



Embedding Sustainability into Organisational DNA: a story of complexity

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Statement of Authorship

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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Abstract

One indicator or measure of our global unsustainability is the ecological footprint which simply put, “*measures how much nature we have and how much nature we use*”. When I commenced this research in 2009, our global ecological footprint was 1.4 and world overshoot day was September 25. As I complete my research, our global ecological footprint in 2016 was 1.6 and world overshoot day was 8 August. Despite efforts to move towards sustainability – the ecological footprint is one indication that we continue to move away from being sustainable on a global scale.

Organisations of all types with their financial and human resources that enable quite sophisticated problem solving have a role to play, to lead a shift from exploiting resources to nurturing them. There is some agreement from those who represent the strong sustainability school of thought, that the shift from exploitation to nurturing is underpinned by a shift from a Newtonian paradigm to the paradigm of living systems (or complexity). But how might that shift be cultivated?

The research detailed in this thesis:

- Identifies the paradigm of complexity (living systems) as the paradigm from which we may be best able to understand the challenge of sustainability and understand how to respond to it. The paradigm shift goes beyond a cerebral appreciation of complexity and explores the multiple dimensions of a whole human being within a complex system (the organisation).
- Through the literature review exploring weak and strong sustainability, identifies the key research question – “*What is the nature and dynamic of the paradigmatic shift to nurture a sustaining organisation?*” Sub themes of leadership and organisational culture are intertwined in the complexity of identifying a path to evolve the organisational culture.
- Develops an integrated, high-level model of emergent change to nurture a sustaining organisation and associated principles for the

researcher/facilitator cultivating such a change, founded in an understanding of living systems.

- Designs an emergent systemic action research methodology to trace and make sense of the expected emergent change. Reflection upon the intended methodology and what actually occurred provides findings in regard to the methodology itself.
- Identifies research topic findings from a first person, second person and third person perspective. These findings are used to refine the high level model of emergent change to form a sustaining organisation into a stage 2 model that describes the nature of the emergent change.
- Employing an abductive approach, re-engages with the literature and iterates a stage 3 model that illustrates both the nature and dynamic of emergent change to form a sustaining organisation – a model that traces shifts in new ways of being emerging into the organisation – and details principles for practitioners to nurture each holon of the stage 3 model.

This thesis provides an account of the powerful subtleties involved in cultivating a human environment within which the paradigm shift to sustaining may be liberated. Liberated because the research findings support the notion that the ‘new’ paradigm is lying dormant within employees and needs only to be reawakened and reprioritised.

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GOSSARY OF TERMS

Term	Meaning
CoM	City of Marion
CEO	Chief Executive Officer of the City of Marion
EMG	Executive Management Group that comprised the CEO and three executive members who were individually known as Directors and later General Managers.
CMG	Corporate Management Group that comprised a group of up to 20 senior managers within the City of Marion. This group technically also included the EMG but where both are referenced together as one group I make this clear.
OD	Organisational Development
SUFU	Sustainability Futures Unit a department within the City of Marion that were seen as leading the organisation's integrated sustainability capacity.
Co-research group	A small, passionate group of employees of the City of Marion, who volunteered to be a part of the action research.
The paradigm shift	If not specifically stated otherwise, this term is used to refer specifically to the shift from the Newtonian paradigm to the paradigm of complexity.
Paradigm of complexity	Also often referred to as the behaviour of complex adaptive systems or living systems.
The Model	<p>The literature review proposes the high level model, identifying elements that may be a rich mix to cultivate the conditions for the paradigmatic shift to form a sustaining organisation.</p> <p>This model is developed from the literature as Stage 1 of The Model in Chapter 2.</p> <p>The Model is refined to Stage 2 in response to the research findings in Chapter 5.</p> <p>The Model is evolved to Stage 3 in Chapter 6 by returning to the literature that became implicated by research findings in Chapter 5.</p>
The Principles	<p>Accompanying each stage of The Model are principles for executing The Model in practice. The principles are derived from applying the understanding of the paradigm of complexity to organisational behaviour and leadership.</p> <p>The Principles also evolve through three stages with The Model.</p> <p>The Principles Stage 1 are developed in Chapter 2.</p> <p>The Principles Stage 2 are refined in response to the methodological approach findings in Chapter 3.</p> <p>The Principles Stage 3 are evolved in Chapter 6 along with The</p>

Term	Meaning
	Model Stage 3.
Human Synergistics	A global consultancy that has developed intellectual property and expertise in measuring organisational culture and key contributors to influencing organisational culture. More can be found at their website http://www.human-synergistics.com.au
FMA	References Checkland and Holwell's (1998) action research cycle including the declaration of three major elements. F : Framework of ideas M: methodology A: area of concern
ALARA	Action Learning, Action Research Association.
BEF	Business Excellence Framework

Table 1:1 Glossary of terms