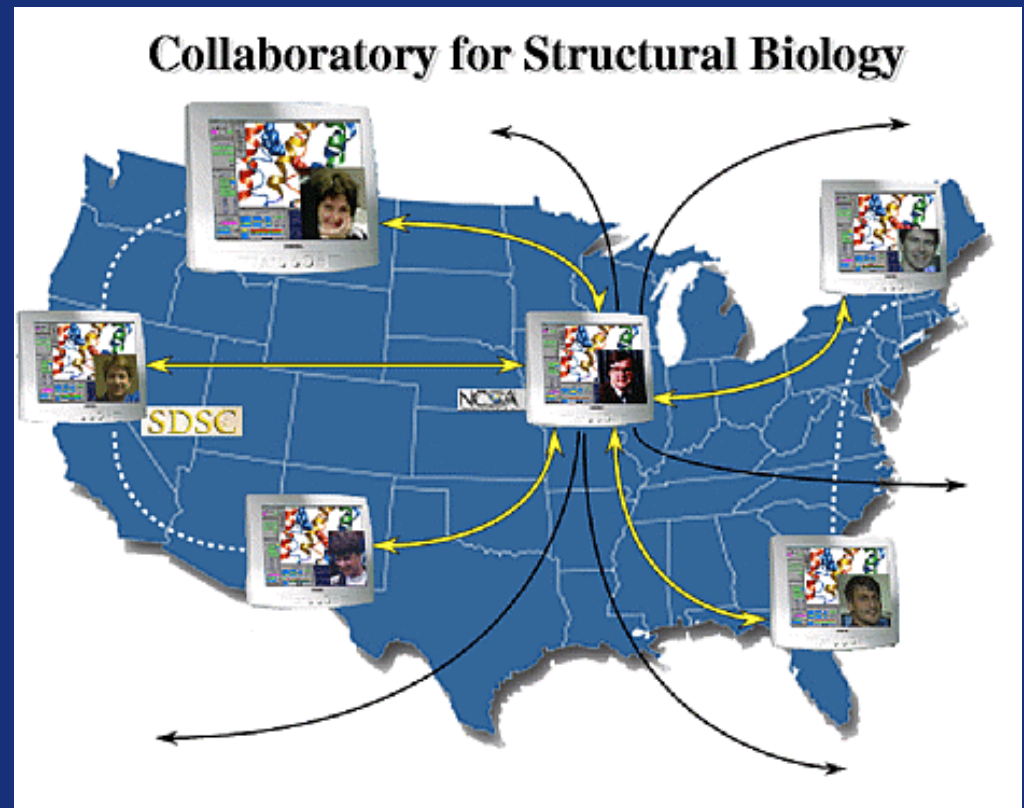


BioCoRE Evaluation

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National Center for
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NIH Resource for Biomolecular Modeling and Bioinformatics
Beckman Institute, University of Illinois at Urbana-Champaign

BioCoRE
Biological Collaborative Research Environment

BioCoRE Evaluation Methods

Our evaluation component is a built-in layer of the system allowing us to:

- Keep the development team constantly and thoroughly aware of users' concerns, difficulties and needs.
- Work closely with the development team and get their immediate feedback.

The evaluation team follows the BioCoRE development by collecting, analyzing and interpreting systematic information on the attitudes, expectations and needs of users and developers.

BioCoRE has data collection functionality. All BioCoRE members are required to agree to our informed consent form allowing the evaluation team to observe, record, analyze and publish all findings.

BioCoRE Data Collection Tools

The information we collect on BioCoRE may be classified into two categories:

Process Data

- Registration data
- User-tool interactions
- User-user interactions (notebook and chat rooms)
- Tool-tool interactions
- Tech support logs and bug reports
- Special-purpose interviews (face-to-face; telephone)
- Periodic surveys, regular feedback and project-data forms

Outcome Data

- Users' satisfaction
- Attrition, commitment, involvement
- Resulting publications in refereed journals
- Citations of resulting work
- Participants' professional progress
- Funding resources
- Other established indicators

BioCoRE Data Collection Tools (cont.)

Data Collection Tools

The tools we already have are all web-based:

- Pre-interview of UIUC collaborators
- Registration form
- Project data form
- Interviews of off-campus collaborators
- Quick interview of TB users
- Feedback form and data summary form
- Bi-annual users' survey

Content, functionality and design all have a role in developing the tools.

Benefits & Drawbacks of BioCoRE Evaluation

The evaluation helps ensure that

- Users are integrated into the development process
- Developers are well-informed and attuned to users
- BioCoRE is relevant, effective, and technologically sound
- BioCoRE users are satisfied

Challenges

- Security
- Confidentiality and privacy
- Demands on users' time and comfort
- Managing the vast amount of user data

Impact of Evaluation on Development Process

The developers have been very open to the evaluation findings and are addressing them whenever possible in the architecture of BioCoRE.

Results of interviews and several analyses (functional, heuristic and cognitive) describing user work patterns, experience, expectations, and preferences have been provided to the development team to guide collaborative development.

Tracking for evaluation purposes has to be considered in BioCoRE tool selection. Third-party tools that do not have tracking code inserted are at a disadvantage.

Interactions Between BioCoRE Participants

Frequency of interactions: Contact with scientists is maintained through daily work within BioCoRE, and through the various data collection procedures. Contact with developers is ongoing on a daily basis and through weekly meetings.

Schedule of evaluation efforts: Evaluation efforts are continuous and performed on a daily basis.

Evaluation feedback: The evaluation team has daily contact with the developers through formal and informal communication.

Reactions to feedback: The developers are responsive and work to accommodate evaluation goals as needed. The level of attention to users' needs and evaluation information is optimal.

BioCoRE Evaluation for Next Twelve Months

- Analyses of unobtrusive data yielded by a 'playback' option in BioCoRE will be performed.
- Data on tool usage will be assessed through periodic interviews, content analysis of BioCoRE interactions over time, and BioCoRE archive records.
- BioCoRE climate and nature of participants' working relationships and access to resources will be studied.
- BioCoRE popularity, commitment to a given collaboratory technology or tool, dissemination, and accessibility, will be investigated.
- Decisions on the use of commercial tools for qualitative data analysis will be reached.
- A user profile will be developed based on registration data (currently 3 dominant user research areas are Molecular Modeling, Physiology, Structural Biology; 51% theoreticians, 49% experimentalists; 46% NIH-funded projects).
- Specific outcome measures will be refined.