J. C. I’m just wondering, I’ve not eh updated it very recently; I think I’m still on iOS6, so ...

RH That might be it then.

J. C. Yeah, quite possibly; I’m always a bit, a little bit reluctant to eh update things, but eh maybe I need to do it I think.

RH I know. I like to wait until I’ve heard somebody else say what all the bugs are and then Apple fix them.

J. C. Yeah, definitely, definitely.

RH Well thank you so much for your participation in the project and for sending your diary with all the cut-outs of the stuff you’ve been looking at and the links as well.

J. C. No problem.

RH I’ve had a read through and had a look at the visualisations that you included, so it was really interesting, so thanks for that.

J. C. Was it all, was it all okay?

RH Oh yeah, great, a really interesting perspective that you’ve brought forward, and included quite a lot of things that other people haven’t included as well, in terms of what you’ve actually been looking at, so really interesting. So we’re going to talk first for half an hour/40/50 minutes, depending on how much you have to say.

J. C. Yeah no problem, well I’ve always got something to say! ((laughs))

RH And we’ll still be bound by the same confidentiality and all the other things that you signed in the focus group on the form.

J. C. Okay.

RH Great. So in your diary you described quite a lot of the visualisations that you looked at as interesting and I was wondering what was it exactly that you found interesting? Was it the subject matters or was it the data that was being represented or the visual display, or something different?

J. C. Um well the, the data what I saw, I thought it was just quite interesting because it, you know, the topic was, I was interested in the topic, it was showing the data, if that makes sense. So um because I do like to keep up with like, well I like, I like to hear about things in the news and what have you, um and eh so that when I saw the data and I was actually looking at it, I did find it quite interesting just looking at it and finding out what it was about.

RH So finding out about the subject matters?

J. C. Yes, yeah definitely, definitely, because I’ve, I, I found most of them quite interesting really. I found a lot of them looked very similar, um and it was, it was basic, it was, but it was easy to read, um so that’s, I also liked that, and, but it, I sometimes think if you overcomplicate things I lose interest in it.

RH Right, so you like things to be more, what, easy to read straightaway?

J. C. Yeah, yeah I think so. If they’re easier to read, um then you’re going to be more interested in them, whereas if something’s like really overcomplicated, you just sort of lose interest, you know, because I don’t have a lot of time to like read things and what have you, so if it’s kept simple and easy to read, then I’m more likely to be interested in it and reading it all and, and you know, to look at it, have a good look at it really.

RH You mentioned that you like to keep up with things, so what kinds of things were you thinking of when you said that?

J. C. Well like um there’s also, like at the minute, there’s a lot about finance, isn’t there, with like the government and like um eh inflation and what have you, and so money’s been a very big topic, hasn’t it, the past few years, and when you see charts about money you just, you, you take notice of them because potentially they could affect you really, they could.

RH So do you tend to follow current affairs and think about how you fit in with them, and is that something that you would say that you do? When you’re reading the news you’re thinking about how it might affect you?

J. C. Um possibly, yeah, I mean not, all those charts that I saw, not all of them would affect me. I think there was one about um, was it the Japanese, in Japan, was it I think? Was it? There was one in there. Um that, that wouldn’t affect me, but eh for instance, like the oil prices or the mansion tax ((laughingly)), that certainly wouldn’t! But um yeah, like the oil prices, um I can’t remember what else, what else there was. Um ...

RH Shall I remind you?

J. C. Yeah, if you could please.

RH German GDP?

J. C. No, that one wouldn’t affect me.

RH The petrol prices, as you’ve mentioned.

J. C. Yeah, that would, that one would, yeah, so I’m more likely to read that and to take note of it, um because, yeah just to see it could potentially affect, affect us at the end of the scale.

RH Who do you mean by ‘us’?

J. C. Well like everyday people.

RH So you consider yourself an everyday person?

J. C. Well yeah I would say so. I’m, well at the end of the day we’re all the same as each other, aren’t we, you know? Um but eh yeah, if it affects, well if it affects me, you know, it will affect you or me neighbour, it will affect everybody really, won’t it, you know, nearly everybody drives, don’t they?

RH Yeah. You also said that you found the TB visualisation shocking, and going back to the mansion tax one, you said that was your favourite so far, and I wondered if you could say a bit more about what was shocking in the TB visualisation and why the mansion tax one was your favourite?

J. C. Um have you got the TB one there?

RH Yes, it was in the NFU Report, wasn’t it?

J. C. Mm, have you, have you got a picture of it?

RH I can email it to you, yeah. Hold on a sec.

J. C. And I’ll just look on my phone.

RH I took a screen grab of it today, so if you give me a mo I should be able to find it.

J. C. But the eh, just going on to the mansion tax one, I thought the illustrations were quite a good way to um, to show the data, because it was very similar, is it a bar chart or a bar graph?

RH Yes, that’s right.

J. C. It looked very, so in a way, it is still simple, but they’ve just turned the bars into houses, haven’t they?

RH Yeah. Here we go, I don’t know if you can see this?

J. C. Yeah, that’s it, yeah. I just thought, you know, looking, the more, obviously the more money there is, the bigger the house, and the same with the cash as well, um it’s sort of just eh, yeah as the years go up and the price increases, I just thought that was a very good way of illustrating things.

RH So you particularly liked the visual aspect of that one?

J. C. Yes, definitely, yeah, definitely.

RH Did you get that TB one? Has that come through?

J. C. Let me just refresh me emails.

RH Can I paste it on here?

J. C. Yes.

RH You’ve got it?

J. C. I think so. No, I haven’t had it yet.

RH Hold on a sec then and I’ll see if I can send it through Skype. I think it was showing the monthly.

J. C. Hang on, I’ve just had something come through. Did I send you the link then on the um...?

RH Yeah, you’d written down the link and there were two in that one that you’d seen. Right, see if you get that. I’ve just sent that through Skype itself.

J. C. So how do I look at that then?

RH It should pop up a little message for you, saying, ‘Do you want to accept this file?’ or something like that I think.

J. C. No, I can’t ... I’m just seeing. Did you email it as well?

RH Yeah, I did. Can you see the bar at the bottom, the messages bar in Skype?

J. C. Eh yes. Well it says ‘type a message here.’

RH Yeah, okay, hopefully this is the right address that I’m typing in! I’ll just test that first before I send that through to you.

J. C. I’ll just have to put me eh phone on charge. I, I charged my iPad up yesterday but eh ... I’ll put that on charge.

RH Okay, I’ve sent the link and then I think it’s on the very last page of that PDF that’s on NFU online. Can you see that link?

J. C. No, where, where does the message come up?

RH In Skype, can you see there’s a black bar that’s got the icons on for the camera, the microphone, and then there’s a speech bubble?

J. C. Eh yes.

RH If you click on the speech bubble ...

J. C. Mm-hm.

RH ... can you see it there?

J. C. No, it says ‘no previous messages.’

RH Oh, how annoying! Let me try again. Did you get that?

J. C. I could hear something but ...

RH Okay, I can say the address to you and you can type it in!

J. C. Yeah, you could do that actually.

RH Old-school.

J. C. Yeah! ((laughingly)) I do think all, all this technology is brilliant, but it eh, I feel a bit behind with it now actually! ((laughs)) Eh what is it, NFU?

RH online.com/key-stats-july-2014/ That’s it.

J. C. Um ah yes.

RH Yeah and it’s right at the bottom, it’s the last page there.

J. C. Oh here we go. Oh yes, I remember now, I remember. Let me just ...

RH Yeah, you said you found this shocking.

J. C. Yes, I did.

RH You found the results quite shocking. Why was that?

J. C. Yes, I found the data very shocking because um, just looking at it now, say, for instance, in um eh, in March 2011, there was 3193 cattle eh slaughtered because of TB, eh and the highest being in um November I think. Um 2012 there was 3968, and it, and it shows you all of the um, all of the numbers in each month that were slaughtered, and I just, I just found the data really shocking really. And it makes you think how, why isn’t something being done about, about this? You see all those figures and if you added all those up, it, well it’s a terrific amount. I think um it does actually tell you perhaps ... um ... it was 2011.

RH In the right-hand side?

J. C. Yes, and the number of cattle slaughtered in January to April 2014 was 11,757, and so when you look at all, all of those figures, I just found it very shocking really, I did, to see that all of the, there was an awful amount of eh data on there, it was per month, and when you look up the side, it starts off from zero and goes all the way up to 4500 and the majority of the data is above 2000 ... well, it’s above 2000 and there’s even, even a lot more that’s, well I think all of it’s above 2000, it is. So I just found that quite shocking.

RH The high number of cattle being slaughtered each month?

J. C. Yes, definitely, yeah, yeah.

RH In what way does it shock you? I mean I’m thinking about people having different kinds of reactions to those statistics and different feelings of shock that they might have.

J. C. Well I think um perhaps that some people are a bit unaware of what’s happening in, with the TB and the, and the cattle. Um and I just think that because I, I know a little about it, obviously I know um that badgers carry TB, or they think they do, um and I know it’s been in the news recently and, well over the past year I suppose, about um the badgers being culled, you hear a lot about it, but then there seems to be a lot of, a lot of uproar about the badgers being um culled, but when you look at how many cattle are, are being slaughtered each month, it just makes you think a little bit about, you know, perhaps it is a good thing that the badgers are being thinned out a bit. And, and I just from a sort of a farming point of view, just looking at those results, um well I think it’s, well I just think it’s terrible really, and because it’s people’s jobs isn’t it and it’s people’s livelihoods. You know, I’ve got, I’ve got friends that are cattle farmers, and if they, if they had to, you know, lose some of their cattle because of T, TB, they’d be devastated, they would. So it, you know, and I just think seeing those figures so high, um you know, I just think it’s, it’s, well it’s just a bit shocking really. I knew that it, it was a problem, but I didn’t realise it was that much of a problem.

RH Thanks for elaborating on that, that’s really clarified what you meant when you said it was shocking and it’s also interesting to hear how you’re thinking about it in the context of the people you know and how it affects the farmers that you know.

J. C. Do you hear much, much about it like in the city and that? Presumably you’re now in Leeds, are you?

RH I am in Leeds now, yeah. The newspapers and stuff that I read, things like *The Guardian*, and I’m a member of the Green Party, so I tend to hear mostly about how awful it is about the badgers, and then Brian May from Queen, his campaign against the cull. And so it’s a different side of the argument and it’s not something I have very strong feelings about. I just don’t feel like I know enough to be able to make a decision about it.

J. C. I know. I mean it is, there’s a lot of badgers around us and, you know, they are quite nice to see and that in the wild, but when they’re doing what they’re doing to the cattle, I mean it’s not a big thing around here, but I know further down south, is it in Gloucestershire, I know it is quite a big, a big problem them, but um yeah, it’s not good either way really.

RH So it’s a lose-lose situation, isn’t it?

J. C. It is really, yes, yeah definitely, yeah.

## How do you feel about visualisations?

RH So moving on to think about visualisations in general, how would you say that you feel about them?

J. C. Um the majority of the visualisations that I saw were interesting to me. The ones that I didn’t find interesting um was, I didn’t like the Japan one because it wasn’t relevant. If, if it’s not relative to me I’m not generally interested, but, but for instance, the Japan one, it did have some quite good illustrations and that, so you also do get drawn in on that aspect of, of things. But I think if it’s, if I’m interested in the subject, or it just catches my eye, then I am interested in it, but if it’s not, not relevant to me, then you sort of just, you know, push it to one side perhaps.

RH So you feel the subject matter is what draws you in, and then occasionally if it’s something that catches your eye, it might?

J. C. Yes, yeah.

## How does your experience of diary keeping compare with the previous diary keeping?

RH How does your experience of keeping a diary in these last four weeks compare to that one week that you did before the focus group?

J. C. Um the, it was very similar, to be fair. Um I did still have the same situation where I couldn’t look in the week because I was just too busy with work and what have you, and looking on Facebook and Twitter and just on other, the internet and that, I didn’t really come across them that, that well, um certainly not on Facebook or Twitter. Um if, if there was to be any on, on that too, it would probably be more on Twitter than there would have been on Facebook. I think Facebook’s a bit more, well it’s, immature is not the right word, it’s probably not aimed at the right sort of people. You know, on Twitter it’s a bit more ... I don’t know what the word is, but it seems to, there’s a few more eh companies and businesses on Twitter, and do you know what I mean? Whereas on Facebook it’s more, you know, who was going out at the weekend and, and what’s happened at work today and what have you, it’s not really the sort of place, I don’t think, to, you know, for data to be put on there.

RH So is this about the people that you’re friends with on Facebook and that you follow on Twitter?

J. C. Yes.

RH So would you say Facebook is more for friends and Twitter is more for something else?

J. C. Yeah, yeah, yeah I’d say that’s exactly right. Um with Facebook I would say you only have your friends on there that you sort of see and what have you, or what you used to go to school with. I know there is like companies on there that um, eh that advertise things, but I don’t think they put, you know, well I’ve never seen any um data on there. Maybe I’m not looking in the right places or, but it’s not, it’s not so easy to come across on Facebook, whereas on Twitter ...

RH So it’s not coming up in your Facebook feed, your friends don’t share things?

J. C. No, no, um because that is, well that’s really what Facebook is, isn’t it? If, if your friends didn’t put anything on there, there wouldn’t be anything on there to look at, would there? ((laughs)) But, but on Twitter, I think eh you get like suggested posts and, you know, if you’re, if you want to look for a company or, I just think there’s more chance of things being on there, there is.

RH Were any of the visualisations that you saw on Twitter? I don’t remember you saying it.

J. C. No, I don’t think there was. I’ve still not come across any on, on Twitter, but then again, I don’t use Twitter as much as I use Facebook. I’ve got the app, well I’ve got both the apps on my phone, but I’m more likely to use Facebook because my friends use it more, you see. But whereas Twitter, I do look on there still, but, you know, I’ve not really seen. I don’t know, have you found many on Twitter before?

RH I see the odd one, yeah, the odd one comes round, but then because I’m working in data visualisations, people share them, I follow people who share them, so I do see them. And then sometimes political campaign groups and that sort of thing share them sometimes, so I see them there. Were you expecting to see more on the internet?

J. C. Um yes, but when you say the internet do you just mean like on not Twitter and Facebook like?

RH It sounds like you’re expecting to see them in Twitter and Facebook and then were surprised that you hadn’t seen them there.

J. C. Yeah, I, I would have thought that there would have been more, I, I maybe expected to see some on Twitter, I didn’t really expect to see them on Facebook, um because I know on um, on like the introduction pack, what you, what you sent me, you said to like look on Facebook and Twitter, but I found it very difficult on Facebook to find any, for the um reasons we just said, like, and then for Twitter, um yeah, sort of the same really, I found that difficult. But then, but then on the actual internet I found it quite difficult as well, because I looked on like the BBC News website and, and I did find like the odd one or two, which I think I wrote about in my weekly diary sheets.

RH Yes, there was one in particular from the BBC. I can’t remember which one it was off the top of my head. Hold on. Yeah, there was one at the BBC, wasn’t there?

J. C. Mm, I can’t remember which one it is. Was it house or tsunamis?

RH I can’t see it now but I definitely had it open earlier in the day. Oh well, never mind.

## Where were the most common places you saw visualisations? Who was displaying/making/sharing them?

J. C. Um so there is, when I looked on like the news website, I found, I found there to be more um data on the um business side of the news. There was odd, odd times where it was, it was in other parts I saw things, but the majority of the ones that I, and all the newspaper cuttings, they was all out of the City and Finance section of the newspaper, except that, the one on the house, the mansion tax one, that was just in, well that was an article on mansion tax, but the majority of the others were what I found in the City and Finance.

RH So we’re talking about in the *Daily Mail*, aren’t we? These messages are from the *Daily Mail*?

J. C. Yes.

RH So why do you think that might be, that most of them were in the City and the Finance section rather than in the front pages or the sports section or something like that?

J. C. I think like the City and Finance, they’re constantly using data, aren’t they? Yeah, you know looking at perhaps doing a data graph is a really easy way of, well it is an easy way of showing the data, isn’t it? It’s quick and easy to read. Um so I think, I think they’re going to use them more, definitely.

## Does visualisation play a part of your work life? Would it have been different if we’d asked you to include work (e.g. would you have included many more in the diary)?

RH So in work do you have anything to do with data visualisations?

J. C. Eh there is one, and I don’t know whether I sent it to you or not, but I did take a picture of it. I’ll just show you it. Um on a strawberry harvester there is a, there’s a graph on there. I’ll just see if I can find it. I don’t know whether I sent it in or not because I didn’t know whether it would be relevant.

RH No, you didn’t send it in and we asked you not to include work things for various reasons, so I was just wondering what your diary would have looked like if you had included work things.

J. C. Well there, there would have only been one thing, there would, um and what it, it’s the only thing I’ve ever seen. Um I have, and it is a sort of a percentage graph and it’s, it’s on a strawberry harvester, so when um, when the tank is getting full of sugar beet, the percentage increases and then there’s a bar that comes across. And when it gets to 80%, it shows the back part of the, the tank or the hopper, it goes eh orange when it’s full, and then it starts to fill the front, and then when that gets full, then it comes up with a percentage, and then it comes up with 100%. And then when you start to unload, it, the percentage starts decreasing and the bar starts to decrease as well, it does. And that’s the only other thing I’ve ever really seen. There is other, like the combine harvester, it, it doesn’t show you a percentage rising, it just gives you eh a 70% and then 100% as well indicator, but it’s not an actual bar that starts moving up. I’ll just ((0:29:02?)) oh here we go.

RH So these are visualisations that you use every time you get in the machine?

J. C. Yes, basically, yeah, yeah. I don’t know whether you can see that?

RH Yeah.

J. C. So when the back part’s full, it, it turns orange, and it should be green, when it’s filling up it’s green, it shows you the percentage and it, then it starts to fill the front and then it shows you the percentage there as well.

RH So did you think about this as a data visualisation before you started doing the project?

J. C. No, not before, no, no, it’s only since I’ve been doing the project that I’ve actually started to notice things more, because when I see them, obviously I knew it was data and I knew it would be a graph, but you don’t think of it, think of it as, well a quick and easy way to look at things, and I think that’s really what it is, but, well in most cases I would have thought, unless it’s, you know, really long-winded. I think um, I think yeah, when it’s a quick and easy way of, of, you know, understanding and, and reading data, it is.

RH So was this particular one something that you understood right from the get-go, or did somebody explain it to you? Can you remember?

J. C. Um well no, because it’s fairly um, fairly straightforward because it’s, it’s got the picture of your harvester and it’s, and it’s basically showing, you know, the tank, how much, how much crop you’ve got in the tank, eh so it’s, it was fairly self-explanatory really, it was.

## Are you finding it easier to make sense of visualisations?

RH So do you think that you’re finding it easier to make sense of visualisations now than perhaps before you started the project?

J. C. Um I do think so, but I also think it, that also depends on the um, on the way the data is shown, so if it’s really, really complicated, it’s sometimes difficult to understand. I think some of my diary sheets were a little bit difficult to understand. I was just looking at that eh, the TB one again, um it does show you every month, it does, but not every month is listed.

RH Yeah, some of the labels are missing, aren’t they?

J. C. Yes, so, for instance, it starts at March ‘11, but then the next label is June ’11, so I ended up counting the bars in between and then I’d work out and think, ‘Oh well, that must be April and May and then, oh that one’s June.’ So in some cases it would be nice if you had a label on each line, but then it could be a bit overcomplicated because there’s too much um, too much eh data, not data, because that’s what in the graph, but too much labelling. So it is nice to keep it simple, but I think there was a few more that I found a little bit difficult to read.

RH Do you think you’ve become more critical of when you’re now looking at them?

J. C. Of the, what, how they look?

RH Yeah, and how they’ve presented the data.

J. C. Um yeah I think so. I’m, I like to keep things simple and, and when, when something’s overcomplicated, that’s when I lose me interest in it. Um so, you know, I think if it’s too complicated, I, I probably could be a bit critical saying it’s a bit too complicated to, to understand.

RH But can you think of an example of one of the ones that you felt was too complicated and maybe from your diary keeping or from maybe the focus group or some other situation?

J. C. Um well I know from the focus group, the one that I thought was complicated was the, the map, was it of the um the census? I thought that was quite complicated with all the bubbles. And also I thought another one that was complicated was the um the sport one.

RH From the BBC, the Olympics?

J. C. From the BBC, yeah. Yeah, I found that, it was just lots of little dots and it, it was just in your face, do you know what I mean? It, it was just a bit oh straight in your face, all these dots and, you know, they was only quite small, so, you know, to find the correct one that was nearest to you or, or something, was perhaps quite difficult.

RH Was it for the same reason that the migration in the census you felt was complicated, that there were a lot of bubbles?

J. C. Yeah, I thought so, the bubble, because I think, if I remember rightly, the bubbles were moving as well, wasn’t they?

RH Yeah.

J. C. Yeah, that just made me feel a bit dizzy and a little bit sick! ((laughs)) Um and it, it was, I couldn’t really see the outline of like the U, I know it was the UK, but when you thought you was clicking on one bubble, thinking it would take you to one place, it was somewhere completely different I thought.

RH So it wasn’t so much that the data was complicated, it was the way that it was displayed?

J. C. It was shown, yeah, yeah I thought that was complicated.

RH But when you did get through to the data in that visualisation did you find that okay, or was that complicated?

J. C. Yeah, I thought, yeah I thought it was okay, for both, for both of them. I think it was, like I say, it was just the way it was shown that sort of put me off a little bit. But when you got in there, yeah, the data definitely looked, yeah it was okay, yeah. It was easy, it was easy to read, it wasn’t easy to understand.

## Now that you’ve had a longer time to reflect, are there certain things you’ve decided you like or want to see in a visualisation or dislike/don’t want to see? E.g. Interactivity, Chart types, Design styles (colours, fonts, layouts), Links, Subject matters, Data sources, Titles, Stories

RH So are there particular things that you want to see in a visualisation? You’ve mentioned the word simple and we can talk a bit more about that, but perhaps you like to see interactivity, or perhaps there’s a particular style of graph or chart type that you like, or maybe there are particular visual ways that are being displayed, like the colour it uses or layouts, or subject matters, or is it about labelling and legends and that kind of thing? Is there anything particular that you want to see in a visualisation?

J. C. Well yeah, I like to keep things simple if, I don’t, I don’t mind things being complicated as long as they’re labelled well. So, you know, there could be a visualisation that is overcomplicated, but as long as it’s labelled reasonably clearly, or you don’t see it, but if there was like a legend or something that said, you know, ‘This does that’ and what have you and sort of explained it a little, a little bit, that might make things easier to read, um ...

RH Do you mean like an instruction box or something like that?

J. C. Yeah, sort of, yeah, yeah, but you, well I’ve never seen one, you’ve maybe seen, have you seen one with them, with a sort of instruction box?

RH Yeah, I’ve seen a few, and sometimes they’re just loads of words and sometimes they’re like little small versions and they direct you around it, so I’ve seen some good ones and some bad ones!

J. C. Yeah, but um the one on the tax, I thought that was possibly the easiest one to read, it was. Um because there was, there was separate colours, and then at the side in the legend it said what that colour did, and I think even on the graph it said what it did, didn’t it?

RH Are you talking about this one? Can I double-check we’re thinking about the same one?

J. C. No, no the eh, I emailed you it I think.

RH Oh the tax one you emailed. Yes, the pie chart?

J. C. Yeah, that’s right.

RH Yeah.

J. C. I thought that one was um quite easy to understand, because it, well it was simple for a start, it had the different colours, in the legend it had all the colours, and then next to it what, what the colour was representing. And then I think even on the chart it had a percentage, I think.

RH Yeah.

J. C. So I thought that was quite, quite simple and easy to, to um, yeah to interpret, but I think if you overcomplicate it, yeah, mm.

RH When you say overcomplicates, can you think of any examples of where it’s been overcomplicated?

J. C. Too much information perhaps, um ...

RH Do you mean that there are too many labels or instructions or that they’ve tried to focus on too many areas of data?

J. C. Probably all of that really. If, if there’s too many labels and it’s, it’s too full, it’s, for instance, the one, going back to the TB one again, it would have been nice to have had each bar labelled, but then it could also have the reverse effect where there’s too much labels, too many labels, and so it could have, it’s a bit of a happy medium really, isn’t it? Um and then I, I did see some, and I never sent them in, it was um NHS eh data for, I think it was, is it 111 or 112?

RH 112, the emergency number?

J. C. Yeah, or was it, was it non-emergency, is it, whatever that one is? But then whatever it is, and it’s, and it was all these um eh graphs and, and what have you, and I was looking at ‘em and it just, they was all on this one document and I remember scrolling through this document, and if, if I can find the link I’ll send you it.

RH Mm, do.

J. C. Um and there was, I started going down this document and then there was just page and pages of graphs, and I just didn’t know where to look, you know, there was, there was all different things and possibly when you, when you itemised them and looked at each one individually, it was maybe, it was maybe easy to understand, but from the amount of lines that I saw in the graphs it just, I didn’t know where to look for a start, it was just too, too much in your face, it was.

RH In the NFU report there were quite a few different kinds of graphs, weren’t there?

J. C. Yes there was, yeah.

RH Why did you choose those two, the supermarket shares and the TB one?

J. C. I’m just looking at it now, because that actually was quite a good document, wasn’t it?

RH Yeah, there was a lot in there.

J. C. There was quite a few in there. Um I chose them because they looked the simplest to me, they did. There was just the, the retail, eh the grocery stores, um the supermarkets, it was easy to read, it was, it was simple, it had, I mean ... eh yeah it had a year-on-year comparison, and that was easy to understand because it was labelled, um it had a bit of legend, didn’t it?

RH Yeah, it does underneath.

J. C. So it, that was easy to understand, it was. Um ...

RH So you picked that because it was easy. Does that mean that some of the other ones in there you found more difficult? Say the economic indicators or something like that? It’s a just a bit further down.

J. C. Yeah, the economic indicators, yeah, I wouldn’t, I wouldn’t know where to start on that really. I don’t, I don’t understand it enough to read it, if that makes sense.

RH Is it the chart type or is it economics?

J. C. Economics, I’m not, yeah I don’t really understand um, I don’t understand it really, no. Because looking, just looking down um through the middle of the graph, it lists all the years, doesn’t it? And then it’s Q1, Q3, I don’t, I didn’t really understand that, what it was.

RH So it’s about the language they’ve used on the chart itself?

J. C. Yeah, yeah, if it, if it said what Q1 and Q3 was, I’d maybe read it, I would, but it eh, it says eh, ‘UK GDP growth quarter-on-quarter,’ but it doesn’t, that doesn’t say enough for me to understand it. Maybe it’s me not understanding economic stuff or something perhaps, but um yeah, I just, I, I wouldn’t understand that. But something that’s a little bit simpler, like the one above it, say the land prices, it’s easy to understand, isn’t it? It’s simple, I think nearly everybody could understand and read that, couldn’t they?

RH So we’ve got a bar chart with years along the bottom and percentages up the side.

J. C. Uh-huh.

RH Producers’ share of GB retail price.

J. C. Mm.

RH I’m not a farmer and actually just from that information, I must say I don’t really know what the producers’ share of the retail price is that they’re talking about!

J. C. Well no, to be fair, probably I don’t actually! ((laughs)) Sales per share or the final price received by the producer fell sharply during July.

RH Right, so we need that bit of extra information on the side then to make sense of it, don’t we?

J. C. Yeah, I think so, that little bit of writing there.

RH Have you noticed the scale of the percentage? Have you noticed it starts at 40 and finishes at 58?

J. C. Yes.

RH What do you make of that?

J. C. I’m presuming that it will never drop below 40% and it will never go higher than 58%. That’s, that’s how I read it, I think. But it’s maybe also if it’s never going to go below 40%, there’s no point putting zero to 40 and making the um, making the graph even bigger than what it needs to be, perhaps.

## What do you think makes you trust a visualisation?

RH What do you think makes you trust a visualisation?

J. C. ((hesitates)) I don’t know really. I think possibly the source, if it’s a reliable source.

RH What do you mean by source?

J. C. Who, who’s written or um drawn or, you know, drawn up the data. So, for instance, NFU, you know, it’s the National Farmers Union, it’s a reliable source isn’t it? The tax one, um the government, you’d like to hope they were, you know, they’re a reliable source, aren’t they, of data. So I think it depends where it comes from really.

RH Do you trust the *Daily Mail* ones?

J. C. I probably trust the *Daily Mail* more than a few of the other tabloids, I would. Um I think the *Daily Mail* are sort of a more ... I don’t know how to put it. Say, for instance, *The Sun*, it’s more, you see more things wrong or printed wrong in *The Sun*, I think.

RH Like factual errors?

J. C. Yeah, I think so, or maybe getting the ((laughs)) it’s a bit of a funny saying, but um me nan, she reads *The Sun* and she says, ‘Oh well if it’s in *The Sun* it must be true,’ sort of thing. Um so I think maybe like the *Daily Mail* would be a, a little bit more um reliable sort of thing than, than other newspapers perhaps, yeah. So yeah I wouldn’t trust, I think I would trust the *Daily Mail*, to be fair, yeah.

RH So it’s specifically about where you’re seeing things?

J. C. Mm, yeah, I think so, I think so. And also, you know, if you, if you see things on like, say, for instance, on BBC News, you know, you’d like to think that they’re, they’re correct, because am I right in saying that they can’t publish things without it being correct information?

RH Well they should be doing, shouldn’t they? I mean the Journalists Code is about publishing things which are right, and that’s I suppose why we have libel and slander laws to cope with those factual inaccuracies of errors.

J. C. Yeah.

RH I think at the focus group there was some talk about things like the phone hacking scandal.

J. C. Mm.

RH Do you remember talking about that? It’s a while ago, isn’t it?

J. C. Yeah, was it [P1] talking about it?

RH It might have been, yeah.

J. C. Um I can’t describe, what, what did she say? Oh that was right, yeah, phone hacking. Wasn’t, um that was a bit thing with the, with the, with the *News of the World*, wasn’t it, which is obviously owned by *The Sun*. Um so yeah, I think because they was involved quite heavily in that, you’re less likely to trust them, whereas if the *Daily Mail*, I don’t think, I don’t think they had anything to do with it, did they? Not ...

RH I didn’t follow the case actually, really.

J. C. No, not, not that I’m aware of, I didn’t think the *Daily Mail* was brought into it, I just thought it was *The Sun* and the *News of the World*. Um so I think you’re sort of less likely to trust them compared with the other tabloid newspapers.

RH So the *Daily Mail* is specifically trustworthy for you?

J. C. Yeah, I would have, I would have said so, yeah, I would have said so. And I think it’s, the *Daily Mail,* I don’t, we don’t have *The Sun*, or very rarely we get *The Sun* newspaper, but um I don’t think that’s the type of newspaper to be finding in bits of eh data. Does that make sense? I think you’re more likely to find it in, in the better newspapers.

RH What do you mean by ‘better’?

J. C. Um or the more factual newspapers and um ...

RH I’m just plugging my laptop in!

J. C. That’s alright! Yeah, it’s more, more factual, isn’t it, the, the *Daily Mail* than *The Sun*. I think *The Sun’s* more about the gossip and, and, you know, the showbiz and, you know, what’s happening. I don’t think, I don’t think there’s a City and Finance section in *The Sun.* There might be, I, I can’t remember.

RH And that’s where you found most of these.

J. C. Yeah, in the *Daily Mail*, yeah.

## This might be quite hard to answer, but do you view different kinds of visualisation differently? What does it depend on? (your viewing context, chart type, data source, location of the visualisation, aesthetic appeal/qualities of the vis)

RH And this question might be hard to answer so don’t worry if you don’t want to answer it, but do you think you view different kinds of visualisation differently? And if you do, what might that depend on? Could it be about your context of viewing or particular chart types, or data source, or where the visualisation is, or could it be about the aesthetic visual qualities? So do you view different kinds of visualisation differently?

J. C. Um I think ... ((hesitates)) Yeah, it’s a bit of a difficult one that. I think I do ... ((hesitates)) eh when you see a, a piece of data and you look at it, are you, are you sort of saying like if it was, like eh displayed in two different ways, which would be better to look at, do you think, or ...?

RH That’s not what I meant but that’s a really interesting question too. So if you’ve got any thoughts on that!

J. C. Well I, well I, I just think, say, for instance, if um, it goes back to the simplicity thing really. I think if you have, say, for instance, the tax one, um if it was, I don’t, I can’t think of a really complicated way of displaying things, but let’s say, for instance, if you had the same data but in two different formats, so you had one on a complicated graph, and then one on a simple graph, I think you would be more likely to read the simpler one, if that makes sense.

RH Is there a kind of a complicated graph type that you were thinking about?

J. C. Well just that one that we um, about the GDP, GPD, the eh ...

RH What was it called?

J. C. On the economics.

RH Economic indicators, yeah.

J. C. That, that, something like that for me would be quite difficult to read.

RH So where you’ve got that above zero scale and then you’ve got the below zero scale?

J. C. Yeah, yeah. Um but again can you just like explain your previous question a bit, a bit more?

RH Do you, and you might not, think about different kinds of visualisations differently? I suppose it might be easier if I tell you some examples of things other people have said. Some said that they would view ones that were humorous differently to ones which were serious, so that was about the subject matter and the tone.

J. C. I see.

RH Somebody else said that they would view ones which were beautiful differently to ones which were clunky or ugly, and somebody else said, ‘It would depend on where they are, whether they’re in the newspaper that I read or whether they are somewhere else that I don’t trust as much perhaps.’

J. C. Oh I see. Yeah, I suppose um, well I suppose, yeah, they’re all good points. Um ...

RH They were quite personal things, that was how they viewed them, so you might have a different way of viewing them or you might not.

J. C. Yeah, I think, I think if you see them perhaps like on the TV, you know, on like the news perhaps, it would be quite um, I’d probably look at that a bit different to, to say perhaps if I saw it on, on the internet, on the same, on the same like news website perhaps.

RH How do you think you’d view them differently?

J. C. Um well if they was on, if they was on the TV, you’d only have, well it depends how long it’s shown on the TV for, but you’d maybe only be able to look at it for so long on the TV, whereas on the, on the website, it, it’s there for you to look at as much as you like, isn’t it? So you might, if it’s on the TV, you might just look at the important bits first, perhaps. Whereas if it’s on the, on the website, you might be able to look at all of it. Is that, is that relevant?

RH So it’s about the amount of time that you can take to pay attention and to read it?

J. C. Yeah, is that, is that, is that right?

RH That’s really interesting and it’s not something that other people have talked about, but we’ve been thinking quite a lot as a research team about the role that time plays in people’s engagement with visualisations and how much time people have to look. It’s really interesting that you’ve been saying, ‘I don’t have time to look at work,’ but then you do have your key one that you actually use for work. That’s really interesting to us.

J. C. Mm, it, it, I think, you know, definitely time is one big thing like it is, and, and that’s maybe also why I like simple um data to look at, because if it’s overcomplicated, and it sounds a bit bad, but I haven’t go the time for it, do you know what I mean? Where if it’s simple and easy to read and it’s, and it’s quick to read and to understand, then you’re more likely to look at it, I think. But say, for instance, I’ve not seen any on the TV or on the news, but I, I would imagine that the news stories that are on the TV would then be on the news channels, say, for instance, the BBC, you’d like to think that they’ll be on the internet as well. So, you know, TV, it’s talking about so many different stories in the news that’s on for 30 minutes, but once it’s on the internet it’s on there for a long time, so, you know, you will be able to look at it a little bit more, I think, and potentially understand it a little bit more as well.

RH Do you think that that’s important then, that link between time and understanding that you just made then?

J. C. Yeah I do, because um if you don’t, if I don’t understand some things and, you know, you’re running short of time, then you tend to just skip ‘em, you know what I mean? But if, but then that also depends on the subject matter, because if you’re interested in the subject, you know, you’re more likely to perhaps, you know, spend a bit more time looking at it. Is that, is that right, does that make sense?

## Did anything stick with you from the focus groups?

RH Yeah, that makes sense. Does anything stick with you from the focus groups, anything that you looked at or we talked about during the focus groups?

J. C. Um ...

RH Or any facts that you learned?

J. C. It, it did make me realise, after, and after doing like the week, week’s work leading up to the focus group, the week of diary keeping, before doing the project, I never, I didn’t say I never looked at data when I saw it, but I never really understood it, if that makes sense? So doing this project has made me, when I see things now, I’m more likely to look at ‘em and like sort of think about the data and that a bit more. Whereas before, I just used to look at it, it used to go in sort of one ear, you’d think about it a little bit, and then it used to go out the other, if that makes sense? So I think um yeah, I think I do look at data differently now that I’ve done this than before, I do.

RH Were there any facts that you can remember now or that you found particularly interesting in the focus group?

J. C. Um ... ((hesitates)) I found .. what did I find interesting? I’m just trying to think of like the mood board what we did. Was it the mood board?

RH Yeah, the grid, the liked and learned grid.

J. C. Yeah, I’m just trying to think what I put where. I don’t know if there was one, was it um with the pop stars, wasn’t it?

RH Yeah, there was the one with Shakira and Rihanna, yeah.

J. C. Yeah, um I remember looking at that and talking about that, and then sort of understanding different things about it and what have you. Um I’m trying to think what else you did. I know we spoke about a lot of different, different ways of looking at data, didn’t we?

RH Yeah.

J. C. What else?

RH Was there anything specific you remembered about the Shakira and Rihanna, any facts?

J. C. I can remember um the picture, I can remember it was more aimed at girls. Well it seemed to be a bit more girly sort of um data shown, the way it was displayed, like it seemed to be a bit more aimed at the, the female population. Um I can’t really think of anything, to be fair.

## Are there any skills that you feel you might need to help you understand visualisations?

RH That’s okay. Do you think there are any skills that you feel help you to understand visualisations?

J. C. Um well obviously your reading, your reading, it’s a skill, you need to read to, to understand them.

RH Reading text you mean, reading words?

J. C. Text, yeah your labels, um and then also you seem to um, I know when we did Maths at school we sort of, we drew graphs and what have you, so I think um from school, if you could eh, yeah, sort of, I understood them at school um and learnt how to read them at school, I did. So yeah, I think eh, yeah I think, well if, obviously you need to read, be able to read, but I think, I think the simpler ones, more or less anyone can understand, I think, and, and read.

RH When you say anyone, do you mean anyone who’s had the same sort of education that you’re talking about you having had in Maths, or do you mean more generally?

J. C. I think if, if you’ve had an education like I, like I’ve had, you know, in Maths, you know, it was part of the curriculum about, you know, learning about graphs and data and that, um I think, but I do think, yeah I do think nearly anybody could, could probably read them, I do.

RH So there are not particular skills that you need beyond being able to read and that’s a particular thing?

J. C. Yeah, I think as long as you can read I think you should be able to. I think most of them are really common sense, aren’t they, really, I think. You, you get like the odd ones that are, are more difficult to read and to understand, um ...

RH Which ones would you say were common sense, which types of graph or chart?

J. C. Pie charts, they’re easy, aren’t they? Um bar graphs, line graph probably, they’re just simple, aren’t they, simple and effective.

RH So those are three quite particular types.

J. C. Yeah, I would say so. Um I’m just going to put you down for a minute, I just need to go and get my drink, I’m getting a bit of a dry eh, eh dry throat. I’ll be back in one minute.

RH Okay!

J. C. That’s a bit better! ((laughingly))

## Has engagement changed how you relate to visualisations?

RH This is the final question and we’ve talked a bit about it already actually, so is there anything else you want to say about how your engagement over the week of keeping a diary, and then the focus group, and then the four weeks, is there anything else you want to say about how that’s changed how you relate to visualisations?

J. C. Yeah, I think before, yeah before doing the project I was a bit, yeah, like I say, I used to look at data, but you was also a bit oblivious to it, if that makes sense. You know what I mean?

RH No, what do you mean?

J. C. Well I, I used to, I used to see things, well, well I’ll be honest, before I never used to like read, really read the newspapers or, or, purely the fact that, you know, I’m running short of time all the time, but doing, I think doing the project has made me read the newspaper more. I think it’s made me look more for eh data visualisation, for visualisations, it’s made me look more, and it’s probably made me a bit more interested in, in the subject as well that the data’s talking about. So yeah, I do think, yeah, doing the project has sort of opened me eyes up a little bit, if that makes sense. Maybe, maybe when the project’s finished with I’ll maybe go back to me old ways and not pay any attention anymore. I’ll probably, probably, well I’d hope, I hope I don’t do that, but um yeah, I do think it um, it’s sort of changed the way that I look at, you know, at things, it has. And um also I do think that looking at different bits of eh visualisations and that, I’ve sort of found that it’s maybe a bit of an overview as well of like an article. Say, for instance, the mansion tax, without reading all of the article, I just looked at the visualisation and got more or less the gist of things just from that, I did.

RH So it gave you a quick overview and meant that you didn’t have to then spend more time doing that reading.

J. C. No, yeah, that’s exactly, yeah, exactly. But then, but also there is like the ones on NFU that I didn’t under-, like I didn’t understand, and like the ones we just talked about tonight, about the, was it the lamb in the eh...?

RH There was the lamb prices and the economic indicators, oh sorry, the producers’ share of the lamb price.

J. C. Yeah, that’s right. Um looking at that, yeah, I didn’t, it looks simple, it does, doesn’t it, but it’s also, it’s not as simple as it looks, so with that little bit of writing at the side, you sometimes do have to read, read the bit of writing that goes with it just to understand it.

RH So you can’t just necessarily rely on a visualisation to tell you the whole story?

J. C. No, probably in some cases not, but, but the ones from like the finance section out of the *Daily Mail*, I think those sort of eh, eh visualisations, they sort of give a summary, I thought they gave a good summary of what the article was about.

RH So that’s a distinction you’re making between the ones in the NFU report and the ones the *Daily Mail*?

J. C. Well yeah, yeah, yeah, um yeah, I’m a bit surprised that the ones on the NFU aren’t, aren’t, yeah, well not simpler but um I don’t know, because it’s eh, it’s got everything on, on that NFU one, it’s got everything, hasn’t it? So if you was like in economics and like looking at that, you, you’d know what that is straightaway, wouldn’t you?

RH Yeah.

J. C. But someone who, you know, who drives a strawberry harvester saying, you know, looking at that, you know, I ain’t got a clue like really what, what it is, but um ...

RH So it’s interesting you’re making a distinction between the media, the *Daily Mail* being a media outlet and then the NFU, which is a report.

J. C. Mm.

RH And so bringing together a lot of different kinds of information, yeah.

J. C. It um, yeah, but I, I do, like now, like I look in the *Daily Mail* most weekends sort of thing, um and I’ll flick to the back and, and have a look what the, what the eh data is in there and, you know, just have a quick look what’s, what charts I can find. Um but then, then again, if I’m not interested in it, then I’ll probably try and find the next one and ...

RH If you’re not interested in the subject?

J. C. Yeah, so I think, I think that the big things for me are the subject matter, if I’m interested in the subject, the simplicity of it, um I think they’re the two big things really. I think if, if I’m interested in the subject and, and it’s simple to read and understand, I think that’s when I’m most likely to pay attention.

RH That sounds like a really good summary as well!

J. C. Yeah, like I think it, yeah, that’s the be and end of it all really ...

RH It’s a bit more complicated but that’s a sort of nugget, isn’t it?

J. C. Well it is, yeah, yeah, yeah.

RH Have you got any questions you want to ask me or is there anything else you want to say?

J. C. Eh well I’ve just, I have enjoyed it, so thank you for eh asking me to carry on with it and, and, you know, if you need any more, you know, I’m quite happy to, to do a bit more if you, or if in a couple of years’ time or whatever like, um yeah, I’m quite happy to have another go, because, well, I might, I might be a bit more understanding of things a bit more as well in two years’ time if I keep looking at things and, and it’s surprising, isn’t it, what you pick up from, from reading things and that. I do find it quite interesting, and I have, I have found it really interesting doing it as well, and I know, say, I’ve struggled in the week to like do things, but at the weekends and that, that’s sort of when I’m a bit more free.

RH It’s useful for us that you did struggle in the week, that’s really interesting in itself to us. And as was saying about the issue of time, even the fact that you were finding it hard to make time to look or to find the time, even that’s something that we find really interesting. I’m really glad that you’ve enjoyed the project and we are really grateful for your participation and I’ll make a note that you’re interested in participating in any future projects that might come up.

J. C. Yeah, yeah, well I’m always happy to help with, with anything I can like, and I’m sure like Young Famers and that will be. I know when you came down before there was a few people, well I was one of them, I think, I think I spoke to Will, and said I might not be able to make it, but it was a bit of a busy time of the year, but I think maybe like January, sort of end of January is a good time to, to sort of um, to get things going again, because, you know, September, straight after summer there’s still quite a lot of people busy at work and, you know, leading up to Christmas as well is.

RH I know, we were so pleased that everybody was able to make that time to do the diaries and then to come and talk to us. It was a really fruitful focus group and we really enjoyed ourselves as well!

J. C. Oh that’s good then! ((laughingly))

RH So that was nice too!

J. C. Yeah, but no it has been an enjoyable project, you know, because it’s sort of, it’s not took me back to school sort of thing, but do you know what I mean, it’s sort of similar, you get given a project to do and, and you learn a lot in yourself, don’t you, like by looking at things. I’ve learnt, you know, I’ve learnt quite a lot, I have. I just, I just think it’s been really interesting as well, so, you know, I’m real pleased with it.

RH Well thanks again. When I’m back in work on Friday I’ll put two gift cards in the post: one will be £20 and the other will be for £80.

J. C. Okay.

RH And I’ll do those Special so that you should get those Saturday, all being well.

J. C. Yeah.

RH And I’ll also put in an expense’s form for the postage.

J. C. Oh don’t worry about that, it was only like £2 or £3, no I’m not bothered about that.

RH Well I’m going to put one in anyway and if you decide not to send it in then that’s up to you, but we’ve got the money.

J. C. Yeah.

RH Anyway, that’s up to you. But that will be returned to Helen Kennedy, who’s now at Sheffield.

J. C. Right, is that he lady that I spoke to eh, I spoke to a lady, I can’t remember ...

RH Oh I think you rang my office and spoke to my office mate Anna.

J. C. Oh I did, yeah. Oh that could have been right, yeah.

RH Yeah, I think that’s what happened.

J. C. Yeah, she was like proper Leeds I thought! ((laughs))

RH Actually she’s from Bridlington actually, from the east coast.

J. C. Oh is she?

RH Yeah.

J. C. Oh right, well she sounds, well, well, she does sound Yorkshire.

RH Yes, she has got a strong accent!

J. C. Yeah, yeah, I just thought that sounds a bit like Leeds, I thought that ...

RH I think she’s lived in Leeds a long time ...

J. C. Oh has she?

RH ... and picked up a lot of the dialect!

J. C. Yeah.

RH Okay, well thank you ever so much again.

J. C. Brilliant.

RH And I’ll put those in the post on Friday morning.

J. C. Lovely. Um can I just ask one thing?

RH Yeah.

J. C. What, what are you going to be doing then moving forward with this project?

RH We’ve just done one conference in Lisbon where we talked a bit about the things people had said during the focus group. Just after Christmas we’re doing another one in Newcastle, not quite as glamorous! And then we’ll be working on some journal articles, so that will be academic outlets, and also some public engagement activities, but then they’re most likely to be in Oxford and Leeds, and that will be to talk to the general public, the school kids, about what we’ve learnt. And then we are putting together some little modules for our website, so small things which you can share, which are designed to help people to make sense of visualisations, so it will be things like looking at the scales and the data sources and there will be some interactive quizzes and that kind of thing. So we’ll certainly send you the link to that when it’s all up and running, and that will be spring.

J. C. Yeah, that will be actually quite interesting, because um I think you’ll probably learn a little bit on, on some of the more complicated visualisations, because when, when people put the more complicated visualisations out, say, for instance, on NFU, they’re not going to write next to it how to read it, are they?

RH No! Well they didn’t, did they?

J. C. No, no, so I think if, I think you only know how to read it if you’ve learnt before, if that makes sense.

RH Yeah.

J. C. So I think, yeah, I think that would be brilliant, that would, if you can, if you could do that and, because we maybe learnt, learnt about it at school, but it maybe, well obviously it didn’t stick! ((laughs)) It didn’t, but eh ...

RH Some of it has obviously stuck!

J. C. Well some of it has, yeah, some of it has, yeah! ((laughs)) Um but yeah, I think, yeah I think that would be really good actually, yeah.

RH I’ll definitely send you the link then and you can let us know what you think at the time.

J. C. Yeah, yeah, definitely, yeah, yeah, no that will be good, that will good.

RH Okay, well thanks again and good luck with the final bits of harvesting and have a really good Christmas.

J. C. Yes, and you Rosemary, thank you very much and we’ll speak to you at some time in the near future I’m sure.

RH Bye-bye.

J. C. Bye, thank you very much Rosemary, bye.

RH Bye.