# TRANSCRIPT

## ACCELERATING EVALUATION THROUGH INFOGRAPHICS

### APRIL 02, 2015

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Greetings everybody, thanks so much for joining me today. So it looks like according to the poll, the majority of you love infographics and data visualization and you can't wait to learn more about 'em. We've got at least one person who has admitted to not yet being a convert. You're not so interested in them yet, but hopefully after today's presentation you will be. And a few of you are rock stars who make your own data visualization and infographics. And I appreciate you so much for joining, because we definitely want experts to be part of the conversation today.

*[Pause in audio 0:00:53 to 0:01:11]*

About accelerating our use of evaluations through infographics and visual design, what will the next generation of evaluations look like at USAID? What if instead of the program background section of the evaluation report, which is usually some narrative text in any number of pages, the evaluation team assembled for you a visual timeline of your project. And that project could be documented through milestones in the timeline, you could track a key indicator, you could provide project context in the form of any relevant political event, social changes or technological advances that had contributed to or hindered your project's outcomes. The timeline could interpret major changes or inflection points that occurred over the course of the project. And include visual project details.

So instead of some pages of narrative text as your program background, your program background itself would be a kind of evaluation all on its own just by its design. We know now in our information age or maybe we're in a post information age by now, a wealth of information creates a poverty of attention.

So how can we improve our evaluation report formats to alleviate some of the demands that are on mission staff today? What if instead of a 90 page evaluation report, you had one page? And that page summarized most of the relevant information from your report including a program title, any evaluation details, the budget of the program, inputs and outputs, additional evaluation questions in case any other evaluations were to come in the future, performance or impact. And then a basic summary of what that evaluation learned, any project outcomes or achievements, any outcomes that couldn't be determined, objectives that were not yet achieved as of the evaluation period, any externalities that occurred as a result of the project. So any busy program officer or mission director could pull out the first page of that evaluation report and get at least the essentials of that project.

So over the next hour we're going to ask ourselves, what do we want the next generation of evaluations to look like in order to achieve maximum utility? How do we do that for the whole agency or the potential users of the report? And how do we get there from where we are now?

So let me go ahead and take this opportunity to introduce myself to you, because you might not know me. My name is Jessica Pomerantz. I'm on rotation here in USAID at the Office of Learning Evaluation and Research. I'm here through the Presidential

Management Fellowship. I'm actually on loan to you from the U.S. Food and Drug Administration where I work as an internal evaluator on the program evaluation and process improvement staff.

But I do have a background in international development evaluation. Immediately before I came to work for the United States government I was working as a business journalist. I was hired to take this relatively dull market research column you see before you and turn it into something a little more exciting for our readers in this form through data visualization and visual design elements with some interpretive text like what you see here.

So it got me in the habit of thinking a lot about how to take public data or pre-reported data and try to synthesize it and present it as visual information that could be useful to our business readership, especially because there are lots of times that I failed horribly or I had really bad data or my topic was something terrible like used car dealerships.

So in this next hour I'm going to give you a crash course in what I learned to do, what I learned not to do, and how we can use infographics and visual design, which I think we're already doing very well as an agency; how to put them in our evaluation work here at USAID. And then some great examples of what people are already doing around the agency. And then I'll stop talking and you can insert your own comments and questions and we could have a discussion.

Okay, so let's start with the basics. You're sold on infographics and data visualization, but how do you get them into your evaluations? You need a basic working knowledge of what's available to you.

So you've got of course statistical graphics. This is just a visualization of your data. It's basically available in Microsoft Office. There's a lot of options for lined graphs and bar graphs and scatter plots and things like that.

Next you've got Smart Art. These are preprogrammed designs, again available in Microsoft Office. They can demonstrate a process or a relationship and you can add text and pictures to try to personalize these.

You've got Clip Art. This is free – free illustration or visual element often garish in appearance. There's a reason why it's free, but those are available to you. Next we've got more of the infographics. We've got a timeline infographic, which is a chronological narrative. In my introductory example I used it to try to represent the program background and I'll show you another example of that later on in the presentation.

Again you can add data or photos to this. By the Numbers, this is a summary usually of individual data points, but it can include charts and graphs as well. It covers one particular topic.

Mapping this can be GIS data or any geographic content, any kind of data analysis with a geographic form. You can use color coding, any other design elements in order to communicate something about your project.

Visual Article, this is what would otherwise be a full length narrative but told as one story with multiple graphic elements.

A flowchart is a diagram that describes a process.

Useful Bait, this is a reference tool, usually a simple process infographic or a visual explanation, something that's meant to be used by a readership. It's usually for PR purposes. If you're trying to get web attention, you can throw one of these up and it'll usually increase your traffic.

Data visualization, this is a complex data analysis achieved through graphics or other visuals. It's usually a unique or exploratory analysis where you really want to show the data or present something unique.

The verse is infographic, this is like a rivalry. It's a visual comparison of two things. The photo infographic, it's one topical object and it's usually includes a realistic photo with text or numbers or facts.

Okay, so now let's say you're – you're sold and you really want to use infographics or data visualization as part of your evaluation. And you haven't – you haven't conducted it yet. You're just about to contract somebody. So how can you know what you want in order to be able to communicate that to the contractor? You need to try to predict in advance what visual you're going to need. So here's some ways that you can guide that process.

First of all you're going to have to ask yourself which part of the evaluation in particular do I want to roll up into a visual or an analysis of some sort. And in order to answer that, you have to ask who is your main audience? What's your goal for the evaluation utilization? Is it going to be to make an adaptive project decision or inform your future project design? Do you want to highlight a specific finding, describe a success or failure, give an overview or communicate the results publicly? Because it's going to really change your visual, based on whether or not you want it to be public facing or whether you want it to be an internal analytical piece.

And finally, you have to ask yourself how – how you're going to use your evaluation to tell a compelling story? What is it about the project or program that you're trying to learn? And how can you communicate that to others?

Lastly, of course, you need to know what type of visualization. So I gave you an overview until the beginning of all the basic visual elements and infographics that exist. And I'm also providing to you a summary of – of what those are. Now this info is all available in the downloadable resource along with some verbal examples for your statements of work. And also strengths and weaknesses of using each particular design element or infographic.

Okay, so what if you've already completed an evaluation or contracted somebody, the evaluation is processed or you've just got this big stack of reports and you want to make them more visually accessible, but it's after the fact. So you're going to have to look at doing it yourself or contracting a designer or getting somebody in the office to do it. So in order to try to document process of what that looks like I went through it myself. I used this evaluation just because we were talking about it as part of our evaluation book club here in LER. This is the midterm performance evaluation of Asia's regional response to endangered species trafficking program. So as I describe to you, I went through the process of trying to figure out which part of the evaluation really lends itself to a better visual display. Is it going to be the executive summary, purpose and evaluation questions, program background, evaluation method and limitations?

There was a looking back section of kind of retrospective on everything that the program had achieved to date, and then there were also some preexisting figures and tables throughout the report that I could have used.

So I thought about my goal first, and I decided my goal was going to be to inform future project design. I decided that my audience first and foremost was going to be internal. It was going to be USAID. And then secondly, the entire development industry. So based on that I decided that the focus for USAID in order to be able to inform future project design would be the recommendations that came out of the report. And in order to inform the entire development community at large, I was going to try to represent the background of the project of visual.

So then I had to decide which part of the evaluation I was going to use. So I decided that I was going to use the evaluation recommendations and secondly I was going to use the program background.

Then I had to reside which visual I was going to use. The evaluation recommendations looked more like a visual article, because it was about one particular topic, but there were a lot of different elements. So I selected that one. And then the program background I thought lent itself to a timeline really well, because it gave you sort of a chronological narrative of what the program had been to date.

So then I started trying to doing it – to do that and I – I used websites and tools that I could find online. So there was no cash for this. I went to piktochart.com. Again everything that I mention in the presentation is available in the downloadable resource that you see online. So I used piktochart.com and I found this – what I thought was the reasonable visual article template. And you see here there's a section where you can upload your data and then it will go ahead and insert that data into this donut chart that you can kind of see on the left here. And then you see there's a display where you can manipulate the overall appearance of the – of the infographic.

But then when I went to look at the report, I couldn't find any data that was usable in this form. And it totally derailed my ability to create this visual article using this template. So then I moved onto the timeline and the timeline I wound up using, I downloaded for free through Office.com templates available through Excel and Word. And it looked like this.

Everything in here was – I could easily manipulate to change the years and the appearance of the boxes, so that after I input all the information the timeline for arrest looked like this.

And then (inaudible) my – my attempt to create a visual article failed, so I had to try to create something else to present to my office. I settled on what I thought was the most interesting part of the report, which was the fact that people are consuming bear bile in other countries and that's a part of illicit animal trafficking. So you'll see here I used Canva.com. Again it's a free resource, but this is one that you have to access through – through a Facebook account. So I went through my Facebook account, and you'll see there's a lot of free elements on the – on the left hand side that you can use an incorporate into a photo infographic. It was all drag and drop. I could insert text at will and there was no stock photo of bear bile, so I had to settle on this one bear photograph. and then I included a couple of relevant data points that I thought came out of the report.

So this brings me to a common issue with creating infographics and visuals after the fact. What do you do if your report is a largely narrative and qualitative and it doesn't include very much that you could roll up in the way of data, and you don't really have any graphics to speak of? So there's a number of strategies you can use, text and icons can be beautiful and interesting too and visually appealing. And I'll show you some examples of that. You could change your angle as I showed. I was trying to do a visual article at first, and that didn't work, so I wound up using a photo infographic. Or you can – you can cut and run. You don't have to make an infographic or a visualization out of everything. Especially if people aren't going to find it useful—in some cases you have to read reports. It's – it's government workers. It's what we do.

But let me show you one example of how we can take something and turn it into text only. And still I think get a good result in the one pager. So I used performance evaluation of the education program of the community livelihoods project. This was a final report from Yemen. And here's an example of the one pager. I described this briefly in the template that I showed you in my intro. So what do we have up top? I – I listed the name of the project and the type of evaluation it is. And then basic details about the evaluation, what was their methodology, and what were any limitations, the date of the report and the project period and the evaluator.

And then here in the left box I included some budget information and the timeline of the project, then inputs and outputs that I got from the report.

On the right side as I mentioned, I asked some questioned that I thought weren't answered this in report. But if we were going to do another evaluation or let's say of a follow on project what would I be interested in asking. And I broke up those questions out by performance evaluation or impact evaluation.

And then the evaluator had responded to a number of questions in the statement of work. And I rolled these up into four categories. One was externalities that they had discovered due to the project. The next was a section where they had determined that those outcomes had not been achieved as of the evaluation date. And then there were a number of outcomes that were indeterminate or unknown. They couldn't make a judgment based on their evaluation alone and then the outcomes that were achieved.

So USAID Uganda has a number of examples of this. They have two pagers that they're issuing in response to their evaluations. And I thought this was a great example, because it shows you in one snapshot how they – how they conducted the evaluation. It shows you in a very easy to read graph, the number of performance targets that were met or exceeded and then a basic summary of what they found. Then at the bottom there's a section about cost cutting issues that shaped the design and implementation and the results and – so this is the first page of what was a two page summary. But I thought it was a great example.

And here's an external example. This is from open data and the governance of South African higher education. And I included this example, the one pager, because on the left it's got a process model and so you get a little bit more information about implementation that you otherwise would have.

This example is from, I think a Silicon Valley based development group. This is an example of how you can use only text and color in order to make something more visually appealing or to communicate. For instance these are – these are recommendations that they made in a development context. And they're organized according to whether it's a policy recommendation or infrastructure or what have you. And then they're shaded according to how simple it would be to implement all the way to which they feel would be extremely challenging.

So there's some ideas for – for making evaluation reports more accessible.

Next I want to talk a little bit about the cautions. What are some mistakes that I made early on or throughout my infographics and data visualization career and what can I tell you that will help you avoid those mistakes. So first you need to know that it's important to visualize responsibly. Just because you can do something doesn't always mean you should. And we see that a lot with – with you know new technologies or innovations. We got excited about it, but then sometimes they – they just wind up appearing everywhere. And sometimes in forms that we can't always use. So if you only read one checklist, I recommend this data visualization checklist to you. It's from the blog of Stephanie Evergreen who is a visualization expert. She's associated with the American Evaluation Association and she's got some really practical guidelines. So you'll see the link there to those.

So we know not to include a visual without any interpretive text, right? But sometimes we're going to use titles or interpretations that don't even increase the meaning of what we're displaying. And that's a hazard that I ran into early on in my career. 3-D pie charts like this aren't legible. And I'll tell you why. It's because – so it might look a little bit more advanced at first glance, but if you're really trying to communicate some information whatever that pie slice is up front is going to look larger than it would otherwise because of the introduction of the third dimension. So even though 3-D does look kind of cool, we try to avoid it especially when we're looking to communicate results above all else. Also the legend is distracting, it's tough to look over at a legend and then back at the graph over and over again. And beware of vague captions.

Here's another example of that. And this is from – I saw this in the European Evaluation Society Newsletter. Shame on them. They used some sort of an output that wasn't legible. The line graph was too crowded and they had a legend here instead of the direct labeling of the lines. So you have to look back and forth to try to find the line that means something to you.

And then there's a very, very tiny caption at the bottom. It says, "Trend for children six to 23 months by well status." And I even read the article that went along with this. But I still couldn't figure out what that meant. So be careful of doing things like that.

Again if you read one or two data checklists or if you contact your local expert, you're going to be able to avoid these.

Here's a few more things that I want to caution you about. Bubbles, bubbles are really popular right now. I see them in the newspapers and magazines all the time, because they're simple and they look attractive. But again it's about perception. So the – the human mind perceives the height of the bubble and not the area. So the – the bubble on the left is actually maybe two or three times larger than the one on the right, but because it's only twice the height that we perceive, it only looks two times as big. Be careful of using bubbles and other popular visual elements, because sometimes they don't entirely communicate the full story.

Low resolution photos, you see something online and you think, "Oh, great, that's what I want." And then you capture it and you put it in your presentation and you throw it up into your Power Point and it just looks terrible. Be Careful of that.

Stretch photos, not flattering. Don't put a photo in an area, if it's not the correct size for that area.

And finally I want to talk about this funnel thing. This is a thing that I used in Smart Art when I was – I was working for an implementing partner and trying to create a – a whole system MNE platform. And I used this funnel thing and then I saw it everywhere on every single report in weeks to come. And I just got sick of it. And I realized I didn't even know what that was or what I was trying to convey with it. And I regretted putting it into their entire system. And so just watch out for using something too much or using something that might not necessarily convey any meaning just because – just because you want to include a visual.

And finally, think first about utilization. If you get a network analysis, what are you going to do with it? What can you do with something that looks like this? And how are you going to be able to – to make a visual useful for you?

So in thinking about accelerating evaluation use through design, I want to ask what if instead of measuring our intermediate results as in number of people trained, what if we evaluated our process? And then we could make some kind of summary statements from project to project based on an index for instance? What if instead of measuring five metrics or any number of metrics from one institution's perspective, what if we had a framework of success measurement from multiple perspectives in the form of a rubric? And what if instead of recommendations that followed a largely narrative form, we had recommendations that were based on parameters that we set ourselves? And then those recommendations were arranged by the focus of change. Like if it was a recommendation about the policy or the process or our – our development product. And it could include degree of difficulty with time estimates. And a change management plan where they outline the cost and what activities would go into it and they really detail the change timeline. And then made some gains based on impact and estimated benefit.

So that instead of having a set of narratives that maybe aren't totally focused on the United States Government context that we wind up working in as far as procurement and staffing and – and our demands as employees instead you had a full change management plan that you got through your evaluation.

So I want you to start thinking about what a useful evaluation would look like to you and I'm hoping that this begins the conversation and doesn't end it. I want to talk about some external resources that I've gathered. Of course you know that there's a lot of stuff out there forum infographics and data visualization but if you only look at two of these external resources I highly recommend the blogs by Alberto Cairo. He also offers a massive open online course on infographics, which I took when I – when I started working at the paper. And it's free, and it was really good. I learned a lot. And Stephanie Evergreen I already told you about. She's a data vis wonder. And she could tell you everything you need to know about graphs and charts and your own data visuals.

Also there's a lot of internal resources that I wanted to mention. The USAID Economic Analysis and Data Services has created foreign aid explorer, which is pictured here. And that's an interactive data visualization tool. It – it rolls up all U.S. Foreign Aid. And it's available online.

I also know that E3 has the F1 group. And I think we've got the head of the F1 group on with us today. They offer data visualization services and they have a great blog, which you can access through the Google groups. Also there's GeoCenter, which if you need some data analysis through ArcGIS. It's not just maps they do the data analysis as well. You can contact them. I spoke with them in advance of developing this and they're happy to help. And there's also great examples out there, the Office of Foreign Disaster Assistance they've got a great annual report and it's got everything in it. Anything that I mentioned, you'll find it in there. It's got really compelling visual design. They've got interviews with pictures, mapping, case reports, everything that I think we could – we could get out of our evaluations they've got it in their annual report.

And also DCA on the web has – has a really great kind of hybrid infographic. It's part Useful Bait and part flowchart. And it's called How to Put $2 Billion in the Hands of Entrepreneurs Around the World. And it tells you their story; they're also doing four page impact briefs. So again that's a shorter version of evaluations, makes it more accessible.

So pop quiz. How many in-house designers do you think USAID has?

Okay, ready for the answer? 2.5. I know it shocked me too. Well, some of you thought we didn't have any. So – but we do have 2.5 however they're very, very busy and the .5 was only recently added. But those two people were good enough to meet with me. And they gave me some of their tips based on trying to create graphic design infographics within the USAID context. So they said it's really important that you create your concept and message first. I think you saw this in my own example when I tried to fit a particular evaluation that was already completed to a template that I had picked out. It totally flopped. It didn't work at all and the same thing happens to them if you come with thinking about the graphic first. So always create your data visualization concept and the kind of message that you want to go along with that.

The graphic always should come second to that concept and that message. Also think about the shelf life. If you're going to spend weeks or months trying to develop something and then it becomes outdated in a matter of you know a week or a day or however long, then you probably are better serving yourself to direct your time and your infographic capability elsewhere.

Okay, so I want to wrap up today by concluding with three more ideas for you on how you can get the most for your evaluation money out there. First incorporate knowledge – incorporate evaluation rather into your knowledge value chain so to the best of our ability we have to incorporate all the information we get from these evaluations into our knowledge value chain either in terms of the program or the mission or the operating unit or the entire agency. And I think most USAID evaluations are planning for these first three steps.

They acquire data and they process information. And they analyze knowledge. But I'm not sure that the evaluations reach their full potential in communicating intelligence, which is why I'm doing this webinar today is how we can improve on that and I've not yet had the chance to address this today, but I think our evaluation should be positioned for these top three steps to assist our evidence based decision making and to formulate action and implement value.

If they're not then we're missing out on contributions to our own organization's resilience and our own ability to weather shocks and to adapt to changing conditions. Resilience as we know is a function of how networked the organization is both inside and outside, but that's not just through social relationships or institutional partnerships. It's also information.

So the best way that we can operate in our complex adaptive system is to network and over-network not just the people but the information. And how we retain and transmit our knowledge especially at an institution that – where people are physically displaced in part every one to four years, that's the most important step in developing our adaptive management capacity.

So we need to try to plan to hit every single element in the knowledge value chain when we're considering our evaluations. Second, evaluations shouldn't just be an opportunity for learning. They should be an opportunity for alleviating your workload. They should allow you to contract and create a set of tools that help you steer your program after the midterm or to design a follow-on program or any component of that program. You're really busy, and getting one more long document to read is probably not the best way to help you do your job.

So I hope I've given you some ideas today about what evaluations could look like and I'm sure you have your own ideas and things that you've tried and tested in the field. So if you have any suggestions or anything you've tried that you found particularly useful, please feel free to send me an e-mail, stop by my desk; Just let me know in some way, and then I can share it widely among all of us, and I can either do that through program net, or follow up webinar or otherwise.

And then third and final suggestion for getting more use out of our evaluations, we've got to distribute our evaluations around the framework in order to contribute to our own learning. So what do I mean by that? Well, you've got two kinds of evaluation here at USAID. You've got performance evaluations, which take a look at inputs, outputs, and the results of those. And you see what the outcomes or results are at the middle or at the end of your program. And then you've got impact evaluations, which try to establish counter factual and then measure the difference in outcomes between having a program or not. But what's this? Where's the evaluation for what's happening here inside these arrows that point from one thing to the next thing? These arrows are where all the magic is happening. This is the process. This is you and your job. How did we link small holder farmers to the market? How did we distribute micro credit without increasing gender and equity among earnings? How did we protect biodiversity and livelihoods at the same time?

I haven't seen any process markers or any section within the evaluations that describes how the outcomes were achieved. So I don't know how employees could reconstruct that full portrait of management and operations without the process of information. Especially in our complex operating environments where cause and effect aren't fully known. Having more process knowledge is going to be key, because there are so many development cases where the only thing we can scale up is our strategy. So those are my suggestions for increasing your evaluation use. And I've covered that through infographics and visual design.

So thank you so much for listening and I'm happy to open up for any questions or comments or otherwise.

So we've got a question here. Do I have any more examples on visualization gone bad? Great question, Kathryn. There are so many examples. And I – I can point you to that article that I referenced when I started talking about infographics gone bad. That was an article from *The Guardian* and they actually have an entire collection of infographics gone wrong including that map and many, many others nightmare infographics that I'm sure keep their designers up at night so that link is available. It's – all the links that I presented to you are posted in the downloadable resource that's attached to this presentation. So you can take a look at those and Stephanie Evergreen, the blogger that I mentioned she also I think has a course that sometimes comes through Washington, D.C. and her blog also takes you from the beginning of a bad infographic to the end where she shows how she manages to remove the clutter and make it more visible. And also I saw the F1 group had published a blog through my USAID that dealt with the same thing. How we take a really cluttered graphic and lighten the visual load for our viewers.

So the basic rules or guidelines on how to get that appeal and the accuracy are – are all available on Stephanie Evergreen's blog or see the F1 group and their recent blog. And that's – those are a great places to start.

Okay, let's move to our next question. In my experience have I seen any M&E IP's that have this sort of expertise in-house or do they generally sub out infographic visualization capabilities? So I think what we've – from the small – small amount of evaluations that I've been exposed to in my time here. So I don't – I haven't seen them all, but I've tried to look at as many as possible. , I've seen a lot of cut and paste and people are doing what's easy and what's convenient of course, because that's what we all do, because we're all overly busy and so I think if you request this expertise in-house people will be more motivated to look within their own networks and to get it. And it's not that difficult to try to find somebody in an organization who is just better enough with using Microsoft Office or just good enough at using a software package to be able to – to create the infographics and the visualizations that you need.

The issue, I think is knowing what you need. It's really difficult to predict ahead of time what people are going to be able to find in an evaluation. So you typically wind up doing it after the fact and then it's like you get what you get. So there's going to be this interim period where we're experimenting with what we can request and what we receive based on what we put into the SOW.

So I've included some very specific examples of what I think I would put in the SOW if I wanted one of these – one of these infographics or data elements. But you really got to know what you want ahead of time. And so that's difficult. If you're able to convene with your implementing partners ahead of time to try to have an early conversation about it, I really think that's your best bet. And then you'll know a little bit more about what they're capable of. And you can always ask for samples or for examples, "Let me see your work. Let me see what you've done." And then that's an easy way to know if it's going to meet your expectations or if it's going to exceed them.

Okay, let's go to question three. For those looking to do data visualization in-house, which software packages would you recommend as most versatile or newbie friendly? Okay, this is a loaded question, and I'll tell you why. I'm part of an internal evaluation unit at FDA. And we do a certain amount of performance monitoring and also evaluation. And for both of those I'll tell you that we use Tableau, which is a very easy to use point and click kind of data visualization software. And it's not free. It costs, but it's not – you know it's not the most expensive thing out there on the market. So we got it. And I think the – the real danger in using something like that, because it's so newbie friendly is that you can just dump a bunch of data in there and get whatever visual you want—anything. And if you don't know what the analysis is behind it you don't even know what its saying.

So it's like we put all these good looking pictures out there for our clients and they don't know what they're looking at either. But everybody is afraid to say anything, because it looks so nice, so there are – there are a lot of great software packages out there. And if you'll go to one of the links that I posted in the external resources, I think it's called 100 incredible infographic tools and resources. So that will give you a basic presentation of what's available but I think just knowing how to do the most with what we've got, you know we've already got Excel. And you can do a lot in Excel. And you can do a lot in free websites that are out there. We can start with that.

Also go see your local data visualization person. I know there's one in E 3, there's a lot in global health, there's the GeoCenter people—just reach out. A lot of the people are happy to answer questions about this. And that way if they can see that there's a lot of demand for a particular type of visual or there's a lot of demand for visuals at all, then we can start kind of making decisions as an agency you know what makes sense to purchase. If we have to purchase something or what makes sense to use freely so that we're kind of doing and creating things that can talk to each other and can be uniform.

Okay, next question. Who are those data visualization experts in USAID and can we have access to their services? Yeah, so I already told you about the F1 group that's in E3. They're also happy to answer questions. I think even if you're outside of E3, GeoCenter is available. They're doing a lot with ArcGIS. There's a lot of really good work going on in the lab and I think they have a data interest group that meets every couple of weeks here in D.C. And I think they probably make that available to everybody and they'll help you and guide you in trying to shape what it is you want and trying to request data visuals.

And other than that I think there's pockets in every single – every single time that I would – I would talk to somebody and I would interview them and ask them who is doing this? I would get more names. You know there's a health infographics group in the office of HIV/AIDS. And there's people in LPA. And there's – there's a lot of people that are working on this and you can request their services but I don't know if they're going to be overwhelmed or how available they are. So of course there's always this initial period where the demand exceeds the supply. But that's good. You know this is something that we want to move towards. And so I think you should flood those people with your demands and then hopefully we'll get a better overall visual way of communicating with each other.

Okay, next – and oh and I think we've – we've given you access to their websites and so you can communicate with them through their contact information there.

Okay, next question. What courses are there on USAID University that would help us strengthen our skills in data visualization? Great question. so it looks like Kathryn has told us that there's a course called finding and using development data. And that's going to introduce you to the resources and improve your understanding, so that's scheduled for May in Washington Learning Center. That's a good one, there's also if you want to – if you're already advanced in presenting things in print, but you want to learn how to do online infographics, I think there's an intro to JavaScript that's available. Or if you just want to make better charts on your own in Excel for your own use there are more advanced Excel and Word courses available through USAID University. And there's also a lot of stuff online. There's Coursera, which is a free online university course repository. I did some data science courses on there that were really good. There's a whole certificate on there that you can use. And you can also get more courses in programming and other data related things through Coursera.

And again that resource is – that link is listed under the external resources and the downloadable handout. Okay, next question. I haven't seen the knowledge value chain before and where can we learn more about that. I learned about that from – from one of our contractors here in-house from the learn contract. And I brought it up in the knowledge management group webinar that I did a couple of weeks ago. And people were really interested in it so I used it again, because I also think it's great. It's from a guy called Tim Powell. He's done a lot of work in knowledge management and this is his diagram, and I include a link to his website, which includes some blogs and some interesting food for thought about how to shape your – your agency's knowledge management practices. So that web link is available in the downloadable handout. And I think it's Knowledgevaluechain.com. So that's really easy to remember.

Next question, where can we learn more about how to do quality data visualization and an introduction type course or resource? Okay, so I mention that I took a massive open online course. It was free. It was through AU Cairo. So if you go to his blog, which is the functional art.com. Again it's in the list of resources that's downloadable here on the site. Take that, I highly recommend that. Or if nothing else I mean you can just Google good infographics or bad infographics and then you can start to see some of the problems that people run into. And then I mean good data visualization is about good analysis, so it's about using the tool that we've got to work with, just knowing how to use things that are available to us like all the time like Excel and then doing that more and more and more. And thinking about utilization first, that's another key ingredient that I really don't want to – I don't want to leave that out.

Next, where can we learn more about process evaluations? Great question. I would love to do a whole series of webinars about process evaluations and about what we can be incorporating into our evaluation contracts in order to try to get at the process but for now I think there are some process evaluations that have been conducted at USAID. But they wind up being more internal as I mentioned I'm from another agency of the FDA and I'm part of an internal unit that only or exclusively works on process evaluations. And so I think part of process evaluations– sorry I'm running out of time; part of process evaluations are having the internal capacity to conduct them and I'm afraid that I've run out of time.

Oh, no, I do have time. Okay, last question, this is great. How do you balance colors, texts, sorry, lost the question. And other infographic imagery for visual effect but also for impact?  Okay, so there is a USAID graphics style manual and they have their own ideas about how you should present your charts and your graphs and the idea is to keep it simple. Don't overdo it; minimalism is really the name of the game in introducing a visual design that sticks with people. But if you go on one of the blogs that I mentioned either Alberto Cairo or Stephanie Evergreen. They're going to have a lot of examples of how you can create the biggest impact with your visuals as possible. We know that people tend to remember 80 percent of what they see, 20 percent of what they read and only 10 percent of what they hear.

So I don't know if you'll remember this, because you heard it. You didn't see it.

Again, thank you so much. If you have one or two last minute questions or comments please feel otherwise I want to thank you so much for joining me today. Again if anything comes up or if you have something you want me to take a look at or if you want to keep the conversation going, you can go ahead and e-mail me and if there's a big demand for talking about this more, I can open up a forum on ProgramNet or some other internal outlet.

Oh, also, don't forget our post-event survey. We really appreciate your feedback. And if there are no other questions I'll just say thank you.

*[End of Audio]*