

SAGANET.ORG: AN ONLINE PLATFORM FOR SCIENCE COMMUNICATION, E/PO AND K-12 STEM MENTORING:. H. I. Illangoon¹, Z. Adam¹, J. DeMarines^{1,2}, J. H. Forrester^{1,3}, B. Kaçar^{1,4}, S. I. Walker^{1,5,6} and S. M. Som^{1,7}, ¹Blue Marble Space Institute of Science, Seattle, WA, ²Department of Atmospheric & Planetary Sciences, Hampton University, 23 Tyler Street, Hampton, VA, ³Department of Elementary and Early Childhood Education, University of Wyoming, Laramie, WY, ⁴Harvard University Department of Organismic and Evolutionary Biology, 26 Oxford St, Cambridge, MA, ⁵Beyond Center for Fundamental Concepts in Science, Arizona State University Tempe AZ, ⁶School of Earth and Space Exploration, Arizona State University, Tempe, AZ, USA, ⁷NASA Ames Research Center, Moffett Field, CA, USA.

Introduction: The SAGANet.org platform is a social and educational web platform coupled to a novel virtual mentorship program. An important component of the site's mission is to provide students and the public direct access to scientists, and scientists the opportunity to meaningfully engage with the public in a virtual setting. SAGANet further disseminates community-provided astrobiology science news to an audience across the world using social media, and organizes online events for the public to interact with leading scientists. SAGANet also facilitates a mentoring program that places scientists into K-12 classrooms, as well as informal learning in the home, using virtual media technologies. SAGANet thus offers an all-inclusive platform for graduate students and professional scientists alike to conduct outreach, with the added benefit of training opportunities and an already present audience.

Science Communication: Effective science communication is a key factor to gaining public support for research and space programs. While communicating cutting edge science to the general public can be a daunting task, it is crucial to create a thriving scientific discourse through the media and lay-people alike. The SAGANet.org platform provides an all-in-one solution for meaningful and effective scientific outreach. The online social platform is designed to provide scientists a one stop venue to disseminate their science to the general public, host content for the scientific community and mentor the next generation of scientists.

A steady decline in the number of students pursuing majors and careers in STEM fields has prompted a nationwide movement to expose K-12 students to exciting career opportunities.[1] By engaging students in higher level math and science classes early on, they are more likely to pursue STEM majors in college and prepare them for the requisite college courses to be successful in the coming employment market.[2][3][4]

SAGANet: A Network for Everyone:

For Scientists The SAGANet.org platform provides a venue for scientists to blog about their research, hold seminars, host journal clubs and visit classrooms virtually all from the convenience of their desk. Scientists can add their local outreach communi-

ties onto the site in the form of organic discussions groups. Furthermore, scientists also have the opportunity to participate in ongoing SAGANet e-mentoring programs. Current SAGANet Mentoring programs partner with K12 schools and those who serve at-risk student populations.

For Educators Educators are invited to create interactive groups on the SAGANet.org platform for their school or classroom. Educators can invite scientists for a virtual visit into their classroom to share their research or talk about a hot topic in the sciences. Questions posed by the students can also be addressed days after the visit through the group and by querying the SAGANet community. Educators can also participate in the mentoring programs and engage their students with SAGANet mentors. Scheduled events, such as the monthly Talk to an Astrobiologist (TTA), can also be streamed into the classroom for an interactive experience with a global community.

For Students The social nature of the SAGANet.org platform invites students to learn, participate and share the newest scientific discoveries. Students can also get answers from knowledgeable sources to burning questions and explore a multitude of STEM career options through mentorship with a scientist.

References:

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Additional Information: SAGANet.org is an initiative of the Blue Marble Space Institute of Science (bmsis.org). Use of the SAGAN acronym is courtesy of the Carl Sagan Foundation.