

COMM 810
The Information Society
Communication Studies
University of Michigan
Fall 2005

Instructor: W. R. Neuman
Office Hours: Wednesdays 2:00 – 4:00
and by appt.
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Class Meetings:
Mondays 4:00 – 7:00PM
Room 2038 Frieze

James Beniger argues in *The Control Revolution* that the essence of the information society and similar notions such as post-industrial society and the network society really have their roots in the middle of the nineteenth century with the evolution of the railroads and mass production manufacturing which required the invention of massive control and tracking technologies to guide the behavior of people and machines. The late nineteenth century also witnessed the evolution of systematic social science – economics, psychology, anthropology, sociology, political science. Strangely, each of those disciplines paid only marginal attention to the industrial and information revolutions swirling around the academy and society and focused their paradigmatic attentions primarily on other puzzles.

The organizing principle of this seminar is – what if history had evolved in just a slightly different way, in a way that systematic discipline-based research on information and communication processes and institutions and their influence on society and culture were central to the academy. No major university lacks departments of economics, sociology, anthropology or psychology but many do not have departments or even programs in information or communication studies. Such issues are handled at the margins of other departments, sometimes in the humanities, sometimes not at all.

If at the turn of the twentieth century when all the other social sciences were taking their modern form and developing their fundamental paradigmatic character and defining the key research puzzles (in Kuhn's sense), what would communication/information/cultural studies have looked like then, and what would it have evolved into now a hundred years later?

Let's take as a starting point that the field of communication studies' defining paradigm is simply *the study of how practices, norms and institutions develop to structure the flow of information in society*. We would expect that various elites and identity groups would struggle with each other to try structure communication norms to reinforce their political or economic advantage or their particular viewpoint. The normative grounding of this evolving discipline, then, would be a commitment to *a free and open marketplace of ideas*, so given the inevitably uneven resources of different groups, they can compete on a playing field which is as even as possible culturally, economically and politically. The history of most communist and capitalist regimes in the twentieth century is a rather sad narrative of each set of elites doing their very best to

cancel or distort any ideas that might threaten the regime's hegemony. It's an important puzzle. Some lawyers and a few political scientists ponder these issues. Such questions, however, may merit even more extensive and sustained attention.

This field of research has a micro as well as macro component. One central question is how does the modern human brain which evolved through five million years of hunting and gathering deal with the complex explosion of the text and imagery of the modern media system. Verbal language has probably been a resource for humans for less than ten percent of that history, written language for a small fraction of one percent of that history, electronic communication for a tiny fraction of that tiny fraction. The cognitive capacity of humans to learn verbal language, to read and to filter, interpret and ignore communication flows in the modern information society is truly amazing. How did this happen? Is there a prospect of linking macro and micro research on human information processing and the evolution of cultural institutions?

The readings for this seminar are intensely interdisciplinary. We will be reading some history, anthropology, cultural studies, evolutionary biology, psychology, linguistics, information theory, physics, sociology, economics, network theory, and semiotics. Mind-stretching in the best sense of the phrase. Students are expected to complete a paper interpreting a subset of this broad literature in terms useful for their own research agenda. Thus one student's paper might serve as a part of a dissertation literature review; another might serve as the basis for a course to be taught in the future; another might represent a publishable critical analysis. A thematic encouraged (but not required) for these exercises is the seminar's theme – how might the academic domains of communication, cultural and information studies have turned out differently as a field of scholarship?

A coursepack is available at www-personal.umich.edu/~rneuman/infosoc. The userid is 'info' and the password is 'soc'. There is also an extensive bibliography for further reading.

The seminar is structured around the following key topical areas:

The Industrial Revolution

The Era of the Dominant Mass Media

The Digital Revolution

The Evolution of the Communication Effects Paradigm

The Semiotic Paradigm

The Paradigm of the Information Sciences

The Embodied Mind: Human Communication in Evolutionary Perspective

The Micro Structure of Human Communication

The Macro Structure of Human Communication

The Information Society

Weekly Reading Assignments

Week 1 Sept 12

The Industrial Revolution

- Beniger, James R. (1986). *The Control Revolution: Technological and Economic Origins of the Information Society*. Cambridge, MA, Harvard University Press. *Passim*.
- Nisbet, Robert (1966). *The Sociological Tradition*. New York, Free Press. Part I
- Craig, Robert T. (1999). "Communication Theory as a Field." *Communication Theory* 9(2): 119-161.

Week 2 Sept 19

The Era of the Dominant Mass Media

- Lasswell, Harold (1948). *The Structure and Function of Communications in Society*. The Communication of Ideas. Lyman Bryson. New York, Harper: 37-51.
- Lazarsfeld, Paul F. and Robert K. Merton (1948). *Mass Communication, Popular Taste, and Organized Social Action*. The Communication of Ideas. L. Bryson. New York, Harper: 95-118.
- Habermas, Jurgen ([1962] 1989). The Structural Transformation of the Public Sphere. Cambridge, MIT Press.

Week 3 Sept 26

The Digital Revolution

- Bell, Daniel (1973). *The Coming of Post-Industrial Society: A Venture in Social Forecasting*. New York, Basic Books. *Passim*.
- Neuman, W. Russell (1991). "The Logic of Electronic Integration" Ch 2 in *The Future of the Mass Audience*. New York, Cambridge University Press.

Week 4 Oct 3

The Evolution of the Communication Effects Paradigm

- Delia, Jessie G. (1987). *Communication Research: A History*. Handbook of Communication Science. Charles R. Berger and Steven H. Chaffee. Newbury Park CA, Sage: 20-98.
- Klapper, Joseph (1960). The Effects of Mass Communications. New York, Free Press.
- Hovland, Carl, Irving Janis and Harold H. Kelley (1953). Communication and Persuasion. New Haven: Yale University Press.
- Hovland, Carl (1959). "Reconciling Conflicting Results Derived from Experimental and Survey Studies of Attitude Change." American Psychologist 14: 8-17.

Week 5 Oct 10

The Semiotic Paradigm

Locke, John ([1689] 1994). An Essay Concerning Human Understanding. Amherst NY, Prometheus Books. *Passim*.

Leeds-Hurwitz, Wendy (1993). Semiotics and Communication: Signs, Codes, Cultures. Mahwah NJ, Erlbaum. *Passim*.

[Fall Break]

Week 6 Oct 24

The Paradigm of the Information Sciences

Shannon, Claude E. and Warren Weaver ([1949] 1963). The Mathematical Theory of Communication. Urbana, University of Illinois.

Case, Donald O. (2002). Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior. San Diego, Academic Press

Week 7 Oct 31

The Embodied Mind:**Human Communication in Evolutionary Perspective**

Lakoff, George and Mark Johnson (1999). Philosophy in the Flesh: The Embodied Mind and Its challenge to Western Thought. New York, Basic Books.
Chapter 1

D'Andrade, Roy G. (1995). The Development of Cognitive Anthropology. New York, Cambridge University Press. *Passim*.

Hauser, Marc D. (1996). The Evolution of Communication. Cambridge, MIT Press. *Passim*.

Deacon, Terrence W. (1997). The Symbolic Species. New York, Norton. *Passim*.

Kahneman, Daniel, Paul Slovic and Amos Tversky, Eds. (1982). Judgment under Uncertainty. New York, Cambridge University Press.

Week 8 Nov 7

The Micro Structure of Human Communication

Pashler, Harold E. (1999). The Psychology of Attention. Cambridge, MIT Press.

Garrett, R. Kelly (2005). Exposure to Controversy in an Information Society. School of Information. Ann Arbor MI, University of Michigan. Ph.D. Dissertation Chapter 2.

Miller, George A. (1956). "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information." Psychology Review 63: 81-97.

Monroe, Kirsten Renwick, James Hankin and Renee Bukovchik Van Vechten (2000). "The Psychological Foundations of Identity Politics." Annual Review of Psychology 3: 419-447.

Chomsky, Noam (2000). New Horizons in the Study of Language and Mind. New York, Cambridge University Press.

Week 9 Nov 14

The Macro Structure of Human Communication

- Neuman, W. Russell (1991). "Two Theories of the Communication Revolution"
Ch 1 in *The Future of the Mass Audience*. New York, Cambridge
University Press.
- Michels, Robert ([1911] 1962). Political Parties: A Sociological Study of
Oligarchical Tendencies of Modern Democracy. New York, Collier
Books.
- Downs, Anthony (1972). "Up and Down with Ecology: The Issue Attention
Cycle." Public Interest 28: 38-50.
- Davis, Kingsley and Wilbert E. Moore (1945). "Some Principles of
Stratification." American Sociological Review 10(2): 242-249.
- Rosenberg, Nathan and L. E. Birdzell Jr. (1986). How the West Grew Rich: The
Economic Transformation of the Industrial Revolution. New York, Basic
Books.
- Collins, Randall (1998). The Sociology of Philosophies: A Global Theory of
Intellectual Change. Cambridge, Harvard University Press.
- Garud, Raghu and Peter Karnoe, Eds. (2001). Path Dependency and Creation.
Mahwah NJ, Erlbaum.
- Newman, Mark E. J. (in press). "Power laws, Pareto distributions and Zipf's law."
Contemporary Physics.
- Aunger, Robert (2002). The Electronic Meme: A New Theory of How We Think.
New York, The Free Press.

Week 10 Nov 21 **The Information Society**

- Castells, Manuel (1996). The Rise of the Network Society. Malden MA,
Blackwell Publishers.
- Van Dijk, Jan (1999). The Network Society: Social Aspects of New Media.
Thousand Oaks CA, Sage.
- Webster, Frank (2002). *Theories of the Information Society*. New York,
Routledge. 2nd Ed.

Week 11 Nov 28 TBA [No class this date]

Week 13 Dec 5 TBA

Week 14 Dec 12 TBA

Resource Readings

- Adams, Frederick (2003). "The Informational Turn in Philosophy." Minds and Machines 13: 471-501.
- Alexander, Jeffrey C., et al., Eds. (1987). The Micro-Macro Link. Berkeley: University of California Press.
- Alford, Robert R. and Roger Friedland (1985). Powers of Theory: Capitalism, the State and Democracy. Cambridge: Cambridge University Press.
- Almes, Gary T. (1997). IP Performance Metrics. Coordinating the Internet. Brian Kahin and James H. Keller. Cambridge: MIT Press: 423-437.
- Altheide, David L. (1995). An Ecology of Communication: Cultural Formats of Control. Hawthorne NY: Aldine de Gruyter.
- Anderson, Benedict (1983). Imagined Communities. London: Verso.
- Arrow, Kenneth J. (1984). Information and Economic Behavior. The Economics of Information. Kenneth J. Arrow. Cambridge: Harvard University Press: 139-166.
- Arthur, W. Brian (1989). "Competing Technologies, Increasing Returns and Lock-In by Historical Events." Economic Journal 99(Mar): 116-131.
- Arthur, W. Brian (1990). "Positive Feedback in the Economy." Scientific American 262(Feb): 92-99.
- Arthur, W. Brian (1994). Increasing Returns and Path Dependence in the Economy. Ann Arbor: University of Michigan Press.
- Arthur, W. Brian (1999). "Complexity and the Economy." Science 2(April): 107-109.
- Barber, Benjamin R. (1995). Jihad vs. McWorld: How Globalism and Tribalism are Reshaping the World. New York: Random House.
- Barney, Jay B. (1996). Gaining and Sustaining Competitive Advantage. Reading MA: Addison-Wesley.
- Bates, Benjamin J. (1990). Information as an Economic Good: A Reevaluation of Theoretical Approaches. Mediation, Information and Communication: Information and Behavior, Volume 3. Brent Ruben and Leah A. Lievrouw. New Brunswick NJ: Transaction Books: 379-394.
- Bateson, Gregory (1972). Steps to an Ecology of Mind. Chicago: University of Chicago Press.
- Bell, Daniel (1981). The Social Framework of the Information Society. The Microelectronics Revolution. Tom Forester. Cambridge: The MIT Press: 500-549.
- Bell, Daniel (1982). The 'Information Revolution': A Schematic Framework. Cambridge, Harvard University.
- Beniger, James R. (1986). The Control Revolution: Technological and Economic Origins of the Information Society. Cambridge, MA: Harvard University Press.
- Beniger, James R. (1986). The Information Society: Technological and Economic Origins. Media, Audience and Social Structure. Sandra J. Ball-Rokeach and Muriel Cantor. Beverly Hills: Sage: 51-70.
- Beniger, James R. (1993). "Communication--Embrace the Subject, not the Field." Journal of Communication 43(3): 18-25.
- Blackmore, Susan (1999). The Meme Machine. New York: Oxford University Press.

- Blumler, Jay G., Jack M. McLeod and Karl Erik Rosengren, Eds. (1992). Comparatively Speaking: Communication and Culture Across Space and Time. Sage Annual Reviews of Communication Research. Newbury Park CA: Sage.
- Bourdieu, Pierre (1991). Language & Symbolic Power. Harvard University Press.
- Bourdieu, Pierre (1993). The Field of Cultural Production. Columbia University Press.
- Bourdieu, Pierre (1998). Practical Reason: On the Theory of Action. Stanford University Press.
- Bourdieu, Pierre and Loic J. D. Wacquant (1992). An Invitation to Reflexive Sociology. University of Chicago Press.
- Brown, Richard D. (1989). Knowledge is Power: The Diffusion of Information in Early America. New York: Oxford University Press.
- Bruner, Jerome (1986). Actual Minds, Possible Worlds. Cambridge: Harvard University Press.
- Bryant, Jennings (2004). "Critical Communication Challenges For the New Century." Journal of Communication (54): 389-401.
- Bryant, Jennings and Dorina Miron (2004). "Theory and Research in Mass Communication." Journal of Communication 54(4): 662-704.
- Brynjolfsson, Eric (1993). "The Productivity Paradox of Information Technology." Proceedings of the ACM 36(12): 66-77.
- Cappella, Joseph N. (1996). "Why Biological Explanation." Journal of Communication 46(3): 4-7.
- Carey, James W. (1988). Communication as Culture: Essays on Media and Society. Boston: Unwin Hyman.
- Carr, Nicholas (2004). Does IT Matter? Boston: Harvard Business School Press.
- Case, Donald O. (2002). Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior. San Diego: Academic Press
- Casson, Mark (1997). Information and Organization: A New Perspective on the Theory of the Firm. Oxford UK: Clarendon Press.
- Chance, Michael R. A. and Ray R. Larsen, Eds. (1976). The Social Structure of Attention. London: John Wiley.
- Chandler, Alfred D., Jr. and James W. Cortada, Eds. (2000). A Nation Transformed by Information: How Information has Shaped the United States from Colonial Times to the Present. New York: Oxford University Press.
- Cherry, Colin (1980). On Human Communication: A Review, a Survey, and a Criticism. Cambridge: MIT.
- Chomsky, Noam (1972). Language and Mind. New York: Harcourt Brace.
- Chomsky, Noam (2000). New Horizons in the Study of Language and Mind. New York: Cambridge University Press.
- Chomsky, Noam, Adriana Belletti and Luigi Rizzi, Eds. (2002). On Nature and Language. New York: Cambridge University Press.
- Christensen, Clayton M. (1997). The Innovator's Dilemma : When New Technologies Cause Great Firms to Fail. Boston: Harvard Business School Press.
- Clark, Terry Nichols (1973). Prophets and Patrons : The French University and the Emergence of the Social Sciences. Cambridge: Harvard University Press.
- Cobban, Alan B. (1999). English University Life in the Middle Ages. Columbus: Ohio State University Press.
- Coleman, James S. (1990). Foundations of Social Theory. Cambridge: Harvard University Press.

- Collins, Randall (1981). "The Microfoundations of Macrosociology." American Journal of Sociology 86: 984-1014.
- Collins, Randall (1998). The Sociology of Philosophies: A Global Theory of Intellectual Change. Cambridge: Harvard University Press.
- Coren, Richard (1998). Evolutionary Trajectory: The Growth of Information in the History and Future of Earth Boca Raton FL: CRC Press.
- Cowan, Nelson (1998). Attention and Memory: An Integrated Framework. New York: Oxford University Press.
- Craig, Robert T. (1999). "Communication Theory as a Field." Communication Theory 9(2): 119-161.
- Dahling, Randall. L. (1957). Shannon's Information Theory: The Spread of an Idea, Stanford.
- D'Andrade, Roy G. (1995). The Development of Cognitive Anthropology. New York: Cambridge University Press.
- Davis, Kingsley and Wilbert E. Moore (1945). "Some Principles of Stratification." American Sociological Review 10(2): 242-249.
- Dawkins, Richard (1976). The Selfish Gene. New York: Oxford University Press.
- Deacon, Terrence W. (1997). The Symbolic Species. New York: Norton.
- Dertouzos, Michael (1997). What Will Be: How the New Information Marketplace Will Change Our Lives. San Francisco: Harper.
- Devlin, Keith (1997). Mathematics: The Science of Patterns. New York: Freeman.
- DiMaggio, Paul, John Evans and Bethany Bryson (1996). "Have Americans' Social Attitudes Become More Polarized?" American Journal of Sociology 102(3): 690-755.
- Dizard, Wilson P., Jr. (1989). The Coming Information Age: An Overview of Technology, Economics, and Politics, 3rd Edition. New York: Longman.
- Dordick, Hebert (1982). Information Society Indicators: Description, Measurement, and Prediction. Information Societies. Alex S. Edelstein, John E. Bowles and Sheldon M. Harsel. Seattle: University of Washington Press.
- Dordick, Herbert S. and Georgette Wang (1993). The Information Society. Newbury Park CA: Sage.
- Downs, Anthony (1957). An Economic Theory of Democracy. New York: Harper & Row.
- Downs, Anthony (1972). "Up and Down with Ecology: The Issue Attention Cycle." Public Interest 28: 38-50.
- Drake, William, Ed. (1995). The New Information Infrastructure: Strategies for U.S. Policy. Washington DC: The Twentieth Century Fund Press.
- Dretske, Fred I (1981). Knowledge and the Flow of Information. Cambridge: MIT Press.
- Dryzek, John S. (1995). Critical Theory as a Research Program. The Cambridge Companion to Habermas. Stephen K. White. New York: Cambridge University Press.
- Durham, William H. (1991). Coevolution: Genes, Culture and Human Destiny. Stanford: Stanford University Press.
- Dutton, William H. and Jay G. Blumler (1989). A Comparative Perspective of Information Societies. The Information Society: Economic, Social and Structural Issues. Jerry L. Salvaggio. Hillsdale NJ: Erlbaum: 63-88.

- Eatwell, John, Murray Millgate and Peter Newman, Eds. (1989). The New Palgrave: Allocation, Information, and Markets. New York: W. W. Norton.
- Edelstein, Alex S., John E. Bowles and Sheldon M. Harsel (1982). Information Societies. Seattle: University of Washington Press.
- Entman, Robert M. and Steven S. Wildman (1992). "Reconciling Economic and Noneconomic Perspectives on Media Policy-Transcending the Marketplace of Ideas." Journal of Communication 42(1): 5-19.
- Evans, John (2003). "Have Americans' Social Attitudes Become More Polarized? --An Update." Social Science Quarterly 84(1): 71-90.
- Freedman, Jonathan L. and David Sears (1965). Selective Exposure. Advances in Experimental Social Psychology, Volume 2. L. Berkowitz. Orlando: Academic Press. 2: 58-98.
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- Frickel, Scott and Neil Gross (2005). "A General Theory of Scientific/Intellectual Movements." American Sociological Review 70(2): 204-232.
- Fukuyama, Francis (1992). The End of History and the Last Man. Hammondsworth: Penguin.
- Galbi, Douglas A (2001). Communications Policy, Media Development and Convergence. Washington DC, Federal Communication Commission.
- Garner, Wendell R. (1962). Uncertainty and Structure as Psychological Concepts. New York: Wiley.
- Garrett, R. Kelly (2005). Exposure to Controversy in an Information Society. School of Information. Ann Arbor MI, University of Michigan. Ph.D.
- Gattiker, Urs E. (2001). The Internet as a Diverse Community: Cultural, Organizational and Political Issues. Mahwah NJ: Erlbaum.
- Geertz, Clifford (2000). Available Light: Anthropological Reflections on Philosophical Topics. Princeton: Princeton University Press.
- Giddens, Anthony, Ed. (1971). Capitalism & Modern Social Theory: An Analysis of the Writings of Marx, Durkheim and Max Weber. New York: Cambridge University Press.
- Giddens, Anthony, Ed. (1979). Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis. Berkeley: University of California Press.
- Giddens, Anthony, Ed. (1984). The Constitution of Society. Berkeley: University of California Press.
- Giddens, Anthony and Jonathan H. Turner, Eds. (1987). Social Theory Today. Stanford CA: Stanford University Press.
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- Grice, Paul (1989). Studies in the Way of Words. Cambridge: Harvard University Press.
- Gumperz, John J. and Stephen C. Levinson, Eds. (1996). Rethinking Linguistic Relativity. New York: Cambridge Univ Press.
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- Harrison, Lawrence E. and Samuel P. Huntington, Eds. (2000). Culture Matters How Values Shape Human Progress. New York: Basic Books.
- Hastorf, Albert H. and Hadley Cantril (1954). "They Saw a Game." Journal of Abnormal and Social Psychology XLIX: 129-234.
- Hauser, Marc D. (1996). The Evolution of Communication. Cambrdige: MIT Press.
- Hayek, F. A. (1945). "The Use of Knowledge in Society." American Economic Review 35(4): 519-530.
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- Hovland, Carl (1959). "Reconciling Conflicting Results Derived from Experimental and Survey Studies of Attitude Change." American Psychologist 14: 8-17.
- Howe, Leslie A. (1999). On Habermas. Belmont CA: Wadsworth.
- Huckfeldt, Robert, Paul E. Johnson and John Sprague (2004). Political Disagreement: The Survival of Diverse Opinions within Diverse Communication Networks. New York: Cambridge University Press.
- Huntington, Samuel P. (1991). The Third Wave: Democratization in the Late Twentieth Century. Norman OK: University of Oklahoma Press.
- Huntington, Samuel P. (1996). The Clash of Civilizations and the Remaking of World Order. New York: Simon & Schuster.
- Innis, Harold A. (1952). The Strategy of Culture. Toronto: University of Toronto Press.
- Jones, David A. (2002). "The Polarizing Effect of New Media Messages." International Journal of Public Opinion Research 14(2): 158-174.
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- Jussawalla, Meheroo and Yale M. Braunstein (1993). Information Theory and Telecommunications: A Review. Between Communication and Information. Jorge Schement and Brent Ruben. New Brunswick NJ: Transaction Books.
- Katz, Raul Luciano (1988). The Information Society: An International Perspective. New York: Praeger.
- King, Barbara J. (1994). Information Continuum: Evolution of Social Information Transfer in Monkeys Apes and Hominids. Santa Fe NM: School of American Research Press.
- Klapp, Orrin E. (1978). Opening and Closing: Strategies of Information Adaptation in Society. Cambridge: Cambridge University Press.
- Lakoff, George (1987). Women, Fire, and Dangerous Things: What Categories Reveal about the Mind. Chicago: University of Chicago Press.
- Lakoff, George and Mark Johnson (1980). Metaphors We Live By. Chicago: University of Chicago Press.
- Lakoff, George and Mark Johnson (1999). Philosphy in the Flesh: The Embodied Mind and Its challenge to Western Thought. New York: Basic Books.
- Lakoff, George and Rafael E. Nunez (2000). Where Mathematics Comes From: How the Embodied Mind Brings Mathematics Into Being. New York: Basic Books.
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- Leeds-Hurwitz, Wendy (1993). Semiotics and Communication: Signs, Codes, Cultures. Mahwah NJ: Erlbaum.
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- Lessig, Lawrence (1999). Code and Other Laws of Cyberspace. New York: Basic.
- Lessig, Lawrence (2001). The Future of Ideas: The Fate of the Commons in a Connected World. New York: Random House.
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- Lipowski, Z. J. (1971). "Surfeit of Attractive Information Inputs." Behavioral Science 16: 467-471.
- Locke, John ([1689] 1994). An Essay Concerning Human Understanding. Amherst NY: Prometheus Books.
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- Lumsden, Charles J. and Edward O. Wilson (1981). Genes, Mind and Culture. Cambridge, MA: Harvard University Press.
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- Mansell, Robin and Roger Silverstone, Eds. (1996). Communication By Design: The Politics of Information and Communication Technologies. New York: Oxford University Press.
- Mansell, Robin and Uta Wehn, Eds. (1998). Knowledge Societies: Information Technology for Sustainable Development. New York: Oxford University Press.
- Marder, Eric (1997). The Laws of Choice : Predicting Customer Behavior. New York: Free Press.
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