

Transcript for Expert View on Journal Metrics Webinar - 28th June 2017

James Hardcastle: Here's my slides. I'm going to just start off with a brief overview, talking a little bit about distributions and data and some of the issues that arise from that with metrics around articles and academic content, and also talk a little bit about some of the issues around selecting metrics for journals.

So the scientists amongst you will be familiar with *Drosophila*, fruit flies. When we think of things that are evenly distributed, normally distributed, they have a mean and a median and modal body length of about 45mm, their range is quite small, and the standard deviation is pretty standard, pretty normal as well. When we start to talk about things like altmetric attention, usage events, or citation events, it becomes much harder to think of these things in normal distributions. So citations, in this case I've taken *Nature*, the journal, within the timeframe I looked at the mean article as 143 citations, the median 76, the most common number of citations per article was zero, and it ranges from zero to over 5,000 citations. Again with usage we're going to have these hugely skewed distributions, very, very large range of activity, and the same applies again to Altmetrics, and what means is when we're looking at these events and aggregating them up into averages, as the impact factors does, it's very vulnerable to the skewed distributions and how these outlier, highly cited articles are distributed amongst the journal population.

So we know that impact factor changes a lot over time for the journals, and the smaller your journal is in terms of the number of articles published the higher the variants between one year and the next. The chart, hopefully you can all see, is the distribution of change in impact factors from 2014 to 2015 on the vertical axis, and the number of citable items, so how big the journal is on the horizontal. Effectively, if you've got a very small journal publishing fewer than 100 articles a year, your average variance is over 50%, so the change in impact factors from one year to the next for small journals is very, very large, because you end up with the occasional outliers that will pull a journal up from one year to the next, that highly cited article will eventually fall out of the citation window and it will revert to the mean. The largest example of this is a journal called *Acta Crystallographica Section A*, that published an article called *A Short History of SHELX*, it had an impact factor of around 2. The year after this article was published its impact factor was above 40, the year after, 50, and then three years, four years after the publication of the article, once it no longer existed in that citation window, it was returned to about 2. So one obviously very highly cited article can cause a very large change in impact factor from one year to the next.

We also, when thinking about metrics, need to consider how different user groups and people who are around a journal will engage with the metrics, what is their need to understand this? So for authors, really when they're publishing, they want rationale for publishing and selecting a journal, they want to know is publishing in this journal going to help me get tenure and help me with my next grant, is it going to in some way enable me to progress, or is this journal going to promote my work in an appropriate way? Or they might want to know, looking at, say, citations, I've done a piece of basic research, has anyone in an applied field taken and developed my work further? There are readers around a journal, we all have no time, we want to know is this paper important, why should I be reading this, is the paper highly cited, is it highly downloaded, has it had a lot of altmetric attention, is that a flag that we should be looking to engage with this paper in more depth? Also, you know, is this paper relevant, how is it interlinked with the other reading material in my field? Institutions and funders have a very similar problem, effectively they want to know what's being published and how well has that performed. Institutions I will say are highly competitive about things like the THE rankings, they want to know which of their departments are going to help their THE ranking, their REF ranking in the future, and funders are constantly being asked to justify their allocated work and funds helps.

So everyone within this community has a very different set of demands and a different set of metrics that they want to look at, and a lot of these are beyond things like raw citation count or the impact factor. And when we are applying this to a journal there are a set of traditional metrics that we normally talk about, and that's covered by Grant's presentation, John's and Euan's, and the key thing really is selecting the right metric for your journal, the right goals for your journal is incredibly important. Usage for a subscription journal helps with renewals of course, so that means that your content is being used, people are engaging with it. If you have a practitioner journal usage is a very important metric for you to understand what's the most valuable content that you're publishing. Altmetrics give you an idea as to who's talking about your content, is your content being mentioned in policy documents or in other areas? These are very well known and a well understood part of this, and of course leads to the impact factor, Cite Score and other associated metrics, but the key point to consider when looking at metrics and selecting I want to get my journal's impact factor out, the process which you go through to do this can damage other metrics.

So if you were looking at your journal and trying to establish which articles are the most highly cited in your journal this could be a very different population of articles to the content that's most highly used within your journal. And therefore, if you try and move away to only publishing the highly cited stuff you might end up devaluing your journal to a community. The content that, say, is being used

by practitioners, by educators, by students, who don't traditionally publish, is not going to improve your impact factor but it is likely to add value to your journal in the community. Conversely, the content that's going to be attractive to policy makers and policy users is not likely to be the most highly cited. Ultimately, and not everyone can be *Nature*, and *Nature* is good at being *Nature*, there's no point in trying to engage with that competition, it's about selecting appropriate goals for your journal and working out how you want to get there.

So that is the end of my brief introduction, setting the scene for this, for our next guest speakers, and we do have an ever increasing set of resources about metrics, both on the Author Services and the Editor Resources site. And with that I will pass on to Euan and his slides.

Euan Adie:

Hi everyone. Thanks, James. So yeah, I'm going to talk a little bit more about Altmetrics, the Altmetrics side of things. I'm Euan Adie and I'm from just a few different groups working in this space; I work for altmetric.com, who do the donuts you find on Taylor & Francis journals.

What's Altmetrics all about? I'm going to give you a very brief description of it, you can always go and find out more online, but traditionally we've been pretty good at tracking citations, and I apologise these are very science-y examples, but what we're good at is especially taking high profile journals and tracking the citations from them to others. But what we're not so good at is finding citations or use or mentions in things like this, so these are policy documents. Again this is more of a science perspective, or selection rather, but they can range from, say, a Think Tank that's picked a piece of economics research, if you think about the IFS here in the UK, for example, or it could be a piece of health research picked up by someone at the World Health Organisation, the NHS, all the way through to things like the World Bank or the National Endowments for the Arts and Humanities, all this kind of thing. So basically somebody's read a piece of research and then they're trying to put it into practice, trying to have an impact.

Another place where we're not very good, or traditionally haven't been very good at picking up usage and citation equivalent is from things like social media, and it's very easy to dismiss social media, especially if you're not super involved in it. I've picked some extreme examples here, so Barack Obama doesn't Tweet about many papers, but when he does Tweet about a paper or a journal that's an important thing, that has a use, right, especially when he's relating it to a policy area. So that could be on social media, it could be someone very specific, a very specific audience picking up on a paper, which can be important to some funders, to some editors as well. It could equally just be a broader measure of how many people in general care enough about this paper, if you like, to talk about it, to mention it, to link to it.

The reason that Altmetrics have kind of come to the fore a little bit more in the past few years is really because there's a wider recognition of these other types of mentions, especially by government and funding agencies. So we talk about of course, we want the research we do to be high quality. There's an addition to that now, there's a growing desire for that research to have some sort of impact, and it's quite tricky, this bit, but an exact definition of what impact is, everyone has a different idea, and that's because it's a very subjective term. So a funder, for example, might care a lot about public engagement, whereas a university might care about economic impact, while an editor or researcher might care more about their peers picking up on it and again focusing on the quality, so there's lots of different kinds of impact.

And that's really where altmetrics comes in. So there's something called the evaluation gap, which is the idea that you've got traditional metrics on one side, which is primarily citations or has been traditionally citations, on one side of this gap, and on the other side we've got all the things that, as we saw in the previous slide, governments and funders are increasingly interested in. So how do you answer questions like what is the impact of your work, who is the most impactful researcher, or where can I publish that is going to get me the most impact? These are all very difficult questions, and Altmetrics isn't a silver bullet that answers them all, but it's one that tries to get it, tries to address it. So it tries to capture a lot of activity, and I'll go over some of it very quickly in a minute, and make it useful. So there's a lot of data, the challenge is not only to collect it but then to make it actionable in some way. It's a complement to other types of metrics, so it doesn't replace citations or usage data, it's an extra facet to look at, and then the activity can represent a lot of different things; I'll come back to it at the end, but it's not one particular thing you're measuring with Altmetrics. Altmetrics is an umbrella term for a lot of different places, we saw policies, we saw public engagement, for example, they're very different things. So it reflects attention, quality, and impact, that's three of the things that we talk about, three of these aspects, but I'll come back to them in a second.

The easiest way to kind of get a grip on Altmetrics is to go and look for yourself at some, either the research you've produced or the research in journals. In the case of Taylor & Francis, for example, there's this metrics tab on the platform, and if you think of it, this is an exemplary paper that's very high on metrics, has got a lot of different attention sources, but you should see the donut of different colours. The donut is this kind of colourful visualisation you see there with the 1346 in the middle of it. I won't go into a lot of detail explaining it specifically, but hopefully you can see that, as I said, Altmetrics is an umbrella term for a lot of different types of attention. So here, in this case, we're picking up news stories and blogs and this kind of thing, Twitter, Facebook, Wikipedia, and Google Plus.

I'll go into a little bit more detail. So for news what we're looking for is basically links to the research, so that's people who've talked about the paper, not about the project. So what Altmetrics cares about is the metrics around the paper or the book or the data set; if there's an article in a newspaper that says "Alice Smith has cured cancer", that's not picked up by Altmetrics, it has to be "Alice Smith has published a paper about this in Journal X". Usually it uses a mix to links and things like text mining to find relationships between policy documents and Tweets and things and the paper. So it's not that everyone has to mention a DOI or the exact title, you know, or cite in a very specific way, as you might with citations, and obviously when we're looking at blogs and Twitter nobody uses Harvard style, it's a straight up link or something very simple.

So obviously, primarily Altmetrics are seen at the article level, you get the visualisation and if you click on it you get details, but you can roll it up to the journal level as well. You need to be a little hesitant in the metrics side of this because really, as James said before, a lot of the tricky part of using this data, is understanding where to apply it and what it means and things like that. But that said, you can for a journal roll up and see, just simple questions, like okay, I have my journal, I have two or three competitors, which one of us has the most news stories, who appears more often in blog posts? And the bit that you're interested in is probably going to vary, depending on what you want to measure, what you're most interested in. So again, interested in reaching a wide audience on Twitter might be interesting for some people, and reaching a particular audience, affecting policy or something like that, is interesting for others.

So I think Altmetrics has a lot of data there, it can help you answer a lot of questions, there's a lot of potential, but at the same time you do have to be careful of a few different things. So the first one is really about, you know, we talk about impact and measuring impact, you can't really measure impact because, like I said, it's subjective. The other thing about it is that if you speak to research administrators often they won't talk about impact at all, they'll talk about there's pathways to impact. And it's this whole idea that if you're cited in a government document, for example, have you had an impact, have you actually changed the way the world works in some small way, or is it that you were cited by someone who maybe didn't even read the paper, just liked the title of it, and we know this happens across citations, I know about it, and they publish this piece of policy and nobody even read it, it got locked away in a filing cabinet somewhere, did that really have an impact? You can't tell, there's a lot of unknowns after the citations, so you have to be a little bit careful about assuming that something is an obvious measure of impact, it's more an indicator that it might have happened.

The other thing is, actually kind of inherent in the name, you know, we talk about

Altmetrics, which implies that it's a very quantitative thing, that most of the value is in the numbers. And when you think about metrics, you really think about things that are very precise, we have a very exact view of everything's that out there and we can be very specific with the numbers and this kind of thing and know exactly what they mean. But actually, quite often it's more like this, so it's the interpretation, there's a lot of subjective judgement, you know, we think it means this, and that's not necessarily a bad thing. So a lot of the value in our metrics data comes from the qualitative assessment of it, so it's collecting all the data and the numbers give you an idea that something interesting is happening, but it's by going in behind the numbers and drilling down and see the actual, which Twitter accounts, which blogs, which news outlets are writing about this research and what are they saying? Is it just citing it as background evidence or is it something more in-depth in that?

That means a few things, one is that it's quite tempting to reach for simple numbers and to extrapolate meaning from them, but you do need to be careful, with all sorts of metrics but especially new metrics, like the Altmetrics data we just saw. So one thing, for example, we see occasionally the idea that because you have more attention it's better research, and that's not the case, right? So it's completely impossible to have very low quality research, hopefully you're not publishing low quality research, but it's not necessarily the best quality research, but it can be talked about an awful lot. And it be just because it mentions the word dinosaurs in the title or there's something funny about it, or just something that captures the Zeitgeist at the time. So you do need to be aware of what the Altmetrics data represents, and I talked before about this, attention, impact, quality, and those are three quite general buckets, but I think they serve it well. There's definitely papers that do one ... you know, in three articles that score equally highly, one could be very good at attention, that doesn't mean that it's going to have an impact necessarily or that it's particularly high quality. Equally, you could have one that scores highly in the other buckets. So you do need to be careful when you're actually using these numbers to have a think about the right context.

I'm going to wrap up there, it was a whistle-stop tour but obviously we've got now questions and the panel discussion later.

Moderator: Thanks very much, Euan, thanks for that. We'll now hand over to John Harrison.

Dr John Harrison: Okay, hello everyone. So just to set the context, I'm an editor of the Taylor & Francis journal *Regional Studies*, and what I want to talk about is going to connect quite nicely I think with some of the things that Euan's talked about.

So I think it's worth just reflecting on the publishing climate, and my starting point

is some of these, “publish or perish”, and I think we need to think about it in terms of metrics and impact and what we’re doing with journals, that this is a maxim in academic publishing one that I actually disagree with because I think it’s more the fact that nowadays you can publish *and* perish. I think the point here is, and I’ll come to this in a second, the second point there, which is about being visible. I think there’s a big thing here in terms of research and how we make research visible through our journals, through the various things that we do, but also the move towards some of the extension metrics, into things like Altmetrics. I think visibility is really, really important. I know Grant’s presentation that follows this, talking about social media, is really about visibility.

So as academics, as researchers, as scientists, we’re all aware of how we are measured in terms of quality, and when we think about the publishing climate, this is just taken from the context that I’m familiar with in the UK, but when we’re assessed on research and assessed as editors within our journal, we’re looking for originality, we’re looking for significance and rigour. But as we move on I think increasingly what we need to be aware of is that publishers are looking for this too, and we as journal editors are looking or being asked by authors, what are we doing in terms of the originality, in terms of what we offer as a journal to make their research or make research visible, to increase the potential impact? What’s the significance of our journal within the field, what’s its standing, how is it willing to help researchers? But then also the rigour, and I think, as we go through the slides, this comes to things like the editorial process, the metrics that we offer, the promotion that we offer our research community. Because, as the title of this slide points to, I think we need to be very conscious of something that I refer to as the 80/20 publishing climate, and James started off talking about the impact factor, and I think it’s very clear if you look at most journals, around 80% of the citations come from probably only about 20% of the output. So there’s a lot of research that’s been published and what you might call the hidden 80%, which isn’t actually really that visible or necessarily having the impact that the researchers would like, but also from us as journal editors is not necessarily helping the wider community that we serve.

So I apologise for the title of this slide, I never thought I’d be referring to Donald Rumsfeld, but I think it’s quite useful in the context of metrics and thinking as both researchers but also as editors of journals. So what I refer to here is kind of what we’re at today in terms of the known knows. So in terms of metrics we can easily see the number of people who actually look at our research, and as journal editors we can do the same, we can see the articles that are attractive and that our readers, whether they’re students, researchers, practitioners, are interested in. So the first point is, before we can actually get something that might be classed as impact, we’ve got to get people who are actually looking at the work. So we can look at metrics, such as page views, and this is really the indicator that we can

look at in terms of visibility. The second one is in terms of readers, so we want people, obviously the people that look at the work, do they then go on and read it? So in terms of journals we can look at the number of downloads, particularly of the e-print versions, and this can identify things to do with accessibility, so how many of the people that look at this work actually then go on and read it? The third one is probably the most important, is users, so the actual user of the research, and we've got metrics that are available, the classic one in terms of citations, which then journals look at impact factors, you've got this sense of knowing this information. I think the important bit is the kind of attrition, so as editors and as authors we know that the numbers decrease dramatically from the numbers who look, then to read, and then to use. So I think where I see, and certainly the journal that I work on and the colleagues that I've spoken to more broadly, is thinking about these kind of what do we do with this information? So I think this raises a number of questions about the current state of the metrics that we have.

So the question is, do current metrics provide the answer? I think, and this moves very neatly I hope to what Euan was saying in terms of the interpretation, because I think current metrics do a very good job in terms of telling us answers to questions that maybe start with "what". So what are the number of views of the work, what are the number of downloads with our journal, what are the number of citations? And also there's a strong sense of where the impact is potentially lost. So we can see, for example, maybe, that a lot of people might look at the research or look at the page, but then they don't download the article or they don't read it and they don't cite it. So I think what metrics has done really well in what we might call Metrics 1.0, i.e. what we've got at the moment, it's very good at presenting that information. But I think where we're at at the moment and kind of moving towards is the questions of who, how and why; this is where I see the importance of interpreting the metrics that we have access to. So in some senses we might know the who, how and why when it comes to citations or, as Euan was mentioning, you can go and look at a policy report or a government report where somebody has cited the work. Well that doesn't say necessarily how or why, and I think the way I would see metrics, the best strategy to see metrics is generating questions rather than answers, and I think that's really important, going back to these are the known knowns. I think we also know that there's a lot of known unknowns, and we need to ask the questions that maybe help us to understand that in terms of thinking about a strategy, both as researchers but also as journal editors, in terms of the service that we're providing for researchers but also increasing the impact as a result of that.

So as the next slide says, I think the kind of questions that metrics are really revealing for authors, editors and publishers is these kind of questions; why do those people who look at research or look at our journal, look at the research that

we're publishing, not then go on and read it? In response to this question we see various bits of advice and guidance, but usually there's an obstacle that's putting off readers. So some of the things that we've done on the journal that I work on is looking at the titles, so looking at the titles of those papers and articles that maybe people look at but then don't read or then don't use. So most likely often it's the title or the abstract that's off-putting, so there's some sort of barrier. The second question that I think is important that we look at is why do those who read the work then not use it? So you might have articles that have really high downloads, so clearly there's a sense that people are reading it, but then there's not either citations or Altmetric scores or other things that kind of suggest that there's interest in that work. The kind of health warning that Euan was alluding to I think is important, because a lot of the advice and guidance there is that it's research that people will read and say okay, you've read the research, you've found, you know what the researcher has said, but there's not that kind of use value, there's not the sense of this is why it's important, this is why you've got to reach out to other researchers and why they should engage. But the health warning here is, for example, some of these papers might also be ones that are really used by students. So the question of who's actually using the research, who's doing the downloading, can be really important, because it can be really misleading to issue advice or make strategies based around the fact that people read it but then don't find it interesting, and that's what we see in a lot of the advice that's given out to researchers. But a sense of maybe with metrics, one of the things that we need to be more aware of, is who are the users, and I think the metrics, looking at the articles and the overall profile for a journal, what's important is to start asking more fundamentally some of these questions.

So improving impact more generally, strategies for journals, obviously there's two primary ways; one is to increase the numbers at the start. We know there's a high attrition rate from looks to reads to users, so you can try and make the research more visible. The second one is to minimise the rate of attrition. So we're talking here about two things I think, visibility in terms of what we can do as journals and journal editors to raise the visibility of the journal but also the research within it, but also the quality.

So the final two slides I'll go through quite quickly, these are just some of the questions that I think it prompts for journal editors. So I guess the question is do we know what characterises the papers, so those 80% of papers might only produce 20% of the impact, is there something characteristic of those compared to the ones that maybe the 20% papers that have 80% of the impact? So these are just suggestions, some of the things that we've done and I've been involved in is looking at things like titles. So quite often there's things that are off-putting in the titles, a lot of that 80%, they often have very long titles or ones that are very narrow in terms of the focus of the research. In terms of the topics, I think it's

important that we look at the topics, which are the topics that are generating the interest through Altmetrics or generating the interest in terms of citations. And obviously I think it's easy to find the ones that are dominant, but I think it's also important to use metrics to see what are the emerging, what are the areas that seem to be developing that we can focus on, and it is about research that's tackling more or less important questions? And then we can use that to give advice and to help research but also help the journal. How do you spot and attract research with the potential to be in that kind of higher, the papers that are doing the most in terms of impact for the journal, and obviously the scientific knowledge going forward? So I guess the question here for journal editors is what is the pipeline, how do we know, are we proactive in seeking out the interesting new research that's going to help generate and attract the research that's visible and impactful?

I think the most important one probably though is can we spot within the existing mechanisms we have as journal editors, papers that can be uplifted, that if we just left them and let them go through the review processes will they just be papers within the journal, but are there quick and easy things that we can do to help maybe raise the profile of those? So some of the things as editors, do you advise authors on their title and abstracts? It might only take five minutes in terms of the comments that we give back, but it might be something that can be really important in raising the visibility. Do you or your publisher provide guidance to authors on making their research visible? So that's certainly something that Taylor & Francis have been very good at with our journal in terms of giving information that can help in that regard.

So coming back to the questions, like are you maximising visibility? So some ideas and some of the things that we've thought of is obviously commissioning special issues is one way; the evidence points towards that these generate more interest, more visibility, but also more impact. If you have a backlog of papers ready to be published can you bring five or six of them together, maybe put an editorial with it? Because again the evidence that we know from our journal is that putting papers together as an esteemed issue with an editorial really raises the visibility and potential impact. Open access is clearly something that's important within this, and then I guess, linking into Grant's presentation, a social media editor in terms of the profile. The university I work at, we've done something where automated Tweets about new papers has some impact, but actually, if you can then get somebody else to re-Tweet it, add a little bit of content to it, it really does raise the profile. I think we did a small exercise, it's like 800% increase in the number of views just by responding to an automated Tweet. Then in terms of attracting and maximising quality, a couple of things that maybe work in terms of helping with the journal, so that early career researchers, they are the next generation of plenary speakers, so is there a way to get those into your journal,

because quite often there's institutional loyalty, that if they're published in your journal very early in their career, as they go on they recognise that's the journal they contributed to early and you can potentially keep them. Then also incentivising researchers and reviewers, both incentivise researchers to give their research to you as a journal, but also reviewers, because that's how you're going to increase the quality of the final product, which then hopefully generates the interest that then the metrics record. So I'll leave it there.

Moderator: Thanks very much, John. We'll now pass back to James, who's going to cover Grant Abt's slides in his absence.

James Hardcastle: Thank you. So I'll start off by saying I am not going to deliver this as well as Grant would have, but hopefully he'll be with us for the second session on Monday.

So Grant was going to talk quickly on the metrics of impact, editorial manager metrics and Twitter metrics. I think the previous presenter has already covered the metrics of impact, but one thing that I think has become quite clear, and something that Grant said to me this morning, was "impact" is the wrong word when it comes to impact factor, it should more something like citations factor or journal factor, rather than 'impact'. It doesn't make it clear when we're talking about impact factors, impact on what, impact on who?

Hopefully most of you will be familiar with the impact factor calculations, citations in a year from content published in the previous two years divided by the number of articles and reviews published in those years. In this case the *Journal of Sports Sciences* performed particularly well over time with an ever increasing impact factor, they continuously grow the journal quite remarkably over time. But, as we know, the impact factor has received quite a lot of criticism, and a few ways that different publishers have been dealing with this, and there was a paper published in Bio Archive talking about citation distribution, so looking at PLOS Genetics, where are the citations happening to that content? And you can see quite different distributions, particularly for somewhere like science as opposed to PLOS ONE or PLOS Genetics. They recommended as part of this that publishers should display the distributions of impact factor citations across their journals, and the Royal Society has started to do this, in addition with including the median and the journal impact factor. Another way to approach this is to look at what *Nature* has done, where they have included beyond just this band of two-year journal impact factor, the five-year impact factor, the immediacy index, the Eigenfactor, article influence score, and a median calculation, so what's the median citation related to that impact factor.

In terms of editorial manager performance, how do we deal with the ever increasing quantity of commissions that most journals face? So within editorial

manager it's reasonably straightforward, run your own set of reports, it will show you editor performance, so within your own timeframe, and you can then start to see how many editors are making use of [desk] rejects, rejecting without review, how many editors are managing to find reviewers within a reasonable timeframe, how good is your reviewer, are they responding to requests within a reasonable timeframe, and how long did it take the time to process during the journal? We know that these are kind of key metrics for authors when they are submitting to journals, they care about how long the peer review process is going to take.

And in terms of Twitter metrics, when we're looking at how we might engage beyond the impact factor, Twitter is quite a useful tool, so the *Journal of Sports Sciences*, of which Grant is the social media editor, had a very active Twitter account, nearly 30,000 followers, and in fact they have received over six million impressions to their Twitter account. And they are doing things like Twinterviews, so 20-30 minute interviews with in-press or future papers to try and encourage readership, and again to advance usage. One example is Darren Burgess, who happens to have 35,000 followers; they got over 40,000 reach and over 100 new followers out of the interview. And the key thing when looking at this is, engaging not just with the general public but also engaging with potential reviewers, potential authors and potential collaborators within your community, it's not just a way of talking to the general public. One thing they have recently started doing is looking at when the Editor in Chief accepts a paper, Grant is cc'd in, and he can start to Tweet trailers, effectively, for the paper.

With Twitter as well, it's very, very easy to see within the analytics tab, the audience analytics tab, which is freely available, how well your Tweets are doing, how many people have seen all these Tweets, how many mentions are you getting, how many followers are you getting. And you can see this right down to the individual Tweet level.

And Grant's key takeaways were really report more than just the journal impact factor on the website, look at other metrics that are available, use online editorial systems to help understand the performance of your editor, and track engagement with your authors, your reviewers via social media. Are your reviewers engaging with the papers that they recommended you accept, are the authors engaging with papers that report their own work?

With that, it brings us to the end of this section of the webinar. Please remember you can type questions in and we will do our best to try and answer some of them.

Moderator:

Thanks very much, James, and thank you to all our speakers for their presentations. Now, as James said, it's over to our Q&A session, so please do continue to type your questions into the questions box. We've already had a few

questions come through, so I will start with those.

The first one here is for Euan, it says "In your presentation you showed an article and altmetrics score of 1346. How was that calculated?"

Euan Adie: Sure. So the altmetric score, there's more detail on the web, but it's basically a weighted score, so what we do is first of all, I'll go over why we do this, so we assign scores to each type, so you could say okay, a Tweet counts for one and a news story counts for six, say. And I'll just explain where we get those numbers from, so we asked researchers basically to rank what kind of attention was most important to them, so the score measures attention. The thing with that is it's not enough to just do one layer of weighted scoring because there's a difference between the *New York Times*, say, and a local newspaper that only your mum reads or something, and there's a difference between me Tweeting something that nobody listens to and like Barack Obama, obviously that's a much bigger reach. So we do one score weighting based on the type of attention, and then a second score weighting based on the kind of reach and the quality of the account or the outlet that does it. So yeah, hopefully that goes some way to explaining it.

Moderator: Thanks, Euan. And another question around Altmetrics is whether, in future, there would be some sort of system for journal editors being notified, I guess, when an article in their journal gets an Altmetric score. Is that anything you think would be possible in the future?

Euan Adie: Yeah, definitely, it's something we're actually working towards. You can do it to some extent now, you can subscribe to email alerts for a single article, and we do have a kind of analytics tool where you can sign up to get a report every week about everything in a specific journal or a set of journals. What we aren't doing, and it would be interesting, would be to find specific mentions, so you go okay, well I'm not so interested in attention in general but I do really care about whether or not we get mentions in particular newspapers or from a particular set of accounts, we don't go into that level of detail yet, but otherwise, yeah.

Moderator: Great, thanks very much. Another question we've got here is around driving usage and readership, and the question is: do simpler, shorter titled articles lead to more readership, is it easier for readers to understand the focus of content in a nice short article title? Who'd like to take that one?

Dr John Harrison: Yeah, I'm happy to come in on that. I think certainly something that we've seen, are aware of, is that when we look at the titles of papers that don't get very many citations or maybe have the lowest number of downloads, it's generally, it's not exclusive, it's not a guarantee, but quite often it's ones that have maybe as a subtitle 'The Case of Place X', and people might look at that and think 'Well I'm not

interested in Place X', and that can actually put people off. So one of the things you can do is, it doesn't change the actual nature of the research, but actually taking it away, if the case study is not the exemplar case study. So if we're thinking about the area that I focus on in terms of regions, if it's Silicon Valley people are attracted to it because it's the exemplar, it won't necessarily put people off reading the article, but if it was, say, I'll use the region I'm in at the moment, the East Midlands of England, it's not something that immediately attracts or is attractive to an author, if that's not something that they can easily relate to, as somewhere that's going to be a really interesting case study. So if you were to take that, The Case of the East Midlands, off the title and keep it just as the broad scientific focus of what's the topic, what's the debate that the paper is about, the indications are that that type of paper does get more, generate more interest. So basically anything that narrows down the title. So if they're quite long and convoluted, be very specific in terms of where the focus is, indicatively those are the papers that generally are not getting as many people looking at them, viewing them, and then citing them. So it might be a link that's an associational link, but it does seem, if you look at the titles, the ones that have got things like questions in the title, just fundamental questions that suggest that they're tackling a big issue or a big topic, generally generate the most interest. Now you can also look beyond that, that they maybe have some of the best science in them, but certainly if you look at titles, shorter, snappier, eye-catching titles generally are more receptive and more engaging for researchers.

Moderator: Great, thanks very much, John. I've got a question for James now. Traditionally impact factors were the main metric used for judging a journal's success. Do you see this balance changing due to the rise of other metrics?

James Hardcastle: Yes, I think the impact factor is probably here to stay for the foreseeable future, regardless of whether anyone thinks that's a good or a bad thing, it is just so embedded in how so many systems of academic value and academic assessment work. But things like Cite Score, which are broadly similar metrics from Elsevier and Scopus, are starting to get some traction, people are expressing more interest in doing article level metrics for assessment. Some places in the UK were particularly against impact factor, but conversely we know that there were certain institutions that said we're not going to put any work forward that's being published in a journal with an impact factor less than 5. So I think there is demand to move away from the impact factor and for it to be replaced by other metrics, but it's going to be a long time before it finally works its way through the system.

Moderator: Thanks very much, James. I've got another question for Euan now, and this says: You showed a table of altmetric scores broken down to news, policy, Twitter etc., comparing their journal with competitor journals. Are editors able to generate tables like that, and if so, how would they do it?

Euan Adie: I can't remember how it works within Taylor & Francis, if it's central. I think maybe James can answer this. The data is available, but whether or not, I can't remember how you get to it.

James Hardcastle: My colleagues in editorial might not like my answer, but yes, it is possible for us, we can provide this for you, we have access to the data so we can break this down as part of publishing reports or other information for you. If you speak to your managing editor they should be able to help, provide you with that data.

Moderator: Great, thank you very much. A question for John here, so your advice on titles is very helpful, you also suggested in your presentation that abstracts may be key. Do you have any advice on the content of abstracts in terms of helping to turn people who look at them, read the abstract, into people who actually read the article?

Dr John Harrison: Yeah, and it's certainly something that, on the journal that I work on, we focus on quite a lot. It's trying to think as an editor, where can you have input. It shouldn't just be a case of judging the quality of the research and whether you want to publish it, there are things that you can do in terms of advice. So what we have focused on and we've discussed at editors meetings, kind of titles and abstracts, and abstracts being something that we can work on with authors. So what we tend to find, the advice that I would give in terms of abstracts is just very clearly take the reader through what this paper is about. So my kind of thing would be five quite short sentences, first one identifying what the debate is, so what debate or scientific or policy debate is this piece of research connected to? What's the current state of the arts in that area, so maybe what's missing, is there a gap in terms of the research? What's the research that you've done, what's your kind of finding, what have you found from that research? And then the final short sentence would be addressing the "so what" question, how's this going to shape, advance, change the debate? And so you're connecting to researchers, you're very clearly just going through five points that say this is what the research is, this is why you should be interested, this is what I've found, and this is the take home message. I think that's useful because, as an academic myself and as a writer, abstracts is one of those things, it's quite a difficult skill to kind of master in terms of doing it. I think quite a lot of the abstracts, when I see papers both as an editor but also as a reviewer, that's one of the things I look at and think straight away, does this author or group of authors, do they know what this research is about, do they know where it's positioned within the field, do they know what its potential impact is? I think, if you can get that right, that's one of the major barriers sometimes for getting people to read and engage with the work, is the abstract. So yeah, work on the title and abstract would be my advice.

Moderator: Great, thanks John. I think we've got time for one last question. Any questions that we haven't answered we will publish a summary of the questions with some answers afterwards.

The final question we've got for today is: The impact indicated by high journal article metrics isn't always positive, for example, with Altmetric scores, a high score could be due to negative attention. How can we best deal with this ambiguity and ensure that our authors understand it?

Euan Adie: Well, I mean, I can take a stab at that. It is difficult. I mean, this is the whole not focusing too much on the number, you know, in some ways it's a necessary evil. I think it is very useful to help put an article in context, so say well we don't know what kind of attention it is but we know it's got a lot of it, or a little of it, compared to this other article. But yeah, the focus has to be on always click through and donut and actually read the mentions, and there's no good way of assessing the attention without doing that. We looked at a lot of automated ways, lots of people ask about things like sentiment analysis, so could you say, you know, 60% of these mentions are positive and 40% are negative, but it's first of all very difficult, and second of all I don't think it would give you a true measure. It wouldn't really answer the question, quite often people are angry about the content of the paper, like the subject the paper's about rather than the paper itself. So if you think about cancer, you know, people can write very negative sentiments about cancer but be very positive about the research into cancer, this kind of thing. So yeah, focusing on getting people to click through on the donuts and read the mentions I think is the answer.

James Hardcastle: Can I also add, though citations are normally positive, often in most disciplines people tend to just ignore bad work, in other disciplines people will, particularly narrative driven disciplines, will highlight in a citation that they fundamentally disagree with the person's work or they believe that the work is flawed in a particular way. So even with citation counts, citations are not necessarily a positive indicator that someone has agreed with your work, with building on it, they may be fighting to refute your work and say actually I disagree with it, this is a problematic piece of work. Usage is a bit more tricky, there is no way of really knowing with usage beyond someone has clicked the download button on the website. We have no idea if they've actually read the paper or whether it just sat in a nice folder, like I suspect most of us have, of papers that we will read when we have time, and of course the time never appears.

Moderator: Great, thanks very much, Euan and James, for that. Unfortunately, that's all we have time for now in terms of questions. I hope you found this session useful.

I'd like to thank our experts again for sharing their knowledge with us today, and

I'd also like to thank you all for joining us. When I end the webinar a short survey will pop up on your screen asking a couple of questions about your experience of the webinar. Any feedback you have would be much appreciated. This webinar's been recorded and we will be circulating a recording to you all by email, so do look out for that in your inbox. Thank you again for attending, and we hope you can join us at another webinar in our Expert View series soon. The webinar is now over, please feel free to disconnect.