Foreword

The English verb “to manage” was originally derived from the Italian maneggiare, meaning to handle and train horses.... The emphasis is on learning with, abiding with, adapting to, respecting, and working with another complex entity: the horse and rider as co-evolving brambles in a wider thicket of social traditions surrounding beauty and form. Around the early 18th century, this original meaning merged with the French term ménage, or household, making it easier to adapt the meaning of the combined term manage to the metaphor of the obedient machine, to the corridors of power, and to the actions of controlling and directing. (Williams, 1983)

This book comes at a timely moment in the development of enterprise architecture as a discipline. The levels of uncertainty, interconnectivity, and speed of change facing all organisations can seem overwhelming. This has too often resulted in an attempt to eliminate complexity by creating controllable and manageable structures. Enterprise architecture has been defined by Gartner (n.d.) as “a discipline for proactively and holistically leading enterprise responses to disruptive forces by identifying and analyzing the execution of change toward desired business vision and outcomes.” Under this definition, the role is less that of the architect and more of the draughtsman. The vision and the outcomes are given; the role of the architect is to create the frameworks, models, and processes to realise that vision.

This represents a linear model of causality, even considered systematically. As commonly practiced, in particular in its manifestation in process engineering and six-sigma, the assumption of a knowable future state, a desirable and measurable set of outcomes, has become a dominant belief system. Management in this context is about controlling and directing the imposition of order in a vain attempt to eliminate uncertainty. The dominant metaphor is one of a machine that can be engineered. The assertion is that complexity can be eliminated by good management.

The reality is very different. We have a growing set of insights from complex adaptive systems theory that indicate a large part of this complexity is inherent to the nature of interactions and constraints within the system. If it cannot be eliminated it has to be absorbed. A complex system is non-linear in nature; it has dispositions, but is not causal in the conventional sense of that word; the same thing only happens again the same way twice by accident. Such systems are modulated by constraints and interventions as a result of which patterns of meaning emerge over time. The metaphor is that of ecology not a machine.

The role of the systems architect is radically changed by the application of complex adaptive systems theory. The old responsibilities and methods are not abandoned, but their use is now confined to those aspects of a system that have sufficient sustainable constraints in play to create a level of predictability.
It is now about creating a structure in which applications can emerge from multiple interactions over
time. It requires the business equivalent of planting grass in an open space and seeing where people walk
before investing in building paths. Of course, the direction can be influenced, but it cannot be controlled.

Social computing provides a model for this. Multiple applications operate within a general set of con-
straints that enable interaction. A modern desktop or smart phone carries with it a fragmented, messily
coherent set of applications that can be substituted as needed and tailored for individual use. Standards
often emerge based on practice; safe-to-fail experiments are the order of the day. The result is a resilient,
flexible system able to handle the unanticipated.

Learning that lesson is key for systems architecture. We cannot afford the high level of constraint
that has characterized the last few decades, but neither can we descend into anarchy. We need to think
of management and by implication design in the context of the original maneggiare not the command
and control capabilities of a machine.

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REFERENCES

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