Open Research for Academics: how to be an academic in the twenty-first century

blogs.lse.ac.uk/impactofsocialsciences/2016/10/25/open-research-for-academics-how-to-be-an-academic-in-the-twenty-first-centur

10/25/2016

Open research is about more than open access. It is about making all aspects of the research process open to all possible interested parties. Ahead of a workshop and hackathon later this week, Bianca Elena Ivanof and Caspar Addyman outline some steps towards being a successful academic in the 21st century; from writing clearly and engaging with the public to opening up your research to your peers.



It is a common lament that academia doesn't change fast enough. But not all change is good. Should universities try to emulate Amazon, Google or Uber? If they did, should academics go along with it? In The Uberification of University, Gary Hall argues that the 'sharing economy' is already happening to academia with increasing commercialisation and reliance on technology.

For academics, this means more zero-hour contracts and more metrics. In his book, Hall argues that academics should be proactive in the face of change in order to "affirmatively disrupt the disrupters". We believe that increased openness is one way to disrupt the discourse of academic as entrepreneur. With support from the British Academy we are organising a workshop - 'Open Research for Academics' – to offer hands-on training in the skills necessary to be a sharing,



caring 21st century academic. In this post, we describe some steps you can take and illustrate the case with examples from our keynote speakers.

Write clearly

Any academic can relate to this. Whether they come from the arts, humanities and social sciences (AHSS) camp or are active in science, technology, engineering and mathematics (STEM) fields, their vast expertise intimidates a great deal. And, when paired with impenetrable jargon, their knowledge ceases to teach or inspire and becomes unreachable instead. Luckily, more and more academics have started to actively get out of the ivory tower in order to engage with the rest of the world. Examples include Simon Makin, an ex-neuroscientist turned science journalist who dedicates his days to taking brains and minds seriously by writing about them in a digestible manner in the likes of Nature, Scientific American and New Scientist; or Janis Jefferies, an eclectic artist and thinker who values creative writing deeply. Why exactly does transparent communication matter so much?

Writing clearly bridges the gap between the 'tower' and the 'street'. Consider the way in which brain-imaging research is typically covered in press – the combined complexities of theory, method and fiendish data analysis get reported as proof that a certain part of the brain is responsible for a certain behaviour. But can we really just blame the press? Not quite. No one bothers to disentangle the meaning of an experiment if its conclusions are written in specialised language. The pattern is no different in other fields. Indeed, it is journalists' responsibility to paraphrase research findings accurately but we believe it is the duty of the academic to make the first attempt to summarise such findings in simple language. This is rarely easy but always possible. Just read the recent Nobel prize citations for a masterclass.



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Have public engagement strategies

Writing clearly is important but not enough. If we're serious about making academia accessible to and inclusive of the real world, we need to find practical ways of engaging with the public. Examples include clever event organisation, daring interdisciplinary projects and a sustainable communication loop between academics and the public. Organising events which enable the audience to engage with research, either by becoming its subject or its creator, can be worthwhile for both parties. For the researcher, it forces you to confront those perennial though oft-dreaded questions: why does this idea matter and in what way is it applicable? Better yet, it may also give you answers. For the audience, this means acknowledgement of and respect towards the various ways in which they can offer their input.

Some researchers have already started veering towards this direction by collaborating with like-minded peers and curating digestible, interactive events for the hungry minds. Sophia Collins, for example, was a new mum confronted with conflicting information about cloth nappies. Putting her previous public engagement expertise into direct practice she teamed up with 600 other new mums to create the Nappy Science Gang and answer the questions for themselves. In doing so they attracted funding from the Wellcome Trust and the Royal Society of Chemistry and managed to get the NHS to change its policy. There are now plenty of initiatives that facilitate partnerships between artists and scientists, free workshops that expose the general audience to the most current research directions in science as well as online media outlets such as The Conversation, which require academics to summarise their research in a succinct way. Positive change is upon us but there is still room for improvement.

Get social media right

You may sit back and ponder the pile of grants awaiting writing – after all, workshops and interdisciplinary projects that are accessible to the public need funding. However, engaging the public with the fruits of academic research needn't always be so costly.

In his book *Social Media for Academics*, Mark Carrigan argues that social media are central to modern academic life, as they facilitate promotion of work, networking with colleagues and impact demonstration. Yet, many academics still find the age of Twitter and ResearchGate puzzling and unsustainable, as the time invested in the

online promotion of an idea might as well be invested in its actual creation. This argument is valid as long as web presence amounts to web pretence. Indeed, creating and sustaining an online persona is energy-consuming but this is not the aim here. Social media done right encourages open-mindedness, brainstorming and human contact – it encourages academics to communicate purposefully, be receptive to the input of colleagues and readers and lean on each other's advice when and if they reach theoretical or methodological impasses. Social media done right constitutes the most effective way of disseminating research. For example, Caspar Addyman used the web to recruit participants all over the world for his interdisciplinary Baby Laughter Project and Kat Jungnickel has successfully applied the same strategy for many of her academic endeavours. Social media done right aids intellectual labour and creativity, as any idea, regardless of its scope, stands a much better chance of finding a collaborator on an online platform. For the sharing and caring 21st century academic, social media done right matters.

Use open methodologies

Current challenges in academia are not solely limited to making research accessible externally but also to promoting openness internally, within the entire spectrum of academic disciplines. Open research is about visibility, inclusivity and practices that promote interdisciplinary collaborations and reproducibility of findings. The common angst is that the act of sharing ideas invites plagiarism or intellectual theft. This may or may not be true (we've seen very little evidence of this but perhaps we aren't looking in the right places.) The tantalising paradox is that, by making methodologies visible, researchers actually have more agency over them – as an author, by choosing to publish in open access journals, one retains all rights over one's intellectual labour. In the STEM realm, by pre-registering studies, researchers' credibility increases, interpretational bias decreases and findings have greater chance of being reproduced, as the entire methodological protocol is available online for peers to use at their own discretion. However, this can be daunting, as messy data packages (e.g. unclean data, cryptic code, ambiguous spreadsheets) create further barriers for consumers. There are solutions, though. Jo Barratt's ambitious Frictionless Data project addresses this very issue by encouraging data producers to adhere to a set of pre-established tools, standards and practices which promote the ideal *produce/improve/share* order of events that lies at the heart of research. This way, data sharing becomes analogous to shipping containers, as data travel freely and are improved continuously.

All these, as well as other pressing issues, have motivated us to put together Open Research for Academics, a free one-day workshop and hackathon taking place at Goldsmiths, University of London on Saturday 29 October. Our speakers Gary Hall, Simon Makin, Janis Jefferies, Sophia Collins, Jo Barratt, Caspar Addyman, Mark Carrigan and Kat Jungnickel will expand on what is discussed above as well as teach attendees ways to practice academic openness and how to take advantage of the benefits of being a STEM or AHSS researcher in the 21st century.

Open Research for Academics is free to attend. Please register via the event website.

Note: This article gives the views of the author, and not the position of the LSE Impact Blog, nor of the London School of Economics. Please review our comments policy if you have any concerns on posting a comment below.

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