

## NOTES

### **Introduction**      **Coming Home**

1. Jessica Lipnack and Jeffrey Stamps, *The TeamNet Factor: Bringing the Power of Boundary Crossing into the Heart of Your Organization* (New York: John Wiley & Sons, 1993).
2. Jessica Lipnack and Jeffrey Stamps, *The Age of the Network: Organizing Principles for the 21st Century* (New York: John Wiley & Sons, 1994).
3. Jessica Lipnack and Jeffrey Stamps, *Networking: The First Report and Directory* (New York: Doubleday, 1982).
4. Jessica Lipnack and Jeffrey Stamps, *The Networking Book: People Connecting with People* (New York: Viking Penguin, 1986).
5. Jeffrey Stamps, *Holonomy: A Human Systems Theory* (Seaside, CA: Inter-systems Publications, 1980).
6. We organized the ten network principles in *Networking* in two groups of five: Structure (Holons, Levels, Decentralized, Fly-Eyed, and Poly-cephalous) and Process (Relationships, Fuzziness, Nodes and Links, Me and We, and Values).
7. The five networking principles in *The TeamNet Factor* and *The Age of the Network* are: Unifying Purpose, Independent Members, Voluntary Links, Multiple Leaders, and Integrated Levels. We represent all of these concepts in the nine principles of *Virtual Teams*.

### **Chapter I**      **Why Virtual Teams**

1. According to the *Merriam Webster Collegiate Dictionary*, 10th ed., the correct way to spell this word is “collocated.” Some people prefer “co-located.” We went with the dictionary.
2. “Teams Become Commonplace in U.S. Companies,” *The Wall Street Journal*, November 29, 1995, p. 1.
3. The source for annual global PC sales is Windows Internet Magazine World Wide Web site, [www.winmag.com](http://www.winmag.com).
4. The source for annual global cellular phone sales is Action Cellular’s World Wide Web site, [www.snider.com](http://www.snider.com).
5. An excellent source of information about the Internet is available from Matrix Information and Directory Services: [www.matrix.org](http://www.matrix.org). Its careful

research makes valuable distinctions between computer networks, email connections, number of computer servers, and the like. Since there is no universally accepted definition of “the Internet,” it is impossible to precisely calculate its growth.

6. This is the subtitle of Ray Grenier and George Metes’ book, *Enterprise Networking: Working Together Apart* (Bedford, MA: Digital Press, 1992).
7. For more on the relationship between proximity and collaboration, see Thomas J. Allen, *Managing the Flow of Technology: Technology Transfer and the Dissemination of Technological Information within the R&D Organization* (Cambridge, MA: MIT Press, 1977). Data are given in *The Age of the Network*, p. 47.
8. E. T. Hall, *The Hidden Dimension* (Garden City, NY: Doubleday, 1966).
9. For more on CERN, see its World Wide Web site: [www.cern.ch](http://www.cern.ch).
10. Computer visionary Doug Engelbart, who in 1968 invented both the mouse and pull-down windows in computer programs, also designed his earliest systems in hypertext. For more information on Engelbart’s work, see his World Wide Web site: [www.bootstrap.org](http://www.bootstrap.org).
11. Virtuous is the term for positive feedback popularized by Peter Senge. See his book, *The Fifth Discipline: The Art and Practice of the Learning Organization* (New York: Doubleday/Currency, 1990).
12. Bernard DeKoven, *Connected Executives: A Strategic Communications Plan* (Palo Alto, CA: Institute for Better Meetings, 1990).

## **Chapter 2    Teaming from the Beginning**

1. For more on the importance of the span of influence, see Reuben T. Harris, “Think Spans of Influence, Not Spans of Control,” *The Tom Peters Group Update 1*, No. 2 (1991).
2. Alvin Toffler, *The Third Wave* (New York: William Morrow, 1990).
3. In our book, *The Age of the Network*, we describe the evolution of organization through these four eras on pages 12—13.
4. For an insightful and detailed look at the varieties of bureaucracy and their different paths of transition to networked organizations, see Raymond E. Miles and Charles C. Snow, *Fit, Failure & the Hall of Fame: How Companies Succeed or Fail* (New York: The Free Press, 1994).
5. Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (Reading, MA: Addison-Wesley, 1993).
6. Among the harbingers is NetResults, the agency spanning network of U.S. bureaucrats, that came together in 1993 as a result of the federal Reinventing Government program. See Lipnack and Stamps, *The Age of the Network*, pp. 127—133.

7. Most subsiences, specialized disciplines, and research concentrations have what is colloquially known as a “standard model.” The standard model is the best current synthesis of available research, explanatory theory, and consensus thinking of the recognized leaders in a particular field. Of course, the model is always in motion and subject to reinterpretation with new information. By nature, the target of challenges, the model is also the productive source of new hypotheses and new ways to integrate existing information. For companies, their own “standard model” is what Peter Drucker calls their “theory of the business.”
8. Richard A. Guzzo, Eduardo Salas, and Associates, *Team Effectiveness and Decision Making in Organizations* (San Francisco: Jossey-Bass, 1995), p. 115.
9. In systems parlance, this is the *sine qua non* characteristic of “nonsummativity,” meaning that the whole is greater than the sum of the parts.
10. As the 1996 quote begins: “Teams share the foregoing characteristics with small groups, with one additional characteristic.” Guzzo et al., *Team Effectiveness and Decision Making in Organizations*, p. 115.
11. An oft-quoted research definition of teams offers the three small group characteristics together with a task-oriented purpose: “Teams are distinguishable sets of two or more individuals who interact interdependently and adaptively to achieve specified, shared, and valued objectives.” Guzzo et al., *Team Effectiveness and Decision Making in Organizations*, pp. 13 and 115.
12. CALS stands for Computer-assisted Acquisition and Logistic Support.
13. Robert Kraut and Carmen Egido, “Patterns of Contact and Communication in Scientific Research Collaboration,” *Computer-Supported Cooperative Work*, Conference Proceedings (New York: Association for Computing Machinery, 1988).
14. Grenier and Metes, *Enterprise Networking*.

### **Chapter 3     The Power of Purpose**

1. Robert Joines, “Eastman’s Quality Journey: Chapter One” (presented at the Quest for Excellence Conference, Washington, DC, February 1994).
2. Lipnack and Stamps, *The Age of the Network*, pp. 52—58.
3. Ibid.
4. Lipnack and Stamps, *The Age of the Network*, p. 14.
5. E-mail from Yuriy Wowezuk, May 15, 1996.
6. Inscription on Hopkins Memorial Steps, Williams College, Williamstown, MA.
7. Peter F. Drucker, “The Age of Social Transformation,” *Atlantic Monthly* (November 1994), pp. 36—41.

## **Chapter 4 Through the Worm Hole**

1. Technically, this high speed, high bandwidth connection is called a “switched T1 line.”
2. Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York: McGraw-Hill, 1964).
3. Lipnack and Stamps, *The Age of the Network*, p. 42.
4. Nicholas Negroponte, *Being Digital* (New York: Knopf, 1995).
5. For more information on the use of the word “matrix” see Matrix Information and Directory Services’ World Wide Web site: [www.matrix.org](http://www.matrix.org).
6. DeKoven, *Connected Executives*.

## **Chapter 5 Teaming with People**

1. Tetra Pak was established in Lund, Sweden, in 1951 as a subsidiary of Ak-erlund and Rausing, formed in 1930.
2. Information about Tetra Pak was gleaned from a Web search, including [www.westnet.se](http://www.westnet.se), a Swedish industry and trade Web site and “The News,” Portugal’s national newspaper.
3. Many details about the organization were provided in the translation of a chapter in Anders H6gstr6m, *Vinna Tillit* (Stockholm: Industrilitteratur, 1995).
4. Gary Hamel and C. K. Prahalad, “Core Competence of the Corporation,” *Harvard Business Review*, May 1990, pp. 79—91.
5. H6gstr6m, *Vinna Tillit*, p. 14.
6. Arthur Koestler, *The Ghost in the Machine* (London: Hutchinson & Co., 1967). The holon has been part of our conceptual family for three decades now. Jeff found the hierarchy concept so pervasive in the systems literature, and the word holon so elegant in capturing the essence of the idea, that he titled his doctoral dissertation (and his 1980 book by the same name) *Holonomy*, which means “the study of holons.” The holon “wholepart” was first among the ten principles of our first two books. Although we had sharpened the principles to five in *The TeamNet Factor* and *The Age of the Network*, in both books, we reintroduced the holon idea at the very end as part of the underlying systems framework supporting the network principles.
7. Herbert Simon, “The Architecture of Complexity,” *Proceedings of the American Philosophical Society*, 1962.
8. Motorola 1995 Summary Annual Report, p. 10.
9. Luther P. Gerlach and Virginia Hine, *People, Power, Change: Movements of Social Transformation* (New York: Bobbs-Merrill, 1970).

10. Allen W. Johnson and Timothy Earle, *The Evolution of Human Societies: From Foraging Group to Agrarian State* (Palo Alto, CA: Stanford University Press, 1987), p. 52.
11. This is known as “metonymy” in that branch of cognitive science that looks at thinking through the categories (mental models) we use.
12. Lipnack and Stamps, *The Age of the Network*, p. 84, and *The TeamNet Factor*, pp. 47—49.
13. Glenn M. Parker, *Team Players and Teamwork: The New Competitive Business Strategy* (San Francisco: Jossey-Bass, 1991), p. 53.
14. Lipnack and Stamps, *The Age of the Network*, p. 85.
15. Johnson and Earle, *The Evolution of Human Societies*, p. 320.
16. Lipnack and Stamps, *The TeamNet Factor*, p. 13.
17. Research has repeatedly demonstrated the inverted “U”—shaped relationship between size and performance. Paul S. Goodman and Associates, *Designing Effective Work Groups* (San Francisco: Jossey-Bass, 1986), p. 16.
18. Robert Reich, “Entrepreneurship Reconsidered: The Team as Hero,” *Harvard Business Review* (May-June 1987).

## **Chapter 6    It’s All in the Doing**

1. James Grier Miller, *Living Systems* (New York: McGraw-Hill, 1978).
2. Lipnack and Stamps. *The Age of the Network*, p. 231.
3. Gilbert Amelio and William Simon, *Profit From Experience* (New York: Van Nostrand Reinhold, 1996).
4. Ludwig von Bertalanffy, *General Systems Theory: Foundations, Development, Applications* (rev. ed.) (New York: George Braziller, 1968).
5. Lipnack and Stamps, *The TeamNet Factor*, pp. 221—223.
6. *Ibid.*, Chapters 8—10.
7. Senge, *The Fifth Discipline*.
8. Technically, “slowing” is negative feedback, “growing” is positive feedback.
9. Jessica Lipnack and Jeffrey Stamps, “The Virtual Water Cooler: Solving the Distance Problem in Networks,” *Firm Connections 1*, No. 2 (May-June 1993).
10. Dean W. Tjosvold and Mary M. Tjosvold, *Leading the Team Organization: How to Create an Enduring Competitive Advantage* (New York: Macmillan, 1991); Dean W. Tjosvold, *Working Together to Get Things Done: Managing for Organizational Productivity* (Lexington, MA: D.C. Heath, 1986).
11. Tjosvold, *Working Together to Get Things Done*, pp. 32—33.

12. We intentionally use codependent, the popular word from psychology, here. Codependent relationships are not healthy. Used in relationship to the world of work, the word means that one person can win only if someone else loses.
13. *MacWEEK*, June 24, 1996, p. 68.
14. Lipnack and Stamps, *The Age of the Network*, pp. 16—17, and *The TeamNet Factor*, p. 11; Adam M. Brandenberger and Barry J. Nalebuff, *Competition: A Revolutionary Mindset That Combines Competition and Cooperation: A Game Theory Strategy That's Changing the Game of Business* (New York: Doubleday, 1996).
15. For more on this, see Lipnack and Stamps, *The Age of the Network*, Chapter 8.

## **Chapter 7    Virtual Place**

1. Sun is an acronym for Stanford University Network. Three of Sun's founders were Stanford alumni. Their mission was to build a company "to provide 'open' desktop computers at one-tenth the cost of existing systems."
2. Ryan Bernard, *Corporate Intranet: Create and Manage an Internal Web for Your Organization* (New York: John Wiley & Sons, 1996), p. 134.
3. Joshua Meyrowitz, *No Sense of Place: The Impact of Electronic Media on Social Behavior* (New York: Oxford University Press, 1985).
4. Ibid.
5. Ibid.
6. The Education Development Center was founded in 1958 by a group of MIT scientists to develop a new curriculum for high school physics. Today it is an international research and development organization "dedicated to building talent and know-how for human advancement."
7. Grenier and Metes, *Going Virtual*.
8. Lipnack and Stamps, *The TeamNet Factor*, pp. 31—34.
9. For more information on Lynx, start at either the Lynx Enhanced Pages at <http://www.nyu.edu/pages/wsn/subir/lynx.html> or Al Gilman's FAQ (frequently asked questions) at <http://www.access.digex.net/~asgilman/lynx/FAQ>.
10. Kathleen K. Mall and Sirkka L. Jarvenpaa, "Learning to Work in Distributed Global Teams." This paper is available online at the World Wide Web site: [uts.cc.utexas.edu/~bgac313/hicss.html](http://uts.cc.utexas.edu/~bgac313/hicss.html).
11. Robert K. Greenleaf, *Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness* (Mahwah, NJ: Paulist Press, 1977).
12. TCP/IP means Transmission Control Protocol/Internet Protocol.

13. Lipnack and Stamps, *The TeamNet Factor*, p. 331.
14. Bernard, *Corporate Intranet*, p. 136.

## **Chapter 8 Working Smart**

1. In planning sessions with teams, we peel back purpose from goals to results to tasks, the activities necessary to get from here (goals) to there (results). Lipnack and Stamps, *The Age of the Network*, p. 166, and *The TeamNet Factor*, p. 255.
2. Lipnack and Stamps, *The TeamNet Factor*, Chapter 10.
3. TeamFlow is produced by CFM, Inc., 60 The Great Road, P.O. Box 353, Bedford, MA 01730—0353; phone: 617/275—5258; e-mail: VTInfo@TeamFlow.com; and World Wide Web site: www.teamflow.com.
4. For readers of our previous books, the Virtual Team Pocket Tool is the next iteration of the model we have been developing since 1979.
5. Guzzo, Salas, and Associates, *Team Effectiveness and Decision Making in Organizations*.

## **Chapter 9 Virtual Values**

1. For an extended study of Harry Brown and EBC Industries, see Lipnack and Stamps, *The TeamNet Factor*, pp. 137—139, and *The Age of the Network*, pp. 79—85.
2. The Deming quote is from the foreword to John O. Whitney, *The Trust Factor: Liberating Profits and Restoring Corporate Vitality* (New York: McGraw-Hill, 1994), p. viii.
3. *Ibid.*, pp. 18—19.
4. Lee Sproull quote is from “Virtual Teams,” by Beverly Geber, *Training*, April 1995. See also Sproull and Sara Kiesler, *Connections: New Ways of Working in the Networked Organization* (Cambridge, MA: MIT Press, 1993).
5. Gates is referring to the use of keyboard symbols to depict people’s feelings. Called “emoticons” (the computer-lingo contraction for emotional icons), they must be read horizontally to make sense and include such symbols as the “smiley face” that Gates references: :-) For a wink: ;-) For sadness: :-(
6. John Case, *Open Book Management* (New York: HarperCollins, 1996) and John Schuster, *The Power of Open Book Management* (New York: John Wiley & Sons, 1996).
7. James S. Coleman, “Social Capital in the Creation of Human Capital,” *American Journal of Sociology* (1988 Supplement), S98.

8. Ibid.
9. Robert D. Putnam, "Bowling Alone: America's Declining Social Capital," *Journal of Democracy* 6, No. 1 (January 1995), pp. 65—78, and "Bowling Alone, Revisited," *The Responsive Community* (Spring 1995), pp. 13—33.
10. Robert D. Putnam, *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton, NJ: Princeton University Press, 1993). See also Lipnack and Stamps, *The Age of the Network*, Chapter 8, for a broader discussion.
11. Tariq Banuri, Goran Hyden, Calestous Juma, and Marcia Rivera, "Sustainable Human Development: From Concept to Operation: A Guide for the Practitioner" (discussion paper, United Nations Development Programme, 1994), p. 21.
12. For more information on Smart Valley, see its World Wide Web page: [www.svi.org](http://www.svi.org).
13. For more information on Joint Venture Silicon Valley Network, see its World Wide Web page: [www.jointventure.org](http://www.jointventure.org).
14. AnnaLee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge, MA: Harvard University Press, 1994) and Lipnack and Stamps, *The Age of the Network*, Chapter 8.
15. Ibid.
16. See *Grassroots Leaders in the New Economy: How Civic Entrepreneurs Are Building Prosperous Communities* by Douglas Henton, John Melville, and Kimberly Walesh (San Francisco: Jossey-Bass, 1997). Henton and his colleagues did the original research that led to the formation of Joint Venture Silicon Valley Network and have served as its principal consultants since its inception. For more information, contact them at: Collaborative Economics, 350 Cambridge Avenue, Suite 200, Palo Alto, CA 94306 phone: 415/614—0230; fax: 415/614—0240; e-mail: CoEcon@aol.com.
17. Our colleague, Charles Snow, Professor of Business Administration at the Pennsylvania State University, believes the most successful networks are in fact "cellular organizations."
18. Banuri, Hyden, Juma, and Rivera, "Sustainable Human Development," p. 19.
19. The Great Plains Partnership (GPP) was initiated by then Governor Mike Hayden of Kansas, under the auspices of the Western Governors' Association, which maintains an active role in the group. For more information about GPP, see its home page: <http://llrrbin.cfa.org/rrbin/gpp/gpphome.html>.
20. "Webmaster" is the term that refers to the person who designs and maintains a World Wide Web site.
21. *The Wall Street Journal*, June 13, 1996, B1.