

ESD.83 Assignment 5: Book Review

750 word book review, 10% of the total

Students will be expected to prepare brief book reviews of about ~750 words selected from a faculty-provided book list, or books independently suggested by the student and then approved by the faculty. Students should select their desired book by Session #2. Each book review should be written in a format comparable to a published book review in a professional journal – conveying the key message of the book and providing appropriate critical analysis as well.

Note: Do not select books to review that you have already used in prior courses – the aim here is to push the frontiers of your knowledge. Also, if you are unfamiliar with writing book reviews, examine the reviews published in 2-3 leading scholarly journals. In general, a review should have an introductory paragraph with a framing thought, followed by a *very brief* summary of the book's key arguments, an evaluation of the book's strengths and limitations, a placement of the book in the larger literature, and concluding comments.

Book List:

Agent-based Modeling

- Schelling, T. C. (2006). *Micromotives and macrobehavior*. New York: Norton.
- Epstein, J. M. and Axtell, R. L. (1996). *Growing artificial societies: social science from the bottom up*. Cambridge, MA: MIT Press.
- Axelrod, R. (1984). *The evolution of cooperation*. New York: Basic Books.

Complexity/Chaos/Emergence

- Holland, J. H. (1995). *Hidden order: How adaptation builds complexity*. Reading, MA: Addison-Wesley.
- Kaufmann, S. (1993). *The origins of order: Self-organization and selection in evolution*. New York: Oxford University Press.
- Wilson, E. O. (1975). *Sociobiology: The new synthesis*. Cambridge, MA: Belknap Press of Harvard University Press.

Decision-Making

- Ariely, D. (2008). *Predictably irrational*. New York: HarperCollins Publishing.
- Gawande, A. (2002). *Complications: A surgeon's notes on an imperfect science*. New York: Metropolitan Books.
- Allison, G. T. and Zelikow, P. (1999). *Essence of decision: Explaining the Cuban Missile Crisis*. New York: Longman.
- Klein, G. A. (1999). *Sources of power: How people make decisions*. Cambridge, MA: MIT Press.
- March, J. G. (1994). *A primer on decision-making: How decisions happen*. New York: Free Press.

Design

- Dym, C. L. (1994). *Engineering design: A synthesis of views*. New York: Cambridge University Press.
- Vincenti, W. G. (1990). *What engineers know and how they know it: Analytical studies from aeronautical history*. Baltimore: Johns Hopkins University Press.
- Schön, D. A. (1984). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Economics and Technological Progress

- Fogel, R. W. (2004). *The escape from hunger and premature death, 1700-2100: Europe, America, and the Third World*. Cambridge: Cambridge University Press.
- Mokyr, J. (2002). *The gifts of Athena: historical origins of the knowledge economy*. Princeton, NJ: Princeton University Press.
- Easterly, W. (2001) *The elusive quest for growth: Economists' adventures and misadventures in the tropics*. Cambridge, MA: MIT Press.
- Clayton, A. M. H., and Radcliffe, N. J. (1996). *Sustainability: A systems approach*. Washington, DC: Island Press.

Ethics/ Values

- Singer, P. (2009). *The life you can save: Acting now to end world poverty*. New York: Random House.
- Rees, M. (2003). *Our final hour: A scientist's warning: How terror, error, and environmental disaster threaten humankind's future in this century – On Earth and beyond*. New York: Basic Books.
- Sen, A. K. (1987). *On ethics and economics*. New York: Blackwell Publishing.

History

- Allen, R. C. (2009). *The British industrial revolution in global perspective*. New York: Cambridge University Press.
- Murray, S. (2009). *Moveable feasts: From Ancient Rome to the 21st century, the incredible journeys of the food we eat*. New York: St. Martin's Press.
- Mindell, D. A. (2002). *Between human and machine: Feedback, control, and computing before cybernetics*. Baltimore: John Hopkins University Press.
- Hughes, T. P. (2000). *Rescuing Prometheus*. New York: Vintage Books.

Leadership

- Nye, J. S. (2008). *The powers to lead*. New York: Oxford University Press.

Lean Concepts

- Spear, S.J. (2009). *Chasing the rabbit: How market leaders outdistance the competition and how great companies can catch up and win*. New York: McGraw Hill.

Management Thinking

- Micklethwait, J. and Wooldridge, A. (1996). *The witch doctors: Making sense of the management gurus*. New York: Times Books.
- Handy, C. B. (1989). *The age of unreason*. Boston: Harvard Business School Press.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman.
- Drucker, P. F. (1964). *Managing for results: Economic tasks and risk-taking decisions*. New York: Harper & Row.

Modes of Thought

- Gardner, H. (2006). *Five minds for the future*. Boston: Harvard Business School Press.
- Wilson, E. O. (1998). *Consilience: The unity of knowledge*. New York, Knopf: Distributed by Random House.

The Nature of Research and Science

- Feynman, R. P. (1965). *The character of physical law*. Cambridge: MIT Press.
- Polanyi, M. (1958). *Personal knowledge; towards a post-critical philosophy*. Chicago, University of Chicago Press.
- Popper, K. (1935) *The logic of scientific discovery*. Vienna: Springer-Verlag.

Networks

- Barabasi, A.L. (2003) *Linked: How everything is connected to everything else and what it means*. New York: Penguin.
- Watts, D. J. (2003). *Six degrees: The science of a connected age*. New York: W.W. Norton.

Organizations/ Human Behavior

- Page, S. (2007). *The Difference: How the power of diversity creates better groups, firms, schools and societies*. Princeton, NJ: Princeton University Press.
- McGregor, D. and Cutcher-Gershenfeld, J. (2006). *The human side of enterprise*. New York: McGraw-Hill.
- Surowiecki, J. (2004). *The wisdom of crowds: Why the many are smarter than the few and how collective wisdom shapes business, economies, societies, and nations*. New York: Doubleday.
- Pinker, S. (2002). *The blank slate: The modern denial of human nature*. New York, Viking.
- Gigerenzer, G., P. M. Todd, et al. (1999). *Simple heuristics that make us smart*. New York: Oxford University Press.
- Handy, C. B. (1976). *Understanding organizations*. Baltimore: Penguin Books.

Randomness/Uncertainty

- Taleb, N. (2007). *The black swan: the impact of the highly improbable*. New York: Random House.
- Lempert, R.J., Popper, S.W. and Bankes, S.C. (2003). *Shaping the next one hundred years: New methods for quantitative, long-term policy analysis*. Santa Monica, CA: RAND.

Strategy

- Mintzberg, H., B. W. Ahlstrand, et al. (1998). *Strategy safari: A guided tour through the wilds of strategic management*. New York: Free Press.
- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.
- Ansoff, H. I. (1969). *Business strategy: Selected readings*. Baltimore: Penguin Books.
- Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the industrial enterprise*. Cambridge: MIT Press.

Systems Thinking

- Simon, H. A. (1996). *The sciences of the artificial*. 3rd ed. Cambridge: MIT Press.
- Emery, F. E. (1969). *Systems thinking: Selected readings*. Baltimore: Penguin Books.
- Ramo, S. and St. Clair, R. K. (1998). *The systems approach: Fresh solutions to complex Problems through combining science and practical common sense*. Anaheim, CA: TRW, Inc.

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