Title	OpenNEX: An open collaboration platform for the earth science community

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Abstract	Satellite data from the past several decades provide the most consistent record of land-surface processes that form the basis for scientific assessments of the impacts of climate variations and changes on the environment and human social-economical activities. During this time, scientific research on the characterization and assessment of environmental changes had tended to focus on large-scale land-surface changes with significant social-economic impacts. Increasingly, attention is shifting toward changes that occur more locally and that most directly relate to the everyday life of the majority of the population. In addition, there has been needs to develop management and policy decision support systems that are based on local environmental information. Almost at the same time, the advancement in sensor technology has allowed us to collect an unprecedented volume of environmental data. These data must be curated and analyzed to extract useful information for research and decision support purposes. Established in 2013 and funded by NASA, the Open NASA Earth eXchange (OpenNEX; https://opennex.org/ , Jia et al., 2019) project partnered with Amazon Web Services (AWS) to make available a large amount of Earth observing data, modeling results, and analysis tools on the AWS. OpenNEX provides researchers, developers, educators, and ordinary users with easy access to an integrated Earth science computational and data platform, enabling citizen scientists and application developers to realize the full value of NASA data assets and software tools. To encourage the public's engagement in this project, NASA ran virtual workshops and prize competitions. The virtual workshops provided online lectures and tutorials about how prominent scientists used the data in their research and the tutorials gave examples how to use the tools to interrogate the data in the Amazon cloud. Finally, the prize competitions allowed much wider participation in the OpenNEX project and enable testing the non-traditional projects and out-of-box ideas. OpenNEX has continued to evolve and mature. Here, we highlight new features and functionalities available to the community.

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