



"Up-Goer Five Challenge": A way to make science more accessible?

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Scientists of all fields share a duty to communicate their findings to the public. This is especially true in a time where false claims spread like wildfire and the correct information has a hard time receiving the necessary attention. Therefore, a multitude of different science communication approaches has been developed, including the so-called "Up-Goer Five Challenge". In recent years, this particular approach, sparked by an XKCD comic blueprint of the Saturn V Rocket, has become very popular among many science communicators and has even made its way to several scientific conferences.

The aim of this challenge is to encourage scientists to describe their research or other complex scientific topics in very simple terms, by only using the thousand most commonly used words. Apart from encouraging scientists to rethink jargon-loaded presentation styles, this approach has the advantage of potentially reaching a very broad audience by making science more accessible and at the same time inspire researchers to improve their communication skills and even see their own work from a different angle. However, this communication method will, of course, also come with certain downsides, as for example, depending on the audience, a very rigid application of the rules of the game might end up being more of a hurdle than a beneficial way of presenting complex issues.

Here is an example describing an atmospheric phenomenon called "Convective Memory":

Each day, when we look up in the sky, we can see those white soft-looking flying things above our heads. Sometimes they are tiny. One piece here, and another further away. But on some days, they can get really big and dark. Even kind of angry-looking. And then we, very often, wonder "Why do you have to be above my head and not somewhere else?"

One of the reasons is that this flying sky water has a very good memory and obviously likes to stay where it is: "I very much enjoy it here. I don't care if those humans down there are annoyed with me."

This memory works a bit like the piece of paper that you take with you when you go shopping so you don't forget what to buy. This way, you can't easily forget what you wanted to buy and stick to

the stuff you need. This will help you even if the store owner decides to move some or all of the shopping goods in the store to another place. Thanks to that store owner, it is possible that you end up with "new" stuff that was not planned but you will at least have your piece of paper (your memory) to get the stuff you really need (see Maxime Colin 2020). The white flying things in the sky are like people going shopping: with a good memory, they stick to what they are, and do not become "new" and bigger so easily.

In this talk, we present the "Up-Goer Five Challenge" as applied to Convective Memory, discuss some challenges faced in using it, and offer potential remedies.