

Social interventions and the World Wide Web

by
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Abstract. The World Wide Web is truly world-wide, providing essentially free access to tons of information, including up-to-date political, economic, and environmental data. What is more, with a very small budget, a relatively insignificant group of action-minded individuals, such as GERG, can publish the information it believes to be important for our future evolution. Here we present a brief history of GERG, its publishing program, and an exhortation to the WWW.

1. Introduction. While it is widely agreed that we now live in the midst of a major social transformation, everyone has a different idea of the outcome. For many, we are in the last stages of a catastrophic disaster. For others, we are on the threshold of a golden age. Either way, according to these theories, it matters little what we do. But for a few visionaries, such as those of the General Evolution Research Group, the future is not yet determined: it is up to us! And according to this view, which we may call the *creative posture*, it does matter what we do, it matters enormously. For we are now in the process of creating the future.

2. The creative posture. Among the devotees of the creative posture we find, first of all, the systems philosopher Ervin Laszlo. He is the author of several books on this theme.¹ He also founded the General Evolution Research Group (GERG) and the Club of Budapest, which are action groups devoted to the creative posture. To Laszlo, global activism is the key to the future.

Another sharing the creative view is the cultural historian William Irwin Thompson, author of several books on this theme.² He is also the founder of the Lindisfarne Association, another creative posture action group. To Thompson, we are turning from the dynamic mentality to the chaos mentality.

Others of this posture include: Riane Eisler, champion of the partnership society, Hazel Henderson, crusader for social responsibility in economics, Jean Houston, impresario for the possible human, social psychologist David Loye, Fritjof Capra, the advocate of Ecoliteracy, and many others. According to them all, we must work to create the future, paradise will not come by itself.

1. See (Laszlo, 1987), (Laszlo, 1991), and (Laszlo, 1994) in the Bibliography.

2. See (Thompson, 1981), (Thompson, 1985), (Thompson, 1989) and (Thompson, 1996).

3. *GERG and the intervention controversy.* The General Evolution Research Group emerged autopoetically from various small groups involving Ervin Laszlo in Budapest, Vienna, and Santa Cruz. It was in Santa Cruz in 1985 that I first met Laszlo, along with David Loye and Riane Eisler, and we shared our ideas to put chaos and evolutionary theory to work on world problems.

Soon after the formation of this group a meeting was organized by Ervin Laszlo and the late Jonas Salk at the Salk Institute in La Jolla, California. Salk, a medical doctor and researcher, had been focused on the population explosion for many years. He told us: "As a doctor, when I see something wrong, my instinct is to fix it." In the context of the population explosion and other related global and environmental problems of the world problematique, "to fix it" means an *intervention*. That is, something revolutionary, provocative, and probably risky must be done. It takes a lot of hubris to plan and execute an untested social intervention. The working group could not agree on a strategy with Dr. Salk. In our hotel and the cafes of La Jolla after this meeting, the working group named itself the General Evolution Research Group, and turned in the safer direction of academic research and publication.

Soon we acquired an indispensable window for publication. Talks between Laszlo and Gordon and Breach, publishers of the *Journal of World Futures*, resulted in a change of name and scope, and the new journal *World Futures: the Journal of General Evolution* was born. Those of us who had gathered in La Jolla became its editorial board. Since then, this journal has provided us and all others similarly interested in a futures-oriented evolutionary theory with the publication channel so crucial to intellectual advancement. Over the past decade, under Laszlo's leadership, GERG has expanded to include scholars from Russia and China, as well as the European countries and the USA. Many articles and books have been published under the GERG umbrella, and GERG meetings in Bologna, Florence, Vienna, and other European cities have advanced the GERG agenda. At some point an informal pact was agreed to identify some of our individual books, in the front matter, as "A Catalyst Book of the General Evolution Research Group." Two examples of this are *The Chalice and the Blade*, by Riane Eisler, and my *Chaos, Gaia, Eros*.

4. *The bifurcation paradigm.* Among the basic ideas explored by GERG members are dynamical versions of the fundamental tenets of general systems theory, especially those pertaining to evolution of course, such as morphogenesis, pattern formation, self-organization, autopoiesis, autocatalysis, and so on. In this view, culture is in a process of self-organization. This process of social morphogenesis, also known as world cultural history, has smooth phases punctuated by bifurcations, like any dynamical process. According to the dynamical way of thinking we have learned from chaos theory and the new mathematics, these occasional bifurcations are the hinges of history, the special times of social meltdown when small intentional actions may produce major results. This perspective is what we mean by the bifurcation paradigm. In short, we are now in the midst of a major bifurcation of history (Laszlo says it is *the* greatest), and as well a fabulous window of opportunity. Thus the bifurcation paradigm is equal to the creative posture multiplied by a mathematically informed optimism.

5. *Electronic intervention schemes.* The synergy of GERG and the publication opportunities it provided naturally led to a subset of all the publications devoted to the bifurcation window, and the spirit of intervention did manifest in some of them. In my own case, the articles listed in the Bibliography, from 1985 to 1990, were all interventionist efforts of the creative posture, deeply

indebted to GERG. Only since 1994 did I perceive the World Wide Web as a vehicle for intervention, and a new opportunity for all my GERGian ideas of the past decade. Here are brief abstracts of these earlier intervention schemes. (These papers may be found on the WWW at <http://www.vismath.org/ralph/articles>.)

5.1. MS#40, *Complex dynamics and the social sciences*, June 1, 1985 (dedicated to Erich Jantsch, 1929 - 1980). *Abstract*: Complex dynamical systems theory is an evolution of nonlinear dynamics, developed for modeling and simulation of biological systems. Here, we speculate on the potential of this strategy for the emerging theory of social systems, for general evolution theory, and the implications for the future of our own planetary society.

5.2. MS#41, *Mathematics and evolution, a manifesto*, August 18, 1986 (to Teilhard de Chardin, 1881 - 1955). *Abstract*: This paper deals with various possibilities for the role of mathematical modeling and computer simulation in attempting to deal with the crises of evolution. Brief introductions to some concepts of holarchic dynamics are included.

5.3. MS#43, *Mathematics and evolution: a proposal*. This paper bundled four proposals.

- *The animated atlas*, September 4, 1986 (to Bucky Fuller, 1895 - 1984). *Abstract*: Using optical storage media for digital images, reference works with animated illustrations will soon be available for home computers. The translation of familiar cartographic materials, such as an atlas of world history, will soon follow. In this paper, we discuss the possibility of extrapolating such an atlas of world history into an atlas of world futures, using digital simulation of mathematical models for complex social systems. Potential applications to governance, decision making, and education are considered.
- *RIMS: a proposed institute*, September 9, 1986 (to Ludwig von Bertalanffy, 1901 - 1972). *Abstract*: A proposal for a novel research institute, the *Research Institute for Mathematics and Society* and the *RIMS Social Exploratorium*, capable of supplying a *political weather bureau* with adequate data in computer-readable form suitable for graphic presentation on video broadcasts, together with a public display center based on the *animated atlas*.
- *Political weather reports*, November 29, 1996 (to Lewis Frye Richardson, 1881 - 1972). *Abstract*: According to the hermeneutical theory of the evolution of consciousness, the development of a new relationship between our species and the biosphere may be encouraged by monitoring political and ecological variables or indicators, and feeding them back into society through broadcasting media. This possibility was foreseen by Richardson in 1919, as a means for avoiding wars. In this paper we describe a practical implementation of this program, based on the animated atlas technique.
- *Mathematical hermeneutics*, February 24, 1987 (to Kurt Levin, 1890-1947). *Abstract*: After Descartes and Mersenne, mechanics (the art of making mathematical models for processes) became disenchanting, and fell into disrepute. The advent of the computer revolution has brought a shift of style in mechanics and in applied mathematics in general. This provides an opportunity for the reenchantment of mechanics, by integrating modeling more tightly into the hermeneutical circle of *action research*. This paper introduces the basic concepts of this reenchanting circle, *action mechanics*, and suggests its potential importance for post-modern society.

5.4. MS#49, *Social and international synergy: a mathematical model*, June 1, 1989 (to Ruth Fulton Benedict (Ann Singleton), 1887 - 1948). *Abstract*: Lecturing at Barnard College in 1941, Ruth Benedict introduced a unique and important idea of synergy in a human social context. In this paper, striving towards a mathematical anthropology, we develop a complex dynamical model for her concept of *social synergy*, and discuss its application to *international synergy*, in the emerging planetary society of nations.

5.5. MS#60, *Erodynamics and cognitive maps*, July 8, 1990 (to Oskar Morgenstern 1902-). *Abstract*: We defend the place of mathematics in the *cognitive map* aspect of the history of consciousness, describe *erodynamics*, a specific modeling strategy for evolving social structures, and apply it to model *habitual behavior* and *social synergy*, Ruth Benedict's measure of harmony between the individual and the tribe.

5.6. MS#62, *Mathematical cooperation*, December 18, 1990 (to Kenneth Ewart Boulding, 1910 -). *Abstract*: This is an application of *Erodynamics*: dynamical modeling and computer simulation used as navigational aids, in complex social systems, to enhance the cooperation of the participants.

This sequence of six papers, beginning immediately after my meeting in May 1985 with Ervin Laszlo, Riane Eisler, and Dave Loye, develops a single theme, eventually named erodynamics, developed further in my book, *Chaos, Gaia, Eros*.

6. *The World Wide Web*. According to the bifurcation paradigm, the current world process is the embryogenesis of a new planetary society. We are now proposing the idea that the World Wide Web is the nervous system of this embryo, and is currently evolving as the neurogenesis of our cultural future. According to this idea, our collective influence on the future evolution of our culture may be extended through this nervous system. The leverage of a new idea, thus extended, may be many times more powerful than its leverage under previous media, such as print media, radio and television broadcasts, and so on. In other words, the Web may be the revolutionary medium of dreams, for those interested in influencing the creation of the future. If so, it may become the cyberfield of the perennial contest between the forces of good and evil. At the very least, the socially evolutionary activities infusing the Web must be of considerable interest to social activists, action researchers, historians, sociologists, historians, and students of pop culture. One interesting trend we have noted is that many traditional culture producers are under the influence of a paranoid, luddite attitude to the Web, and therefore tend to leave the cyberfield open to the cultural mafia. (See Abraham, MS#81, *Educational hypermedia and the world-wide web*.)

7. *Conclusion*. Action researchers, environmental activists, educational revolutionaries, spiritual revivalists, old dogs, lend me your mice. A unique and narrow window of opportunity has opened. Think it over. If you have abandoned a program of intervention because the time was not right, the media unresponsive, the funding withdrawn, or whatever: browse the Web, think again, learn new tricks.

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