
Seminar on Marketing Models II

Course No : 02814950

Credit : 2

Prerequisite : Modeling I

Program : Postgraduate

Instructor : 涂平

Semester : Spring, 2016

Instructor's resume/brief introduction(Within 500 words) :

Prof. Tu Ping received his doctoral degree in Demography at University of California, Berkeley. He is currently professor of marketing at Guanghua School of Management, Peking University. His research interests include marketing models, social network analysis, and pricing research.

He has taught courses on marketing, marketing research, marketing models and social network analysis.



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TA's contact information:

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By appointment

Program Learning Goals and Objectives

- 1 **Learning Goal 1** Graduates will be thoroughly familiar with the specialized knowledge and theories required for the completion of academic research.
 - 1.1 Objective 1 Graduates will have a deep understanding of basic knowledge and theories in their specialized area.
 - 1.2 Objective 2 Graduates will be familiar with the latest academic findings in their specialized area and will be knowledgeable about related areas.
 - 1.3 Objective 3 Graduates will be familiar with research methodologies in their specialized area, and will be able to apply them effectively.
- 2 **Learning Goal 2** Graduates will be creative scholars, who are able to write and publish high-quality graduation dissertation and research papers.
 - 2.1 Objective 1 Graduates will write and publish high-quality graduation dissertation and research papers
 - 2.2 Objective 2 Graduates will be critical thinkers and innovative problems solvers.
- 3 **Learning Goal 3** Graduates will have a broad vision of globalization and will be able to communicate

and cooperate with international scholars

3.1 Objective 1 Graduates will have excellent oral and written communication skills

3.2 Objective 2 Graduates will be able to conduct efficient academic communication in at least one foreign language

4 **Learning Goal 4** Graduates will be aware of academic ethics and will have a sense of social responsibility.

4.1 Objective 1 Graduates will have a sense of social responsibility.

4.2 Objective 2 Graduates will be aware of potential ethical issues in their academic career.

4.3 Objective 3 Graduates will demonstrate concern for social issues.

Course Overview

This is a required course for doctoral students in marketing. It will introduce students to social network analysis (SNA) methods and their possible application in marketing.

Course Objectives

1. To introduce the students to social network analysis theory and methods;
2. To develop technical competency in social network analysis;
3. To think and understand the nature and possible sources of marketing data suitable for SNA;
4. To explore possible application of SNA in marketing;
5. To develop students' ability and interest in self learning and exploration.

Detailed Course Plan

Session 1 Introduction

1. Tu, P. *Social network analysis and marketing*, lecture notes, 2015.
2. Borgatti, et al. "Network analysis in the social sciences," *Science*, 2009(13 February): 892-895.
3. Watts and Strogatz. "Collective dynamics of 'small world' networks," *Nature*, 1998(4 June): 440-442.

Session 2 Social network data

4. Chapter 1. Social network data, 1-18.
5. Chapter 5. Using matrices to represent social relations, 53-67.
6. Leskovec and Faloutsos. "Sampling from large graph," KDD 2006. (PPT)

Session 3 Visualization of social network

7. Chapter 3. Using graph to represent social relations, 23-30.
8. Chapter 4. Working with Netdraw to represent social relations, 31-52.
9. Christakis, et al. "The spread of obesity in a large social network over 32 years," *the New England Journal of Medicine* 2007(4): 370-379.

Session 4 Connection and embedding

10. Chapter 7. Connection and distance, 90-116.
11. Chapter 8. Embedding, 117-130.
12. Onnela, J. et al. "Structure and tie strength in mobile communication networks" *PNAS*, 2007(18): 7332-7336.

Session 5 Centrality and power

13. Chapter 10. Centrality and power, 144-169.
14. Neal, Z. "Differentiating Centrality and Power in the World City Network," *Urban*

Studies, 2011(October): 2733–2748.

15. Weng, et al. Twitter-Rank: Finding topic-sensitive influential Twitterers. *WSDM* 2010.

Session 6 Discussion of term paper topics

Session 7 Cliques and subgroups

16. Chapter 11. Cliques and subgroups, 170-194.
17. Admic and Glance. "The political blogosphere and the 2004 U.S. election: Divided the blog," *Proceedings of the Third International Conference on Link Discovery*, 2005: 36-43.

Session 8 Positions and roles

18. Chapter 12. Position and roles: The idea of equivalence, 195-204.
19. Chapter 13. Measures of similarity and structural equivalency, 205-227.
20. Doreian and Fararo. "Structural equivalency in a journal network," *Journal of American Society for Information Science*, 1985 (1): 28-37.

Session 9 Two-mode networks

21. Chapter 17. Two-mode networks, 263-284
22. Borgatti and Everett. "Network analysis of 2-mode data," *Social Networks*, 1997: 343-269.
23. Ransbotham et al. "Network Characteristics and the Value of Collaborative User-Generated Content," *Marketing Science* 2012(3):387-405.

Session 10 Applications in marketing(I)

24. Nair, et al. "Asymmetric social interaction in physician prescription behavior: the role opinion leaders," *Journal of Marketing Research*, 2010(October): 883-895.
25. Katona et al. "Network effects and personal influences: The diffusion of an online social network," *Journal of Marketing Research*, 2011: 425-443.
26. Liu and Lee. "Use of social network information to enhance collaborative filtering performance," *Expert Systems with Applications*, 2010:4772-4778.

Session 11 Applications in marketing(II)

27. Aral and Walker. "Identifying influential and susceptible members of social networks," *Science*, 2012 (20 July): 337-341.
28. Geol and Goldstein. "Predicting Individual Behavior with Social Networks," *Marketing Science*, 2014: 82-93.
29. Iyengar, et al. "Social contagion in new product trial and repeat," *Marketing Science*, 2015: 1-22.

Session 12 Presentation of term papers

Teaching Methods

Reading + think + discussion + exploration

IT tools to be used in the classroom

UCINET software will be extensively used.

Textbooks

1. Hanneman R. A. and M. Riddle. [*Introduction to Social Network Methods*](#). Riverside: University of California, Riverside, 2005.
2. Borgatti, Everett and Freeman. *UCINET 6 for Windows: Software for Social Network Analysis*. [Analytic Technology, Inc.](#) 2002 (revised 2013).

References & Readings

1. 沃瑟曼，福斯特：《社会网络分析：方法与应用》，中国人民大学出版社，2012。

Videos, CD-ROMs and other adjunct learning resources used

A webpage will be set up for this seminar.

Rules students must follow

Each week, the students need to fulfill three major tasks:

1. presenting the assigned papers;
2. participating in the classroom discussions;
3. submitting a written review.

Course Assessment

Class participation 20%, presentation 30%, term paper 50%