## Integrated deliberate and emergent approach and relativistic complexity

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**Biographical notes:** Thow Yick Liang holds two first degrees in Mathematics and Physics, MSc in Remote Sensing/Computer Image Processing and PhD in Particle Physics. Currently, he is teaching a course on intelligent organisations (complexity-intelligence strategy) at the Singapore Management University. He is the Editor-in-Chief of the *International Journal of Complexity in Leadership and Management*. He is also a member on the editorial board of *Human Systems Management* and the *International Journal of Quality and Innovation*. He has over 70 publications. He has also published a book entitled *Organizing Around Intelligence: The New Paradigm* (World Scientific Publishing, 2nd ed., 2009).

The co-existence of order and complexity is apparent in all human organisations (economic/business, social, environmental, political, education, military, global) irrespective of their primary functions. The presence of order in the human world has been perceived and enforced by the high human mental capacity of the human thinking systems. In some respect, it is beyond Newtonian mechanics, although the mindset adopted is the Newtonian mindset that focuses on order, linearity, and prediction/forecasting. The values of the strategies mapped and exploited are evaluated based on the accuracy of the prediction and the actual occurrence of the event. In general, despite certain drawbacks, this deliberate approach has served humanity well since its introduction. It has provided a comfort space (mentally and physically), and has led humanity to its present state of advancement.

However, currently the development in the human world is accelerating beyond traditional 'enforced order'. Both the rate of change and the frequent unpredictability of future events (which may be punctuation points – for instance, the world financial crisis, and political crisis in Egypt and Thailand) have increased human stress level tremendously. Human systems that could be perceived as relatively closed are now more open due to globalisation – greater interconnectivity and interdependency. In general, there is a greater and faster inflow and outflow of people, materials, information, and technologies in all human organisations, including countries. The presence and impact of complexity (more spaces of high complexity) cannot be managed or contained with the Newtonian mindset alone. Adopting an emergent approach (complexity mindset – encompassing evolution theory, cybernetics, and general systems theory) is crucial. Inevitably, human organisations have to be recognised, explored, managed, and exploited as complex adaptive systems which are their inherent state and dynamics.

Thus, human organisations are intrinsically open and continuously changing complex adaptive systems. In addition, the adaptive capacity of human beings and human

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organisations are beyond the standard biological adaptive capacity of other animal species and organisms due to the formers intense mental capacity. This highly abstract and non-linear mental dimension (partly due to the characteristics of human thinking systems – not always logical and could be highly non-linear) orchestrated a new non-linear complex adaptive dynamics that is unique to humanity – intense awareness and mindfulness. In the human world, a new mindset, the intelligence mindset that encompasses certain aspects of the Newtonian mindset, complexity mindset and beyond is necessary and inevitable. The complexity-intelligence linkage and intelligence-intelligence linkage in human complex adaptive systems are highly non-linear and can be monitored and exploited by intense intelligence sources (both individual and collective). The new strategic path is organising around intelligence, and new niche is intelligence advantage. The new consequence is that complexity in the human world is more relativistic.

Understanding these new properties and dynamics is significantly valuable to leaders and managers, as well as all human interacting agents. Fundamentally, nurturing highly intelligent human organisations (iCAS) requires an integrated deliberate and emergent approach as a starting point. During stasis the deliberate path is still valuable. Adaptive management and the presence of monitoring and responding activities are useful. Concurrently, the emergent path will have to be nurtured with a deep focus on intrinsic intelligence, collective intelligence, orgmindfulness, and mindful culture. The second path has to be continuously enhanced at all time (during relativistic order) as the next punctuation point is unpredictable. Basically, the mental state of all the human interacting agents in the organisations have to be recognised and managed appropriately – nurturing orgmindfulness and mindful culture. This approach will increase the interconnectivity of the agents, the collective intelligence of the organisations, and the efficiency of the different degree/order of emergence through more constructive self-organisation/ self-transcending constructions. In between, the relativistic aspect such as exploiting spaces of relativistic order and relativistic static equilibrium must be constantly evaluated and exploited. This is a fresh beginning towards higher sustainability.