Neotoma Mission, Bylaws, & Governance

Drafting Process

December, 2015: Initial discussion at Neotoma All-Hands Meeting, Berkeley. Notes on Google Docs
July, 2016: First draft by Jack Williams, with input by Jessica Blois and Eric Grimm
August, 2016: Discussion by Eric Grimm, Simon Goring, and Jack Williams at ESA, revisions made.
August, 2016: Circulated with Neotoma PIs and Collaborators for comment
Fall, 2016: Vote and approval by Neotoma PIs and Collaborators.

Other Examples

LinkedEarth: http://linked.earth/aboutus/governance/
http://linked.earth/aboutus/governance/editorial-process-2/
PBDB: (sent as attachments)
Encyclopedia of Life: http://eol.org/info/how_is_eol_managed

1. Mission

The mission of the Neotoma Paleoecology Database is to provide a shared, community-curated, and sustainable public repository for paleoecological data, thereby facilitating multi-scale, multi-disciplinary research and education in paleoecology, biogeography, and earth system science. The Neotoma Paleoecology Database is an international coalition of constituent databases, and provides a common data model and services for these constituent databases. Neotoma data are public and made freely available to all.

2. Governance Structure

Leadership Council

The Leadership Council is the primary governing body for the Neotoma Paleoecology Database (hereafter shortened to "Neotoma").   The Leadership Council sets policy and receives input from Constituent Databases and their Data Stewards, the External Advisory Board, and the scientific community. The Leadership Council has authority in the establishment of Constituent Databases and modifications to the Neotoma data model. The Council also sets priorities for informatics, fundraising, recruitment, education and outreach initiatives. The Council facilitates communication among working groups and among Constituent Databases

The Leadership Council consists of twelve individuals elected from Neotoma's membership, and should reflect the diversity of Constituent Databases, regions, scientific disciplines, and scientists served by the Neotoma Paleoecology Database. Terms will last four years and begin on January 15. One fourth of the board is elected each year. Nominees for the Council will be recruited by the Nominations and Membership Working Group and are elected to the Council by members in yearly elections by the plurality of the votes. Principal Investigators on grants supporting Neotoma activities may be elected to the Council or invited by the Council to serve as ex officio members.

The Leadership Council delegates responsibility for day-to-day operations to an Executive Team, consisting of an Executive Chair, an Associate Chair, and two other Council members. The Executive Chair is elected by and from the Council and reports to the Council. The Associate Chair is elected by and from the Council, assists the Executive Chair, and chairs the Nominations and Membership Working Group. The Council includes at least four standing working groups (WG): Informatics & Technology, Education and Outreach, International Partnerships, and Nominations and Membership. Each of these working groups is chaired by a member of the Council and may include individuals who are not members of the Council. Other Working Groups may be created by the Council.

The Leadership Council will convene at least twice per year, either in person or by virtual forum. Quorum shall consist of at least two thirds of Council. Decisions are reached by consensus, or when called for, a vote. All votes pass with a simple majority, unless otherwise specified in these bylaws.   The Executive Team is responsible for convening and organizing Council Meetings.

Executive Team

The Executive Team consists of the Executive Chair, the Associate Chair, and two other members. The Executive Team is responsible for the day-to-day operational management, coordination, and planning of Neotoma, its working groups, and its Constituent Databases. The Executive Team is led by the Executive Chair, who reports to the rest of the Leadership Council. All positions on the Executive Team are staggered four-year terms and are selected from and by the Leadership Council.

Informatics & Technology WG (IT WG)

The Informatics & Technology WG is responsible for creating and administering the Neotoma data model, database, and software services underlying Neotoma and the community that it serves. It develops tools for discovering and visualizing Neotoma data, through its own activities, in partnership with allied organizations, and by providing services to individual scientists and developers. The Informatics & Technology WG is led by the IT Chair who is selected from and by the Leadership Council.

Education and Outreach WG (E&O WG)

The Education and Outreach Working Group develops and promotes educational uses and applications of Neotoma for multiple audiences and educational settings. It builds partnerships with allied educational efforts and identifies potential funding sources for educational initiatives.

The Education and Outreach WG is led by the E&O Chair who is selected from and by the Leadership Council.

International Partnerships WG (IP WG)

The International Partnerships Working Group is charged with building international partnerships, encouraging data contributions from scientists and countries around the world, and promoting the international use and adoption of Neotoma database and services. It engages with international professional societies, funding agencies, informatics and standards organizations, and scientists. The International Partnerships WG is led by the IP Chair who is selected from and by the Leadership Council.

Nominations and Membership WG

The Nominations and Membership Working Group is charged with developing slates of candidates for the Neotoma Leadership Council, approving membership in Neotoma, maintaining the membership lists for the general Neotoma membership and for the Leadership Council and its Working Groups, and running annual elections. Decisions to admit members are reached via consensus, or, if a vote is called, by majority vote among members of the WG. The Nominations and Membership WG is led by the Associate Chair.

Constituent Databases

The Constituent Databases are responsible for 1) uploading data to the Neotoma Database, 2) setting priorities and data quality standards for data uploads, 3) establishing taxonomic standards, defined vocabularies, and other metadata appropriate to their data, 4) appointment and training of Data Stewards and Taxonomic Experts, and 5) choosing one or more Lead Stewards to represent their Constituent Database. Constituent Databases are organized by proxy type or taxonomic group and sometimes region (e.g. Testate Amoebae, European Pollen Database). Modifications to Neotoma metadata that require extensions to the Neotoma data model should be developed in partnership between Constituent Databases and the Informatics WG, and may require review and approval by the Council.

Constituent Databases may set their own policy for the selection and term lengths of Data Stewards, Experts, and Lead Stewards. Constituent Databases may develop variants on the Neotoma Data Use and Embargo policy, as long as they are philosophically aligned with Neotoma's open-data mission and technically feasible.

Establishment of new Constituent Databases must be approved by the Leadership Council. Once created, Constituent Databases remain part of Neotoma. 'Active' Constituent Databases are defined to have performed at least one upload to the Neotoma Paleoecology Database in the last three years.

Advisory Board

The Advisory Board helps Neotoma achieve sustainability, serve its data users and contributors, commission external assessments of Neotoma systems and governance, and build partnerships with allied scientific and informatics efforts. There is no required frequency of Advisory Board meetings, but an annual to biennial frequency is recommended.

Advisory Board members serve for four years and may serve multiple terms. Advisory Board members are invited to serve by the Leadership Council. Nominations for the Advisory Board are proposed by the Executive Team, with input from the other working groups, the Leadership Council, and members at large.

3. Individual Roles and Responsibilities

Members

Members of Neotoma are professional researchers and educators who use or contribute data to Neotoma. Members elect the Leadership Council. Membership can be requested by any individual and requests are approved by the Nominations and Membership WG. All Data Stewards and Taxonomic Experts are automatically granted Neotoma membership. PIs on grants supporting Neotoma activities are automatically invited to be Members and may accept or decline Membership.

Data Stewards, Lead Stewards, Taxonomic Experts, and Embargo Managers

Data Stewards have primary responsibility for uploading data to Neotoma and ensuring that uploaded data conforms to Neotoma standards. All Stewards are associated with one or more Constituent Databases. All Stewards are members of Neotoma.

Data Stewards are expected to have an established record of publication in peer-reviewed journals, in the fields of paleoecology, paleoclimatology, paleontology, archaeology, or related disciplines. All Stewards must be trained in the Neotoma data model, key concepts, and software for data upload and validation. Most Stewards have doctoral degrees, but this is not a requirement. Graduate students may be Data Stewards as long as they have demonstrated the ability to work independently and exercise sound professional judgment. Researchers without graduate-level training may also be considered.

Data Stewards are authorized to upload data to the Neotoma database for their Constituent Database(s). Data Stewards are authorized to request embargoes for data that they submit to their Constituent Database(s). Stewards often supervise undergraduate, graduate-level, or technician Data Processors. Stewards can add taxonomic names to the taxon table, but these additions will not be authorized until approved by a Taxonomic Expert.

Lead Stewards are a kind of Data Steward. Lead Stewards act as lead representative for a Constituent Database. A Constituent Database may have one or more Lead Stewards, and each Constituent Database selects its own Lead Steward(s). In case of disagreement within a Constituent Database about selection of Lead Steward, the Neotoma Leadership Council may adjudicate.

Taxonomic Experts are a kind of Data Steward. Taxonomic Experts have the additional authority to modify names in the taxon table, approve names proposed by other Data Stewards, and modify the systematic relationships among taxa. Taxonomic Experts are appointed by Constituent Databases.

Embargo Managers are a kind of Data Steward. Embargo Managers have the additional authority to set, modify, and remove embargoes on Neotoma data. Embargo Managers are appointed by the Leadership Council.

Data Processor

Data Processors prepare data for upload to Neotoma. Data Processors usually are students or technicians supervised by Data Stewards. Data Processors may pass prepared data to Data Stewards for upload to Neotoma or directly upload data to Neotoma, depending on their experience. Data Processors are usually not Members, although there is no rule barring this possibility.

Principal Investigator

A PI or co-PI on a grant supporting Neotoma activities such as informatics development, data mobilization and upload to Neotoma, or education and outreach. All such PIs may opt to become members of Neotoma.

4. Amendments to Neotoma Bylaws

These bylaws can be amended by a two-stage process. First, proposals to modify the bylaws must be publicly announced to all Neotoma Members, with a minimum three-week period for comment.   Any changes must then be approved by a supermajority (two-thirds) of the Leadership Council, and the results of the vote reported to all Neotoma Members.

5. Voting Policy

Leadership Council decisions are normally achieved by consensus. A Council Member may propose a motion and request a Council vote on that motion.

All Membership and Council voting can occur in person or via a suitable electronic forum. Votes pass with a majority of votes, unless otherwise specified in these bylaws.