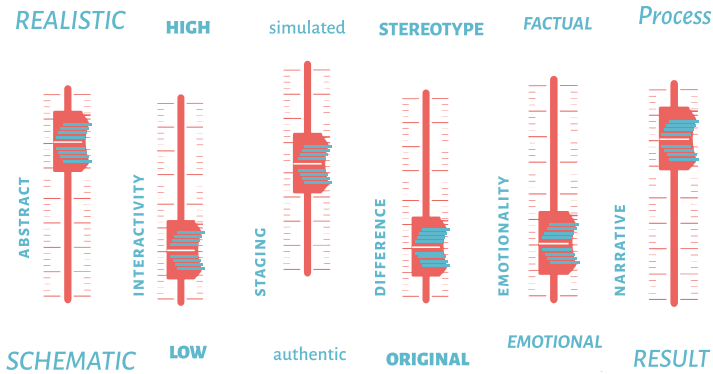


Visual communication



(Siggener Kreis, adapted from ^[34])

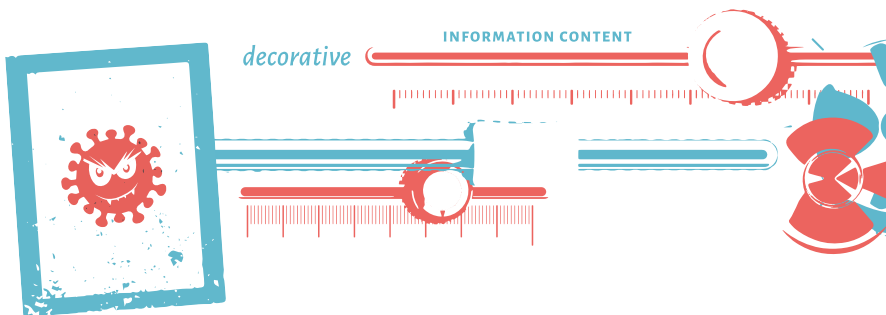
One thing in advance: In this article, the platitude “A picture paints a thousand words” will definitely not be used. Having made that clear, we can now systematically turn to the extraordinary importance of visual information in the context of science communication. Illustrations, graphics, cartoons, animations, photos and videos provide visual stimuli that can attract attention, excite, educate or manipulate, sometimes all at the same time. Visual information is processed incredibly quickly and often provides a much more complex pattern of information than text.

The consumption of visual information via image-based networks (YouTube, TikTok, etc.) continues to grow at an impressive rate ^[32]. In terms of quality, there is a considerable range: beautiful graphics, loveless photos, ugly logos and fascinating animations. All these adjectives are in fact expressions of an emotional involvement that occurs involuntarily in the recipients and is partly processed subconsciously. Our approval or disapproval, our trust or mistrust is significantly influenced by visual communication. It is therefore particularly susceptible to influence and manipulation. This realisation places a high degree of responsibility on all science communicators when using visual media to shape the “image of science” in the minds of people who only know science from the outside. The use of photographs, for example, raises the question of the extent to which an image should depict actual reality or only

a desired outcome, such as when it comes to the topic of diversity in research teams or even the set-up of workplaces in research. This is where the “danger of beauty” lurks. Ugly offices and shabby laboratories, which are part of the reality of science in many places, are hardly ever depicted. Is this the right strategy? This is the subject of considerable debate. The Siggenger Kreis – a German think tank on science communication – states: “The aim of using images in science communication should be to depict science in its multiformity and make this publicly accessible” [33]. So a little more reality is probably called for...

Let's come back to the platitude from the beginning and also broaden our view once more in the direction of graphic-illustrative representations. Of course, visual information is very effective at helping us to cognitively process complex concepts. In science, literal description regularly reaches its limits. Animations of drifting continental plates or data visualisations on climate change provide an immediate “Aha!” moment. This quality – the instant enlightenment – should definitely be used in science communication, which is constantly trying to convey complex information.

The power of images is still too often underestimated and their effect diminished to the decorative. In this area, too, science communication would benefit from a greater degree of professionalism, in the sense of benevolent and sustainable use.



Recommended reads:

- ♦ Siggenger Kreis, Siggenger Impulse 2021: *Bilder in der Wissenschaftskommunikation*; https://www.wissenschaft-im-dialog.de/fileadmin/user_upload/Ueber_uns/Cut_Siggen/Dokumente/220223_Siggenger-Impuls-2021.pdf
- ♦ Metag J. (2019), *Visuelle Wissenschaftskommunikation*, in *Handbuch Visuelle Kommunikationsforschung*, Springer Fachmedien. <https://doi.org/10.1007/978-3-658-06508-9>
- ♦ Pol A. (2014), *Menschen am CERN*. Lars Müller Publishers. ISBN: 978-3-03778-262-0