Mapping Engagement: Using Social Network Analysis (SNA) to Evaluate Engagement in the Assessment Program

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Objective:

In recent years, library performance measurement and assessment have seen expanding interest to provide evidence and context for library priority setting and decision-making. In order to evaluate the quality and effectiveness of services and collections, the number of library assessment activities has grown exponentially. The demand for assessment and evaluation expertise has led to full-time positions, and sometimes evaluation units, charged with sole responsibility for library assessment and planning.

At CUL/IS, the **Assessment Coordinator** provides centralized leadership, coordination, and support for division-based and library-wide assessment activities. Taking a consultative approach, a single full-time librarian works with division staff members to carry out assessment projects. This approach is based on the premise that staff engagement in assessment endeavors is vital to the success of an organization-wide assessment program. However, the success of this approach has not yet been assessed quantitatively.

The goal of this poster is to evaluate engagement in the **Assessment Program** and to understand how collaboration happens among professional staff of CUL/IS.

Method and Design:

Social network analysis [SNA] is utilized for mapping and measuring of connections and flows between professional staff working on assessment projects. The nodes in the network are the people while the links show relationships or flows between the nodes.

In order to build the dataset for analysis:

- A list of all professional staff members and their respective divisions were provided by the CUL/IS Human Resources;
- Data collected by scraping names from the Assessment Program reports published in the last 3 years (available on StaffWeb, see https://culis.columbia.edu/admin/assessment/reports.html);
- Names of co-authors and participants in various assessment projects were used to establish collaborative interactions;
- Relationships between and among participants were drawn from their relationships on the projects;
- Individuals who worked on the same project were considered to have shared a collaborative interaction.

Results:

- The study found that out of the 237 nodes (individuals), 43 nodes were connected, indicating that 18% of the professional staff engaged in at least one assessment activity.

- There were a total number of 129 collaborative connections recorded. Of these, 83 (~64%) were involved organization-wide projects, 33 (~26%) divisional projects involved divisional projects, 10 (~8%) involved consultation sessions, and 3 (~2%) involved administrative projects.

- 67% of collaborative connections represented work that occurred through informal networks of relationships and 33% of collaborative connections represented work that occurred through formal reporting structures.

- The study found that professional staff members from all three main branches within CUL/IS were engaged in the Assessment Program: Collections and Services, Bibliographic Services and Collection Development, and Digital Programs and Technology Services. The Assessment Program collaborated with a diverse set of divisions including the Social Sciences Library, History and Humanities Library, Access Services, RBML, Burke Library, Global Studies, Collection Development, LITO, and LDPD.

- ***Degree centrality*** is the number of direct connections a node has.
- ***Degree centrality*** is indicated by node size and color.
- Predictably, the Assessment Coordinator has the most direct connections in the network.
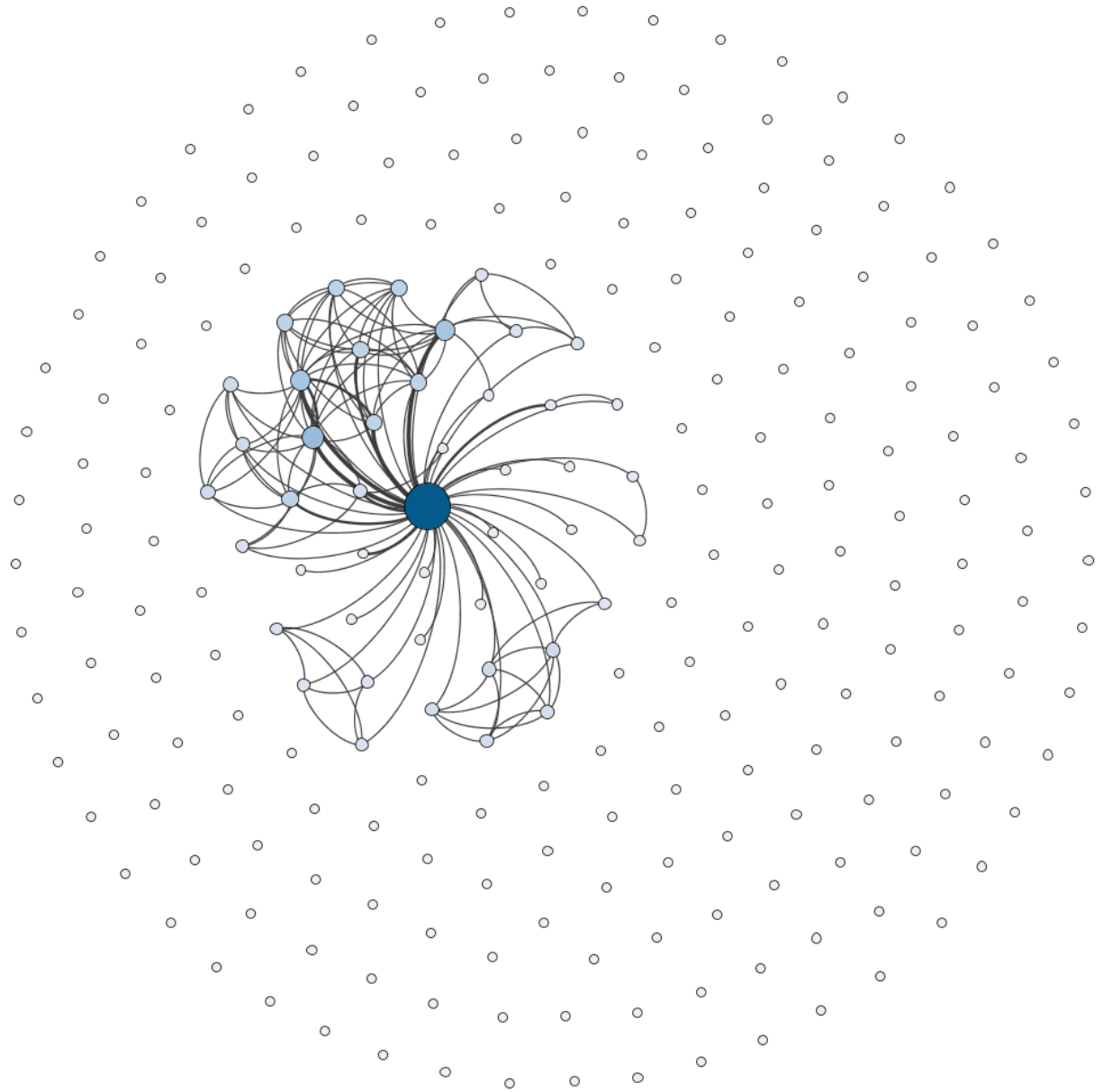
- A node with high ***betweenness centrality*** has great influence over what flows in the network. The large nodes may control the outcomes of the projects.
- ***Betweenness centrality*** is indicated by node size and ***degree centrality*** by color.
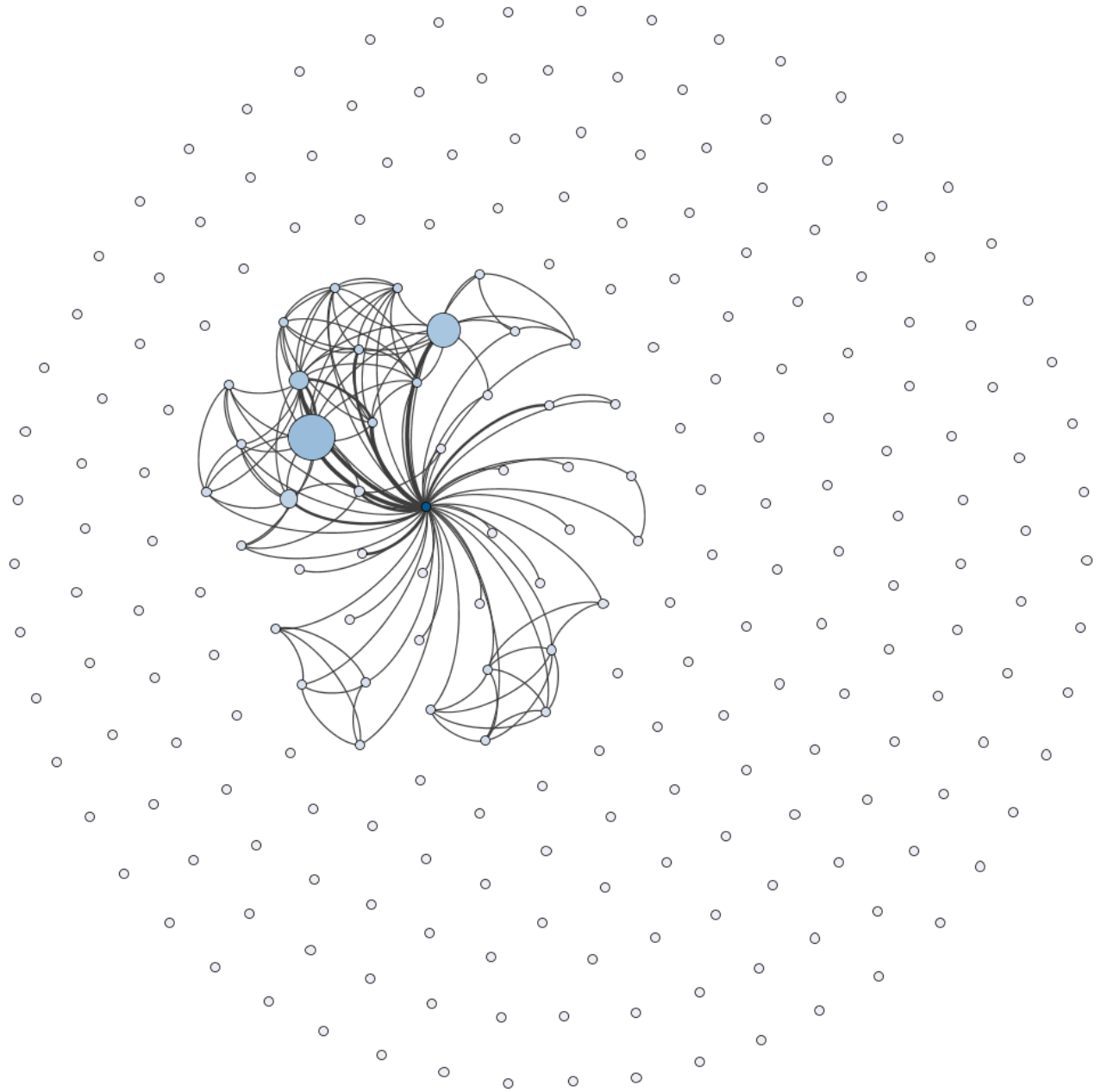
- Nodes with high *closeness centrality* are close to everyone and they have the best visibility into what is happening in the network.
- *Closeness centrality* is indicated by node size and *degree centrality* is indicated by color.
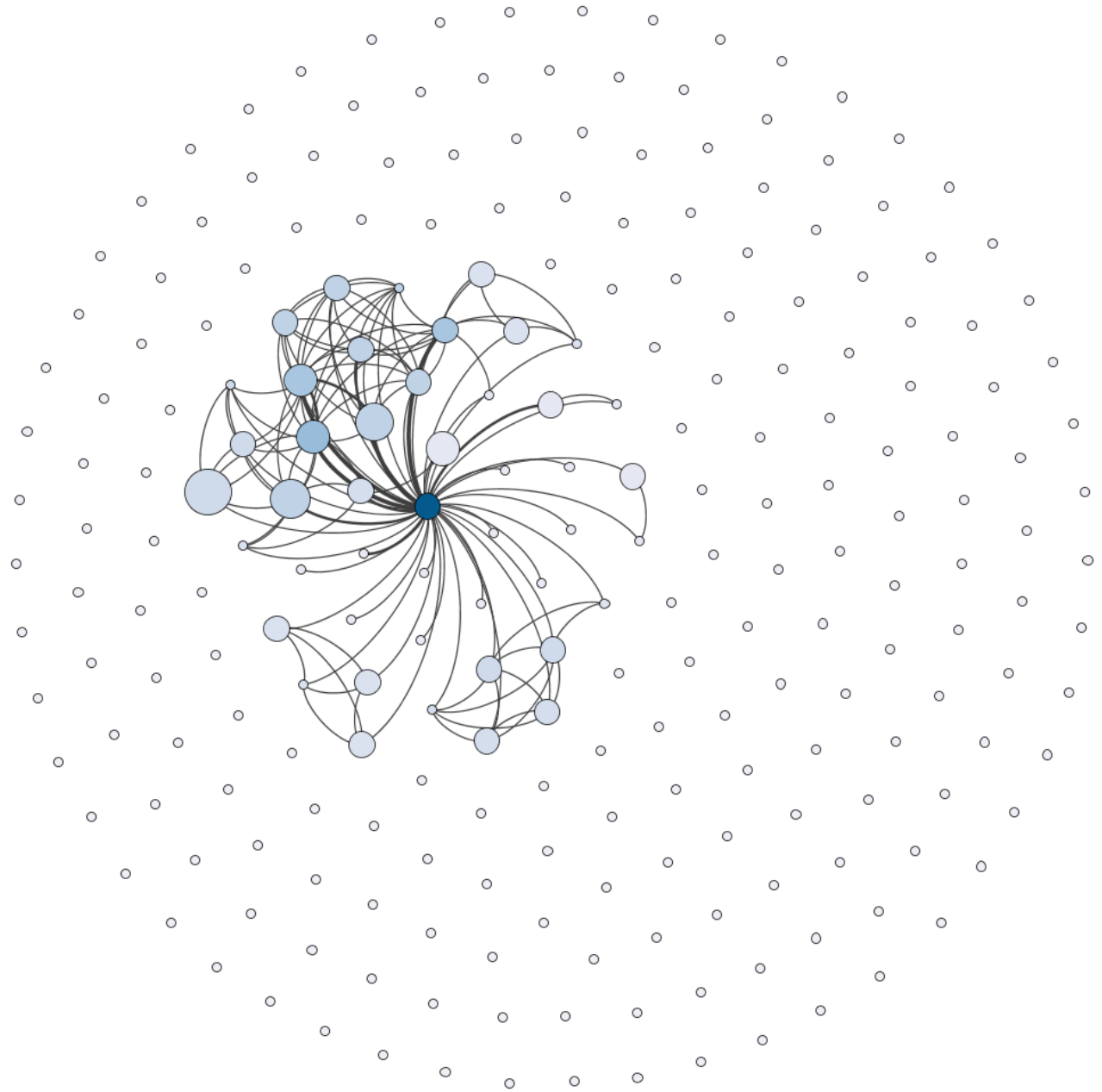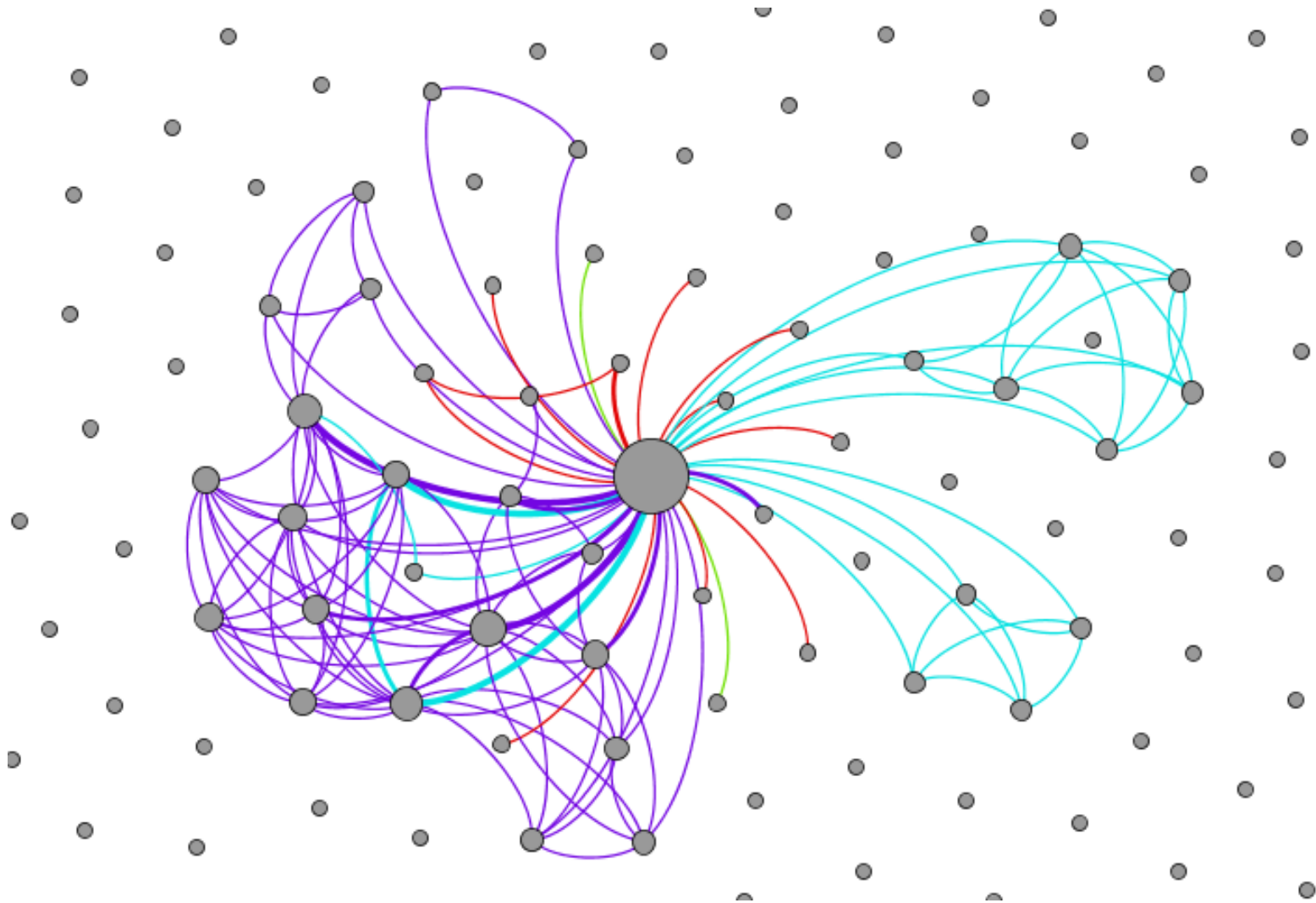
Formal and Informal Collaborations
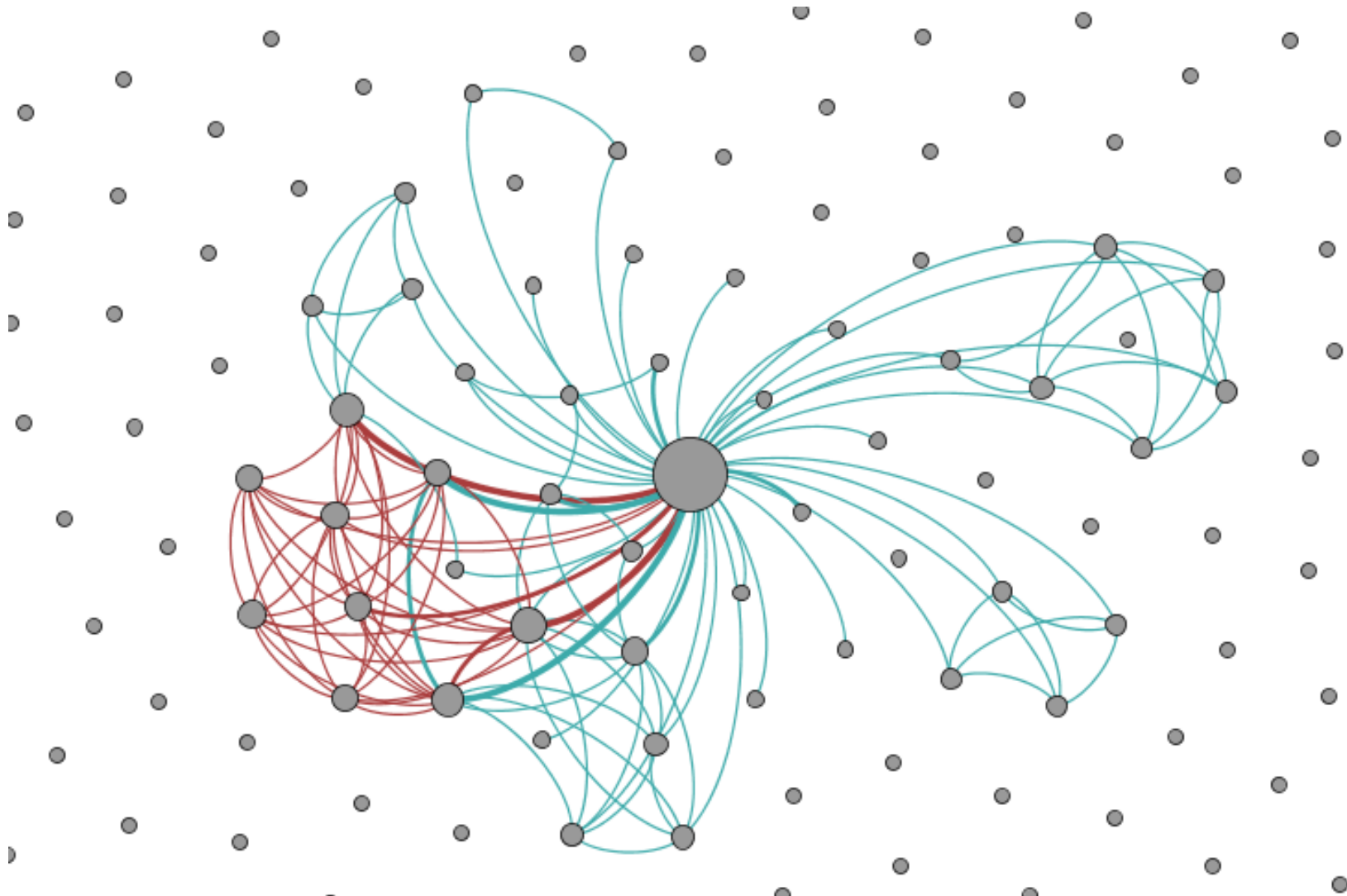
Note that the green edges indicate formal collaborations and red edges indicate informal collaborations.
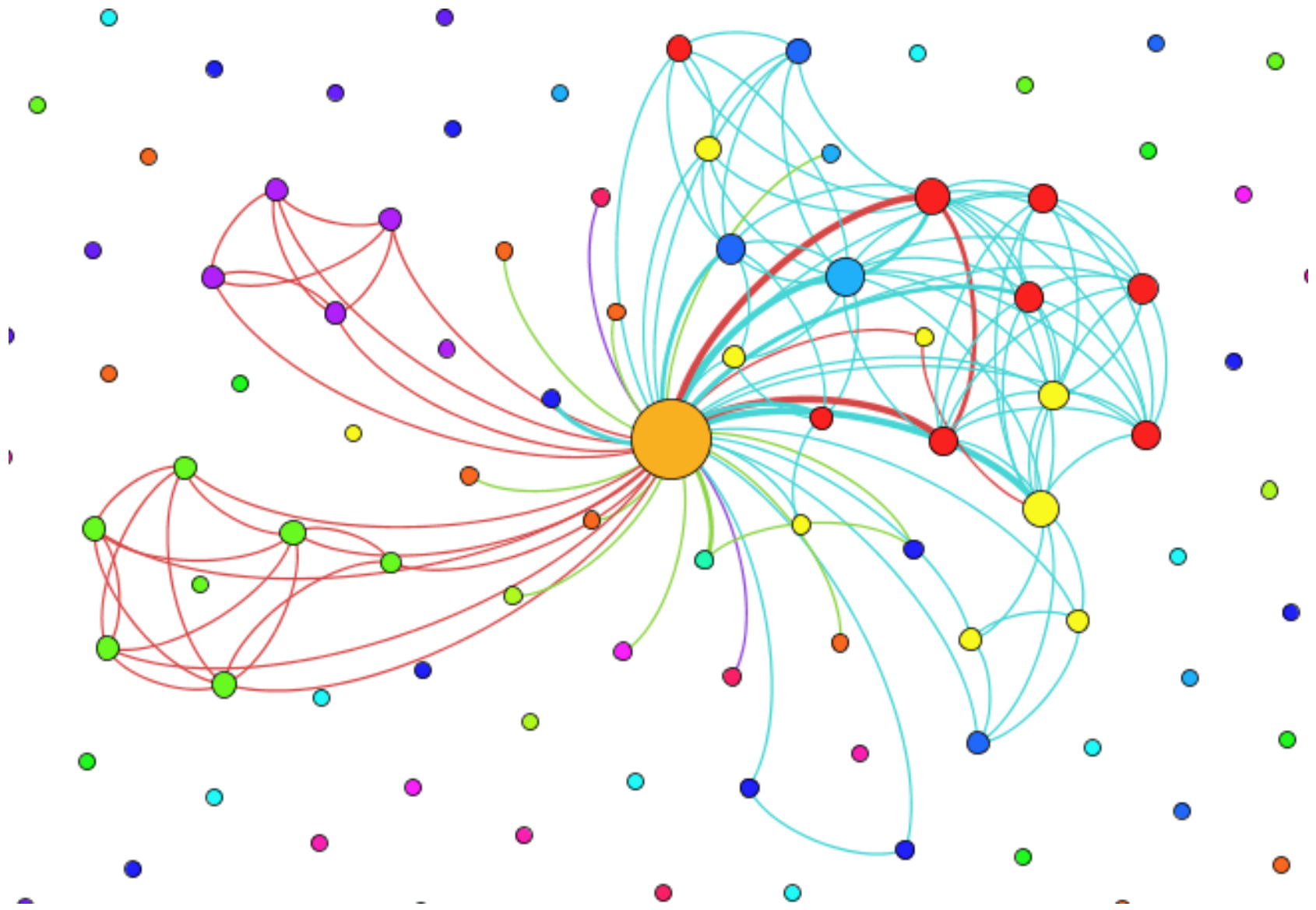
Types of Projects

Blue: *Divisional projects*   **Purple**: *Organizational projects*
Red: *Consultations*   **Green**: *Administrative projects*

Divisional Affiliation - Details

Conclusion:

Social Network Analysis (SNA) can add to our understanding of a program and create opportunities for intervention to strengthen results. However, SNA, as with other methods, needs to be used with careful consideration of its fit to a program
and the context within which the
program is operating.

■	CCNMTL
■	Bib Srvcs & Coll Dev
■	RBML
■	CDRS
■	Social Sci Lib
■	LITO
■	University Librarian Admin
■	Humanities & History
■	East Asian Lib
■	Avery Lib
■	LDPD
■	Sci & Eng Lib
■	Access Srvcs
■	Global Studies
■	Burke Lib
■	AUL
■	Development
■	Assessment Program