Promises, Achievements, and Challenges of Networking Global Geoinformatics Resources - Experiences of GeosciNET and EarthChem

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The advancement of science through new insights and discoveries is the main driver for Geoinformatics. Our science is global in scope and hence, Geoinformatics (GI) must be an international effort. Geoinformatics needs to be developed as a linked system of sites that provide to the Earth science community a library of research data and research-grade tools to manipulate, mine, analyze and model interdisciplinary data, driven by user-perceived needs and benefits. Currently, it is difficult for researchers to know where various data are (data discovery), to integrate them (interoperability), and to view various data in a synthetic and dynamic way (visualization). Collaborative relationships among GI resources rather than provider-client relationships between users and these resources are necessary to overcome these problems.

We will present two examples for international collaborative relationships, GeosciNET and EarthChem. GeosciNET is a collaboration among CoreWall (www.corewall.org), Geoinformatics for Geochemistry (www.geoinfogeochem.org), PaleoStrat (www.paleostrat.org), and the International Continental Drilling Program. Its goal is to advance coordination, complementarity, and interoperability among the involved systems in order to alleviate many of these obstacles. The partners of GeosciNET will jointly develop a plan that outlines the interaction among the projects and their specific responsibilities for building a network of data, services, and tools. The goal is to establish an integrated network that can be jointly offered

to the community of users to support science and education programs. EarthChem (www.earthchem.org) is an effort to build a Geochemistry Information Network and has established a consortium of international partners with the goal to provide a portal to globally distributed collections of geochemical data.