How to communicate better by discarding acronyms

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ABSTRACT: The scientific literature is plagued by unnecessary abbreviations, specially acronyms, which hinder understanding. With current technology, most acronyms are no longer needed. Here I present a practical lesson of how to improve a scientific text by eliminating abbreviations.

KEYWORDS: communication, jargon, abbreviations, unnecessary, misunderstanding.

"Excessive use of made up acronyms is a significant impediment to communication" Elon Musk, 2010

The scientific literature is plagued by unnecessary abbreviations, mostly acronyms. These were common, for example, to label figures at the time when it was time consuming and expensive to add full names to parts in a scientific figure. In the 21st. century, labels can be easily and cheaply added to figures and those abbreviations listed in the figure captions are no longer needed. People incorrectly use them only because it was the way publications did it in previous centuries. Unnecessary acronyms are also common in the text of scientific publications; for example, in this case:

FIGURE 1. Billionaires Elon Musk and Richard Branson have called for an end to the abuse of unnecessary abbreviations and jargon (Image: USAF-Wikimedia)

We applied a SOBRA (Simplified Occupational Biological Risk Assessment) in three WWTPs (Wastewater Treatment Plants) at the AMBBR (Alberto Manuel Brenes Biological Reserve, San Ramón, Costa Rica) and at the RDVSDRLRC (Refugio de Vida Silvestre Dr. Rafael Lucas Rodríguez Caballero). Additionally, QMRA (Quantitative Microbial Risk Assessment) was used. We found that the SOBRA estimated a higher average risk in sewage influent and biological oxidation tanks at the RDVSDRLR but not at the AMBBR. Sensitivity analysis indicated a not significant correlation of flow and WWTPs concentrations, but this was clearer at the RDVSDRLRC than at the AMBBR and there was a statistically significant difference when non-linear regressions were applied to the QMRA

Just imagine a whole article of this acronyms that constantly forces you to go back and check what they mean, or even to have the list of acronyms printed or in a separate screen.

Let us go back to the water example. Here it is, without the unnecessary acronyms:

We applied a Simplified Occupational Biological Risk Assessment in three wastewater treatment plants in the Alberto Manuel Brenes Biological Reserve (San Ramón, Costa Rica) and in a wildlife refuge, the Refugio de Vida Silvestre Dr. Rafael Lucas Rodríguez Caballero. Additionally, we applied a Quantitative Microbial Risk Assessment technique. The estimated average risk was higher in sewage influent and biological oxidation tanks at the refuge, but not at the reserve. The sensitivity analysis found no correlation of flow and treatment plant concentrations, but this was clearer at the refuge. There was a difference when non-linear regressions were applied to the microbial assessments.

It is easier to understand without those abbreviations. The advantage of eliminating unnecessary abbreviations is even clearer in long texts, for example, those boring gray literature reports, so poorly written that they even come with a table of abbreviations that you must constantly consult. Let us hope you can break free from cultural inertia and start writing acronym-free texts.

I end by quoting billionaire Richard Branson, Founder of Virgin Galactic:

Some people love speaking in jargon, using fancy words and turning everything into acronyms. Personally, I find this simply slows things down, confuses people and causes them to lose interest. It's far better to use a simple term and commonplace words that everyone will understand, rather than showing off and annoying your audience (Branson, 2014).

Briefly: Say good bye to unnecessary abbreviations, and communicate better.

References

Branson, R. (2014). Why You Should Do Away with Jargon. Sunnyvale, California: LinkedIn, https://www.linkedin.com/pulse/20140319101448-204068115-why-you-should-do-away-with-jargon/

Tanner, N. (2016). Acronyms Seriously Suck: A Lesson from Elon Musk. Sunnyvale, California: LinkedIn, https://www.linkedin.com/pulse/acronyms-seriously-suck-lesson-from-elon-musk-nathan-tanner/

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