <redacted> is also the data manager. And me, who is taking the technical aspects. So it's not exactly a team.

Interviewer

Yeah, but the department is called <redacted>?

Interviewee

Our team is called <redacted>. And it includes 2 topics: one topic is data, the one I'm working with. And the other topic is developer, it has to do with our product related to the developer section. And the team is a part of a biggest department called <redacted>.

Interviewer

And your background -- and what is your main role mostly in this team?

Interviewee

To curate the content, like to make sure in the Living Atlas items are up to date and in good quality. And I have some other tasks but it's not related -- I also <redacted> about Living Atlas issues and some marketing activities and also maybe taking parts in various events.

Interviewer

And your background is geospatial? Are you a geospecialist?

Interviewee

I studied geoinformatics and then I had a master in cartography.

Interviewer

Alright. And what are the benefits of offering open data services to [Esri distributor in country D] itself? For example, do you see more people in [country D] use ArcGIS software because of the open data services offered?

Interviewee

Yes, we see the amount of users have been almost doubled, I would say, since I started curating the Living Atlas and we also have a dashboard to examine the usage of the services. So we are trying to see which service is mostly used and which one is considered of retiring. We also get plenty of feedback from users asking about details for data or they point out some problems that might occur or they referring -- or they are asking for more data for their projects. It's nice to see that there is an active GIS community also behind this Living Atlas application.

Interviewer

Do you also get feedback or support from data providers themselves?

Interviewee

Yes we have to do that mostly with our account managers have been responsible for the authorities

or some organizations that offer open data, but most of them, they know what we're doing and they are willing to keep supporting us. It's not easy to make them publish the data themselves, because I think they are focusing on other aspects, but it's nice to work with them.

Interviewer

Meaning that they also perceive the role of Esri in a positive way?

Interviewee

Yeah, sure.

Interviewer

And what are the cost of offering open data services to [Esri distributor in country D]? It doesn't have to be numbers, but I'm interested in like what are the things that you incur. You mentioned about the human resources, <redacted>, but what about infrastructure? Anything else that you require to offer open data services?

Interviewee

We are seeing that more and more -- we need better hardware to do some big data processes. We are working sometimes with other programs like FME from Safe Software and we are using virtual machines and so on. I don't even know exactly the cost for a year or so, but it's not something that we are like thinking about that we should consider because we think that the profit is higher than the cost of working with this.

Interviewer

But do you get financial support from Esri in the US in terms of providing this sort of like content or open data services?

Interviewee

Esri Inc. provide us tools to do things easier. And sometimes, if there is a demand from their side to make a service better, they could provide some support financially, but until now I don't think it happens. Maybe a couple of times, but I cannot really remember the details.

Interviewer

You've mentioned a bit about some of the challenges in offering this open data services, for example, there are multiple data providers and also the data routine that you have to do sometimes there are inconsistency in terms of the standards. Is that correct? Are there any other challenges that you also face in providing these open data services?

Interviewee

There are many different license categories even for open data -- there are licenses that are complicated in terms of making a service for commercial use. So we really need to pay attention to all the terms and conditions. Not only that, we also need to check now and then the sources to see if something changed; sometimes the format change so we have to change also the script that the Python script that we were using to update the services, sometimes you have to do things manually. And it's always the question if it's worth all the trouble to provide a service so that is why we try to keep the best data possible.

Interviewer

Sometimes you have to do the data retrieval or data scrapping -- I don't know what you call it – manually, is it because it's irregularly updated?

Interviewee

It's mostly because, for example, we have an Excel table which has addresses and in order to publish the service, we first need to geocode these addresses and then create a layer and this layer also needs to take the coordinate system and so on. We're trying to automate as much as possible, but sometimes manual work is also necessary.

Interviewer

Sometimes the manual work is necessary because the data changes or because? Why is it sometimes necessary?

Interviewee

We don't, for example, have an automated process for all the data due to lack of resources. We have so many different services and types which we cannot create a workflow or a script for all of them. We have different categories according to providers, so it's all depending on the source of the data.

Interviewer

What are the key open data actors that [Esri distributor in country D] engaged with?

Interviewee

I would say there are <redacted> agency for geoinformation in [country D], it's called <redacted>. They are offering mostly like nation, countrywide data. They have some open data, they have some paid data, but it's the central agency, so to speak. And then we have the authorities of <redacted>. Each <redacted> has its GIS department and they are obliged sometimes to provide some geographical information like buildings or cadastre and this kind of data. And then I would say some organizations like <redacted> who offers the railway system or the <redacted>. So it's mostly authoritative. We don't have a lot of private sector data.

Interviewer

And for data from <redacted>, for example, does it include data from the authorities of <redacted> as well, or you still have to contact the people in the <redacted>?

Interviewee

All data from <redacted> are for the whole country.

Interviewer

OK, so it's not as detailed as you can get from authorities of <redacted>, for example?

Interviewee

Exactly. They have for example the streets for [country D], but they offer only like the important streets. Not all the small and pathways and so on. But if you look in the <redacted>, then you can find more detailed data.

Interviewer

What's the typical scale of data you can get from <redacted>? Like how granular?

Interviewee

Granular? You mean?

Interviewer

The size of 1 to 1000? Maybe I'll ask you later.

Interviewee

The data size you mean? For example, if you wish to have all the parcels from <redacted> like <redacted>, it could be like two or three gigabytes data.

Interviewer

My next question, do you have any example of projects or cases where [Esri distributor in country D] open data services demonstrate impacts? Impact as in for example, there's a widespread positive reaction for certain product, or there's a large number of hits on certain products?

Interviewee

Yeah, I have a good example. We all know that the Corona dashboard from the university in the US that Esri demonstrated, John Hopkins University. In [country D], we also decided to make a dashboard here locally to show to demonstrate the virus cases and how they develop through the time. And I was not directly involved in this project because the dashboard was done by professional services and developers but I offered them data to use for geometries. For example, we have a geometries from <redacted> about the communities or the <redacted> in [country D] like this small places.

Interviewer

They like district or neighbourhood or something like that?

Interviewee

Exactly. And so for each district we had a Polygon and it showed the number of cases of COVID. And behind this map there was this service with the boundaries of the <redacted> and we noticed how much the usage of this layer is suddenly exploded like until now this is the most used service in the history of Living Atlas of the World, not only for [country D], but for the whole world. And this is due to the accessibility of this dashboard. There was also a couple of appointments by the <redacted> government in [country D] where the politicians and the responsible people just gathered and talked about the strategy, how to keep working with the COVID situation and they used this dashboard for their work. And they, of course, showed it to a lot of people, with the media. So this is a good case that shows that data were used and we could like take a glimpse of this with impact with statistics.

Interviewer

Can I can I get the name of the dashboard?

Interviewee

Yes, I can send you the link. If you go to the Living Atlas up and filter the datasets by usage, there is this search by popularity in the app. And the first two services have to do with the use case I talked about. I'll just put the link.

Interviewer

Yeah, yeah, that would be great.

Interviewer

All right, now I'm gonna talk about [Esri distributor in country D] in the open data ecosystem. And open data ecosystem can be defined as network of interdependent actors that are self-interested. Do you think [Esri distributor in country D] plays a role in enhancing access, supply or flow of open data?

Interviewee

I think in the meantime, every organization that has to do with open data in [country D] knows [Esri distributor in country D] and knows that we also try to -- that's also responsible for the GIS kind of

version of open data. So we are we are not providing -- we're not a data provider actually, but as Esri distributor, we are trying to give our customers and our users the best available content for their direct use with ArcGIS. So this is like our goal that has to do with open data. In case of -- if we're thinking about the future open data is going to be more and more important, I think we should develop a more detailed strategy if you want.

Interviewer
And at the same time, you also provide access to open data for non-ArcGIS users through Living Atlas, right?

Interviewee
Yeah.

Interviewer
And do you think [Esri distributor in country D] plays a role in connecting other actors in the open data ecosystem, for example, data providers and data users? Do [Esri distributor in country D] facilitate those kind of interactions in any way?

Interviewee
Yeah. There are always some interactions in the ecosystem. Also like through events and marketing activities. Let's face it, we all know each other, at least in [country D]. We always exchange ideas and we all see that the most important thing to work with in the future is not software but data. For us, it will play a bigger role through times. And we somehow have to support authorities in their work to make data more accessible and more qualitative.

Interviewer
Do you have any suggestions or wishes of how [Esri distributor in country D]s way of doing things could or should be changed? Is there anything that should be changed at all?

Interviewee
In my opinion, [Esri distributor in country D] should put a little bit more effort to construct a team and the strategy for open data and data in general. There will be also different dynamic when we want to talk to the providers and explain them our needs and how the market is developing. I've been to various European content meetings and I noticed that other distributors have a totally different strategy. They have not only more resources, but they are also making products out of this data. And we haven't done it so far.

Interviewer
My next question, what is your wish list for open data ecosystem from the point of view of [Esri distributor in country D]? Meaning that, do you have any suggestions or expectations from other actors in the ecosystem to make [Esri distributor in country D] better in terms of being an open data intermediary.

Interviewee
When I started working with Esri they were like <redacted> offering open data. Berlin was one of them. And in the meantime we are talking about <redacted>. So it's slowly getting not only popular but the providers see that the demand is there and somehow they feel obliged to do so. And I can imagine that in five years, for example, all the <redacted> will offer open data, and this will make our work much easier as [Esri distributor in country D].

Interviewer

Yeah, but do you think, for example, <redacted> can step up and do much better work in terms of, for example, harmonizing data from this <redacted>?

Interviewee

Yes, definitely. They do have some open data, but the more detail the offer goes the more expensive it is right now. And also due to the different strategies of the <redacted>, there are some restrictions. For example, if you want to obtain all the parcels for the country, you cannot use some information regarding <inaudible> or you cannot use it for commercial use. So I don't think that this is 100% issue from <redacted> but they should coordinate the <redacted> to have a common strategy, so to speak.

Interviewer

What about from users? Do you think they can play better role to improve the ecosystem?

Interviewee

Users can of course contribute. I'm not talking only about like private companies, but also single users can always like make some kind of quality control or provide feedback and engage for better open data quality. I think it's a bit complex but with the new technologies, I think it's more easy to create such landscape.

Interviewer

And then you think that they can provide the feedback through you or directly to data providers?

Interviewee

Yes, I have a good example for this. Again through this Community Maps program, we have a feature which is called provide feedback. Esri has some maps, for example, there is a map showing the streets in the world. And if a user finds a problem, for example, a street which is supposed to be private is shown as a public, so you can't navigate. Or maybe a name is not correctly given. Then the user can like circle the area which has problem and write a comment about it and this comment will be read from the corresponding team in Redlands and they will decide to face the problem and correct. So either they will correct it themselves by changing the base map or they will have to contact the data provider and tell them to correct the data set. So data provider can be many things -- can be an authority but also can be a private company which offer us data, for example.

Interviewer

And this data providers can also be in other countries, because Redlands is in the US, then they would contact data providers in [country D] for example?

Interviewee

Yeah, yeah, yeah.

Interviewer

OK, it's very interesting. What do you think about the emergence of open source software like QGIS and also open source database like OpenStreetMap? Do you think it would change or should it change the way [Esri distributor in country D] does things?

Interviewee

Of course it plays an impact, it plays a role in our work. In [country D] there are many customers who use both open source and ArcGIS. There are also some who are devoted open source and they don't want to cooperate with Esri. But Esri is moving towards an open system which can include APIs which are free or data from the Living Atlas. So there are so many components that can be shown as

open or open friendly and the most important thing is you can consume or access every open source format, for example. It's a matter of perspective. QGIS is a very strong tool but you need more skills or more components in order to create an environment for your work. With ArcGIS you can have it all in once, so to speak, so we don't see it as a threat, but for us a motivation to help open source users to also work with Esri.

Interviewer
And do you also work with people from OpenStreetMap?

Interviewee
Yes, Esri has a very good collaboration, Esri Inc. And in [country D] OpenStreetMap is really active. And I've been to a couple of events from OpenStreetMap here in [country D]. Esri supports the project by giving, for example, some imagery basemap data to make easier to digitalize some features. I think the relationship is good. There are many projects going on between Esri and Open Street Map. I don't know much details. There are many OpenStreetMap data in our base maps where private data are not very good, like for example in Africa or South Asia. So I think OSM and Esri needs each other so to speak.

Interviewer
And for example, Esri provide some imagery data to open street map without condition for them to use Esri software, for example?

Interviewee
Yes.

Interviewer
I think that's the end of my questions, but before I end the recording, do you have anything else that you would like to share that you think is important for my research and also that is related to the topic that we've been discussing?

Interviewee
I think it was pretty much everything I had in mind. Maybe for the project with OpenStreetMap I can send you another link, which is a collection of data but also of articles describing the collaboration.

I really like working with open data because I think this is how it should be. I mean, I understand that many providers need to have profit from the products, but most of the data, if they're not too specialized so to speak, should be free and everyone would benefit from it.

Interviewer
Anything else you would like to add or we've covered everything?

Interviewee
No, I think I think we're OK.

Interviewer
OK, I will stop the recording.