



Community infrastructure and market place for geoinformatics

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It is now reasonably well established that Geoinformatics (GI) is the platform for a new paradigm in how we conduct our geoscience research. The recognized relevance of GI as part of the broader cyberinfrastructure is growing, both within the community and funding agencies. Cyberinfrastructure is envisioned as comprehensive, highly integrated, interactive digital environments that functionally support research communities in terms of expertise, data, information, communication, tools, and instruments. For GI, data acquisition, data management, data assessment and modeling are at the heart of cyberinfrastructure. Whereas it is certainly true that GI is growing, we have not yet achieved a truly international, collaborative, sustained system that delivers on the overall promise of GI. There are several reasons for this, that apply both nationally and internationally: 1) uneven development of GI across the geosciences disciplines, 2) lack of a consistent and committed funding mechanisms for GI systems, 3) continued minimal interaction between federal/state, government-based GI efforts and those of academia, 4) inconsistent interaction and cooperation among the various GI databases. Progress on the globalization of Geoinformatics is specifically impeded by the lack of organizational structures and funding mechanisms that encourage and support international collaboration. This talk is intended to stimulate discussion among the GI stakeholders, primarily among providers of data systems as the backbone of GI, to alert funding agencies to the opportunities to support collaborative community efforts, and finally, to underscore the need for an international organization that can help facilitate such collaboration. Geoinformatics has matured to the point where such international collaboration is possible, but to accomplish that goal, the various stakeholders must: 1) conceive more effective ways to interact and interoperate, 2) agree

on a common framework for GI, that defines and recommends not only technical standards (e.g. metadata, interface protocols), but also shared goals, best practices, and community approaches, e.g. regarding open data access, data citation, and the assessment of user needs, 3) figure out how to mutually support the continuous maintenance, update and expansion of their various systems, 4) construct a mechanism to support those efforts that want to go into a quasi-static mode or to migrate their system to another site for long-term management, and 5) make a more concerted and collective effort to educate the geoscience user community about the power and value of GI.