Annual Committee Report (May 2020-October 2021)

- **Date of report**: November 1, 2021

- **Name of Committee**: Information Management Committee (IMC)

- **Name and site affiliation of the Committee Chair (or co-chairs or Executive Board)**: Suzanne Remillard (AND), Stevan Earl (CAP)

- **List of current members**: Dan Bahauddin (CDR), Stace Beaulieu (NES), Sven Bohm (KBS), Emery Boose (HFR), Renée Brown (MCM), Julien Brun (LNO), Gabriel De La Rosa (LNO), Jason Downing (BNZ), Marty Downs (LNO), Stevan Earl (CAP), Sarah Elmendorf (NWT), Marina Frants (CCE), Mark Gahler (NTL), Hap Garrit (PIE), Gastil Gastil-Buhl (MCR), Corinna Gries (EDI/NTL), Kris Hall (SEV), Jamie Hollingsworth (BNZ), Hsun-yi Hsieh (KBS), John Kerfoot (PAL), Li Kui (SBC), Jim Laundre (ARC), Miguel Leon (LUQ), Mary Marek-Spartz (MSP), Mary Martin (HBR), Greg Maurer (JRN), An Nguyen (BLE), Margaret O'Brien (EDI/SBC), John Porter (VCR), Suzanne Remillard (AND), Vicky Rowley (CCE/PAL), Adam Sapp (GCE), Stephanie Schmidt (AND), Chris Turner (NGA), Kristin Vanderbilt (FCE/EDI), Tim Whiteaker (BLE), Yang Xia (KNZ).

- **How membership is determined (identified by sites, voluntary, appointed by the Executive Board, etc):** Membership and roles are outlined in the LTER IMC Bylaws (v.4 ratified 2021-07-27). Membership includes an Information Manager (IM) from each site that serves as the primary site IM contact. Additional members may be identified by individual sites, by the LTER Network Office (LNO), and by the Environmental Data Initiative (EDI) from among site or project personnel who are involved with information management. The Information Management Executive Committee (IM-Exec) is the steering committee for the IMC. IM-Exec members, including the IM-Exec Chair or co-Chairs and a representative to the LTER Network Executive Board (EB), are nominated and ratified by the IMC committee as outlined in the IMC Bylaws.

- **Current Information Management Executive Committee (IM-Exec) members (LTER site, term end-date, and role (if relevant) in parentheses)**: Brown (MCM, 2021), Earl (CAP, 2021, co-Chair), Maurer (JRN, 2023), Remillard (AND, 2021, co-Chair), and Whiteaker (BLE, 2022). Ex officio members include Bahauddin (CDR, 2021, EB Representative), Brown (MCM, 2024, EB Representative), Marty Downs (LNO), and Vanderbilt (EDI/FCE) who participate in and provide reports during the monthly IM-Exec meetings.

- **Meeting frequency**:
  - The IMC holds an annual meeting typically in conjunction with a related meeting (e.g., LTER All Scientists' Meetings (ASM), Earth Science Information Partners (ESIP) Meeting, or Ecological Society of America (ESA) Meeting). All LTER IMs are encouraged to attend the annual IMC meeting. These meetings were held virtually, due to the COVID-19 pandemic, in August 2020 and September 2021.

  - In addition to the annual in-person meeting, the IMC meets monthly through Virtual Water Cooler (VWC) meetings, which are video conferences to discuss key Network topics. IMs from all LTER sites are encouraged to participate in these meetings, which are typically well attended.

  - IM-Exec meets monthly via video conference to plan events, discuss key Network topics, and coordinate cross-site activities.

- **Major activities or accomplishments for the year**:
  - The IMC holds a monthly water cooler session to discuss pertinent issues related to the Network or informatics generally. Notable topics this reporting period included:
    - Review of tools used by EDI and Information Managers
    - Approaches to collecting metadata
    - Tracking data citations and data use policy
    - Preparing for site reviews
    - Discussions around ClimDB/HydroDB 2.0
    - Updates from various current working groups
    - Guest presentations on IM-related topics

  - 2020 annual meeting (virtual): The 2020 annual meeting theme focused on how best to maintain IMC cohesion in light of the ongoing pandemic, particularly how to maximize the efficacy of the IMC's monthly meetings (VWCs).
  - 2021 annual meeting (virtual): The 2021 annual meeting theme centered on a discussion of ClimDB/HydroDB 2.0, including whether and how best to address an update to ClimDB/HydroDB.
  - Databits: https://lternet.edu/story_types/databits/

- **Currently active subcommittees or working groups**:
  - *Non-tabular Data*: This working group is identifying best practices and approaches to document and archive non-tabular data (e.g., spatial data, drone imagery) for reuse.
  - *ClimDB/HydroDB 2.0*: This working group is laying the groundwork for a new version of ClimDB/HydroDB that aggregates climate and hydrologic data from across the LTER Network and partner organizations (e.g., USFS).

- **Priorities for the coming year**:
  - The committee will work with EDI and other partners to implement ClimDB/HydroDB 2.0, or otherwise identify the best approach to harmonizing and aggregating cross-site climate and/or hydrologic data.
  - We recognize the need to update and organize the committee's historical notes, documentation, and training materials into a web-accessible repository that can be used more effectively for managing IMC operations and onboarding new LTER IMs. The committee will develop a strategy to move this project forward.
  - If conditions allow, 2022 will see the first in-person meeting of the IMC since the onset of the pandemic at the LTER All Scientists Meeting. IM-Exec will look to capitalize on the in-person meeting to engage thoughtful discussion and advance collaborations that are not facilitated efficiently through remote interaction.

- **Any recent or upcoming changes in leadership, purpose, or process**:
  - The EB Representative transitioned from Bahauddin to Brown in May 2021. Transitions on IM-Exec occurred during September and October 2021. Brown, Earl, Remillard, and Whiteaker were all scheduled to rotate off this year. Brown has transitioned to EB Representative and Whiteaker has agreed to stay on for one more year for continuity. New members to IM-Exec include Sapp (GCE, 2024), Turner (NGA, 2024), and Martin (HBR, 2024).

  - The IMC revised the LTER IMC Bylaws (v.4 ratified 2021-07-27). The revisions feature updated language (e.g., referencing the LNO instead of the NCO), and provide IM-Exec with more flexibility to self-govern, notably allowing IM-Exec to select a Chair or co-Chairs rather than having these positions elected separately by the IMC.

- **Do you see specific opportunities for improving network coordination (or coordination with other networks) that are of interest to your committee?**
  - If so, are there specific ways that the network leadership (PIs, LNO) could support your committee to realize those opportunities?

The rapid advance of technologies and culture around data-sharing and -archiving demand that the LTER and, particularly the LTER Information Management Committee, work closely with organizations that are contributing to the development of and setting norms in the information-management landscape. Below, we highlight three opportunities and/or considerations related to networking.

- Work in ecology and ecological informatics transcends borders, and the LTER must coordinate with organizations outside the United States. We see the ILTER

as an important connector that can help to maintain dialogue and interaction with international partners.

- The Earth Science Information Partners (ESIP) has been a pioneering organization in the information-management space with a vision of promoting the collection, stewardship and use of Earth science data, information and knowledge that is responsive to societal needs. The LTER IMC has been a member of the ESIP community for many years, and IMC members organize and contribute to numerous ESIP working groups.
- The Research Data Alliance (RDA), American Geophysical Union (AGU) Data Leadership, and Force11 are examples of other organizations that are making substantial contributions in the information-management space. Many of these contributions, such as guidelines around FAIR (Findable, Accessible, Interoperable, and Reusable) data principles have direct or indirect implications for the management of LTER data. It is critical that the LTER and LTER Information Management Committee contribute to the conversations and outcomes.

In all of these instances, the LTER IMC is eager to build stronger connections. This, however, requires time, effort, and commitment. LTER Information Managers need encouragement, flexibility with their time, and, when possible, financial support from the Network and their sites to facilitate active involvement in national and international data-focused organizations. Critical to the conversation is awareness that most, if not all, of the developments in the information- and data-management space in which LTER Information Managers work and operate are community driven, and that there is a return-on-investment provided by supporting LTER Information Managers to participate in efforts that may be or seem beyond the immediate scope of the information managements needs of a site.