International viewpoint and news

EarthCube: a community-driven cyberinfrastructure across the geosciences

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The Directorate of Geosciences and the Office of Cyberinfrastructure of the US National Science Foundation are sponsoring a rather new endeavor called “EarthCube” that will substantially facilitate the ease of collaboration between Earth science disciplines. “*The goal of EarthCube is to transform the conduct of research by supporting the development of community-guided cyberinfrastructure to integrate data and information for knowledge management across the Geosciences*” (<http://earthcube.ning.com>).

Such improvements must take into account not only the collection and use of data, but also the simulation of processes and visualization of complex systems that may intermesh, change and/or interact. For this reason and for the coherent management of the information flow, an important prerequisite to creating such an enterprising cyberinfrastructure prototype is the planning under the guidance of the geoscience community. Its design should also be a durable paradigm. What will be needed by earth scientists not only now, but in the next decade?

The EarthCube cyberinfrastructure is yet to be built and is still in the development phase. The realization of its vision essentially depends upon the present input of ideas from those working or studying in the geosciences. The EarthCube website offers an online platform for community groups with common interests to share their ideas in developing a data management system based upon interoperability and sharing of data. This exchange of ideas via

the website’s various discussion groups and blogs, offers at this early stage in design, the keys to understanding the many views and needs of potential multidiscipline users.

K-12 educators or students, university and professional level educators/researchers, graduate students, post-doctoral researchers, policy makers, natural resource managers, sensor instrument engineers, laboratory scientists, industry, government employees, and others are invited to take 5 minutes to complete an online questionnaire (that is using web secure https): https://docs.google.com/spreadsheets/viewform?hl=en_US&formkey=dFF3Ny1Ua1hDemJac3NmeVEwRE9WQ3c6MQ. The questionnaire introduces the tasks or “capabilities” that have been identified as being key to making this cyberinfrastructure effective and asks you to rank these in terms of how important they are to your needs.

If you would like to be more involved, there are multiple ways to contribute to EarthCube. You may choose to be more active in building the cyberinfrastructure by joining any one of the currently 28 community groups (lists) at <http://earthcube.ning.com/groups> or by attending one of their meetings, which in 2013 plan to focus on the prototype development, its capabilities, and the broad range of geosciences users. There is also an opportunity to contribute your views occasionally simply by e-mailing your comments to earthcube@nsf.gov. Professionals, researchers, students and educators from around the world are invited to take part.

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