Re-envisioning data repositories for the 21st century

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Finding and integrating geoscience data that are fit for use can alter the scope and even the type of science exploration undertaken. Most of these difficulties in data discovery and use are due to technical incompatibilities in the various data repositories that comprise the data system for a particular scientific problem. We believe these obstacles to be unnecessary attributes of individual data centers that were created more than 20 years ago. This aspirational presentation charts a new way forward for data curators and users alike, and by employing technical advances in adjacent disciplines, promises a new era of scientific discovery enabled by re-envisioned 21st century data repositories.