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Articles

Author	リチャード・テイボァ・グリーン Richard Tabor Greene
	関西学院大学 総合政策学部 教授(1997年3月1日現在) Professor, School of Policy Studies, Kwansei Gakuin University (as of March 1, 1997)
Title	The Social Cellular Automata Process: Applying Complexity Theory to Improve the Movement Building Aspects of Management
Abstract	Traditional general systems theory concepts, such as self-emergence and supercritical systems, have been augmented by new concepts from computer models developed at the Santa Fe Institute under the banner of Complexity Theory: co-evolutionary fitness landscapes, order parameter, automata phase changes, lock in, and others. This paper is the first publishing of practical applications of Complexity Theory to improve management systems and behaviors of general relevance. Four different applications of a Social Cellular Automata Process, that socially implements self emergence dynamics that appear in computer cellular automata, are reported herein. This paper first presents a Social Movement Theory of business management, grounded in 64 transformations that most of the world's largest businesses have implemented in the late 1980s and early 1990s. Both the means and ends of management have increasingly become movement building. Next, this paper finds 4 primary transformations that, when combined, constitute the 64 transformations that are widespread in business. Those 4 primary transformations are grounded in a "social" cellular automata model of business processes. Applications of the Social Cellular Automata Process that results, to re-engineer a large salesforce, revise political campaign methods, deploy high technologies to General Motors, and create a Global Quality movement out of what is today the Total Quality movement are described in some detail.

Author ジェームス E. カッツ James E. Katz Information Networking Research Laboratory, Bellcore, Morristown, NJ (as of March 1, 1997) Title Social Consequences of Wireless Communications: A Selective Analysis of Residential and Business Sectors in the United States Abstract While much effort has been directed towards predicting the potential market for mobile personal communication technologies, little prospective analysis has been devoted to how these technologies are likely to change the way people live their lives and the way businesses and other organizations will operate. In this paper, I systematically explore these questions by presenting not only case study information and qualitative data, but the results of national surveys as well. Among the topics examined for residential users are the readily recognizable effects of increases in convenience, personal efficiency, and security, as well as more subtle effects particularly in the psychological and interpersonal realm. In the area of work-life, I discuss topics of control of organizational and manpower resources and competitive advantages the technology seems to offer. Significant attention is also devoted to how these technologies are likely to affect business operations as wireless communication becomes cheaper and more powerful. Particular structures are identified which are likely to help organizations thrive in an environment characterized by increased competition and information flows. The analysis concludes with recommendations for organizational adaptations to take advantage of these burgeoning technologies.

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Professor, School of Policy Studies, Kwansei Gakuin University (as of March 1, 1997)

Title A Potential Nutritional and Household Economic Role for Integrated Agriculture-Aquaculture in Rural Africa: the Case of Ghana

Abstract

Small-scale freshwater aquaculture has been widely accepted by policymakers as an effective means of improving small-farm household nutrition and economies. However, despite a long and widespread history of failure in Africa, there has been little attempt to evaluate the potential of aquaculture – especially integrated systems of agriculture-aquaculture (IAA)— in rural development. An evaluation was conducted on the potential impact of the introduction of IAA into existing farming systems on household nutrition and cash incomes in the Deciduous and Rainforest, Transition and Guinea Savanna ecological zones of Ghana. The fish culture component is small-scale and based on extensive or semi-intensive pond systems. Farming systems were modeled with simple bioeconomic spreadsheets based on existing and actually measured information. The results demonstrate that the addition of a vegetable field and pond to modeled farming systems could directly improve household nutrition, and an indirect effect could be achieved through a considerable increase in household cash income. Based on an analysis of protein, carbohydrate, proximate minerals, and vitamin content of the food items, nutrient levels are marginally improved by the addition of a pond and vegetable field, whereas vitamin supply is significantly increased. In the 14 farming systems modeled, household cash incomes improved between 229 and 679%. However, most of this improvement is attributable to vegetable production, whereas cultured fish contributed only 2–4%, depending on pond size. The planned role of farm ponds in rural development should be expanded from that of mere "fish ponds" to exploit their fuller ecological potential.

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Title	中立貨幣政策の再評価 The Reappraisal of the Neutral Money Policy
	When the exchange rate is volatile, the price level is strongly affected by the changes of the prices of the imported goods. In this paper, we will show that the neutral money should be adopted instead of the stable money as an object of a monetary policy in this case. We will also show that a target of a monetary policy should still be the price stability. This discrepancy of the object and the target comes from the time lag of the monetary policy.

Author	園田 明子 Akiko Sonoda
	関西学院大学 総合政策学部 助教授(1997年3月1日現在) Associate Professor, School of Policy Studies, Kwansei Gakuin University (as of March 1, 1997)
Title	国際機構の組織的ダイナミズム -ユネスコの補助機関を素材として- Organic Dynamism of International Organizations: the Case of IOC of UNESCO
Abstract	In most international organizations, their principal organs are authorized to establish such subsidiary organs as may be found necessary for the accomplishment of their functions, and thus their structure is adaptable to the variable needs of international community. This paper analyzes the structural problems related to subsidiary organs, using the example of the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO). Established in 1960 within Unesco by its General Conference, IOC presents some structural characteristics which differ from those of ordinary subsidiary organs. Issues concerning the membership and internal construction of subsidiary organs are reviewed, in order to outline the Commission and its relationship with Unesco. To conclude, organic dynamism of international organizations is appraised with reference to the case of IOC, which is a "potentially plenary" organ with a complex structure.

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Title	Japan's Regional Cooperation in Space Application Activities — with Special Reference to Remote Sensing —
Abstract	Space application activities, particularly in the field of remote sensing, have been intensified in many countries of the ESCAP region since the 1980's to cope with the regional environmental and resources problems. During the 1980's and 1990's, Japan also engaged in earth observation activities by developing its own remote sensing satellites, namely MOS-1, MOS-1B, JERS-1, and ADEOS Although these Japanese projects contributed to indigenous technological development, they created various problems which are closely related to Japan's space development policies, which have been oriented toward "technology push" rather than "applications pull." In order to mitigate these problems, a number of alternative space development policies, which would reflect the real needs of the space application users, are proposed.

Special Articles

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Title	Local Politics and the Public Interest in Japan
Abstract	This article consists of two distinctive parts. The first discusses the present state of Japanese local communities and local politics on the basis of information derived from a series of personal interviews with local politicians. The discussion highlights the sense of relative deprivation that pervades the periphery of the contemporary Japanese economy, the continuing dependence of local economies on funds provided by the national government, and the role of local politicians and Diet members as the agents of local communities in the perennial scramble for shares of the centrally controlled funds. The first part of the article thus discusses Japanese-style pork barrel politics, its main causes, and its common pattern and style. The second part then attempts to interpret the state of local politics and political economy described in the first part in terms of a theory of the public interest and democratic politics. After briefly reviewing the historical evolution of the idea of public and public politics in the West and in Japan, the discussion focuses on the fragility of the idea and the resulting tendency for public goods and services to be "privatized," the public interest thus short-changed, and deliberative democracy to fail to take a firm hold of public consciousness in contemporary Japan.

Author	ユージン B. ギャラガー Eugene B. Gallagher
	Professor of Medical Sociology, University of Kentucky, U.S.A. (as of March 1, 1997)
Title	Contemporary American Medical Care Probed through the Medium of the End Stage Renal Disease Program
Abstract	The End- Stage Renal Disease (ESRD) Program offers a compressed yet representative view of American medical care. Its representativeness can be seen in the following. First, ESRD is a chronic disease, with annual entering patient cohorts of increasingly older age, increasing co-occurrence of other afflictions, and increasing size. Second, ESRD treatment is very expensive, posing sharp issues in cost-containment and lending itself to the sociological perspective of "patient as commodity." Third, technological innovation has led to a series of incremental changes in ESRD treatment; some innovations improve treatment but drive up the cost of care, while others save money but jeopardize the quality of care. Fourth, the organizational complexity of ESRD treatment renders patient-provider relationships fragmentary and discontinuous. Each of these features of ESRD treatment is echoed in concerns and complaints about American medical care in the large. Finally, the ESRD program offers salutary lessons for the drive toward health care reform. Relying upon Medicare for coverage of most treatment costs, it is in effect a single-payer system. As such, it has achieved substantial administrative efficiency and a modest level of cost control. However, there is relatively little provider responsiveness to the patient as consumer and as the recipient of a demanding form of treatment. Future improvements in the ESRD Program should be based on sociologically-informed perspectives on the quality of medical care and the patient's quality of life.

Author	エヴァリナ A. パンガランガン Evelina A. Pangalangan
	Dean of the College of Social Work and Community Development (as of March 1, 1997)
Title	Environment and Development: The Philippine Experience
Abstract	This paper presents the Philippine experience on an environmental controversy cited in relation to other issues of threat to the environment. It will also underscore some salient aspects of a case study on a multi-institutional and interdisciplinary project in helping coastal communities for sustainable development.
	The Philippines is a country made up of 7,100 islands with a total land area of 115,600 square miles. As part of the Asean region, it is strategically situated in the southeastern gate of Asia, hedged in by Japan and China on the north, bordered by the Pacific Ocean on the east, by Indonesia on the south, and by Vietnam, Thailand and China Sea on the west. (Martinez and Viloria, 1987) As an archipelago, the country has extensive coastal areas with resources on which people depend for a living. The pressure of population and the drive for economic development have caused the rapid degradation of coastal resources.

Commentaries

Author	ローランド J. フュックス Roland J. Fuchs
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Title	How Many People Can the Earth Support?
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Title	Peace and Development
Abstract	No peace without development and no development without peace. Both are two sides of the coin and closely intertwined. Peace is short-term in nature whereas development is long-term and they need to be properly synergized. What to do and how to do it are briefly dealt in this short paper.

Editorial Comment

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Title	Thinking Globally, Acting Locally