A published article: now what?

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How can researchers enhance the dissemination of their work? Melinda Kenneway provides an insight into the current landscape and explains how Kudos was created as a web-based platform to support researchers as well as their institutions and funders in their quest to maximise the visibility and impact of published articles.

**OVER US $1 TRILLION** is spent annually on research – the results of which are published in some 2 million articles every year. Studies show, however, that most research publications are never read or cited, meaning that they can never have an impact in the world, which is a huge waste.

Connecting the right people with the right content is a big challenge in scholarly communications, and not just making sure that researchers within niche disciplines are finding the information they need, but increasingly also helping people connect across disciplines and engaging the media and general public with the research process and its discoveries. It’s a time of huge opportunity to open up academia and make its work more accessible and comprehensible. Citizen science is on the rise; that is, members of the public are becoming actively involved in the research process – as ably demonstrated by Chris Lintott’s (presenter on BBC’s The Sky at Night and Professor of Astrophysics at Oxford) Galaxy Zoo and Zooniverse projects – where individuals from the public assist with a variety of crowdsourcing initiatives ranging from classifying galaxies through to mapping the ocean floor.

**THE RISE OF DISSEMINATION**

Increased online publishing has resulted in a wealth of research materials being made available, but academic focus (and reward) remains related more strongly to publication than dissemination. A decade or so ago, publication was dissemination, but that is no longer the case. Just making content available online doesn’t guarantee that it will be found, read and applied. One part of the problem is access – most academic findings are published in journals that, generally, only professional researchers within a particular field will have access to. The Open Access movement is working to address that particular problem. But there’s also the problem of discovery and understanding. Kudos is aimed at assisting with this, and we’re not alone. These challenges are being taken up by a range of initiatives, such as online networking and reference sharing sites (eg. academia.edu and Mendeley), semantic discovery tools (eg. Sparrho), and commentary and analysis services (eg. Research Media and The Conversation).

**WORKING WITH KUDOS**

Kudos has a unique place in this evolving landscape. Our focus is on providing tools to researchers (and the institutions that support them, such as their university, publisher and/or funder) to understand and maximise the impact of their work. With these tools, researchers can explain their work in simple lay language (which is then indexed by Google for better discoverability), add links to related material (data, images etc.) and then share links to their publications by email and through social media. Since our launch, we have had over 4 million views of this data on Kudos ‘publication profile pages’.

**ARTICLE DISCOVERABILITY: HUMAN AND MACHINE**

Recently, I watched a great video by Mark Thorley (Chair of the Research Councils UK’s Research Outputs Network) emphasising the need to consider dissemination as an essential part of the research process. Publications do part of that job, and publishers have worked hard to make research content as discoverable as possible. But semantic tagging and other intelligent search techniques can only go so far. In a recent discussion with Vivian Chan, CEO and Co-Founder of Sparrho (a personalised recommendation engine), she described to me the challenges of developing ‘discovery by serendipity’ – the human part of identifying connections that machines struggle to see. Even this aspect of discoverability she feels can be cracked to some extent, and they continue to work on that at Sparrho.
MEDIA AND READERSHIP
At Kudos, tapping into the human opportunity – by empowering authors themselves to use their own knowledge and networks to help their work be found and read – seemed a real missing link in scholarly communications. Social media, in particular, opens up all sorts of opportunities for researchers to discuss, share and publish their work, with ‘publish’ applying to a much wider range of outputs – datasets, images, videos etc. These new ways of presenting research offer authors the potential to engage with much broader audiences.

One of my more social media savvy researcher friends tells me his slideshare presentations get far more views than his published articles. Of course, that raises the spectre of ‘quality of audience interaction’ – although this is not something I will go into here, one thing I can say is that no readership means no impact. So readership of any kind is likely to have value, and assisting with this is our starting point. After that, we can work out what kind of formats and channels drive which kind of impact.

We know from our own research and that of others that researchers are only just starting to embrace social media as a means for research dissemination. Early adopters have cited astounding examples to me of how they have driven impact through using their own networks effectively – and indeed, we can also see this directly on Kudos, with downloads leaping up on an author’s dashboard when they send news about their publication to their Twitter, LinkedIn and/or Facebook fans and followers. Even those with relatively small networks can also see noticeable results. By providing researchers with evidence of the positive impact of their sharing activities, we aim to encourage authors to take a greater role in what happens to their work after it is published. And we can see that this drives readership and impact. After all, in a sea of things to read every week, personal recommendations still count and are likely to keep counting for a long time to come.

METRICS OF IMPACT
Another important change in the industry is the emergence of new metrics of impact – moving beyond measures of performance relating to journals [i.e. impact factors] towards more granular metrics that relate to the performance of individual articles: how widely read and shared they are, the level of media coverage they attract and/or their impact on policy. These emerging alternative metrics (or ‘altmetrics’) of impact begin to show the broader influence of a piece of research, and are likely in the future to become a part of a much more complex picture of research assessment – performing well against these metrics, alongside other more qualitative measures of quality is likely to become more important in the future for researchers in attracting funding and growing their reputations.

At Kudos, our service is completely free for researchers to use, explain and share their publications. We don’t host article content on our site, so authors don’t need to worry about contravening publisher copyright. Instead, we link directly to the publisher’s site, where the authoritative article is available. Our independence means that we can help authors explain and share all the articles and book chapters they have published across different publishers, and we pull in data [i.e. citations, downloads and altmetrics] from a range of metrics partners to give them a single dashboard view of all their publications and their performance.

We aggregate metrics from a range of providers: citation data from Thomson Reuters, article views and downloads from publishers, and altmetric data from Altmetric.com. Therefore, for the first time, researchers can see the performance of all their publications, regardless of where they have published, in one place – and understand and influence these metrics through the actions they take (i.e. using social media) to assist in the further dissemination of their work. Their publisher, university and funder are also able to gain visibility on this activity, and further amplify the efforts of their research communities.

MULTIFACETED MARKERS OF SUCCESS
Impact means different things to different people. This is another part of the Kudos unique proposition. We’re not offering to determine for researchers and their institutions what impact is. Some of the social networks like ResearchGate aggregate metrics to create a new measure of impact – in their case, the RG score. Our ambition is to support impact analysis against a range of metrics – for some, policy impact will be most important, for others, public engagement or citations. We work to integrate whatever metrics are prevalent and useful at the time, then present whichever of those matter to our users, and show them the impact of their actions on those metrics.

A WORD WITH THE AUTHOR
As Co-Founder and Executive Director of Kudos, what excites you most about the work you do?

These last two years since I started working on Kudos have been the most exciting and fulfilling time of my professional life. It feels like every day my brain is expanding! The opportunities – and the freedom to consider them – are almost limitless. There’s a challenge to that too; at the end of the day it’s important to draw that creative thinking part back to reality and focus on what can be done today, with the resources available, and what the market critically needs. But the ‘flying time’ around those practicalities – meeting new people, being constantly challenged, learning new things every single day – that’s what I get up for in the morning. Luckily, I have a brain that seems to be able to compartmentalise things – focus on tangible delivery today, but keep dreaming about and, driving towards, tomorrow.
At Kudos, tapping into the human opportunity – by empowering authors themselves to use their own knowledge and networks to help their work be found and read – seemed a real missing link in scholarly communications.