Guest Editorial

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The papers¹ in this issue have been selected from the 6th Brazilian Systems Conference that took place at the Universidade Estadual do Oeste do Paraná, Iguazu, in October 2010. The conference centred on a two-pronged theme, one focused on systemic epistemology and the other on regional community development. The epistemological focus did not engage us with the classical debate of *how we think*. This, the favourite theme in 18th Century philosophy, left us hopelessly entangled with very dogmatic and yet self-contradictory theories about the subjective nature of our thinking. Instead, the conference challenged us to consider *how we ought to think*, having as a normative criterion, the development of regional communities. These communities are usually left at the margin of development and yet are expected to supply resources for the benefit of the corporate society residing mainly in urban centres. The articles we have selected deal with these two sub-themes but in a systemic interconnected manner. Three of them stand on the epistemological riverbank and look towards community and environmental issues and the other three stand on the opposite side and look over to the epistemological bank.

J. Donald R. de Raadt, in the opening address of the conference, briefly summarises the predicament in which communities all over the world find themselves. To move out of this crisis will require not only a very radical change in our ethics, but also a different view of life and of our humanity, which we seem to have lost. The paper then travels historically to the period before the rise of modernity and explores the social humanism started by Erasmus of Rotterdam that regarded ethics and education as the main tools for restoring human dignity and civility to communities. This is followed by an examination of the

¹ The translation of the articles from Portuguese and Spanish into English was carried out by Donald and Veronica de Raadt.

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blossoming of all the sciences and the consequent enrichment of community life in the 17th Century. Sadly, according to de Raadt, with the rise of modernity, love and pedagogics were replaced by the use of power as a method to change society, leading to tragic outcomes. He concludes with a call to reintegrate the humanities and natural sciences within systems thinking and to reintroduce them into systemic education.

An attempt to reintegrate the diversity of sciences following the humanist tradition has resulted in the multi-modal approach to systems thinking which *Francisco Casiello* discusses within the Argentinian university context. He tells us about the resistance to accept ideas linked to “systems” and “methodology” among Argentinian social scientists, for they suspect positivism and reductionism. The multi-modal approach has been an exception, for its hermeneutic empirical method allows research to be shaped by the life experiences of people who are in the community rather than by the a priori model of the researcher. On the other hand, the normative nature of this approach, starting from an ethical commitment that spreads into all other modalities avoids the subjectivism that leads to extreme individualism. This individualism obstructs any possible collaboration for the mutual development and benefit of the community. Casiello complements his theoretical analysis with a review of several multi-modal applications in rural Argentina as well as in university research.

Christian Britto continues this topic by examining the potential of the multi-modal approach when applied to community development. He especially considers this in the light of the literature and finds that community development is regarded by many scholars not purely in economic terms, nor even in terms of economic growth that is environmentally sustainable, but in terms of multiple human dimensions. These require an epistemology capable of handling the various human and natural aspects of life as well as their interaction with each other. Britto states that scientific approaches that claim to be neutral with regards to values and that apply an instrumental rationality to deal with human situations are not suitable for community development. He then turns to evaluate in detail the contribution that multi-modal systems thinking can make to this field examining not only its theoretical foundation—especially the work of Dooyeweerd—but also its various applications to real life communities.

Next, we turn to three articles which, though systemic, are more specific in their disciplinary approach and address respectively energy, the law and the arts. The first one, by *Roberto da Silva* and *Amarildo da Silva* provide a thorough assessment of the pros and cons of bio-energy to replace the decreasing availability of fossil fuel in the world. The authors examine in detail the energy needs of Brazil and the diverse forms of alternative energy that are available, especially bio-fuels such as bio-diesel. This is a wide systemic analysis, for it includes the juridical, human and agricultural impacts of a switch from fossil-fuel energy to bio-energy. The paper is candid in detailing the negative ramifications of bio-energy to the environment and agriculture, such as the impact of seizing land that is used for the production of food in order to produce bio-energy. This has a double-barrel effect: firstly, it takes sustenance away from people and secondly, it depletes the soil of its nourishment as a consequence of mono-cultivation such as soya beans and sugar-cane. This has serious ethical implications, especially if we consider that much energy is consumed to produce things we do not need at the expense of the products that feed people.

The consideration of the use of the land, the preservation of its nourishing value in order to feed not only humans, but also the various species of fauna and flora that depend on it, is the theme of the paper by *Elaine Volpato*. The paper discusses the concept of the socio-environmental function that recognizes that all living creatures, both human and others, are systemically connected to and dependent on the land and that fact needs to be integrated

into the way we think, live and legislate. Such a socio-environmental perspective is contrasted with the industrial concept of land, which considers it as just one more input to the production process that, together with other resources, transforms it into consumer goods and residues. The latter are often destructive to nature. This industrial concept of the land is supported by the idea of private property, whereby owners of the land have the right to do with it as they please, just as they do with other goods they own. The paper then examines how the socio-environmental function of the land has been introduced into legislation using two instruments, firstly, areas of permanent preservation which apply to specific geographical places such as springs and lakes and secondly, legal reserves that apply to areas inside rural properties such as farms. The author concludes by giving some examples where this legislation to protect the environment has been effectively applied.

The last contribution by *José de Oliveira* and *Amarildo da Silva* deals with art and culture and links them with science and technology. The paper begins by reviewing the turbulent decade of the 1960's and the role that art played in expressing the thoughts of the times but also in motivating people into action—such connection was also present in de Raadt's paper when he contrasts the work of Rembrandt in the 17th Century with Troost and David in the 18th and the beginning of the 19th Centuries. In the 1960's, art provided a liberating path that not only led people to question the existing cultural paradigms, both capitalist and state-socialist, but to protest and attempt to change them. The authors trace the parallel paths that art, science and technology have tread since then, on their way to today's globalisation and the crucial role that information technology has played on both sides. Technology has also globalised the arts and this new power of art may, according to the paper, be used both for good or evil. The strident and loud sounds, the wild colours and puzzling images have not only been forms of social protest, but also the accompaniments of marijuana, confusion of values and even deafness that has strongly impacted our youth. Arts may bring hope, but also it may be a symbol of our own capacity for self-destruction.

We would like to express our gratitude to the Editor, Professor Robert Flood. This is the second time that Systemic Practice and Action Research has hosted a selection of papers from Brazilian Systems Conferences and we greatly appreciate the opportunity for South American system scientists to present their work to the English speaking audience. It is our hope that the papers will contribute to systems thinking and to the reputation of this fine journal.