JCOM

Science communication: frequently public, occasionally intellectual

Rod Lamberts

Abstract

This article provides a starting position and scene-setter for an invited commentary series on science communication and public intellectualism. It begins by briefly considering what intellectualism and public intellectualism are, before discussing their relationship with science communication, especially in academia. It ends with a call to science communication academics and practitioners to either become more active in challenging the status quo, or to help support those who wish to by engendering a professional environment that encourages risk-taking and speaking-out in public about critical social issues.

Keywords

Participation and science governance; Professionalism, professional development and training in science communication; Science and policy-making

Science communication is an *extremely* broad field. Even within our own small science communication centre, the breadth of focus, interest and experience among the academics and research students is vast, and those at one end of the science communication continuum may only barely understand what those at the other end do (see Stocklmayer [2013] for an analysis of the breadth of material science communication academics and practitioners address). Some may even disagree that others are 'doing' science communication at all.

Of course, reaching an agreement as to what constitutes public intellectualism is not necessarily straightforward either. This is why the task that inspired this series of commentary pieces — considering the role of science communication (and science communication academics in particular) and their relationship with public intellectualism — is both challenging and intriguing.

Clichéd though this is, it's clear to me that the role of science — and by association, science communication — has never been more important than it is today, but it is also under threat in ways we haven't seen in decades (perhaps ever). We are living in a world where the title of 'expert' is increasingly used to derogate, and where evidence that doesn't suit the world view of even democratically elected leaders can be dismissed as merely political and then ignored. And this in a time when more information is available to more people than ever before in human history.

So how can this situation be improved? There is, of course, no silver bullet. However, reflecting on what it means to be a science communication academic or

practitioner, and considering how this relates to the role of the public intellectual, might help. It might help us focus on what we believe is important, what we want to prioritize, and then how — and in what ways — we could then act.

Before I start though, a quick caveat. Don't expect to finish this set of commentary pieces with a definitive, unifying pronouncement about science communication, public intellectualism, and how the two relate: this is neither a textbook nor a dictionary. Our task here it is to stimulate debate — after all isn't that more fun?

So, what's an intellectual anyway?

Although it seems backwards to talk about *public* versus *private* intellectualism before unpacking intellectualism itself, many commentaries on intellectualism in general, and *public* intellectualism specifically, swap between the terms as if they are interchangeable. So before launching into the larger consideration of intellectualism and how it relates to science communication academics, a brief look at public versus private first.

To begin, Edward Said [1993] suggests the distinction between public and private intellectualism is tenuous. For him,

> [t]here is no such thing as a private intellectual, since the moment you set down words and then publish them you have entered the public world. Nor is there only a public intellectual, someone who exists just as a figurehead or spokesperson or symbol of a cause, movement, or position. There is always the personal inflection and the private sensibility, and those give meaning to what is being said or written.

While this is difficult to contest, taken at face value, it leaves little to debate. But there's more to being public than this.

Lightman's consideration of what public means in this context provides more grist [1999] He begins by declaring that public intellectuals are likely to be people who are trained in a specific discipline, probably a faculty member of a university, and '[w]hen such a person decides to write and speak to a larger audience than their professional colleagues, he or she becomes a "public intellectual"'.[1]

He then goes on to qualify this, proposing 3 levels of public intellectual. The first involves "Speaking and writing for the public exclusively about your discipline", essentially offering clear and simple explanations of your area of expertise for public consumption. Level 2 requires, "Speaking and writing about your discipline and how it relates to the social, cultural, and political world around it". Here the consideration of broader contexts of the individual's work are critical to their public intellectualism. Finally, the level 3 public intellectual, he asserts, is a category to which membership is "[b]y invitation only. The intellectual has become elevated to a symbol, a person that stands for something far larger than the discipline from which he or she originated."

For me, Lightman's baseline (level 1) criterion for being a public intellectual is too inclusive to be of much use to the current discussion. If any 'intellectual' who

[1] The idea that an intellectual is an academic is addressed further down.

communicates with audiences that aren't their disciplinary colleagues is a public intellectual, we have category so inclusive it may well incorporate every science communication academic. Level 3, on the other hand, describes an individual so rare that no more than a handful of people qualify (for Lightman, Einstein would be an exemplar).

Returning to Said [1993] as he unpacks public intellectualism further, he proposes that "…in the end, it is the intellectual as a *representative* figure that matters: someone who *visibly* represents a standpoint of some kind, and someone who makes articulate representations to his or her public…[my emphases]". Translating expert knowledge for a broader audience (Lightman's level 1) does not require visibly representing a standpoint or point of view, what it requires is excellent translation and language skills. Incorporating Said's perspective, the arena for a public intellectual would start at a place between Lightman's levels 2 and 3 (level two point five?). In this place, there is more to the idea of 'public' than merely having an audience beyond one's peers, but the abilities and activities of such people need not be so exceptional that most of us could never hope to qualify.

Even this brief consideration of what it means to be 'public' in the context of 'intellectualism' yields at least two related, but different, interpretations. One is comparatively straightforward, the other, more nuanced, value-laden and contestable. The first broadly uses 'public' as it contrasts with 'restricted', 'controlled', or 'limited access'. In academia, communication via journal papers or presentations at conferences would represent such limited access. In this version of 'public', any communication act undertaken beyond the traditional venues of a scholarly community would be sufficient to be considered public intellectualism. While this might ring true using a broad and literal interpretation of the word 'public', it is unambitious.

The second interpretation of 'public', while incorporating the first, is more complex and controversial. Here the word 'public' comes laden with a suite of implications, indeed *obligations*, about 'doing' public intellectualism. And it is this second meaning that makes commenting on the role of science communication academics as public intellectuals more interesting, and I would argue important. Here the science communication academic becomes more than convertor of jargon into day-to-day language. Now they are agents of social change, of political engagement. In short, now they visibly represent a standpoint. From here on, when I refer to public intellectualism, I'm focusing on this second interpretation.

To intellectuals and intellectualism

I'm confident that no single definition of 'intellectual', however comprehensive, could make even the readers of this one journal happy, better yet satisfy everyone beyond that audience. With this disclaimer in mind, here's what I consider to be critical elements of intellectualism that are essential to this discussion.

As this is an academic journal whose primary audience is other academics, I'll first consider the connection between academics and intellectuals. It's difficult to argue with Posner [2004] when he says that in modern times, not all intellectuals are "professors", but *most* of them are. He qualifies this, suggesting that this is less than

ideal, that "... the typical public intellectual is a safe specialist, which is not the type of person well suited to play the public intellectual's most distinctive, though not only, role, that of critical commentator addressing a non-specialist audience on matters of broad public concern." [p. 5].

Fuller doesn't consider all academics to be intellectuals. In his book "The Intellectual" in fact, he characterizes them as often being at odds, claiming, for example, that a concern that academics are likely to have is that "... intellectuals at their best can reduce complex academic arguments to their key points and then provide a context for them that conveys a significance that attracts a much wider audience than academics normally manage." [Fuller, 2005, p. 137].

Of course, what makes someone an intellectual very much depends who you ask.

> In 2009, *Foreign Policy* published a list of the world's top 20 public intellectuals, among them Amartya Sen, Noam Chomsky, and Mario Vargas Llosa. It was telling that, when the magazine gave the public the opportunity to suggest a write-in addition to the official list, readers didn't select an economist or a novelist or a philosopher for the honor. They selected Stephen Colbert.
> [Garber, 2015]

Stephen Colbert is by no means an academic, anymore than Jon Stewart is. However, Stewart too has been referred to as a (public) intellectual, in this case by an academic. According to Stewart's biographer,

> The Daily Show's coverage of the 2000 [election] was a pivotal moment in what the show, and Stewart in particular, were to become. "More important, the Show's coverage of the [Republican] convention helped put both the show and Stewart on the map. "[I]n the year 2000 Jon Stewart officially became a public intellectual," said Robert Thompson, director of the Bleier Center for Television and Popular Culture at Syracuse University.
> [Rogak, 2015, p. 106]

Ultimately, it seems an intellectual is anyone who has the qualities of an intellectual. Academic status, while common, is irrelevant: not all intellectuals are academics, nor are all academics necessarily intellectuals.

Academic qualifications notwithstanding, I suggest that an intellectual is someone with high-order abilities to understand, interpret, prosecute and critique ideas, and also has an interest in doing so. The way in which the intellectual interacts with ideas should been logically constructed and presented, and, where appropriate, supported by valid, reliable evidence.

In principle, an intellectual also strives to get to the "truth" of matters. But what does truth mean here? At the least, it means assertions based on the best possible representations and defencible interpretations of the available valid, reliable evidence, noting that 'evidence' is not necessarily shorthand for *scientific* evidence. This prioritizing of seeking the truth is exemplified by Fuller when he avers that intellectuals "... don't mind being shown they're wrong, as long as they are credited with the right mistakes and permitted to make more in the future."

[Fuller, 2005, p. 150]. Of course if this is a key criterion, then true intellectuals may be very thin on the ground indeed. After all, how many people are genuinely happy to be shown they're wrong?

In his detailed, economically oriented analysis of the decline of public intellectuals, Posner [2004] suggests intellectuals tend to be generalists, working in ways that may be based on expertise in a particular field, but who then incorporate much more. He doesn't claim to have created a definitive definition of the (public) intellectual, but his summary of its critical elements provides valuable fodder for the current discussion

> In short, and to an approximation only, the intellectual writes for the general public, or at least for a broader than merely academic or specialist audience, on "public affairs" — on political matters in the broadest sense of the that word, a sense th at includes cultural matters when they are viewed under the aspect of ideology, ethics, or politics (which may all be the same thing).
> [Posner, 2004, pp. 23–24]

This again harks back to Said's intellectual as someone who visibly represents a standpoint, and leads me now to what I consider to be two defining elements of *public* intellectualism as I would portray it: a drive to challenge the status quo, and an orientation towards action.

Said [1993] is only one among many who see the responsibility of the intellectual as being that of challenger, and he expands on this obligation by cautioning that this involves "both commitment and risk, boldness and vulnerability", and culminates in an assertion that for an intellectual "... the whole point is to be embarrassing, contrary, even unpleasant." This goes far beyond a role as a translator of technical knowledge for general audiences, and it is one I would argue is of immense societal value.

Foucault is renown for, among many things, declaring that the intellectual should not so much tell people what to do as encourage us to test those things in our world that are presented as self-evident, to disturb our mental habits, and challenge the accepted rules and institutions in society. Once more, the public intellectual is a disruptor. And Fuller agrees, in his words

> Intellectuals champion ideas that reconfigure groups, scramble the political field. They discover hidden constituencies whose memberships cut across conventional social boundaries. These are then turned into 'ideas'. It is here that intellectual differ most clearly from conventional politicians, ideologues of lobbyists — all of whom represent groups that already possess clear identities by virtue of formal membership or residence.
> [Fuller, 2005, p. 116]

This characterization of challenge, disruption and reconfiguration as being a critical element of public intellectualism is reflected in popular commentaries on the enormous social influence of a number of contemporary comedians. Writing in The Atlantic in 2015, Garber argues that comedians like Jon Stewart (The Daily Show), Amy Schumer (Inside Amy Schumer), and John Oliver (Last Week Tonight) are

"the new public intellectuals". This is in no small part because the "…point of comedy has always been, on some level, a kind of productive subversion", but even more so for these comedians because they tend to subvert via incisive, informed critiques of the politics and values of the day.

The second of two critical elements of being a public intellectual, especially when considering the role of science communication academics, is orientation towards action. This aligns with Ralph Waldo Emerson's take on the intellectual who, "…while enriched by the past, should not be bound by books. His (sic) most important activity is action. Inaction is cowardice." (in Lightman [1999]). Garber's piece provides a modern reinforcement of this, saying that for the comedians who are our new public intellectuals "…their most important function is to stimulate debates among the rest of us." [2015].

I propose that a science communication academic seeking to act as a public intellectual has an obligation to *do* something,and that "something" should be more than to simply write and speak with what Posner refers to as "…a coterie of specialist readers …however interdisciplinary and political significant his (sic) writings may be" [Posner, 2004, p. 26]. To be true public intellectuals in this sense, we need to work beyond Lightman's Level 1.

And so, to science communication and public *intellectualism*

In early January this year, an editorial appeared in Nature sparked by concerns about the incoming US administration and its attitudes to climate and other 'controversial' science. The editorial calls on scientists to be thoroughly engaged with the public debates, to reach beyond their fields in order to better understand the greater contexts, and the mindsets, of those with opposing views of the disagreements, "…*Nature* persists in the belief that researchers who take action by engaging with people beyond their peers in support of the evidence can make a positive difference." [Editorial, 2017, p. 5].

While they refer to 'public engagement', rather than public intellectualism *per se*, what they are encouraging above very much aligns with a view shared by many that this is the right and proper work of the public intellectual. They acknowledge that researchers may not find it easy in this place so far outside their comfort zone, "But as regulators seek clarification of the issues in genome editing, and as society at large wrestles with climate change and the many voices around it, outside that zone is where researchers surely need to venture." [Editorial, 2017, p. 5].

Although it's already becoming trite to say this even in early 2017, with the arrival of the new administration in the U.S.A., and the increasing hostility towards "experts" across Europe and in Australia, anti-science warning bells are ringing loud and clear. At best, science is steadily being relegated to the kid's table at the wedding, and countering this will take much more than repackaging science facts into more universally digestible forms. It will take social, cultural and political interpretation, and it will require disruption, reconfiguration and action. Perhaps more than any other discipline, science communication embraces reaching out beyond formal, educational and academic venues at its core. But how, with whom, and for what purpose we do this may now need some rethinking.

Referring once more to Posner, he briefly suggests that there may be a useful distinction to be made between a public intellectual and a *celebrity* intellectual: helpful in reflecting on the work — and purpose — of science communication academics and practitioners. Specifically, people like Australia's Karl Kruszelnicki, Bill Nye in the US, and Brian Cox in the U.K. better fit this celebrity frame. Perhaps they all investigate and craft ideas of political significance in their lives away from the popular eye, but this is not a feature of the public activities for which they are known or called upon. While they themselves may well be intellectuals in private, their popular work does not make them public intellectuals in the way I consider it here. Such work does little to meaningfully establish the value of scientific evidence in the myriad social and political areas to which it could contribute.

To be considered *public* intellectualism in the broader sense here means the substance of your communication doesn't stop at translating complex or technical concepts into language intelligible beyond academia/ the lab. It requires situating communications in social, political and cultural contexts. And it involves having, and expressing, opinions. Going beyond straightforward translation, the public intellectual will interpret, question, and challenge the ideas they communicate. They will incorporate any intellectual tools that may help them do this, and they will not only be prepared to be wrong, they may even go so far as to welcome it. Translation of science into plain language alone has not, and will not, accomplish this.

This is not to say there isn't value in translating complex science for broader audiences, nor is it to suggest that an academic who doesn't reach beyond their own specialist circles or disseminate their work beyond traditional venues is a poor academic. For the purposes of this discussion, they just aren't public intellectuals.

To effectively work as a public intellectual as I consider it here not only involves having opinions, and in expressing them in public, it will likely also require walking a fine line between presenting unvarnished 'truths' and inciting hysteria. The science communication academic as public intellectual will need to communicate ideas that disrupt, but don't destroy. To do this credibly, they must reflect more than just the self-interests and specific expertise of the communicator and their immediate physical and intellectual community, and it will at times be uncomfortable for everyone involved.

In the end, I don't think it matters if we call this public intellectualism, advocacy, activism or science communication. What matters is that those of us who are so inclined apply the processes and intentions of 'public intellectualism' proffered here in order to make people think, to challenge, and ultimately, to make things better.

For those who, quite reasonably, are not disposed to take on such a role, you still have an essential duty: to help build and nourish environments in which those who are so inclined can do so. That means supporting those peers and colleagues who risk reaching beyond their established intellectual communities, who by trying to use what they know and how they think about the world expose themselves to ridicule, and even attack.

While this may not have been a traditional role for a science communication academic in the past, the time has come to be a little more vocal, and a lot more brave.

In the pieces that follow, four more authors offer a range of perspectives on, and approaches to, the role of science communication and public intellectualism. Drawing on her extensive experience as both scientist and science communicator, Emma Johnston urges us to take the time to reflect on such a role, and to focus on our own branding. Philosophy academic Patrick Stokes reminds us that science communication is a long away ahead of the game when it comes to having newsworthy material to communicate to the wider world, but also notes some pitfalls when engaging in the world of public intellectualism.

Randy Olson, tenured scientists turned filmmaker turned trainer of scientists in the narrative arts, takes a biographical look at the evolution of a scientist into a public figure, from stumbling beginner to experienced pro. And finally, Kylie Walker offers clear and germane insights from her perspective as someone who has spent decades at the coalface working with, near, and for scientists in the public sphere as a journalist, facilitator and communication professional.

I hope that the variety of perspectives these commentaries present will help kick start a greater conversation about the possibilities — and perils — of engaging with public intellectualism as a science communication academic and practitioner. Let the debate begin!

References

Editorial (4th January 2017). 'Why researchers should resolve to engage in 2017'. *Nature* 541 (7635), p. 5. DOI: 10.1038/541005a.

Fuller, S. (2005). The Intellectual. Crows Nest, Australia: Allen & Unwin Pty Ltd.

Garber, M. (28th May 2015). 'How Comedians Became Public Intellectuals'. *The Atlantic*. URL: https://www.theatlantic.com/entertainment/archive/2015/05/how-comedians-became-public-intellectuals/394277/ (visited on 13th January 2017).

Lightman, A. (1999). *The Role of the Public Intellectual*. URL: http://web.mit.edu/m-i-t/articles/lightman.html.

Posner, R. A. (2004). U.S.A.: President & Fellows of Harvard College.

Rogak, L. (2015). Angry Optimist: the life and times of Jon Stewart. NY, U.S.A.: St Martin's Press.

Said, E. (1993). *Reith Lectures 1993 — Lecture 1: Representations of an Intellectual*. URL: http://www.bbc.co.uk/radio4/features/the-reith-lectures/transcripts/1990/{\#}y1993 (visited on 4th January 2017).

Stocklmayer, S. M. (2013). 'Engagement with Science: Models of Science Communication'. In: Communication and engagement with science and technology. Issues and dilemmas. Ed. by J. K. Gilbert and S. M. Stocklmayer. New York, U.S.A.: Routledge, pp. 19–38.

Author

Dr. Rod Lamberts is Deputy Director of the Australian National Centre for the Public Awareness of Science at the Australian National University and has been involved in academic science communication for nearly 20 years. He is a former national president of the Australian Science Communicators and researches, lectures, and supervises research students in science communication. Rod is a vocal public commentator on science and society, writing for public venues like The Conversation. Rod is a regular guest on a number of radio shows locally and nationally in Australia, and also co-hosts a podcast/live pub show called The Wholesome Show (available on iTunes now!). E-mail: rod.lamberts@anu.edu.au.

How to cite

Lamberts ,R. (2017). 'Science communication: frequently public, occasionally intellectual'. *JCOM* 16 (01), C01.

ISSN 1824-2049. Published by SISSA Medialab. jcom.sissa.it