McGill Desautels Faculty of Management

ORGB 672 - 075

Org Network Analysis

Presented to Professor Roman Galperin

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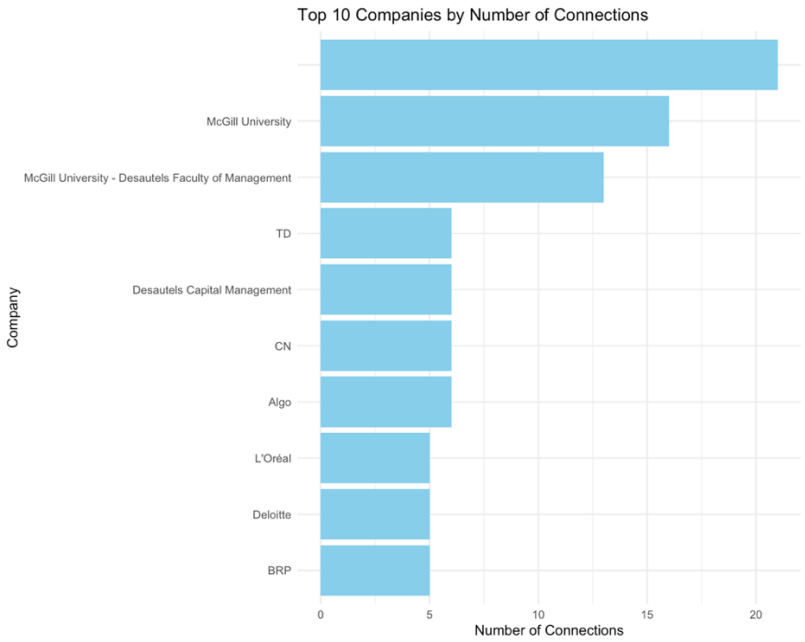
The analysis of a LinkedIn connections dataset provides insightful observations into how educational institutions and shared experiences contribute to building robust professional networks. Through a combination of quantitative and visual analyses, including the creation of a bar chart and network graphs using stress, Kamada-Kawai and Fruchterman-Reingold layouts, this report delves into the composition and structure of a professional network, revealing the dynamics of connection patterns, cluster formations, and the roles of key individuals within the network.

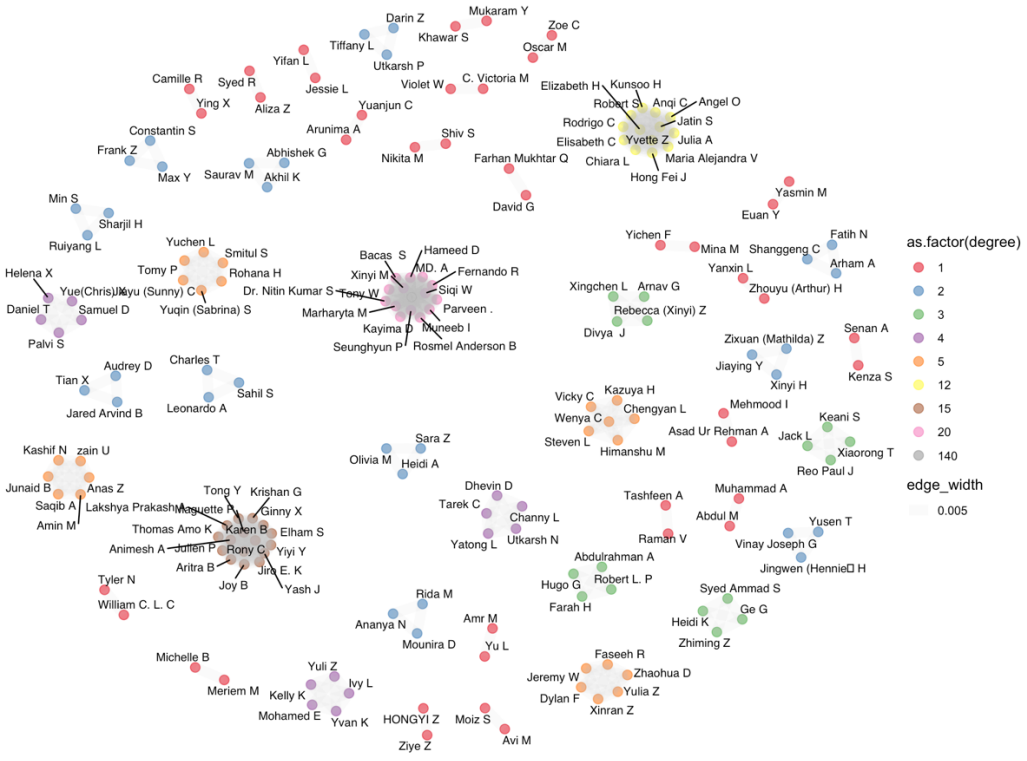
The bar chart highlighting the top companies by the number of connections shows a notable predominance of connections at McGill University, particularly within the Desautels Faculty of Management. This prominence is due to the strong ties formed during the education background, where McGill serves as a foundational network for both current students and alumni. Many connections at McGill are involved with the university's administrative departments, and a significant number of students hold part-time positions as graders, teaching assistants, and research assistants. This creates an expansive network, ideal for seeking insights on career paths, obtaining advice from alumni, and fostering professional relationships that span across various industries.

While the initial network was cultivated around McGill University, network analysis reveals a diversified employment direction among connections, indicating that professional paths diverge into a wide array of sectors beyond the initial academic linkage. The analysis uncovers several clusters, which represent groups of connections that are closely interrelated, likely corresponding to specific professional circles, industries, or affiliations. These clusters are crucial for understanding the network's composition, indicating concentrated areas of professional interest or expertise.

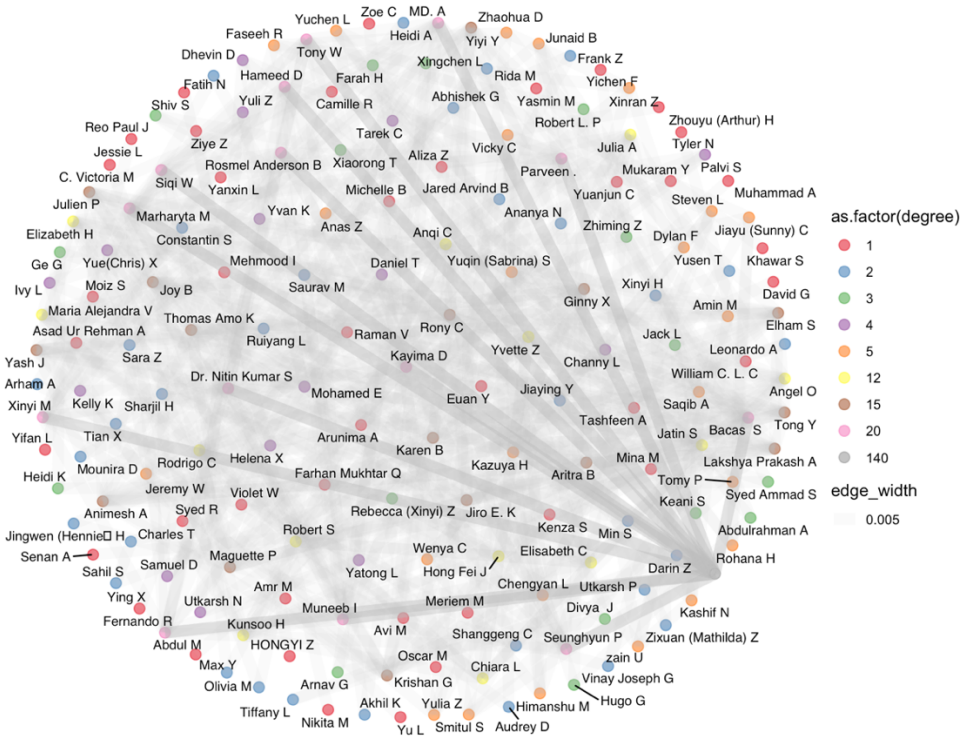
Moreover, within the network, certain nodes act as significant connectors between different clusters. These key individuals enhance the network's cohesion by linking diverse groups and industries, facilitating a richer and more interconnected professional network. The Kamada-Kawai layout, in particular, offers a clear depiction of these clusters and connectors, enhancing the comprehension of the network's overall structure. Notably, the presence of individuals like "Kashif N," who holds 140 connections out of a total of 434, highlights the importance of central nodes in the network. These individuals potentially serve as connection to vast networking opportunities and insights across a broad spectrum of domains. Further insights could be drawn by employing additional network visualization layouts, such as the Fruchterman-Reingold algorithm. This approach reveals different groups based on top companies among the connections, such as financial institutions like Deloitte and TD.



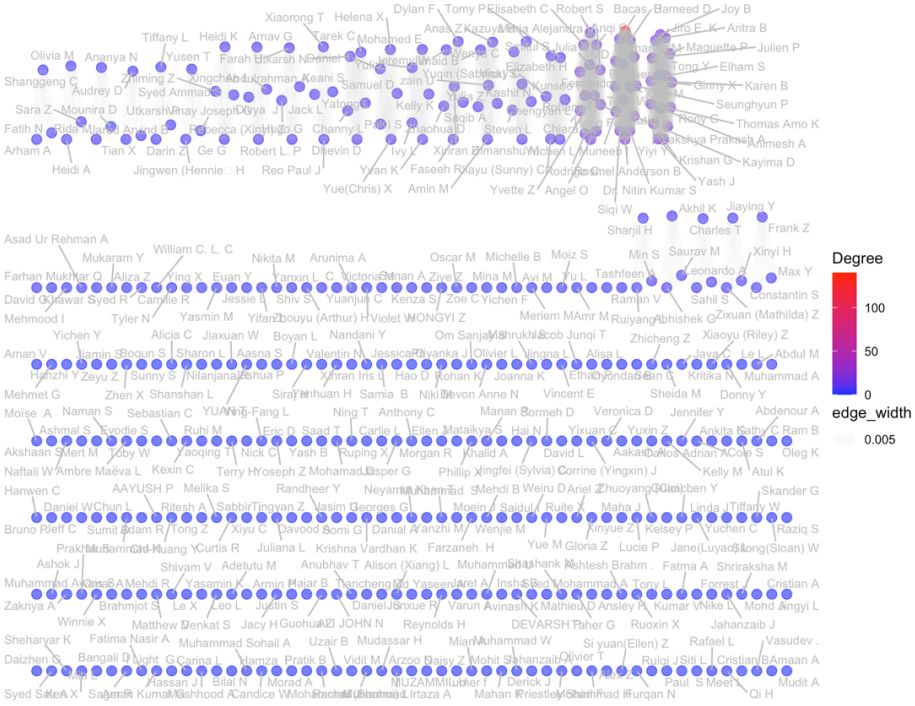
Top Companies Among Connections



Fruchterman-Reingold Layout



Kamada-Kawai Layout



Stress Layout