BENEFITS AND BARRIERS OF ONLINE SCIENCE ENGAGEMENT: AUDIENCE AND PRESENTER EXPERIENCES OF 2020 NATIONAL SCIENCE WEEK

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Online engagement has unique benefits and challenges compared to face-to-face delivery, and requires a different approach and design considerations to take advantage of its different capabilities (Roddy et al., 2017). To reap the potential benefits of online engagement, there is a need to understand what the challenges of digital platforms are, and how they can be used to the best of their ability.

Building on preliminary data presented at ACSME 2020 (McRae et al., 2020), this work presents additional analysis from interviews with 17 presenters and 22 audience members from 2020 National Science Week. The data from our study provide insights into best practice for online delivery of science education and outreach and highlight challenges within this format. We discuss how to enhance benefits such as the ease and flexibility provided by the online environment, and new interaction or production modes enabled by the online format. We also explore the barriers associated with the learning curve of new platforms, and more abstract issues such as the sense that online engagement is "missing something" compared to face-to-face delivery. Through the lenses of benefits and barriers of online engagement, we explore implications for educators and communicators working in the online environment.

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