Notes

Introduction


Chapter 1

1. Denmark spent $50 million on its network programs, 1/2,000th of its annual $100 billion GDP.
7. The emotional nature of cooperation was raised by Darryl Landvater, president of Oliver Wight Publications, in an interview, July 27, 1992, Essex Junction, Vermont.
10. Joseph Roberts’s company, Advanced Circuit Technologies, is one of 10 firms comprising Team Nashua. The firms’ individual annual sales range from $500,000 to $20 million and range in size from 8 to 10 employees to 200 people. (Team Nashua, 118 Northeastern Boulevard, P0 Box 547X, Nashua, NH 03061, 603-880-6000; fax: 603-880-1785.)


Chapter 2


2. The Calvert Social Investment Fund, with $1 billion in assets, is the largest of the socially responsible mutual funds; it invests only in companies that pass a series of financial and social screens. We’ve been members of the Advisory Council since the fund was started in 1982.


5. Comment about doing business with the people you know from a telephone interview with Jerry Nagel, Red River Trade Corridor, Inc., 208 Selvig Hall, University of Minnesota, Crookston, MN 56716, 218-281-6510, ext. 458; fax: 218-281-5223.


8. “Node” is the technical name for a member of a network.

9. “You really need to emphasize the quality of messiness in teamnets,” Lisa Carlson of Metasystems Design Group said in a phone interview. “Usually, the same people don’t stay on the team the whole time. This makes for comings and goings. It’s fuzzy and it’s messy.” When asked why this was a good thing, she said, “I don’t know if it’s good or not, but it’s true.”

10. For more discussion of leadership, see references to Japan’s “blunt hierarchy” in “Quick Start,” chapter 8.


12. Elizabeth Lorentz’s comments on leaders as followers from mss. margin notes. (Lorentz Laboratory for Collaborative Enterprise, 180 South Broadway, White Plains, NY 10605.)

13. “Authority is not bad,” Pam Johnson of Digital Equipment Corporation said in response to a draft of this chapter. “An authoritarian way of expressing it is bad. Allowing everyone into everything breaks the rule of independence.”


15. “Hierarchy” is the awkward name for the systems principle of
successive inclusion, meaning systems of subsystems composing supersystems. See “Transforming Bureaucracies and Systems,” the Reference Section, for more on the systems context.

Chapter 3


2. Henry Bradshaw quote from ibid.


7. Quote from Karlsson on interplay among countries from ibid.

8. Arthur Koestler was one of the earliest systems thinkers to recognize the importance of complementary dynamics in living systems. In The Ghost in the Machine (London: Hutchinson & Co., 1967), Koestler describes inward-looking “self-assertive” (competitive) tendencies entwined with outward-looking “integrative” (cooperative) tendencies. Several of his books have such paradoxical titles: Darkness at Noon and Janus, for example.

9. The phrase “winning combinations” is from the book by that name: Winning Combinations: The Coming Wave of Entrepreneurial Part-
Chapter 4

5. For an excellent view of corporate culture, see *Organizational Culture and Leadership: A Dynamic View*, by Edgar H. Schein (San Francisco: Jossey-Bass Publishers, 1985).
6. For many years when he was at Exxon Chemical Company, Bill Paul, now of Deltech Consulting, sent a monthly packet of leading-edge management articles to about 100 people. We were on the list, and one of his packets contained “Entrepreneurship Reconsidered: The Team as Hero,” by Robert B. Reich, *Harvard Business Review*, May—June 1987.


15. John Mauzo of Digital Equipment Corporation uses this initiation exercise for cross-functional groups.


17. Statistics on Hewlett-Packard’s success with teams from ibid., p. 18.


19. Use of clusters in GE Canada from ibid., p. 286.


22. In regard to technology’s not solving problems: One major chemical company did a study of its $2 billion information technology investment and concluded that it could not attribute a single performance increase to its use.


Chapter 5


2. Statistics on layoffs from “The Job Drought: Why the Shortage of High-Wage Jobs Threatens the U.S. Economy,” by Brian O’Reilly, *Fortune*, August 24, 1992, pp. 62—74. This article looks at worker training, job displacement, lowering of income, and education, and includes examples of Fortune 500 companies solving these problems “by banding together” to increase exports, experiencing dramatic gains in areas like Huntsville, Alabama, where exports have increased at twice the national average.

3. In the United States, Fortune 500 companies now employ the same number of people as do businesses owned by women—12 million, according to the May 1992 issue of *Inc.* Figure of 3.6 million job losses from “The Economy: Problems,” *New York Times*, February 14, 1993.


7. Statistics on Corning from ibid.

8. Quote from Houghton on his quality initiative from ibid.


12. Umbrella bullets and definition of kaizen from *Kaizen: The Key to Japan's Competitive Success*, by Masaaki Imai, p. 4. See chapter 4, note 11.

13. According to legend, J. M. Juran’s lectures on “quality control management,” during a visit to Japan sponsored by the Japan Union of Scientists and Engineers in 1954, pushed the quality movement to an overall management approach.


17. Applicability of service webs to simple and complex organizations from ibid.


19. Description of Nike from “Causes of Failure in Network Organizations,” by Miles and Snow. See chapter 2, note 7.


23. Observation on importance of partner autonomy in joint ventures from “Building Strategic Partnerships: Creating and Managing Effective Joint Ventures,” by Charles S. Raben, in *Organizational Archi*
24. First five major categories in which companies work together to pursue joint strategies from *Teaming Up for the 9O~s*, see note 21.


27. Quote on Euroventures Fund from Collins and Doorley, note 21, p. 186.


33. Quote on cooperation and competition from “Regional Networks and the Resurgence of Silicon Valley,” by Anna Lee Saxenian, *California Management Review*, Fall 1990, pp. 89—111.


36. Quote on networks as offering competitive edge for 1990s from Charan. See chapter 3, note 1.
37. Observation on relationship of internal structure to uncertainty from Paul R. Lawrence and Jay W. Lorsch, *Organization and Environment* (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1967).

**Chapter 6**

1. In regard to use of terms, we prefer “flexible business networks” (to “flexible manufacturing networks”) since nonmanufacturing firms also participate in and benefit from the idea.
5. Quote on why businesses join networks from ibid.
7. Regarding small industrial pockets all over the United States: In 1973, we moved our office to the remodeled Futurity Thread Company, in Newton’s Nonantum neighborhood. Until earlier that year, women were still spinning thread in the factory, soon to be the offices we would occupy. Futurity Thread was located just a few blocks from Roberts Printing.
8. Statistics on number of flexible business networks in the United States


10. “Manufacturing Networks and State Policy in North Carolina,” by Stuart A. Rosenfeld, Raymond Daffner, and William P. Meade, April 1992. (Southern Technology Council, 5001 South Miami Boulevard, P.O. Box 12293, Research Triangle Park, NC 27709, 919-941-5145; fax: 919-941-5594.) Rosenfeld is now executive director of Regional Technology Strategies (P.O. Box 9005, Chapel Hill, NC 27515, 919-933-6699) and publisher of *Firm Connections*, a bimonthly newsletter about flexible manufacturing networks, available from his office.

11. Information about STC’s pilot programs from *STC Regional Forum*, December/January 1992, vol. 5, no. 5., a newsletter by Southern Technology Council (see address in previous note).

12. For more on ASTA, contact Arkansas Science and Technology Authority, 100 Main, Suite 450, Little Rock, AK 72201, 501-324-9006.


14. For information on the Arkansas Wood Products Trade Group, contact Arkansas Rural Enterprise Center, Winrock International, Route 3, Box 376, Morrilton, AR 72210-9537, 501-727-5435.


16. Quote on Catawba Valley Hosiery Association mills from “Manufacturing Networks and State Policy in North Carolina: Introducing Change” (see address, note 10).

17. Description of TEEMS project genesis from ibid., p. 21.

18. Quote on why TEEMS needed a network from ibid., p. 11.

20. To order *Catalog of U.S. Manufacturing Networks* by Gregg Lichtenstein, see address in note 4.


22. Nielsen quote on independence from his testimony to Oregon Joint Interim Committee on Forest Products Policy, April 12, 1990, p. 8.

23. “NIST Network Brokers Handbook,” by C. Richard Hatch, is available from State Technology Extension Program, National Institute of Standards and Technology (see address, note 4.)

24. For more information on the center, contact Anne Heald, Center for Learning and Competitiveness, University of Maryland, School of Public Affairs, College Park, MD 20742, 310-405-6350.

Chapter 7


5. Conclusions drawn from the work of C. Richard Hatch, Stuart Rosenfeld, and other observers.

7. Quote from Niels Christian Nielsen on Denmark’s success with networks from interviews with him, May 7—8, 1992, by Jessica Lipnack and Jeffrey Stamps in Washington, D.C.


11. Quote on how governments aid business networks from ibid.

12. Quote on using appropriate language with business people from Ray Daffner, who also reports one businessman congratulating him at a meeting because “this isn’t one of those networks,” telephone interview, December 16, 1992.

Section II

1. For the term “computerless software,” we are grateful to Rick Berenson, a Boston area entrepreneur, attorney, and former McKinsey & Company consultant, who first described our work this way.

Chapter 8

1. To obtain a copy of the “Four Hour House” video, contact Building Industry Association of San Diego County, 6336 Greenwich Drive, Suite A, San Diego, CA 92122, 619-450-1221; fax: 619-552-1445.


4. Re: Habitat’s blitz builds. Blitz builds are high-profile events, usually attended by celebrities to publicize Habitat’s efforts. Former U.S. president Jimmy Carter volunteers a week each year. But blitz builds
are not typical. Usually, Habitat builds houses over a series of consecutive weekends. (Habitat for Humanity, Habitat and Church Streets, Americus, GA 31709-3498, 912-924-6935.)

5. Habitat plans to build 300 to 500 houses in South Florida by 1994 in response to the 75,000 homes damaged by 1992’s Hurricane Andrew.

6. This is one of Stephen Covey’s *Seven Habits of Highly Effective People* (New York: Simon & Schuster, 1989).

7. Gardner quote from his Remarks to Independent Sector, 1984 Annual Membership Meeting and Assembly, October 17, 1984, Boston, Massachusetts.


10. Books on teams hit some kind of zenith of popularity in the 1990s, but their principles have been around for many years, often known by different names.


12. Quote on different kinds of leadership from *Fifth Generation Management*, by Charles Savage. See chapter 2, note 3.

13. Much of this material was inspired by Bruce W. Tuckman’s “Development Sequence in Small Groups,” in *Psychological Bulletin*, 1965.

*Chapter 9*

1. CALS stands for “Computer-assisted Acquisition and Logistic Support.”

2. Bernie DeKoven of the Institute for Better Meetings displays the cost of meetings by minute for all participants to see. In big companies, these numbers are staggering: a two-day meeting of 15 technical people can cost a company in excess of $12,000. (Institute for Better Meetings, 2972 Clara Drive, Palo Alto, CA 94303, 415-857-1757; fax: 415-493-1417.)

3. “The Strength of Weak Ties,” by Mark S. Granovetter, Johns Hopkins
University, originally was published in American Journal of Sociology, vol. 78, no. 6, pp. 1360—1380.


Chapter 10

1. Max Weber first identified charisma, coercion, and law as the three sources of power in organizations.
2. A desktop computer software tool that charts cross-boundary process is TeamFlow, designed by Ron Cordes. (For more information, contact The Networking Institute, Inc., see chapter 4, note 4.)

Chapter 11

1. By request, the identity of TransOceania remains anonymous.
2. For extensive treatment of groupthink and specifically the Cuban Bay of Pigs invasion, see Groupthink: Psychological Studies of Policy Decisions and Fiascoes, by Irving L. Janis (Boston: Houghton Mifflin Company, 1982).

Chapter 12

1. In regard to the structure of fire departments: For three years in the 1970s, we helped the U.S. Department of Commerce set up Americas first national fire prevention agency.
2. For more information on his work, contact Doug Engelbart, 89 Catalpa Drive, Atherton, CA 94025, 415-322-9087.
3. Peter and Trudy Johnson-Lenz first coined the term “groupware” in 1978. (Institute for Awakening Technologies, 695 Fifth Street, Lake Oswego, OR 97034, 503-635-2615.)
4. Jerry Nagel, executive director of the Red River Trade Corridor (it runs along the Red River, one of only three rivers in the world that run north) of western Minnesota, eastern North Dakota, and the province of Manitoba, identifies voluntary geographies in North America, in varying degrees of development: the Midsouth Common Market, covering the 50- to 60-county, seven-state trade region around Memphis;
the Pacific Northwest Region; the Toronto-Buffalo Commerce Corridor; Man-Valley Tri-State Network of western Pennsylvania, eastern Ohio, and West Virginia; the Rocky Mountain Trade Corridor reaching from Edmonton, Alberta, through Montana to Denver; the Arizona-Sonora, Mexico, Commission; and the Red River. Nagel also supplied the European list. See chapter 2, note 5.

5. Miles and Snow believe different types of networks develop out of the different types of bureaucracy. See their article, “Causes of Failure in Network Organizations,” chapter 2, note 7.


7. The specific product described here is TeamFlow (see chapter 10, note 2).

8. Quote from Niels Christian Nielsen on each network’s containing a surprise from interviews with him, May 7—8, 1992, by Jessica Lipnack and Jeffrey Stamps in Washington, D.C.

Afterword

1. Jan Brenning, another friend from the Oxford days, later told us how Bill Clinton would sometimes arrive late for dinner because he was busy transferring the day’s names to his card file. (See “Most Likely to Succeed,” by Alessandra Stanley, New York Times Magazine, November 22, 1992, for another account of this Clinton habit.)


4. Newsweek was one of many publications that took a stab at trying to identify the many Clinton networks in “Clinton’s Team: The Inner Circles,” October 26, 1992.

5. Forty-six Leckford Road (in what was then a working class and now is a gentrified Oxford neighborhood) was a landmark for Americans studying at Oxford in the late 1960s. Jeff Stamps originally rented the three-story brick row house in January 1968, and lived there until he left Oxford to return to the United States in December 1969. Frank
Aller, the Rhodes Scholar profiled in “Most Likely to Succeed” (see ‘Afterword,” note 1), moved into the house before Jeff left. Then Clinton and Strobe Talbott, now Ambassador at Large for the former Soviet Republics, moved in.

6. For more on the power of “the strength of weak ties” see Mark S. Granovetter’s article by that name. See chapter 9, note 3.

7. In a famous study, Yale’s Stanley Milgram found that anyone in the world could reach anyone else through 5.5 handshakes.

8. During his 1988 presidential campaign, Al Gore carried around a laptop, which had been outfitted for him by Metasystems Design Group, according to Lisa Carlson, one of the company’s founders.


14. The “Plum Book” is the name for the directory of 3,000 political appointment jobs in federal government.

Reference Section

1. The observation that bureaucracy fails in one of three ways from Miles and Snow. See chapter 2, note 7.


6. Cognitive science has a term for the part standing for the whole: “metonomy.”


8. For the Simon article, see chapter 2, note 14.

9. Confusion over the word “hierarchy” has been a subject of periodic sore debate ever since British systems theorist Lancelot Law Whyte first raised the issue in 1949.


11. For the original work that established the field, see *General System Theory*, by Ludwig von Bertalanffy (New York: Braziller, 1968).


13. The limit to growth of the S-curve is represented by the asymptote of the curve.