Chapter 7
Conclusion

In this book, we have examined the role of centrality and diversity in search. Specifically, we consider the roles of centrality and diversity in

1. Search, representation, classification and clustering, ranking, and regression in an introductory manner. The roles of bias and variance in regression is considered in detail; the correspondence between centrality and diversity against variance and bias is also examined.
2. Search in detail is considered in Chap. 2. Variations like exact and inexact search are considered. Searching for proper representation, proximity and distance functions, clustering and classification, information retrieval, and AI problem-solving are considered. The roles of centrality and diversity in search-based applications is summarized.
3. Representation is considered in detail in Chap. 3. Its importance in AI problem representation, document representation, clusters, classes, and classifiers is examined. The roles of centrality and diversity in a variety of representation-based tasks is summarized.
4. Clustering and classification is considered in Chap. 4. Specifically, the role of optimization and regularization and their relation to diversity and centrality in representation, clustering and classification is summarized.
5. Ranking is considered in Chap. 5. Ranking based on similarity and density is considered. The roles of centrality and diversity in ranking, summarization, and recommendations are examined.
6. Social and information networks in Chap. 6. A detailed discussion on representation of networks, link prediction, centrality, community detection, and network embedding are considered in detail. The roles of diversity in these tasks is considered. The role of centrality, linear transforms, and random walk-based models in node embedding in networks is also considered.