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UNIVERSITY OF MICHIGAN

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Course Schedule SI 680: ICD – Contracting and Signaling, Second Half Winter 2008

Revision Date: 5 April 2008 15:25:11

SEE the course syllabus (CTools) for policies and procedures.

The following book is available at the campus bookstores: Ines Macho-Stadler and J. David Perez-Castrillo, *An Introduction to Economics of Information: Incentives and Contracts*, 2nd ed. (Oxford University Press, 2001)

Abbreviations:

MS-PC: Macho-Stadler and Perez-Castrillo CT: CTools UR: University Reserves (electronically available from "Library Reserves" tool in Ctools) JSTOR: http://www.jstor.org (if you are off the campus network, use the UM library proxy server).

7 March, Week 1: Introduction to Contracting and Signaling

Objective: Why does it matter for a transaction or agreement that the two (or more) parties have different information? What are the fundamental issues for structuring transactions or designing agreements when there is asymmetric information?

Mandatory Read:

1 Pratt, John W. and Richard J. Zeckhauser, "Principals and Agents: An Overview", in *Principals and Agents: The Structure of Business*, J. W. Pratt and R. J. Zeckhauser, eds. (Harvard Business School Press, 1985), pp. 1-24 (UR)

2 MS-PC ch. 1-2

3 JMM, "Brief introduction to constrained optimization" (CT)

Mandatory Case: When is information strategically critical?

1. Karlgaard, Rich (2005), "Winning – It's all about Information", *Forbes.com*, 24 October 2005. (CT)

14 March, Week 2: Hidden Action I

Objective: What is a "hidden action" problem? What constraints does hidden action impose on agreements between self-interested individuals and organizations? What general design principles do we know for contracts in this situation?

Mandatory Read:

1. Milgrom, Paul and John Roberts, *Economics, Organization & Management* (Prentice-Hall, 1992), ch. 5, pp. 127-149 (UR)

2. MS-PC ch. 3, pp. 37-46, 49-57

Supplementary Read:

1 Milgrom, Paul and John Roberts, *Economics, Organization & Management* (Prentice-Hall, 1992), ch. 6 Appendix, pp. 200-203 (UR)

2 MS-PC, ch. 3 (remainder)

Mandatory Case: Start-ups

1. Ferguson, Charles H. (1999). *High St@kes, No Prisoners: A Winner's Tale of Greed and Glory in the Internet Wars*. (Crown Business). Ch. 3 (Introduction optional)

21 March, Week 3: Hidden Action II: Principles for Incentive Design

Objective: Most professional jobs involve elements of hidden action. What design principles are there for compensation schemes that ameliorate this problem?

Mandatory Read:

1 Eisenhardt, K. (1989). “Agency Theory: An Assessment and Review”. *Academy of Management Review*, 14(1), 57-74. (CT)

2 Milgrom, Paul and John Roberts, *Economics, Organization & Management* (Prentice-Hall, 1992), ch. 7, pp. 214-236

3 MS-PC ch. 3, pp. 66-68

Supplementary Read:

1. Jensen, M. and K. Murphy (1990). "Performance Pay and Top-Management Incentives", *Journal of Political Economy*, 98:225-64. (JSTOR) (CT)

Mandatory Case: Billable hours

1 Lerer, L. (2008), “The Scourge of the Billable Hour”, *Slate* (2 January). Available from: http://www.slate.com/id/2180420/. (CT)

2 Turow, S. (2007), “The Billable Hour Must Die”, *ABA Journal* (August). Available from: http://www.abajournal.com/magazine/the_billable_hour_must_die/. (CT)

26 March: Assignment 1 Due, 12 noon

28 March, Week 4: Hidden Information I

Objective: Sometimes one party to a transaction or agreement cannot directly observe, or at least not verify to a third party, quality or knowledge or other relevant information about the other party to the agreement. What implications does “hidden information” have for the terms and conditions of agreements (e.g., professional service or consulting contracts)? How should licensees structure licenses to obtain technology when they know less about the quality of the technology and how to use it than does the licensor?

Mandatory Read:

1. MS-PC pp. 103-116

Supplementary Read:

1. Mussa, M. and S. Rosen (1978). "Monopoly and Product Quality", *Journal of Economic Theory* 18: 301-17. (CT)

2. MS-PC pp. 157-60

Mandatory Case: Patent Licensing / Tech Transfer

1. MS-PC pp. 149-153

2. *The New York Times* (2006), “Microsoft Offers to Assist Rivals”, 23 March 2006 (CT)

4 April, Week 5: Hidden Information II: Applications

Objective: We will apply the analysis of hidden information problems to three useful applications: versioning information goods (e.g., student, home and professional versions of software); auction design; and software licensing.

Mandatory Read:

1 Shapiro, C. and H. Varian (1998). *Information Rules* (Harvard Business School Press), ch. 3 (UR)

2 Varian, Hal R. (2001). "Versioning information goods", in B. Kahin and H. Varian, *Internet Publishing and Beyond: The Economics of Digital Information and Intellectual Property* (MIT Press: Cambridge, Mass.), pp. 190-202. (CT)

3 MS-PC pp. 168-172

Supplementary Read:

1. Krishna, Vijay (2002). *Auction Theory* (Academic Press: San Diego), ch. 2 (pp. 13-28).

Mandatory Case: Research in Motion Inc.

1. Alex Frankel, "The Willing Partner", *Technology Review*, July 2005, pp. 36-38. (CT)

11 April, Week 6: Signaling and Screening

Objective: Sometimes a party to an agreement or transaction would like to make known his or her hidden information (e.g., if she very high quality), but there are no direct ways to verify that information. How might a high quality type signal her quality? How might an email recipient set up a screen that induces senders to reveal whether they are sending spam?

Mandatory Read:

1. MS-PC pp. 185-198, 209-210

Supplementary Read:

1 John G. Riley (2001), "Silver Signals: Twenty-Five Years of Screening and Signaling", *Journal of Economic Literature*, XXXIX:2 (June): 432-478. (CT)

2 Chiao, B. and J. MacKie-Mason (2006), “Using Uncensored Communication Channels to Divert Spam Traffic”, TPRC Conference. (CT)

3 Goodman, J., Cormack, G. V., and Heckerman, D. 2007. “Spam and the ongoing battle for the inbox.” *Commun. ACM* 50, 2 (Feb. 2007), 24-33. DOI= http://doi.acm.org/10.1145/1216016.1216017(CT)

4 Loder, Thede, Marshall Van Alstyne, and Rick Wash (2006). "An Economic Solution to Unsolicited Communications", *Advances in Economic Analysis and Policy*. (CT)

Mandatory Case: Manipulating Digg.com

1 Hung, Anthony Richard (2006), “A Brief History of the Digg Controversy”, *Deep Jive Interests*, http://www.deepjiveinterests.com/2006/08/25/a-brief-history-of-digg-controversy/. Accessed 5 April 2008.

2 Silicon Valley Sleuth (2006), “Could Digg be used for Sun stock manipulation?”, *Silicon Valley Sleuth*, http://www.siliconvalleysleuth.com/2006/03/digg_is_used_fo.html. Accessed 5 April 2008.

3 Gray, Michael (2006), “Digg, Sun, and Google the Tale of Market Manipulation,” *threadwatch.org*,

http://www.threadwatch.org/node/5921. Accessed 5 April 2008.

4 Newitz, Annalee (2007), “I bought votes on Digg”, *Wired*, http://www.wired.com/techbiz/people/news/2007/03/72832. Accessed 5 April 2008.

5 MacKie-Mason, Jeffrey K. (2007). “Tom Sawyer Production on the Internet: Getting the Good Stuff In, Keeping the Bad Stuff Out,” manuscript, esp. Section 5 (pp. 19-27).

18 April: Assignment 2 Due 12 noon