Commentary

#BetterPoster: The gateway to accessible science

Mike Morrison[1], Bonnielin K. Swenor[2]

1. Department of Organizational Psychology, Michigan State University, United States; 2. Disability Health Research Center, Johns Hopkins University, United States

Scientific poster sessions may present additional challenges for scientists with disabilities. Newer poster designs like the billboard-style #betterposter approach, which encourages big and easy-to-process design elements, have been helpful for the second author, a researcher with low vision. We encourage posters presenters and science communication researchers to keep scientists with disabilities in mind when designing their next poster.

Corresponding authors: Mike Morrison, mikeamorrison@gmail.com; Bonnielin K. Swenor, bswenor@jhmi.edu

The #BetterPoster has taken many scientific communities by storm. It has been featured in major news outlets[1], and prominent scientific conferences recommend #BetterPoster layouts.

The approach, which integrates research from educational psychology[2] and user experience design[3], aims to increase the knowledge transfer in poster sessions with designs that feature large, uncluttered takeaway statements supported by generously-sized figures and illustrations — a contrast to the cluttered traditional approach. However, these new designs have a benefit beyond efficiency: accessibility and inclusion.

For Bonnielin Swenor, an academic researcher with low vision, poster sessions have been a nightmare. She has avoided poster halls altogether at conferences, as the rows of varying font, usually too small for her to see, fluorescent overhead lighting, and crowds of people were disorienting and exhausting. Although she asks poster presenters to talk through their poster, she is unable to review posters on her own or determine what poster she wants to stop at. The coronavirus pandemic quickly shifted scientific conferences to online formats, which presents new opportunities and potential challenges for scientific poster accessibility.

A new approach to scientific posters is needed. Science must adopt a universal design approach to increase usability and accessibility of posters.

Enter the billboard-style #BetterPoster. It emphasizes big, easy-to-process design elements to improve knowledge transfer, and become a more efficient, effective format for sharing scientific information.

The #BetterPoster design approach has an added benefit of making posters more accessible for all scientists, including researchers with vision, learning, neurodevelopmental, or physical disabilities.

Mike Morrison has also created a virtual format for posters that aims to be more accessible as well. Poor virtual poster layouts can confuse screen readers, and too much cluttered text can make constant magnification fatiguing. The virtual #BetterPoster approach aims for accessible and uncluttered templates that allow for text magnification and screen reader use. Although the #BetterPoster approach is still evolving, it provides a template for universal and accessibly designed science posters.

We encourage poster presenters to keep scientists with disabilities in mind when designing their next poster. In doing so, they'll create more impactful posters for everyone, and help establish a more inclusive scientific environment.

References

1. ^*Greenfieldboyce, N. (2019, June 11). To Save The Science Poster, Researchers Want To Kill It And Start Over. NPR. https://choice.npr.org/index.html?origin=https://www.npr.org/sections/health-shots/2019/06/11/729314248/to-save-the-science-poster-researchers-want-to-kill-it-and-start-over*
2. ^*Mayer, R. E., & Moreno, R. (2003). Nine ways to reduce cognitive load in multimedia learning. Educational psychologist, 38(1), 43-52.*
3. ^*Pirolli, P., & Card, S. (1999). Information foraging. Psychological review, 106(4), 643.*

Supplementary data: available at https://doi.org/10.32388/JBMV81

Declarations

Funding: The author(s) received no specific funding for this work.

Potential competing interests: The author(s) declared that no potential competing interests exist.