Long-Term Management of Ecological Data: Perspectives from the LTER Site and Network

Nicole Kaplan
Shortgrass Steppe Long Term Ecological Research, Colorado State University
• Provide background on the Network and its’ legacy
• Describe new initiatives across systems
• Identify organizational arrangements and governance
• Contribute to discussion
Long-Term Management of Ecological Data: perspectives from the LTER site and the Network

- Framing the context
  - Est. 1980
  - 26 sites
  - Data-rich
  - Interdisciplinary
  - Highly collaborative
A Growing Network
The legacy of sites: Example Timeline of SGS Data

**I. Experimental and comparative studies:**

**A. Climate**
- Precipitation, CO₂, & temperature

**B. Physiography**
- Land forms and soil development

**C. Grazing, Fire and Land-use**
- Grazing
- Fire
- Cultivation, fertilization, and CRP

**II. Long-term monitoring of ecosystem structure and function:**
- Standard weather
- Neutron probes (ended 1993)
- Trace gas exchange
- TDR
- Eddy flux, soil moisture probes
- Grazing intensity
- Phenology

**Response Variables**
- Climate, biogeochemistry, & soils
- Aboveground biomass & productivity
- Belowground biomass & productivity
- Plant populations & community dynamics
- Animal populations & community dynamics

**CPER:**
- Rangeland Sustainability

**IBP:**
- Ecosystem Interactions and Productivity

**LTER I-II:**
- Landscape processes and nutrient cycling

**LTER III:**
- Ecosystem structure and function across the Great Plains

**LTER IV:**
- Dynamics of species key to structure & function

**LTER V:**
- Key drivers and determinants

**LTER VI:**
- Predictions under global change (Proposed new work)
Preserving the legacy of sites and...
meeting new expectations!

Accessible
Online
Categorized
Well
Described
Highly
Structured

Standardized
Reusable
Vetted
Fit for Use
Cited
New expectations of our systems and scientists!

1980-2000
New expectations of our systems and scientists!

The Decade of Synthesis

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The NIS 2011
Organizational arrangements and formalization of governance
Governance Working Group Charge 2008

• The initial goal of the Information Management Committee Governance Working Group (IMC GWG) is to explore, document and learn from the ways the IMC participants have conducted their governance. This effort involves identifying elements of governance by reviewing governance structures, practices, and decision-making in the formal and informal work we do.

Structure - how we organize to get work done
Practice - method, custom, or habit; way we do our business, formal & informal
Decision making - formal end
LTER Organization: Where decisions are made regarding development of LTER Information Environments?

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Baker, Kaplan and Melendez-Colom 2010
Formalization of practices and priorities

1. Context LTER: Community, Organization
   Diagrams
2. Context IM:
   - from Information System to Information Environment
   - tiger teams
3. NISAC-IMC Task Process
4. Terms of Reference (by-laws)
   - including roles for members and steering committees
1. Overview
The LTER Information Management Committee (IMC) is an LTER network-wide standing committee as described in the LTER Bylaws Article VII, Section II (2006, Revision 2). IMC provides a forum where information managers from all the LTER sites work collectively.

2. Purpose
The LTER Information Management Committee is responsible for leadership and co-ordination of information management activities across sites that support LTER Network goals. The IMC works collectively to balance responses to immediate needs with long-term planning. The IMC works with various partners at multiple levels, e.g. site, network, organizational, community, and international.
Summary

Changing Metaphors

• *From* Flow or Pipeline
• *To* Information Environment

Community Readiness

• Meeting expectations
• Updating data systems
• Wanting formal governance
• Cultivating new partnerships

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