## Subject Index – Volume 49

Academic research and teaching productivities, 311 Acquired immune deficiency syndrome (AIDS), devastating effects of, 229 Acquisitions, going market value of business and, 257 Adaptive control, for international stability, 233 Advanced manufacturing technologies, energy consumption patterns and, 297 Affluence, intelligent manufacturing systems and, 195 African Americans, tuberculosis and, 231 Aggregation, of judgemental forecasts, 13 Alaskan oil spill, 109 Alcoholism, newly emerging diseases and, 231 Animals, newly emerging diseases and, 229 Artificially produced items, intelligent manufacturing systems and, 195 Autonomous feedback systems, eco-industry and, 165 Bacterial threats, 229 Bangladesh, flooding in, 89 Bibliometrics, technology opportunities and, 237 Big Bang/Big Crunch, 329 Biotechnology industry, capital market response to R&D process and, 75 Birth rates, imbalance in, 229 Breakthrough industries, in Japan, 147 Bubble economy, in Japan, 113, 127 Businesses business strategies in Japan, 113 going market value of, 257 California, modeling choice of telecommuting frequency in, 49 Capital markets, response of to R&D process, 75 Cellular communications industry, going market value and, 257 Chigyo-ka, in Japan, 147 Children, telecommuting frequency and, 49 Civilization, eco-industry and, 165 Climate change, man-made, whole-system thinking and, 1 Cognitive/sociotechnical paradigm, worn-out, 233 Collective environment management strategy, flooding in Himalayan subcontinent countries and, 89 Commercial technology, policy paradigms for, 35 Computers experience of dying reported on-line, 325 telecommuting frequency and, 49 Conditioning scenarios, judgemental probability forecasts and, 13

Conflict resolution, for international stability, 233 Constructive competition, intelligent manufacturing systems and, 195 Continuation, capital market response to R&D process and, 75 Corporate strategies, technology policy paradigms and, 35 Cosmology, 329 Cyberspace, experience dying of reported on-line in, 325 Death rates, imbalance in, 229 Decomposition, in assessment of judgmental probability forecasts, 13 Defensive position, technology policy paradigms and, 35 Deforestation, whole-system thinking and, 1 Demographics Japan and, 113 telecommuting frequency and, 49 Desertification, whole-system thinking and, 1 Diffusion-oriented policy paradigms, 35 Diseases, newly emerging, 229 Dying, experience of reported on-line, 325 Eco-industry, new perspective on, 165 Economic growth, Trilemma and, 175 Economic policy, flooding in Bangladesh and, 89 Economy of scale, going market value of business and, 257 Electric energy, Toshiba Corporation and, 215 Electricity consumption, advanced manufacturing technologies and, 297 Electronic databases, technology opportunities and, 237 Electronics, Toshiba Corporation and, 215 Emission reductions, telecommuting and, 49 Energy resources advanced manufacturing technologies and, 297 eco-industry and, 165 Toshiba Corporation and, 215 Trilemma and, 175 Environment environmental countermeasures and, 165 Toshiba Corporation and, 215 Trilemma and, 175 whole-system thinking and, 1 Epidemic diseases, elimination of, 229 Europe, intelligent manufacturing systems and, 195 Event study methodology, capital market response to R&D process and, 75 Evolution, policy in world of, 233 Exchange/exploitation power, 147

Family orientation, telecommuting frequency and, 49 Fast breeder reactor, Trilemma and, 175 Feedback loop, between technology and economic development, 127 Feedback systems, eco-industry and, 165 Fertilization, flooding in Bangladesh and, 89 Field-theoretic framework, for systems theory and systems thinking, 233 Financial factors, flooding in Bangladesh and, 89 Firm size, capital market response to R&D process and, 75 First movers, technology policy paradigms and, 35 Fisher-Pry model, generalized form of, 27 Flooding, in Bangladesh, 89 Follower countries, technology policy paradigms and, 35 Food production, Trilemma and, 175 Forecast adjustments, judgemental, 13 Foreign inventors, technology policy paradigms and, 35 Fossil fuels advanced manufacturing technologies and, 297 Trilemma and, 175 Fusion, of technologies, 215 Gender, telecommuting frequency and, 49 Generalized least squares equations, academic productivities and, 311 Genes, newly emerging diseases and, 231 Global environment, human society and, 165 Global intelplace, 147 Global productivity, intelligent manufacturing systems and, 195 Global system change, plausibility of, 1 Global village advanced society and, 109 newly emerging diseases and, 231 Going market value, of business, 257 Government-industry partnership, technology policy paradigms and, 35 Gross national product (GNP), Trilemma and, 175 Group of enterprises concept, 147 Growth parameter, for Fisher-Pry model, 27 Growth stimulation, capital market response to R&D process and, 75 Growth terms, multi-generation diffusion model and, 281 Hazardous emissions, judgemental probability forecasts and, 13 Hierarchical weighting, judgemental probability forecasts and, 13 High-technology product class, multi-generation diffusion model and, 281 Himalayan subcontinent, flooding and, 89 Holistic analysis, flooding in Bangladesh and, 89 Homeless population, newly emerging diseases and, 231 Homo sapiens, epidemic threats and, 229

Household, telecommuting frequency and, 49

Hunger, chronic, whole-system thinking and, 1 Hydrology, flooding in Bangladesh and, 89 ie principle, in Japan, 147 Ignorance, policy in world of, 233 Illegal immigrants, newly emerging diseases and, 231 Implementation, research with view to, 333 India, newly emerging diseases and, 231 Industrial development eco-industry and, 165 Japan and, 127, 147, 215 Industrial ecology, in Japan, 113 Industrialization newly emerging diseases and, 229 21st century system of, 147 Industrial revolution, intelligent manufacturing systems and, 195 Information/materials networks, eco-industry and, 165 Information profiles, technology opportunities and, 237 Information technology emerging industry and, 257 experience dying of reported on-line and, 325 Informatization, 147 Initiation, capital market response to R&D process and, 75 Integration, of technologies, 215 Intellectual property strategies, 35 Intellectualism, concept of, 147 Intelligent Manufacturing Dystem project, 195 Intelprises, in Japan, 147 International competition, technology policy paradigms and, 35 International research collaboration, Toshiba Corporation and, 215 Investors, capital market response to R&D process and, 75 Italy, Black Death and, 229 Japan Chigyo-ka and, 147 economy and, 113, 127 intelligent manufacturing systems and, 195 technology policy paradigms and, 35

Toshiba Corporation and, 215

Trilemma and, 175

Job tasks, telecommuting frequency and, 49

Joint-product production functions, academic productivities and, 311

Judgemental probability forecasts, assessment of, 13

Knowledge-based society, in Japan, 113

Learning, policy in world of, 233 Linear structural relations (LISREL), academic productivities and, 311 Lockheed Corporation, 103

2	20	١
э	33	,

Lotka-Volterra equations, 27 Mandel, Tom, 325 Manufacturing industry, in Japan, 113, 127, 195 Manufacturing plants, advanced manufacturing technologies and, 297 Market access, going market value of business and, 257 Market expansion, going market value of business and, 257 Market penetration models, 257 Materials flow, eco-industry and, 165 Meiji Restoration, 147, 195 Mergers, going market value of business and, 257 Microbe heavens, newly emerging diseases and, 229 Micro-micro theory approach, academic productivities and, 311 Militarization, 147 Milk container technology, multi-generation diffusion model application to, 281 Mission-oriented policy paradigms, 35 Modernization, intelligent manufacturing systems and, 195 Mongolia, Black Death and, 229 Monitoring, technology opportunities and, 237 Multi-generation diffusion model, milk container technology and, 281 Multichip module development, technology opportunities and, 237 Multidimensional feedback systems, eco-industry and, 165 Multimedia industries, in Japan, 147 Multinomial logit models, telecommuting frequency and, 49 Mutual interdependence, Trilemma and, 175 Natural resources, Trilemma and, 175 Network-oriented society, Japan as, 147 New paradigm, 233 New-product introduction, capital market response to R&D process and, 75 Newtonian paradigm, 233 Nonlinearity, policy changes in world of, 233 Nonproductive ventures, capital market response to R&D process and, 75 Normative concern, technology management and, 109 North America, intelligent manufacturing systems and, 195 Ocean pollution, newly emerging diseases and, 231 Offensive position, technology policy paradigms and, 35 Office of Technology Assessment (OTA), abolishing, 321 Ordinary least squares equations, academic productivities and, 311 Overcrowding, newly emerging diseases and, 229

Overkill, environmental, 165 Ozone hole, newly emerging diseases and, 231 Pacific region, intelligent manufacturing systems and, 195 Packaging technology, multi-generation diffusion model and, 281 Parasitic threats, 229 Partial probability information, about conditioning scenarios, 13 Patents Japanese, 35 technology opportunities and, 237 Percieved threat, motivation and, 103 Personal reasons, telecommuting frequency and, 49 Persuasion/induction power, 147 Plague, coming, 229 Policymaking, systems-based approach to, 233 Political factors, flooding in Bangladesh and, 89 Population explosion global, 229 Trilemma and, 175 Povertv flooding and, 89 newly emerging diseases and, 229 whole-system thinking and, 1 Predictions, of future, 329 Pricing, multi-generation diffusion model and, 281 Probability statements, consistency of, 13 Public agencies, telecommuting frequency and, 49 Publications, technology opportunities and, 237 Public health, newly emerging diseases and, 229 Quantification, whole-system thinking and, 1 R&D capital markets and, 75 going market value of business and, 257 Japan and, 113, 127 technology opportunities and, 237 technology policy paradigms and, 35

Toshiba Corporation and, 215

Rational concern, technology management and, 109

Rationalism, technology management and, 109

Recycling loops, eco-industry and, 165

Remission, flooding in Himalayan subcontinent countries and, 89

- Renaissance, manufacturing, 195
- Renewable energy development, Trilemma and, 175
- Research productivities, academic, 311
- Resource development, newly emerging diseases and, 229
- Respondent, judgemental probability forecasts and, 13

Rigid orders, environmental overkill and, 165 Rulers, school for, 233 Scheduling, telecommuting frequency and, 49 Schumpeterian hypothesis, academic productivities and, 311 Secondary analyses, technology opportunities and, 237 Self-organizing Earth, 165 Sharables, 147 Short-run orientation, capital market response to R&D process and, 75 Siltation, flooding in Bangladesh and, 89 Skunk Works, 103 Slum, urban, newly emerging diseases and, 231 Smallpox, eradication of, 229 Social policy, academic productivities and, 311 Social revolution, in Japan, 147 Society, human, eco-industry and, 165 Software, technology opportunities and, 237 Soil pollution, newly emerging diseases and, 231 Spaceship Earth, 165 Stock market, capital market response to R&D process and, 75 Strategic alliances going market value of business and, 257 Toshiba Corporation and, 215 Structural change, policy changes in world of, 233 Supervisory status, telecommuting frequency and, 49 Synergistic relationships, between technology policy and intellectual property system, 35 System change, global, 1 Systems-based approach, to policymaking, 233 Systems-science-based analysis, of flooding in Bangladesh, 89

- Taiwan, technology policy paradigms and, 35 Teaching productivities, academic, 311
- Technical expertise, flooding in Bangladesh and, 89

Technological development

Toshiba Corporation and, 215 Trilemma and, 175

- Technological revolution, in Japan, 147
- Technology assessment, perspective on, 321
- Technology management, shrinking world and, 109
- Technology opportunities analysis, 237
- Technology policy paradigms, 35
- Technology substitution, Fisher-Pry model of, 27

Telecommuting frequency, individual's choice of, 49 Thinking in history, 236 Third industrial revolution, in Japan, 147 Third World flooding and, 89 newly emerging diseases and, 229 Thirdworldization, 231 Time dependence, Fisher-Pry model and, 27 Toshiba Corporation, technological prospects and, 215 Transportation, newly emerging diseases and, 229 Travel, telecommuting frequency and, 49 Tuberculosis, reemergence of, 231 policymaking and, 233 Unemployment, newly emerging diseases and, 231 capital market response to R&D process and, 75 newly emerging diseases and, 231 technology policy paradigms and, 35 United States Congress, abolishing of Office of Technology Assessment by, 321 Universe, future of, 329 Value-based planning approach, emerging information technology industry and,

- Vehicles, in household, telecommuting frequency and, 49
- Viral threats, 229
- Water, unclean, newly emerging diseases and, 229
- Wealth, concept of, 147
- Westernization, of Japanese society, 147
- Western society, intelligent manufacturing systems and, 195
- Whole Earth 'Lectronic Link, experience of dying reported on, 325
- Whole-system concepts, 1, 236
- Wisdom game, 147
- Working systems, of life and earth, 165
- Work location, telecommuting frequency and, 49 World
- energy condition in 21st century and, 175 out of balance, 229
- shrinking, 109

- Rwanda, newly emerging diseases and, 231
- - Trilemma, in Japan, 113, 175

  - Uncertainty, systems-based approach to

  - United States

Vaccination, newly emerging diseases and, 231

257