Chapter 8
Conclusion

There are many open problems in the area of diffusion in social networks. First, we believe that data-driven approaches, such as those described in the Chap. 7, are really still in the early stages of development. We have noted that recent work of this type deals with issues such as predicting the influence of individuals nodes, predicting the outcome of a diffusion process, and identifying more realistic models. Work in this area spans from observational studies in disciplines such as sociology and economics to the machine learning approaches seen in the computer science community. As data on real-world diffusion traces become more available, we expect this line of work to grow further.

Sequential seeding is another emerging topic that will likely prove to be important. An individual conducting such marketing operations in practice would likely attempt to adjust ones seeding strategy based on the ongoing dynamics of the process. Though scalability issues seem to loom with this line of work, addressing sequential seeding will likely help better operationalize the ideas described in this volume.

As research on diffusion progresses, we also anticipate to see more human-subjects based tests—which will better validate the approaches and provide fresh insights.

Finally, there are many practical issues concerning the deployment of diffusion ideas in a real-world system. Issues such as collecting and reasoning about social network data in real-time will become paramount. Though challenging, we believe that all of these issues will be addressed as the field progresses—allowing us to harness the power of diffusion in social networks.

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