SM So you've read a little bit about the project so I have a series of questions regarding analytics at [Museum 1] and the first ones are really introductory so can you tell me a bit about what your role entails at [Museum 1]?

IR5 Yeah so I work here as a data analyst and so my main business activities are to do all the research and evaluation of our digital offer. And that includes our website, social media, mobile apps and also for example interactives we have in the galleries.

SM Okay and how did you come to be involved in this type of work?

IR5 Well it links to my PhD and when I started here I was working in another department and then I asked to do an internship in the digital department in order to get familiar and then to start like thinking I’d obvious started the beginning my PhD four years ago so how can I use it here and that's why they gave me access to analytics and I started doing some stats for the blog. I also did some stats for the collection and from there I think it was a mix of factors that made this role…or created this role so from one side it’s of course ((1:22?)) and there's resources in museums so we need to be more efficient and more statistical with what we do so data to support those decisions is good. Yeah I mean for decision-making they would have to report and do their department to the DCMS some annual figures, that is website visits mainly, so there is a group of museums who said, “Oh look how many website visits does not represent at all what we do in the digital scene,” so there was a project called Let’s Get Real, I don't know if you know about it?

SM I read about a little bit yeah.

IR5 So basically 20 culture organisations did a project so we were meeting, we were sharing stuff doing benchmarking and we were trying to see what other methods we could use for evaluation and there are many more because I think with data there is so much data and how we can use it more strategically than if we simply…because we have data everywhere, we have the shop, we have members, we have the email, we have tickets, so how we can make sense of all that data so data analytics is becoming an area of work.

SM Okay.

IR5 So that gives you a bit of context.

SM Yeah thanks for that. Then can you tell me what digital analytics at [Museum 1] are involved then?

IR5 So it involves doing audience research and then evaluation so it’s a bit different. So we for example do the audience research for example like how people use mobile in the galleries so we can then create some apps or some mobile offer that fulfils those needs and then in evaluation so we have as I said before the website which is huge, and we have social media, we have loads of platforms, Facebook, Instagram, Twitter, Flickr, You Tube, so evaluating the work on those platforms. Then we have launched around 15 apps. So we do evaluation of those and then we also have interactives in the galleries where people can leave their comments. Some are linked to social media, some are more educational so yeah that's probably those four areas are the four platforms of products which are the main areas of work in doing that analytics update. So analytics is part of our processes so when someone wants to do a new project we make sure we have an audience for that project, we have an evaluation planned, then during the development of that initiative we try to make sure that we do testing with users, some media evaluation and then it’s launched.

SM Okay. And why did [Museum 1] decide to use digital analytics and roughly when did that become a big concern?

IR5 We had goal analytics before my time but it was used mainly for reporting to the sponsors or to give these figures to the DCMS and just have some top high lines.

SM Sorry just a second when you say DCMS can you explain?

IR5 Ah the Department of Culture Sports, Media?

SM Okay it’s at the [Museum 1] then, [Museum 1] Britain or the government?

IR5 It’s the government.

SM Okay yeah.

IR5 And actually you can see if you go to the DCMS website they have a page of KPIs and you can see the data for all the national museums.

SM Okay.

IR5 So I think yeah like probably three years ago when it became really, really big and my job was created and now I can't even cope with ((laughingly)) the amount of work I have.

SM And why did that shift happen then three years ago? What stimulated that decision to move into digital analytics?

IR5 I think that combination, the factors I mentioned before, trying to be more strategic about how we do things. I think, and you can see that trend in museums actually I've been to conferences for the past five years and you can see that five years ago people were talking about what you can do with digital, so the wow factor about oh you can do this and you can do that! But now when you go to conferences people are like, what was the impact? How did you reach new audiences? Questions are more about the impact instead of the digital product, if you know what I mean so I think there has been a shift in museums where you can do loads of things with digital but we need to make sure we make it for the audiences that came in. Yeah so probably that. Yeah I think I wouldn’t say there's only one factor it’s more like a combination of things now. And also I think internally with digital in general marketing has started to do more digital things, learning has started to do more digital things. And for example for marketing in not only [Museum 1] any company like measuring what you do on social media, on digital it’s like your BBC, your SEO, your social media, so probably that was the first department that jumped into wanting to learn about analytics and then you have other departments following that.

SM Okay and what kind of tools do you use to conduct digital analytics?

IR5 Well I have a huge range of tools because there's no magic tool that aggregates all the data so yeah when I go to my computer it’s like open one, another one, looking, looking, looking. So then I have like loads of things. So I have Google Analytics and we use Hootsuite for social media but also RowFeeder, we use Facebook Insights, we have Twitter Analytics because we do paid campaigns. We have You Tube Analytics. We have Flurry for our mobile apps. We have, what else here like a huge range of tools. But then we use different methods, I mean you have these tools but then we have little testing sessions with people or we do interviews, focus groups. So it’s a combination of things.

SM Okay. And so I imagine you have experimented with a range of tools because before settling on the process and the ones you are currently using I mean over the years at [Museum 1] I mean you must have tried various things until you decided that a combination would suit.

IR5 Yeah because the most clear example for me is that Google Analytics has loads of data, loads of data, you can track loads of things, relative interactions but what Google Analytics doesn’t tell you is why people are doing that and that's why we had to use other tools like surveys to understand because I mean you can see someone spending ten minutes on the site and you don’t really know whether that is good or bad, I mean it may mean they are lost on the website and they’re going in circles in the navigation to find something out or maybe it’s that they’ve found something really amazing and they are fully engaged within an article. So really that tells you that you need a combination of tools so that you can see what they are doing but actually link that to their activities and what they want to do.

SM Okay. I had a question then about an assessment you could offer for respective strengths and weaknesses of various tools but if you use such a broad range I don't know if you have any things that come to your mind as important in that respect?

IR5 Taking about?

SM A brief assessment of strengths and weaknesses of various tools or various types of tools?

IR5 I think probably the biggest challenge is that there are not the standard metrics for like the range of tools you use so it’s very hard when you’re communicating results but this is a weakness within like the sector in general that I mean if you look at social media, Facebook and Twitter you cannot record the same metrics but two very similar platforms where people do similar actions. So that's why for me like I witness that but not maybe it’s coming from a mix of the tools and the terminology we use and yeah.

SM Okay and among the tools for example you mentioned Hootsuite that is a paid for service isn’t it? Are there other paid for tools you can embody in the palette you use?

IR5 Well Hootsuite we use it more for management it has some reporting but it’s not great. So that's why we use Facebook Insights which is free but then we use RowFeeder which is social media monitoring tool and we pay to drag Hashtags we use that a lot for hashtags because each exhibition we have a hashtag or sometimes we do specific activities like Ask and Rater or a tour in the galleries with Twitter hashtag. So we track those so we can report back and do some analysis. So that’s one tool we use because if you go to Twitter after the event and you search for the hashtag Twitter works you have the API limitations so you won't be able to see all the tweets and you will have to copy and paste them, it’s very complicated to collect that data.

SM And that tool you mentioned Row?

IR5 RowFeeder.

SM RowFeeder has access to the full fire hose then?

IR5 Yeah.

SM So these are the two commercial tools you use you Hootsuite and RowFeeder, are there others as well?

IR5 I think I'm going to get another one specifically for Twitter because we have ten or 13 Twitter accounts and Twitter doesn’t have analytics for those accounts so I'm planning to get something probably. The others have it too I think. Well we use as well, but this is not for social media, we use Crazy Egg which is a heat map tool that shows you when people click.

SM Okay and I also read online by reading both the [Museum 1] website and web analytics I don't know whether the explanation is provided on the website as well as some of the papers you had linked on your profile and I found out about a digital metrics dashboard that you have developed at [Museum 1], could you tell me a little bit about it and how it works, and what it involves?

IR5 So this is probably one of the first things I did when I started doing analytics here, so basically we had a really horrible reporting system based on log files, current web trends, and the reports were like really, really ugly, so what I tried to do is to start one page report a dashboard where you can see the main metrics for the website, social media and mobile apps and so yeah I created this dashboard and then I started…it was really good in two senses, I think first of all because it was a very good tool for us to monitor trends and see changes in the website but actually it was a very good internal communication tool because when I started distributing that tool internally in the organisation people were like, “Oh wow you can get actually this data from analytics!” and I started getting everything that wasn't in the report, like I don't know maybe four or five emails back with questions, so that was great. So people wanted to measure their activity. So it was a good communication tool as well as a reporting tool about the data available. And then in this project, in the last scheduled project I shared it with some of the museums that were there and because people liked it so much and found it very useful I created a template and I licensed it and then I created common licence so people can use it and that's available online. So basically what you do it’s very easy to update so just in the new month, you have a column and you add the numbers and the dashboard automatically refreshes.

SM Okay so it’s more of a visualisation of data reporting tool rather than an interactive set platform where you can actually do stuff with data or does it involve both?

IR5 It’s much like reporting.

SM Okay. And what is the aim at [Museum 1] when digital analytics are conducted? You've kind of covered this question already in your introductory remarks. Is it audience research and evaluation as you said or is there a broader range of aims to that as well?

IR5 I think the main aim is to inform decision-making and improve the user experience at the end of that. So yeah we improve the user experience across different platforms is the ultimate aim. And of course all our digital activities are linked to our mission to increase knowledge, understanding and enjoyment of art. So how we can do all this research evaluation of those so we make sure we achieve that ultimate goal.

SM Okay and to come back to the process you briefly set out when you mentioned all the tools, is the process set or does it involve a range of experimentation? So my question is when you do analytics for [Museum 1] do you always go to the same tools and do more or less the same operations with those tools as in a process which is more or less standardised by now through experience or is it more experimental and trying things out?

IR5 Probably a mix still at the moment because technology changes so fast. So for example two years ago suddenly oh we have to measure mobile apps, which those who have so we do some research, we try something, so we tried one tool then want to test this old one, maybe sometimes what we do does not respond to what we want to evaluate or research so we have to see other ways. Sometimes it’s not because we have loads of full data and whole analytics that is going to give us all the responses, sometimes maybe one question, qualitative in a survey gives us more insights than that. So we have a wide range of activities like from marketing, very ((18:00?)) research so each project is very different. So we try to see when we do the planning of the evaluation and its objectives and then I try to see what are the best tools that are available. Most of them now because we have been doing that and now we have probably a range of tools that records most of the things but still sometimes it’s like oh well none of these tools work we have to have a focus group specifically for this type of audience for this purpose.

SM Okay and now I have a series of questions about the data itself. So we’ve already touched on that as well a little bit but could you tell me a bit about what kind of data is gathered using digital analytics?

IR5 Well yeah it depends on the tool where the data is gathered like the standard metrics that come from each tool like where analytic space, ((19:00?)) behaviour, online, comparisons, social media views, Facebook insights or each impressions interactions. So yeah those type of things.

SM Okay and what is this digital data used for? Apologies if I get you to repeat yourself a little bit.

IR5 Well if that adds any extra information I think sometimes data helps to monitor trends. Sometimes it helps to understanding the real impact of an activity and sometimes it’s more like optimising, you know, monitoring something continuously and just seeing and optimising so probably different levels of reporting.

SM Okay. Can you provide me with a few examples of how digital analytics has informed decisions taken at the [Museum 1]? Something concrete. Also if you could provide me some documentation after the interview by email.

IR5 That's what I was thinking.

SM Then it would make it easier for us to understand what kind of things are involved.

IR5 I have just published two blogs with a colleague of mine. So we’ve done some audience research using analytics and a survey for the online collection. And because we are redesigning that section we are in a big project at [Museum 1] digitising the archive and that means that all those archive items are going with the artworks because there are many letters by artists, images, drawings, so a mix of things and we are putting it together with the collection which is a big challenge in terms of the user interface. So it was a great opportunity to review how people are using the collection and see what are the best ways of creating filters, search. So I’ll send you the links because I think that's a nice example of how that data has been used to change some of the features we have on the site for the online collection. Other examples can be with an element of user testing so we’re launching new products, for example the mobile version of the website. So together with how you think it will work and then you put it in front of a user and have to do a lot of changes so that is a very direct example of something that actually and people are going in this look we’ll have to change the menu or something, so that's a very practical example. We’ve looked for example at what people search on the internet search and see maybe what content is missing and how we can handle things differently based on what people are searching for instead of how we aim it internally.

SM Okay and so how is the digital data travelling within datas and organisations? So who are the reports and the reporting about data sent to?

IR5 Well we have intranet so I have a section where I upload the reports. I circulate reports via email, of course, and I have meetings where I present stats. And then something that is working really well for me is I have an internal digital analytics group, so basically what I do here is I train people on using analytics so I have trained like 70 people more or less and then I add them to an email group and I send them updates on a monthly basis about new features, new tools we have any reports we’ve published. So that's a very active group that is very interested in that and that has worked really well and every time I send that report I get emails back with questions or projects they want to start. So I think that keeps, you know, not just giving people access to analytics but more a continuous flow of information.

SM Okay and so decisions are critically made on the basis of finding from digital data insights?

IR5 Yeah I mean of course you have to find a balance between what the data tells you and that's really what [Museum 1] wants to do, as an organisation. Yeah so I mean otherwise you don’t innovate.

SM Are there challenges involved at that level sometimes, between the findings and the…

IR5 Of course I think probably every organisation I mean a very similar example in general is like if you just do exhibitions based on what the public says you will do and there's more successful things you will do only impressionism exhibitions because they are very popular and a lot of people went to those but then you have your strategic objectives or your institutional where you wanted to position a museum within the arts sector so maybe you will do some exhibitions that are only for a small proportion of the population but that's where you create an innovating in the arts sector. And I think the same applies to digital if you only do things based on data and you don’t think about how technology can help us to achieve that, let’s test mobile ((25:04?)) or let’s test…so for example something that three years ago was…or maybe four years ago was like innovative in the sectors was QR codes and we were like oh great this is perfect you put a QR code close to another product, you scan it and you access information. It sounds like a dream for organisations and then you can have different levels on your mobile of information. QR codes are not working in museums and that's something that data proved but maybe there's something that is working maybe, I mean the reality has been more successful. So it’s finding a balance between what you want to do and what the data tells you and unless you do something new and evaluate it and see what you have, if you go down that path or not.

SM Okay. Do you track the results of actions being taken on the base of insight?

IR5 Yeah we do. Yeah continuously improve.

SM Okay and what kind of results are emerging from the actions taken and the decisions taken on the basis of data?

IR5 It really depends again on the objectives of the projects. Sometimes it’s improving its ability and the user experience, sometimes it’s getting more interactions, sometimes getting more revenue.

SM Okay and so would you say that how useful are digital analytics findings and insights then?

IR5 I hope they are very useful ((laughs)). Yeah I think they are especially now that we have indeed so much work to do that it’s impossible so it really helps to prioritise and evaluate and say, okay look this this quantity we are producing it’s not worth it, let’s do maybe this type, or how we arrange things with groups we have. I think it really helps to decide on priorities yeah definitely apart from ((27:22?)).

SM And in terms of evaluation what yardsticks do you use. How do you decide what is successful what is not and what kind of…

IR5 Yeah that's a big challenge to put the targets for projects and especially with technology some things it’s the first time you do them so you don’t have any benchmark. So this is currently one of the areas where we struggle is yeah when we do evaluations, sometimes objectives are more or less defined and sometimes they aren’t. And what is always never defined is the actual targets. It’s like, we’ve got this is it good is it bad? I mean sometimes when you deal with things that are very similar and mobile apps is easier to compare or when you do like blog posts about similar things you can say, “Oh actually this exhibition blog series was more successful,” but sometimes it’s actually very hard to sort out those.

SM Yeah I imagine especially with social media I mean what may seem an indication of success as you said before at the qualitative level might be indicative of something perhaps different.

IR5 Yeah and I think well one of… I’ll send you this paper in case you haven’t seen it, I did some work for the [Galleries 1] which is an inner space we had at [Museum 1] […], it was very like new it’s like a really unique space with unique formal parts like art performance and video and we used social media for two very different purposes, on the one hand we used it for marketing purposes to promote the programme that was taking place at [Galleries 1] but then on the other hand we used it as an engagement, interactive tool. It was Twitter hole in this space so if you were tweeting something with the hashtag ‘[Galleries 1]’ your comment will appear automatically projected on the wall. And so basically from the marketing perspective you were actually arranging tweets, influencing people that were talking about [Galleries 1], media. And from the engagement perspective we wanted to see if it was a comment of, “Hello I'm here at [Museum 1],” or it was more like, people aren’t really talking about that space we also had some prompt questions asking people about art. So were people responding to those or not? So really two very different activities with two different sets of metrics to evaluate success.

SM Okay I think you wrote a paper about that, I didn’t have time to read it but…

IR5 Yeah I can send the link to you.

SM Okay great. So do you think digital analytics are beneficial and if so to whom, for [Museum 1], for visitor audiences, for others?

IR5 I hope ultimately for visitors, the audience of course. I see my role as like visitors, like a lawyer or something when I go to meetings try to have my audience focus hat on and trying to provide that vision that sometimes some people like aren’t working on because they don’t see and it’s trying to bring that audience focus so hopefully it will benefit of course our activities that at the end are researched.

SM And what other methods do you employ to obtain feedback at [Museum 1] apart from digital analytics? You already said you use a mix of approaches so you will do focus groups and get more valid information or interviews or whatever but can you tell me what kind of feedback or potential methods there are apart from digital analytics again?

IR5 We have surveys. We have an online survey on the website. We have as well surveys in the gallery on a rolling basis and that includes some questions about digital, so whether people have all these things or they can feedback their event, l mean like visitor feedback forms in the galleries so people can add comments on anything and sometimes they put things about the website or the mobile apps. And that's helping us a great deal around. Sometimes it’s even like people talking to the people in the galleries, visitor experience team. And then sometimes I've been to those meetings and I got their views of what visitors are saying about digital in the galleries, you know, when they talk, “Oh I have a this problem booking this event,” or “The wifi did not work, or this app is excellent,” so that kind of feedback. I also get it. So people can use it in many different ways the view that gives you. And also I work very closely with audience research manager her at [Museum 1] who is the person who does this in the audience research and evaluation in [Museum 1] Galleries. So we work very closely together to link because at the end I mean other people have the same with the website comes in a…use mobile apps in the galleries.

SM Okay. The reason I was asking is because I was wondering in what ways are digital analytics superior or inferior to other ways of generating feedback?

IR5 I think it’s another way and you just have to bear in mind the limitations but the same as you do with any research method in the galleries. So an example and this is linked as well with [Galleries 1], ((aside 33:38?)) so an example for [Galleries 1] you have these visitor cards in the gallery and if we analyse just those you see people are either very positive or very negative about their experience in the gallery so you just have to remember that this is something that happens with that type of feedback method. For [Galleries 1] we analyse the tweets to see what was the experience of users in that space and it was useful because we took on the other methods but you just have to remember that which is the population which is using that social media platform compared to the people that come to the galleries or how representative that is. Then what is the biggest motivation to tweet? Because for example maybe it’s just to share something with their colleague and maybe you don’t share experiences that are so-so as well, you will share something that you want your…

SM You feel strongly about it?

IR5 Yeah exactly. So I think yeah it has…but another good example is we were doing some research about one of our galleries that is not working very well we were going to do some audience research but actually the audience research manager went to Trip Advisor and just really all the comments on Trip Advisor was like it’s clear. So it’s a digital platform very social because it’s becoming included in the social forum because it’s people sharing their experiences in the gallery and just looking at that, no research was needed. It was very obvious.

SM Because it confirmed exactly the…

IR5 I was suspicious, and what we suspected and not something we didn’t know but it was repeated in many of the comments by their experience was negative in that gallery.

SM Okay. That's quite interesting. So digital analytics would be a complement to other ways of generating feedback?

IR5 Yeah I think it’s another way that has its pros and cons and with any research method yeah you need to bear in mind the limitations and what you use it for.

SM Yeah. Then the final bunch of questions is about potential issues involved with data mining. Have you encountered first of all any difficulties in making use of insights or findings from digital data analytics?

IR5 Yeah lots of challenges in data collection especially. With social media especially because some of the platforms we use on ((36:29?)) analytics tool is very hard.

SM So unstructured data, how to format it in a way that it makes it analysable that sort of thing?

IR5 Exactly. That's our big challenge working with the different APIs. And like ((36:42?)) doesn’t have any tools about…and it’s very basic and Facebook is very detailed but then Instagram you have to use third party tools as well to access. That's for me a big challenge, once you have an ((?)) then it’s fine.

SM Yeah okay. Do colleagues’ attitudes to digital analytics sometimes prove also a difficulty in making use of the insights actionable?

IR5 I think sometimes because there's a lot of data it can be quite overwhelming. So I think one of the challenges is to be very clear what you are looking at in the data instead of, oh let’s look at all the reports and we will have everything and get lost with that. So yes that's probably a challenge.

SM Okay.

IR5 And so the names of the metrics ((37:52?)) some people don’t know what it is. So yeah because social media each one has its name reblog, retweet, share.

SM The reason this question is here is because we studied also in this project the client’s social media insights contents and typically in many organisations that commission social media insights say from established UK companies that do that sort of thing there is sometimes colleagues resistance to the team doing the analytics so I was wondering if that is also an issue at the [Museum 1]?

IR5 I think something that I’ve found very useful is to work with the people that are evaluating. i think if you work in partnership with those things and you just present the figures but you work with them doing the analysis first of all it’s more helpful for me because i don’t whether we had the sense about the project and second I think if they analyse the data by themselves instead of getting a report from me they learn more from those insights. so i try to do as much as possible collaboration with the people so not just, “oh this is your project and here’s the report. you have to change all those things because they are not working. this is a failure, this is a success,” i think if you involve then in the project, in the evaluation then you have more back in from instead of going to a meeting, “And this is the data…”

SM And I’ll sort you out basically.

IR5 And that can be a very tense or aggressive or…I think involving people in the evaluation is key and one of the parts of my job is I train people on using analytics and every time I write a report I try to get the people I put their names as well in the report and write it with them because I think it’s more efficient so they understand the findings.

SM Do organisational structures sometimes create any difficulties in making use of digital data insights or findings?

IR5 Yeah museums have very complex organisational structures and sometimes can be a challenge to collaborate in that sense. A good thing in our department is that we are a neutral department so we’re not partisan to anyone. So you can feel more tensions between some other departments that have very different objectives but because we can serve for different departments we try to be objective and that helps I think.

SM Okay.

IR5 But sometimes yeah it can be a challenge because people might want really to do that and just say, “No look I've tried to work with this bit and then this,” and I think sometimes the problem is that people see their audiences but they don’t see the whole other journey, or they see email but they don’t see how email got used, the whole experience that they have. So collaboration is the solution.

SM Yeah. Are there sometimes difficulties in making sense of the data and that in turn affects making use of findings?

IR5 Yeah one of the things I'm trying to profile is visualisation because yeah some data can be really, really complex and a colleague of mine in another museum always says that I'm a storyteller I'm not an analyst, that's the way I try to see myself because not everyone is familiar with analytics and we have missions that are very graded environment so people have maybe come from other backgrounds I think, I mean I've worked before in other sectors and many people, and present to finance people it’s easier and people come in with other backgrounds so yes you need to make sure people understand it.

SM Mm and I guess presentation is an essential part of that?

IR5 Yeah presentation and visualisation of the data. So when people see the charts they are not just a little item they need to understand it. And yeah sometimes you go quick and you have to make sure oh this is the information you can see here and here and here.

SM Okay and are there difficulties involved in putting in action, insights from the data, as in you have an insight that seems interesting but there are practical barriers with implementation?

IR5 Well I think that applies to any digital project, development is hard and expensive and sometimes it’s not as agile as you want it to be but I think that's something that applies to any sector that sometimes you see all these people doing things, you have to change it and even if you prioritise it still you have to go through the development process because I mean especially as because we have a very big website with millions of visitors every year so we cannot say, “Okay let’s shut down the website for an hour, let’s do the changes and put it back,” you cannot do that.

SM And time and resources I guess in a museum organisation are scarce I think?

IR5 Yeah of course. It’s not…again that's a challenge for a museum to have any developers because we don’t offer the same service as the market. So it’s a challenge.

SM How do other people within [Museum 1] feel about the usability of usefulness of digital analytics?

IR5 I think the necessarily for the marketing team was the first one seeing they’re jumping into.. “No we want to know about analytics,” because now they are, apart from putting posters on the tube or creating leaflets now they are doing BBC companies, they want to be well in position so SEO efforts they do it out of email bulletins more than they were doing before so yeah they are really happy to use analytics and then other departments have followed.

SM They have followed the lead of marketing then?

IR5 Yeah it’s developed the leads well probably it was pretty obvious that now for example the learning team, because you have audio guides and you have mobile apps so again the learning department is the department that is very into research and evaluation and understanding really people are learning, are enjoying the experience. So they are also very interested in, and also analytics can provide more information than they were having before with audio guides, so for them it’s very interesting if people were spending, I don't know 40 minutes on an app, you know, listening, how many recordings they listened to during the exhibition. So for different purposes but as well is very interested.

SM Yeah and do these different purposes you just spoke about imply differences on objectives as well?

IR5 Mm definitely.

SM Does that come into play the way digital analytics is appreciated and used?

IR5 It’s just used in different purposes but I don't think, yeah I mentioned this in that.

SM Okay. What are broadly speaking the advantages and disadvantages of digital analytics then?

IR5 I don’t see disadvantages ((laughs)).

SM No?

IR5 I'm kidding. I just think it’s a very useful tool for many different reasons to prioritise, to create new projects, to evaluate audience needs, to provide good experiences but that I mean the disadvantage would be to do all your activity based just on that and so you have to be data driven but have as well to know what you are doing things for.

SM Mm yeah. And what do you think are the strengths and possibilities opened up by digital analytics and insights?

IR5 I think it’s I mean the main thing is understanding better audiences so we can provide good experiences, that's probably the highest strength. That maybe you have a website and you don’t know what they are looking at, what they are searching for you cannot then it’s a blind offer too.

SM And what do you think are the weaknesses or problems with digital analytics insights?

IR5 Mm the weaknesses, I don't know.

SM As you said there are limitations to the tools I suppose being aware of those mitigates the weaknesses but I don't know perhaps representativeness or is that an issue that comes up for example?

IR5 Um.

SM For example as you said before at [Galleries 1] exhibition involving the use of Twitter it’s obviously a certain demographic profile that’s involved with the use of Twitter and so on.

IR5 Mm yeah.

SM I wonder if that’s a broader issue in the digital analytics update?

IR5 I mean there are some technical limitations even with Google Analytics like if you don’t have…you cannot track everyone and for example I mean you inflate your number of visitors because people access from different devices, the same person but in Google Analytics that appears three times or maybe you have the opposite is to have a teacher showing a website to a classroom it appears as one but there are actually 30 people behind that. So the data is not perfect from any method. So you have always just to make sure that you know the limitations. And sometimes that can be a challenge. It’s not like a weakness I see it more like a challenge. I mean the weakness is that it changes most like afraid that it changes very quickly. Like Google Analytics has changed I don't know how many times in the past year, it’s making me crazy ((laughs)). Because I do the training and every time I do a training session I have to update the slides because the interface has changed and for example now they rename visits and visitors to users and sessions so you just need to communicate that internally that you were saying that and now they’re saying this and I just reported that but it’s the same thing. Weaknesses I think is more in the analytics sector that is changing very quickly everything in the technology.

SM Yeah. And the last question is about whether you yourself or the [Museum 1] give much thought to ethical issues relating to digital analytics?

IR5 Definitely that's something we remind have a privacy policy on our website or how we use the data and what tools we have so that's clearly stated in our privacy policy. So we have like the cookies and everything, or when we put surveys.

SM And there's another issue that sometimes gets raised in relation to ethics and digital analytics which is about representativeness and associated problems like inclusion, exclusion, and so on.

IR5 Yeah I mean when you analyse and I mean if I analyse the tweets sent of [Galleries 1] I can only do English and maybe Spanish, maybe Italian and Portuguese and French but I cannot do Japanese or Chinese so of course there are limitations even in the language.

SM Well I think I covered all my questions do you have any other comment about that is something that we touched upon but we didn’t expand on? Anything that seems of importance?

IR5 No I think we’ve covered yeah.

SM Okay I will stop now then. Thanks a lot.