Guide to writing a lay summary

Distilling your carefully thought-out research programme into simple, concise English in order to be accountable to the general taxpayer – it's become a standard part of funding and fellowship applications, but it's the stuff of many researchers' nightmares. Indeed, it can be at the core of feelings of imposter syndrome: why do I honestly believe that other people's money should pay for me to do the research I want to do?

Nightmare or not, the lay summary matters. It demonstrates neatly how clear (or unclear) your ideas are – particularly whether you have an argument for why your work needs to be funded. But it is also of importance to the funders themselves, since they commonly use lay summaries to evidence which projects they have invested in. And on a practical level, your lay summary may be the only part of your application which is read by the entire panel.

You can't risk dismissing the lay summary in your funding application as a bothersome irrelevance, and you can't afford for it to miss the mark. But before we look at how to do that: a note on excuses.

The worst excuse

The most common excuse that researchers use to defend a poorly written lay summary is also the worst: 'But that's how I would write about my research in my normal work.'

This really doesn't make any sense. It is tantamount to saying, 'I can write only one way.' That's simply not true. You wouldn't write to your friends and relatives in the same style that you would use for a journal paper ('A holiday will be had this summer'), just as you wouldn't demonstrate your science at an outreach festival by using exactly the same words as you would for a Masters seminar. You already adapt your tone, vocabulary, and message all the time. This is no different.

With that in mind, here are five golden rules to help keep you on track.

1. Know the funder's mission and values

Don't treat all funding or fellowship schemes as if they were similar, inevitable, or naturally occurring. Each scheme is particular, unique, and contingent.

Get to know what a funder's mission is – where their money comes from, what factors influence the kinds of projects they want to fund, e.g. incremental vs novel, safe vs risky, academic impact vs public good. Read as much as you can find about a potential funder, not just the guidance notes for the specific scheme you're interested in. Look at their news feed and social media presence, to see what conversations they're participating in. Study the titles and lay summaries of other projects that they have funded recently, noting the use of particular keywords and phrases to describe impact.

Keep in mind that your lay summary is most likely the thing which the funder needs in order to persuade their own stakeholders that they're doing a good job, which means that the funder has a direct, self-interested concern for what you say. Be sure that it meets their needs if you want to get them on board.

2. Steer clear of journalism

Don't fall into the trap of making fatuous, oversized claims about the significance of your topic. This typically happens in the very first sentence: the author is attempting to show that their work is *really, really important, to everyone, everywhere*. Some funders do define impact in very broad terms; others are much more concerned with academic impact within your field – that goes back to what was said above, about understanding the mission of your particular funder.

But either way, don't be glib. If you state the blindingly obvious, you will sound like an idiot – precisely because you are treating your audience as if they were idiots. Nobody will be impressed or persuaded by lame truisms. For example, 'Rapidly depleting fossil fuel stocks are forcing governments to look into renewable sources of energy.' Yes. Anyone who has read a newspaper in the last 20 years is aware of this. 'Cybersecurity is a core challenge facing computer scientists today.' Yes. We know.

Simple English does not mean simple thinking. Instead of journalistic clichés, focus on research on your topic.

Examples:

Bad: The consequences of anthropogenic climate change are, quite literally, a global challenge.
Better: Recent studies on the effects of man-made climate change have found that…

Bad: Lower back pain is a chronic problem affecting many millions of people.
Better: The latest data from the NHS show that the leading cause of disability in the UK is now lower back pain: three out of four people will suffer from it at some point in their lives.

3. Tell a logical story

Focusing on the state of research on your topic enables you to tell a more coherent story, and to give yourself a more obvious place in it. If you set out a clear problem and how you plan to solve it, you have

the chance to demonstrate the impact not of your generic topic, but of your specific contribution.

- **Question:** What is your research question? Define this in a precise, active way, e.g. instead of ambiguous phrases like 'my research focuses on…', state 'my research asks…'
- **Need:** Why do we need an answer to your question? This will include: what is the state of the field at the moment? What, in particular, don't we know or can't we do at present. Why is that bad?
- **Approach:** How do you propose to find an answer? This gives you a chance to signal the kinds of methods and/or data you will be using. In contrast to the rest of the research proposal, you won't go into detail here.
- **Conclusion:** What do you think your answer might look like? Many researchers protest at this point that you can't embark on an empirical investigation knowing in advance what results you think you will get.

  That might sound like admirable purism, but, in reality, it's naïve. You should be able to predict, based on your expertise and preliminary data, what you expect to find – otherwise what makes you confident that the project is likely to succeed?
- **Benefits:** Who will benefit from your project? The best way to conceptualise the potential impact of your project is 'a positive intent to change what somebody else is doing'.

  Start with academic impact: what will others in your niche subfield need to do differently in their own work once your results have been published? Work outwards from there.

4. Put people back in the text

A lot of academic writing is deliberately impersonal. By taking human actors out of the writing as much as possible, an implicit argument is being made for the objectivity and reproducibility of the work. For dissertations, journal papers, conference talks, it makes perfect sense to conform to the standard idiom in your discipline. Carry on.

But when it comes to lay summaries, the idiom you're conforming to is not 'normal in your discipline', it's 'normal every-day speech'. And sentences that have no people in them are just not how we normally speak. It's not realistic to expect a non-expert to follow a train of thought that has actions but no actors.

This is so easily fixed. Put the people back in.

Examples

Bad: Critical gaps in the experimental data remain.
Better: Scientists do not yet understand…

Bad: There is significant uncertainty in the literature about…
Better: We still don't know…

Bad: Economic data will be analysed…
Better: I will analyse…

5. Sort out your vocabulary

And finally, a note on appropriate vocabulary. Not all lay summaries have to be written in plain English for the general public, but many do. For the rest, the instruction is likely to be framed more as 'for a general academic/scientific audience'. Note the word 'general'. In neither case is it going to be OK for you to use technical jargon from your tiny subfield. It is constantly amazing what some researchers – with seeming sincerity – will claim to be common vocabulary.

To put this in context, consider these two words: *protein* and *discourse*.

- To a non-scientist, *protein* is not a polymeric macromolecule composed of long chains of amino acids linked by peptide bonds. It is a food group – the sort of thing you try to include in a balanced diet or purchase in the form of expensive exercise supplements.
- To someone outside cultural studies, *discourse* is not a politically activated system of values and ideas by which subjects are constructed. It is simply a posh way of saying 'discussion'.

The key point here is that you need a systematic method for deciding what is and is not jargon, because your deep emersion in your topic makes you very badly placed to judge. The best strategy is to give your lay summary to as many people as possible, from as many walks of life as possible. Don't wait until you have a funding deadline – do it now.

Examples

Bad: Epidemiological data will be analysed using statistical methods designed to reproduce the observed data, which will provide…
Better: I will analyse statistics on rates of infection in order to show how…

Bad: Pathogenic research to date has focussed on the ~1.5% of the genome that codes for protein, but the remainder is now known to be rich in functional elements that regulate protein production or encode small, non-protein molecules.
Better: Scientists looking for possible genetic causes of this disease are beginning to study many more genes – even some previously dismissed as 'junk' that are now known to be important.

Bad: Lexical and semantic variance in verbal forms of communication will always be socially and culturally conditioned with reference to the perceived socio-economic status of the interlocutor.
Better: We change how we speak depending on who we are speaking to.