LTER Information Management: Paradigm Shift or Paradigm Stretch?

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- As our understanding of data management broadens into information and knowledge management, both individual research sites and networks of sites are using a variety of methods to structure, process, synthesize and present data. The Long-Term Ecological Research (LTER) network, consisting of a network office and twenty-four research sites, incorporates an information management component at each site. The strategic vision for the LTER Network Information Management is "to promote ecological science by fostering the synergy of information systems and scientific research". A conceptual model for the Network Information System balances local-site science and network coordination through a flexible, modular design. An information management paradigm must address key elements such as to describe, sustain, integrate, inform, elicit, interface and visualize data. The LTER cooperative efforts provide a range of examples for these tasks including metadata standards, intersite databases, exchange formats, Web forms for data entry, and visualization.