

THE DECISION DISCONNECT

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ABSTRACT

If the practice of ethics amongst the members of an enterprise and their ideal identity conflict with those of the governing membership in structure, assumptions, dynamic or learning, the resultant decision disconnect will constrain the success of that enterprise, which is a governance issue. Understanding the pervasive role of ethics in leading ICT in the enterprise is vital for effective practice of enterprise ICT governance. Hitherto there has been comparatively little critical attention paid to the problem of understanding how the value systems that shape decision-making comprehensively impact the appropriate practice of governance and management in ICT. This paper argues that the value systems at play within the enterprise are central and intrinsic drivers for shaping control and influence. The paper concludes with a framework for making sense of the complex relationship between ethics, governance and the enterprise, to assist the practitioner in focussing on those planning factors that may be moderated for effective governance. I draw on the findings from the Centre for Applied Philosophy and Public Ethics' (in partnership with the Australian Computer Society) examination of ethics and regulation in the ICT industry (Lucas and Weckert, 2008) to highlight the particular problem of ethics and governance of ICT people. This paper is significant as the unambiguous establishment of the criticality of value systems in the practice of governance in the enterprise, and particularly the ICT enterprise. The proposed framework provides a systems-thinking basis for practitioners to explicitly plan and design for the dynamic interrelationship of values, people, process, and purpose in enterprise governance. The framework advocates recognition, planning and design for requisite diversity for all system components.

INTRODUCTION

What is the relationship between ethics, governance, the enterprise, and information and communications technology (ICT) organisations? Why should an ICT practitioner seeking to create organisational value endeavour to understand these relationships? In considering these questions I employed a systems thinking approach to make explicit commonalities between these entities. In this paper I will begin by establishing the need for understanding these relationships. I will then address how we come to (mis)understand these relationships and concepts through extant definitions, and the implications for design and practice of governance.

I present a top down analysis, examining first the societal and operational levels (state and corporate), and secondly, the functional level of governance - in application to information and communications technology organisations. Finally, I present a systems thinking framework, for practitioners and theorists alike, to explicitly plan and design for the dynamic interrelationship of values, people, process, and purpose in enterprise governance. Throughout the paper I focus on the unambiguous establishment of the critical nature of value systems in the practice of governance in the enterprise, and particularly the ICT enterprise. I argue for the prevention of a decision disconnect that arises from a lack of awareness of the pervasiveness of complexity emerging from the interactions of values, governance, and ICT organisation systems or through designing and planning for a single instance of a system component, such as a single moral framework. The framework advocates designing for multiple and diverse instances of the systems components – to design for requisite diversity.

UNDERSTANDING WHY VALUES ARE CRITICAL

ICT practitioners seeking to create organisational value should endeavour to understand the relationship between ethics, governance and ICT because there are clear examples where ignorance of the consequences of these relationships has caused organisational failure. Media reports since the early 1990's of high profile organisations coming to an untimely demise, due to the perceived lack of ethical behaviour of those charged with their leadership, have focused public awareness to the concepts of governance and business ethics. There are a large number of scholarly enquiries into cases such as Barlings Bank, Mirror Group Newspapers, Enron and even major sports corporations (Drennan, 2004; Sama and Shoaf, 2005; McNamee and Fleming, 2007; Zattoni, 2007; Cacioppe et al, 2007; Schnebel and Bienert 2004) that can be found in highly ranked journals such as the *Journal of Business Ethics*.

The first attempts to codify governance as a reaction to these high profile failures was the Cadbury Report in 1992, followed by a number of other reports including the Hampel Report of 1998 and the Turnbull Report in 1999. (Drennan, 2004). Ethical codes of conduct such as that of the Australian Computer Society (ACS, 2008) also attempt to provide clear guidance to individual practitioners on ethical behaviour. Providing a list of principles or values in the form of a code or standard does not however assist the practitioner in resolving conflicts in principles or amongst stakeholders. This point is supported by Pye and Warren (2006) who write:

“Although the code addresses a wide area of principles, the advice only serves as guidance to the IT professional from a personal behaviour aspect and does not seek to

deliver a methodology for resolving ethical dilemmas between individuals or an individual and the business practice or goal”.(p202)

In the literature, the treatment of ethics as it relates to governance and organisational success is variably placed at the feet of the individual practitioner, the corporate governors, or corporate culture, and enshrined in codes and principles seeking to influence the entire organisational membership. This perspective is exemplified by Minkes et al. (1999) who believe that

“a pattern of values expressed in an explicit code or in shared understanding will permeate the organisational environment.” (p328)

The difficulties in placing the ethical responsibility solely with individuals’ is best expressed through Arthur’s (1987) recount of Harold Geneen’s assessment of governance:

“Among the boards of directors of Fortune 500 companies, I estimate that 95% are not fully doing what they are legally, morally, and ethically supposed to do. And they couldn’t, even if they wanted to.” (p59)

The affect of moral agency is an important constraining factor that is not addressed in the extant standards and definitions for governance addressed in this paper. Lovell (2002) examines this issue in more detail. It is not my intent in this paper to dwell on an analysis of the public failures of corporations, but rather to highlight three observations in review of the literature:

1. There is a continuing and pressing need to examine the role of governance and ethics in organisations;
2. The current focus for remedy remains on the key behaviours/processes of the individuals, groups of individuals empowered with the leadership of the organisations, or a vague conception of ‘corporate culture’ that is still, at its heart, deemed the responsibility of those named above; and
3. The authors variably exhort the importance of regulation, personal and corporate cultural ethical values, proper risk management, and effective internal controls as the panacea against corruption.

Certainly there is no argument from this author that these external pressures and internal processes provide *necessary* mitigations for the risk of direct unethical behaviour leading to predictable circumstances of organisational failure, but I question whether they are *sufficient* mechanisms to prevent the emergence of systemic failure of an organisation through indirect and indeterminate ethical dynamics.

I propose that emergent system effects such as corporate corruption and cultural ignominy may be best dealt with through a *system* of governance rather than a set of governing processes or tasks. Arthur’s (1987) call for action is as relevant today in supporting a systems thinking approach:

“In this time of concern with the ethics of corporate governance, corporate cultures, and the corporation as a moral agent, it is perhaps time to reconsider a theory which unites the three in looking at corporate governance.” (p70)

It seems to me that the factor that contributes most to a lay person’s confusion over, and failure in application of, the role of ethics and governance in organisations stems from the very issue of confusing processes with systems, and subsequently discounting the exigent complexity that is characteristic of systems, but not of processes, in decision making. The approach offered here is to

deal with process failure through processes, and to deal with system failure with systems – to take a systems thinking approach to the problem.

But what difference does this make? The key difference, and the basis for the definition and framework offered later in this paper, is the recognition and conscious “design” for learning – single and double feedback loops – between the system actors and these interacting elements, and across functional hierarchical layers of the organisation. Argyris (in Smith and Hitt, 2005) argues that “human beings produce action by activating designs stored in their heads” and furthermore, that “at the core of acting effectively is learning”. He also proposes that “organisations create designs for action that they teach individuals to produce skillfully in order to achieve the organisation’s goals effectively” and “Double loop learning occurs when, in order to correct an error, it is necessary to alter the governing values of the master programs” (p262-3). Argyris’ “master programs” are the identifiers of the governing values of an organisation, and deviations from the intended outcomes of the master programs trigger double loop learning to effect a change in the governing values. These master programs are essentially the “designs” in the “heads” of those leading an organisation (not just those who are tasked to do so). Argyris is establishing a conception of a system model for the interaction of values (ethics), governance, and action in an organisation through its people, with the key relationship dynamic being learning.

The advantage of recognizing learning as a key coupling dynamic between these system entities is to realize that learning itself is a system and what we are actually seeking to understand is the nexus of at least four co-evolving systems – governance, ethics through value systems, learning, and action through operational systems. If the learning system is consciously designed for purpose, it may affect prevention of emerging multi-systemic consequences through double feedback loops. This learning is targeted at making explicit and challenging the assumed value systems within the “master program” that drive the co-evolving systems, rather than simple remediation of failing processes of the action system alone through single feedback loops such as quality control, audit, and risk management. The locus of attention is changed from remediation of operational governance issues to prevention of strategic governance issues as illustrated in Figure 1.

Figure 1 demonstrates two different foci for attention: the first internally within the governance system (at the “operational level”), and the second at the nexus between the governance system and its co-evolving systems in organisation (at the “strategic level”). The actor, process, values, and data presented in the top representation are instances of what might be focused on from an operational viewpoint, and are not intended to represent the entire focus of governance at the operational level. The intent of the diagram is to support the analysis of governance at the systems level – a step up from the “process” level of operation.

Once we can establish the locus of attention to the level of the system and its co-evolution with other systems, we can more cogently define the concepts under examination, and identify shortfalls in existing definitions and practice that may inhibit value creation. Karri et al (2006) states:

“the difficulty in applying the skills demanded for effective and ethical organizational governance is more easily understood by recognizing the complex interrelated issues involved in leading an effective [organisation].” (p175)

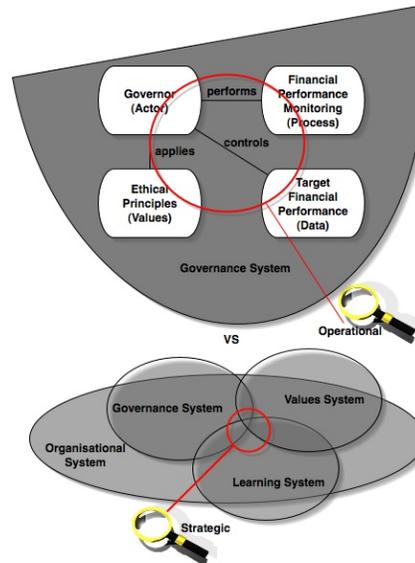


Figure 1 Focal hierarchy for remediation vs prevention of governance issues

DEFINITIONS

A symptom of the tendency to confuse focus levels arises in the literature on governance when the entity that is known as *corporate governance* and the entity that can be described as *state governance* seem to be treated as entirely theoretically divorced concepts with their own language, rules, instruments, and methods. Examples of this can be seen in the difference between Kooiman's (2000) work on *Governing as Governance*, where the concepts examined are those of state governance. This is in contrast with the Australian Standards 8000 (2003) Series which examines corporate governance.

Kooiman's work focuses on the strategic interpretation of governance but with little to inform the practitioner on how to operationalise the model, whilst the standard seeks to provide a guide to practice at the operational level without reference to the interdependencies of the strategic. Furthermore, from a practitioner's perspective, it is vexing to delineate between the act of governing, government as both noun and verb, and the label "governance". Governance is sometimes used by lay people to describe the act of governing rather than a system in its own right. This issue of the conflation of nouns and verbs in the ICT industry is common, for example: the use of the term *methodology* to describe *methods*, and *applications* to describe *programs*.

The systems approach proposed is an attempt to highlight a definition for governance that is relevant and insightful, regardless of the specialization and application of its use, as well as sensible and coherent for the practitioner. It makes little sense to have a definition of governance that is not

equally applicable to nation states and to corporate bodies or even household units. Stoker (1998) writes

“Governance is ultimately concerned with creating the conditions for ordered rule and collective action. The outputs of governance are not therefore different from those of government. It is rather a matter of a difference in processes.” (p17)

The definition should account for all levels of focal hierarchy. The application of a systems approach is an attempt to provide not so much a unified theory as a simple pattern for describing governance, and the interaction of value systems with it that may be modified for scale where required. That is, my definitions will describe the key objects, relationships, boundaries, and purpose of governance, ethics, organisations and ICT.

The purpose of defining in this way is to provide a “template” or framework for the practitioner and researcher to make sense of the problems encountered with these concepts in application, and to effectively communicate solutions across specialization boundaries. Stoker (1998) reinforces the validity of this approach when he states that:

“The value of the governance perspective rests in its capacity to provide a framework for understanding changing processes of governing.” (p18)

It is not my intent to create another taxonomy for each of these concepts, but rather to create an appropriate nexus from which specialized taxonomies for particular applications may conjoin. In this section, I provide an example extant definition at each level of the systems hierarchy – from societal to functional - to illustrate why this definition is more cogent theoretically and practically. In reviewing extant definitions of governance, I examined the Australian Standards 8000 Series for Corporate Governance 2003, the International (2008) and Australian (2005) Standards for Corporate Governance of Information Technology, and Kooiman’s (2000) work on Governing as Governance. These definitions are situated in the governance hierarchy as illustrated in Figure 2.

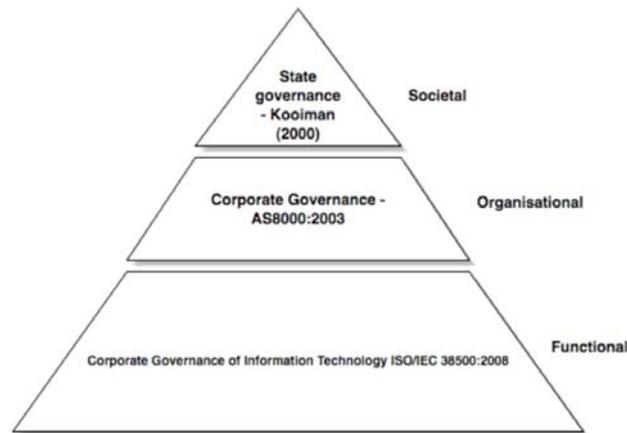


Figure 2 Hierarchical location of examined definitions for Governance

The key criticism behind each definition is the lack of recognition and design for requisite diversity in the many interrelating components of the systems that co-evolve with governance, and particularly in the values systems. Where values systems are recognised, only one instance of the possible value systems actually at play within the organisation seem to permeate the design of the governance system. This paper maintains that governance systems, through their definitions, must recognise and design for diversity in all components of the system, and especially values systems.

The societal level

Kooiman (2000) describes governance through the act of governing:

Governing can be considered as the totality of interactions, in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundation for all those activities. (p4)

In this definition, Kooiman provides us with an almost complete system's model for governance. His description above identifies actors, purpose, environment and pressures. The following further description defines the processes and interacting systems for the model:

The three elements of governing, image formation, choice of instruments and action, and the structural conditions they are nested in, respectively value systems, resources and social-political capital, can be supposed to not be equally distributed for governance purposes. (p224).

But Kooiman's definition lacks two important theoretical and practical notions:

1. He does not specify, in this definition, the dynamics of the system – that is how the “interactions” occur and how they influence each other nor how the interdependent systems or “structural conditions” arise and facilitate or impede the achievement of the system purpose; and
2. He does not specify, in this definition, an evaluative mechanism for assessing the performance of the system, or a means for distinguishing and treating undesirable properties within the system, but rather includes undesirable or unhelpful interactions, for example, as valid parts of the “totality”.

Consequently, we are left with a snapshot in time of what may constitute governance through governing practice, but not any means by which to design for ourselves an effective and successful governance system. Without such an indication, although we possibly have the correct constituents, we are missing the recipe. Kooiman's seminal theoretical work provides a much richer development of the concepts of governance than what is represented here, however I propose that a definition should capture not only the components of the system, but also their key dynamic relationships - as it is in definitions on which most practitioners build their understanding and expectations of the use of a notion such as governance. The risk of providing a static representation of the system in a definition is that practitioners and perhaps even theorists will apply and extend the practice without heed to the impact of the system dynamics, and fail to achieve the stated purpose. This risk is (at least partly) dealt with in the definition provided by this paper through the surfacing of the key coupling dynamic of learning.

One of the key messages from Kooiman's work in providing a strategic definition of governance that is important for this discussion, is the encapsulation of the organisation and its processes within a wider context and environment. This is further exemplified in a definition of governance related to the University enterprise by Marginson and Considine (2000):

Governance is where the identity of each university as a distinctive social and cultural institution is shaped, within a 'global knowledge economy'.(p8-9)

In this definition, the university's governance system is explicitly encapsulated within a wider system of the "global knowledge economy", whereby presumably the creation of value by such a university contributes to the economy and feeds back to enhance the university's individual worth. Another idea that is important for our systems model surfaces in this definition: identity. Marginson and Considine link the emergence of identity to the notion of governance. In the definition proposed by this paper, identity is a key outcome for the interaction of values, governance and organisation systems. This concept is an important addition to the model and is addressed again later in this paper as part of the offered framework.

The operational level

The Australian Standard AS8000 Series 2003 defines corporate governance as 'a system by which entities are directed and controlled.' This vague conception is supported by a range of considerations and tasks for the practitioner, with values systems represented by a set of principles, thus:

- *A clear statement of corporate governance principles helps boards identify their functions and roles [and that] a system of good corporate governance is recognised to include the following principles:*
- *Accountability: being answerable for decisions and having meaningful mechanisms to ensure adherence to all applicable standards.*
- *Transparency/openness: clear roles and responsibilities and clear procedures for decision-making and the exercise of power.*
- *Integrity: acting impartially, ethically and in the interests of the organisation, and not misusing information acquired through a position of trust.*
- *Stewardship: using every opportunity to enhance the value of the public assets and institutions that have been entrusted to care.*
- *Leadership: leadership from the top is critical to achieving organisation-wide commitment to good governance.*
- *Efficiency: the best use of resources to further the aims of the organisation, with a commitment to evidence-based strategies for improvement.*

These principles provide individual guidance to the actors tasked with corporate governance of organisations and amount to statements of personal ethics. The definition provided does recognise that governance is a system but makes no attempt to define that system. Furthermore, it proceeds to list a set of processes being:

- Answer to decisions
- Delineate roles and responsibilities

- Act impartially
- Act ethically
- Act in the interest of the organisation
- Do not abuse trust
- Seek and act on opportunities to enhance organisational value
- Show leadership
- Use resources efficiently
- Seek evidence for improvement

The following information elements are also identified:

- procedures for exercise of power and decision making
- mechanisms to adhere to standards

But we do not know why we are doing this – there is no statement of purpose, nor a clear set of boundaries provided. Furthermore it is self-evident that achieving some of the processes can conflict with the achievement of others – creating an internal incoherency in the model. There is no recognition of external pressures and the encapsulation of the system in wider systems, nor are there any provisions for designing and measuring the performance of the governance system except against personal judgements and interpretations of what “ethically” might mean, what “clear” constitutes, what “best use” entitles a manager to do, etc. The definition provided by the standard is ambiguous, subject to personal interpretation in both practice and evaluation of practice, and seems to assume a range of existing conditions and organisational maturity that may or may not be the case. This may be a matter of intentional design, taking the philosophy of minimal intervention in the judgement and activities of corporate governors but this assumption reinforces the concept of the accountable individual rather than a systemic failure.

“A feature of such... interest is the apparent desire to place the blame on an individual, or individuals, for a corporate failure, as has been seen in the case of Enron and its Chief Executive, Jeff Skilling... This selective emphasis on the individual often disguises the culpability of the organisation as a whole, and the series of management and systems failures, which created the circumstances in which the abuse could take place.” (Drennan, 2004)

Taking the definition alone, without the several volumes of supporting material and handbooks associated with it, this definition is not sufficiently directive to build an acceptable governance system design. Of course, the argument is to study the supporting material to find out how to do “governance”, or to use good business judgement - however again I argue that the lay person will seek to understand and build their expectation of practice through definition and, if this is not well conceived, then assumptions of practice will inevitably flavour the interpretation of the rest of the supporting documentation.

The functional level

The next level of governance is the functional level. I have chosen the ICT governance function for examination here, although any other function of the organisation would be equally appropriate. Korac-Kakabadse and Kakabadse (2001) supports ICT governance as a hierarchical child of corporate governance: IS/IT and corporate governance are integrally inter-related thus making IS/IT governance a subset of corporate governance. (p9).

The following definitions are provided for examining ICT Governance.

Governance is the description of the necessary performance of the operation of a system to ensure it achieves its goals, meets the wishes of all those concerned, or uses its assets efficiently. (Lewis, 2008)

Governance is the strategic alignment of IT with the business such that maximum business value is achieved through the development and maintenance of effective IT control and accountability, performance management and risk management. (ISO/IEC 38500:2008)

Governance is the system by which the current and future use of ICT is directed and controlled. It involves evaluating and directing the plans for the use of ICT to support the organization and monitoring this use to achieve plans. It includes the strategy and policies for using ICT within an organization. (AS8015:2005)

IT Governance is the decision rights and accountability framework for encouraging desirable behaviours in the use of IT. (Weill and Ross, 2004)

ISO/IEC 38500:2008 takes the 8000 series definition further with a set of system performance measures: effective, efficient, and acceptable use of IT within an organisation; and a purpose statement – use of IT within organisations. It also specifies a wide range of actors including internal and external views of the organisation. The definition also provides a boundary of scope: “[it] applies to the governance of management processes (and decisions) relating to the information and communication services used by an organization” and recognises that the locus of control for these processes does not necessarily reside within the organisational hierarchy boundaries. The ISO standard was developed from the Australian Standard AS 8015:2005, which combines principles, tasks, roles and responsibilities, purpose, and recognises an evolutionary and dynamic aspect of the governance system through the changing “needs of people in the process.” Furthermore, 8015 recognises the encapsulated systems in the lower order of system hierarchy (below functional) such as portfolio and project governance as well as specifically requiring alignment with higher level (corporate/operational) systems.

Informal supporting documentations in the form of checklists to assist in raising the awareness of governing actors of their responsibilities are available. The Standard embodies an ideal vision of governance as determined by the committee members that published the standard, and it stops short of defining the ethically charged value statements it espouses, such as appropriate, responsible, balanced, fully, proper, complete, safe, correct. This is also observed by Pye and Warren (2006) who state:

“From a philosophical prospective the ICT Governance Standard (2005) is based in the traditional ethics approach by focusing on the ideas behind what is deemed good governance from the practical reasoning aspect of what is right, dutiful and obligatory across the governing tasks of evaluating, directing, and monitoring as recommended in the Standard.”(p204)

An extract from 8015 is provided in Table 1.

<p>This Standard combines the six principles of governance with the three primary tasks of Directors to form a list of tasks for the control of ICT. The six principles are:</p> <p>Establish clearly understood responsibilities for ICT Ensure that individuals and groups within the organization understand and accept their responsibilities for ICT.</p> <p>Plan ICT to best support the needs of the organization Ensure that ICT plans fit the current and ongoing needs of the organization and that the ICT plans support the corporate plans.</p> <p>Acquire ICT validly Ensure that ICT acquisitions are made for the right reasons in the right way; on the basis of appropriate and ongoing analysis. Ensure that there is appropriate balance between costs, risks, long term and short term benefits.</p> <p>Ensure ICT performs well whenever required Ensure that ICT is fit for its purpose in supporting the organization, is kept responsive to changing business requirements, and provides support to the business at all times when required by the business.</p> <p>Ensure ICT conforms Ensure that ICT conforms to all external regulations and complies with all internal policies and practices.</p> <p>Ensure ICT use respects human factors. Ensure that ICT meets the current and evolving needs of all the “people in the process”. The three primary tasks are:</p> <ol style="list-style-type: none"> 1. Evaluate the use of ICT. 2. Direct preparation and implementation of plans and policies. 3. Monitor conformance to policies and performance against the plans.
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Table 1 Extract from AS8015:2005

It is these two last criticisms that I wish to examine in arguing for a more cogent definition such as that offered earlier in the discussion. In leaving the definition of the value statements to the actors involved, we find ourselves in exactly the same situation criticized in the media reports mentioned earlier – individuals are accountable for what is good and what is bad in governance, and as such individuals – depending on whether they are personally and individually good or bad, or even as a group, will affect good or bad governance.

This does not account for the complex interdependency of value systems and their interaction with the learning and governance systems of an organisation. It does not account for system effects in governance but rather implies that good governance is directly determined from the strength of the individual judgement and personal ethic of the governing actors. As before, I am not arguing that this is not true, but rather that it is insufficient in and of itself to describe and account for the emergent complexity of interactions in the modern enterprise, and particularly in the modern ICT enterprise. A more cogent definition would look to the coupled and co-evolving systems and the dynamic feedback mechanisms (in addition to the control mechanisms) of the system.

Fundamentally, the error here is exemplified in the first criticism made of this standard, and that is that the ideal is a reflection of the values, assumptions, knowledge and experience of the committee

commissioned to design the standard. The committee, an esteemed and recognized group of scholars and practitioners, in itself is not the issue, but rather the whole system of using a committee to design a template for a system of governance. It is highly predictable that the committee would design in its own image. Ethically, this is a practice that is known to be a pervasive mode amongst technology minded practitioners. Weill and Ross's (2004) definition goes further by specifying the "appropriate" ethical frameworks for use in IT governance – rights, duties and virtues. Of course, these are not the only frameworks for establishing ethical practice – they are the frameworks deemed acceptable by the authors based on their own value systems. It is interesting to note here that most of the extant governance standards take a consequentialist perspective whilst Weill and Ross (2004) take a rights and duties perspective, but more on this point later.

So what is the problem with a highly regarded committee of experts determining what constitutes good Corporate Governance of ICT? Feenberg's (in Doppelt, 2001) body of work on *essentialism* in technology design provides the answer. Essentialism is the use of unified concepts that often neglect temporality and variation. My charge here is not that the standard itself is completely essentialist in nature (as I believe it does attempt to account for variation and temporality in people's needs, although not in values) but rather that the process to produce the standard is an example of essentialism at work and this is reflected and inherited in the lack of recognizable variation and temporality in the values concepts of the standard. For the lay person, Wikipedia.org (cited 2008) states: *'In simple terms, essentialism is a generalisation stating that certain properties possessed by a group (e.g. people, things, ideas) are universal, and not dependent on context, such as stating 'all human beings compete with each other for success'.* My contention is not that a generalisation has been intentionally stated, but rather that due to the process of the conception of the design, certain values are assumed and embedded in this design as generally good and universally applicable, and ipso facto that these values and characteristics of ideal governance are achievable and desirable regardless of context. As Collier and Esteban (1999) write: *"The model of organization which underpins both 'co-ordination' and 'control-and-regulation' views of governance is hierarchical, authoritarian, and mechanistic."* (p175-6). It excludes, through primary order assumptions, alternative visions for governance. This is the hallmark of essentialism according to Feenberg.

On [Feenberg's] analysis, [essentialism] masks the particularity, historicity, contingency, interest-ladenness, and politics of every specific technology that we confront in our built environment: buildings, hospitals, clinics, highways, cities, clinical trials, machines and devices of all sorts, factories, offices, etc. Each such technology embodies a design, and underlying that, a technical code embodying established experts' determination of what is and is not a relevant factor in designing this or that sort of thing. In turn, Feenberg shows that every such design and technical code embodies particular peoples' decisions/power over which among many possible considerations, interests, values, costs, functions and voices are to be included and which [are] excluded in that technology. (Doppelt, 2001)

Feenberg is examining design of physical technology. I am extending his analysis to include the design of systems generally, and the design of governance systems for ICT specifically. For technology, read design of governance systems. Feenberg believed that technology was pervaded by a dominant ethical framework of essentialism whereby *"technology and the built environment are perceived as determined, or dictated, by necessary imperatives of efficiency and special bodies of expert professionals who enjoy a monopoly over knowledge of these imperatives."* (Doppelt, 2001). The relationship to the process of developing the standard, and the consequences which can be

observed in the standard, of this work become clear when Feenberg describes technology as emerging from “*the embodiment of a social process in which empowered groups of experts choose to express certain sets of specific interests and standards in specific technologies, which in turn are re-experienced, challenged, and redefined by their users.*” Feenberg writes that the essentialists believe that their design embodies persons’ interests. In the same way, we can see that the design of the 8015 standard seeks to embody persons’ interests and recognises the variability of human needs but does not extend this characteristic to other components of the system, notably values. Antonelli (2005) for example, recognises that knowledge (a resource component of the system) may be conceptualised in different ways given different stakeholders and contexts and this impacts governance. He writes:

“Three different and rival concepts of technological knowledge can be identified: (a) knowledge as a public good, (b) knowledge as a proprietary good, (c) knowledge as a localized, collective and complex, path dependent activity. Such a shift has relevant implications in terms of governance mechanisms, strategic attitude of agents and public policy making.”

These different conceptions are not accounted for within the design of the standard and furthermore the values embodied in the standard are not justified in the standard (although it is noted that there are current attempts by members of the committee and others to provide this supporting justification). Ahrens (2008) states “*One problem ...is that rules of corporate governance exhort companies to follow those ethics without ever offering a clear justification. The ethics are simply adopted wholesale from economic rationalism.*” (p149)

Further weight in support of this argument is provided by Weaver (2001) with

“Pursuing shared ethical goals by means of culturally inappropriate management practices, in short, can undermine the effectiveness of ethics management efforts.”
And “*Questions of culturally appropriate organizational structure remain even after questions of moral content are resolved.*” (P3)

Designing for feminist ethics in addition to traditional rights and duties, or consequentialist based frameworks and values systems is an example of an alternative approach for design. This approach is exemplified in Machold et al (2008).

“In seeing what a technology excludes, what it is not but could be, we gain a clearer and truer grasp of what it is – the bias of technology beneath the guise of efficiency and rationality.” (Doppelt, 2001)

It is this final statement that summarizes the major criticism with the extant definitions of governance from strategic through functional, and that is the inherent bias of the view that ethics and value systems are a personal and individual factor both directly within the design of the definitions and in the conception of those designs. The implication is that the inherent complexity and pervasiveness of value systems in co-evolution with governance and learning systems in organisations is neglected leading to ignorance of factors contributing to the emergence of unintended and undesirable consequences, such as organisational failure.

Application to the ICT Enterprise

To illustrate how unintended consequences may arise, I refer to the results from a recent survey conducted by the Centre for Applied Philosophy and Public Ethics (CAPPE) at the Australian

National University and Charles Sturt University. In this Lucas and Weckert (2008) survey, “empirical research was conducted to determine the current state of the following important two factors:

1. *Attitudes of ICT professionals towards ethics in their workplace, and*
2. *Ethics education of ICT professionals in the tertiary sector.*

The key relevant survey finding for this paper is that most respondents use or prefer a duty and rights based moral framework with consequences listed as the least favored framework. (Lucas and Weckert, 2008) Given that according to most extant definitions, decision-making within governance aims at achieving outcomes - consequences - whilst to do what is right (duty) or to have what I rightfully am entitled to (rights) are notions seemingly abstracted by several steps from informing immediate decisions of practice, it seems that there is a moral disjunction between what value systems lay ICT professionals believe are appropriate and the value systems informing the design of governance systems.

Furthermore, given that governance systems are the progenitors of organisational identity – if that organisational identity is embedded in an entirely different moral framework than that of the ideal identity of its membership, a serious inhibitor to collective ownership, engagement and subsequent organisational effectiveness is likely to result – a decision disconnect. A moral conflict may even arise whereby the tools of governance used to resolve scarcity of resources towards consequences would be viewed as direct moral challenges to concepts of a right and duty to produce quality outputs. In simple words, a programmer would be offended by a manager’s decision to trade off quality for time, and would see this act as unethical – “cutting corners” – and insulting to his/her professional expertise. In my experience, and it seems in the experience of those who undertook the survey, this is the “ethical” issue that is most pervasive of the ICT organisation and forms the tension between business managers and technology specialists. This is an example of an internally generated risk as described by Richard Barber, and as such would not be reported through the normal mechanisms of, in this case, project governance through the risk register and therefore not be recognized as a governance issue. This demonstrates the point that there is a big difference between complying with governance standards (or a risk management standard in this instance) and actually governing (or managing risk).

I am not sure whether this finding is an artifact of the survey - respondents immediately associating "ethics" with "doing the right thing" and thus providing answers from a particular frame of reference - or a valid indication of practice amongst IT people. The key ethical problem identified by the respondents- compromising quality - seems to me to indicate that we are dealing with the latter rather than the former. The IT project manager, or developer, or analyst, is in a situation where their envisaged identity is compromised because the framework they are working within is in conflict with the ideal structure and policies of the enterprise. Furthermore, their ideal values dynamics arising from a "hardened" framework contrast with the "moderating" processes ideally employed in governance. The result of such deterioration in ideal identity is a group of disenchanting and disempowered individuals, or a group bent on consolidating and fighting the good fight for what is right, what is good, and what they rightfully deserve against what is perceived as an unethical management regime. "Management" however, are ideally required to manage to outcomes and need to balance and control resources where time and money constrain function and effect. Considering consequences for outcomes is the means for prioritizing how function and effect may be constrained either through scope or quality in order to achieve vision.

The extant definitions of governance when applied to this situation clearly represent a teleological action perspective as Habermas (Reynolds and Yuthas, 2008) describes it. A design that accounts for both a teleologic action view and Habermas' Theory of Communicative Action view in engaging stakeholders in the governance process would possible counteract the decision disconnect described. This example is used to illustrate the pervasiveness of the values systems at play in an organisation and how this may in turn impede or accelerate organisational learning and governance. Understanding the competing forces in the value systems at play in an enterprise can surface the opportunities and impediments to achieving the ideal integral enterprise state. Making explicit these opportunities and impediments is a process of the governance system. These may not emerge solely from processes within "discrete" organisational systems, such as governance processes, financial or human resource management processes, or ethical decision-making processes, but may emerge from the nexus of the systems of governance, learning and value systems in action within organisations.

In this section I have shown how extant definitions of governance may not be sufficient in dealing with the complexity and variation of the dynamic relationship between governance, value systems, learning and organisation and have highlighted the importance of value systems in governance through examining how problems from value systems at play in an organisation can impede good governance. I have offered a more cogent definition of governance to account for the gaps in its existing understanding and practice and in the next section I address how to apply this definition through a framework for planning and designing governance systems.

The Design of Governance Systems

Governance is a system for:

1. *imagining,*
2. *directing,*
3. *controlling, and*
4. *influencing the:*
 - a. *integration (disintegration),*
 - b. *standardization (pluralisation), and*
 - c. *transformation (stasis) of:*
 - i. *organisation practice (values, learning, leadership, language),*
 - ii. *structure (hierarchy, network, flat, cellular),*
 - iii. *resources (technical, human, financial, knowledge), and*
 - iv. *process (unify, diversify, coordinate, replicate), towards:*
 1. *achieving an ideal organisational state -*
 - a. *as envisaged by internal/external governing stakeholders,*
 - b. *constrained or nurtured by external pressures/co-evolving systems and internal drivers/subordinate systems*
 - c. *resulting in beneficial (costly) outcomes, and*
 - d. *measured in positive, negative, or absent value*

Ethics, in the way we are discussing it here, is the application of value systems within an enterprise.

Governance and ethics therefore intersect through enterprise practice. Practice, in this model is the application of value, learning, leadership and language systems in an organisation. Ethical enterprise

practice is the desirable alignment of the actual with the envisaged ideal enterprise state. This definition addresses the criticisms of the definitions examined in the previous section of this paper through: providing all system elements; recognizing dynamics and encapsulation; and not requiring a specific values framework for implementation. If the *practice* of ethics (through value systems) amongst the members of an enterprise and its *ideal identity* are in conflict with those of the governing membership of an organisation in:

- structure,
- assumptions,
- dynamic, or
- learning

then we have a decision disconnect that will constrain the effectiveness of that organisation. This issue must be dealt with at the nexus of the governance, learning, values, and organisational systems of an enterprise by those charged with leading that enterprise – the governors. Taking a systems approach to understanding values in the enterprise the dynamic, complex nature of its relationship to identity and value creation will help bridge the divide of the decision disconnect. The first step to resolving this issue is to articulate how values systems interact and transform organisation through the “Practice Lifecycle”. If our ICT people think management is unethical because it uses a consequence framework for decision making then what they are really saying is that there is no place for their framework in the governing model of Business and ICT. Governors can then reflect on how the organisation can integrate and support the interactions of value frameworks between the different aspects of our organisations through practice - through learning and through language.

To articulate clearly how values step through the practice cycle, governors must firstly recognize:

- Why and how values are important
- That the problem lies in viewing governance as a process not as a system
- That values interact with governance as dynamic systems that frame enterprise practice
- That this interaction can be modeled and influenced through intelligent design
- That learning acts as a feedback mechanism to harness and create requisite diversity

The “Practice Lifecycle” is a representation of the dynamics of the organisation and is illustrated in Figure 3.

This diagram illustrates the different characteristics of organisation whereby integration practices form the driving force for value creation. These integration practices emerge from the nexus of values systems, governance systems, and organisation systems and, in the framework proposed, are values, language, learning, and leadership. These practices coupled with structure, resources, and processes form the inter-system components that impede or improve organisational effectiveness through governance. This is illustrated in Figure 4.

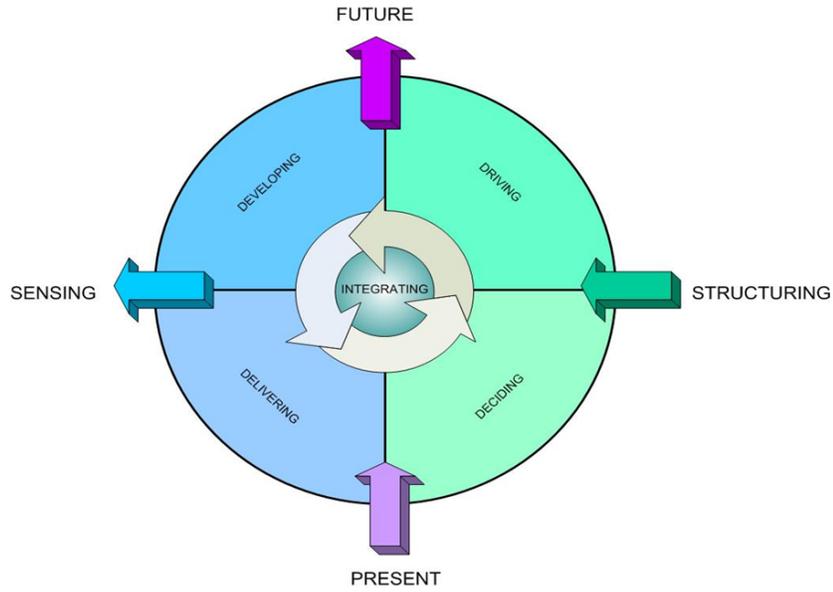


Figure 3 The Practice Lifecycle

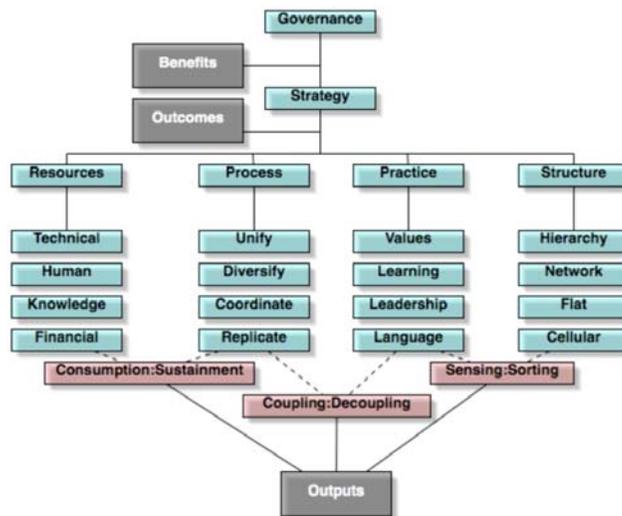


Figure 4 A Framework for designing more cogent governance systems

Values Systems therefore are critical and central to the integrating and transforming practices of organisation that takes the strategy off the shelf and into every product and service. The framework offered captures not only the values information - the principles statements, but captures and understands how values are used in an organisation. In mature organizations, the practitioner uses the framework to surface the assumptions behind the practice and determine whether these assumptions are valid in the envisioned future organisation. With this framework we have a more cogent mechanism for guiding, encouraging, and constraining behaviour in the enterprise through intelligent design. Governors can understand the gaps in how employees, technical staff, and business staff act to achieve or impede the vision, and more comprehensively design the organisation to harness this diversity and complexity; to capture and use the creative energy that emerges from difference rather than turn this energy onto itself to create churn and resistance. To do this governors, and governance theorists, must move away from an essentialist perspective in definitions, and recognize and design for different kinds of value systems, not only in the values they are informed by, but also in the way they are

- structured,
- used, and
- evolved.

In other words, governors must recognize, plan, and design for requisite diversity in all elements co-evolving with the governance system. An example of how alternate views of values systems can be accounted for in design is provided in Figure 5.

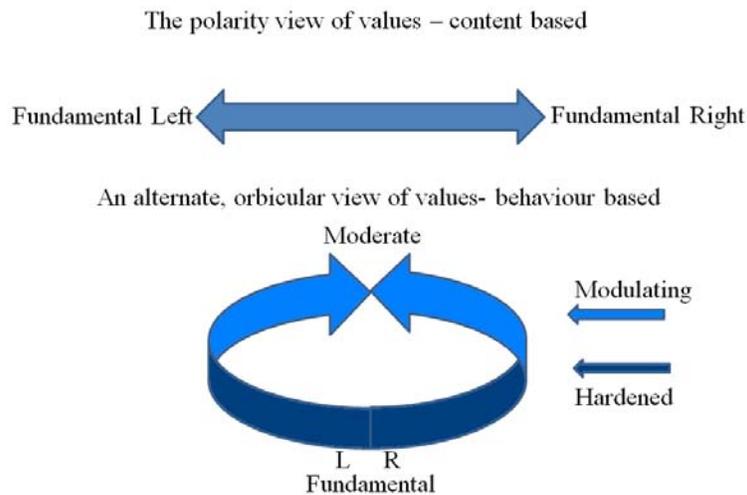


Figure 5 An example of viewing value systems differently for design

In the above illustration we have two differing values systems – fundamentalist and moderate. In the top view, these value systems are seen as two ends of a spectrum – polarities. Using this view, when these systems come into contact with each other in enterprise situations, conflict and impediments to transformation - resistance to change - may ensue. This is particularly the case when "hardened" or "root" value systems are at play or in conflict. There are different kinds of value systems, not only in

the values they are informed by, but also in the way they are structured, used, and evolved. Hardened systems are a kind of set form value system and root value systems are conditioned systems that are numb to transformational events. There is a clear and present need to review how these differing value systems interact. Minkes et al (1999) write that

“in an environment of global activity, of multinational companies, and of collaborative ventures across national boundaries, there are likely to be moral dilemmas if on the one hand, firms seek to apply their own value systems to business decisions in cultures other than their own.” (p329)

In the second view, these values systems are not seen as polarities but rather as having some shared characteristics. In taking this view, which allows for the existence of both systems side by side, resolutions to conflict may be proposed that harness shared conceptions of behaviour or passion, for example. By changing the view of how the value systems interact with each other towards a richer, more diverse design, impediments to organisational effectiveness may be overcome. When we examine governance, concerned with policy and structure, and enterprise architecture, through which governance is assisted by processes of integration and alignment, we may visualize these components as an enterprise model, shown in Figure 6.

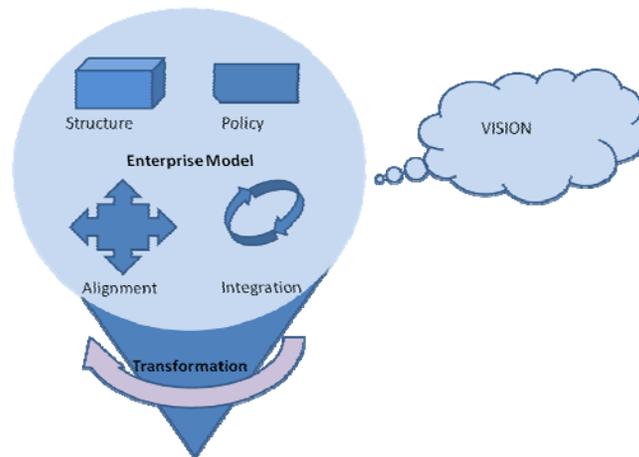


Figure 6 Enterprise Model

Value systems, like enterprise systems, have a systems model with governing assumptions as policy, structure either as a sense form or a set form, and conditioned or inquiring dynamics (derived from structure) of alignment and integration, and finally identity as vision. The transforming property of value systems is learning, and so the interdependence between these elements of practice is reinforced. This is illustrated in Figure 7. In the example given from the Lucas and Weckert (2008) Survey previously, the values systems between “Management” and “IT”

are instantiated differently in assumptions, structure and dynamic. This fundamentally puts Business vision in its ideal form and IT identity in its ideal form in conflict. Hence the continuing experience of distrust between IT and "Management", the resistance to change, and the result of this misalignment is the inability to transform. This is illustrated in Figure 8.

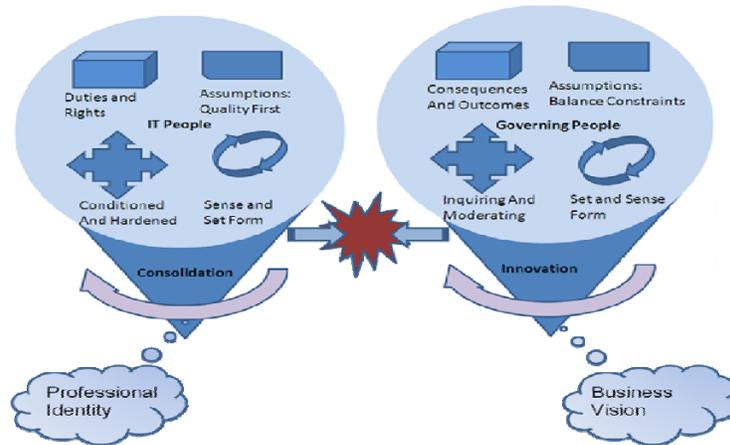


Figure 7 A Value Systems Model

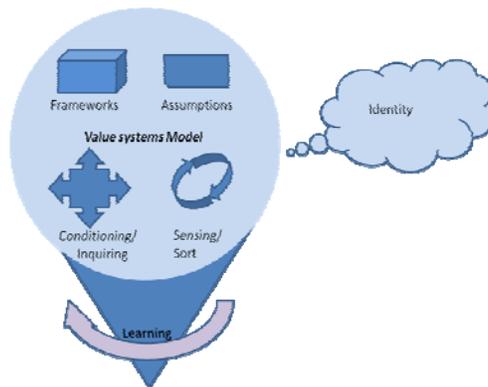


Figure 8 Misalignment of Values Systems – IT and Management

Transformation is important in evolving systems; driving and moderating change; adaptation; renovation and renewal. Transformation is achieved through practice as it is defined in the previous discussion. It is the application of value systems through ethics that informs practice, so along with learning, leadership, and language, ethics creates organisational transformation. Transformation, in turn, creates value.

SUMMARY

The relationship between ethics, governance, the enterprise, and information and communications technology (ICT) organisations is important because it powers, through double feedback learning, transformation of organisations which creates value. An ICT practitioner seeking to create organisational value should endeavour to understand these relationships because at the functional level of governance, these relationships are impeding or growing organisational value. I have employed a systems thinking approach to surface commonalities between these entities towards a system purpose. In this paper I have established the need for understanding these relationships. I addressed how practitioners and theorists come to (mis)understand these relationships and concepts through extant definitions, and the implications for design and practice of governance. I have presented a top down analysis, examining first the societal and operational levels (state and corporate), and secondly, the functional level of governance - in application to information and communications technology organisations and concluded with a systems thinking framework, for practitioners and theorists alike, to explicitly plan and design for the dynamic interrelationship of values, people, process, and purpose in enterprise governance using the principle of requisite diversity.

The paper has unambiguously established the centrality of value systems in the practice of governance in the enterprise, and particularly the ICT enterprise. Through a systems thinking approach, governors can act to prevent a decision disconnect arising from the pervasiveness of complexity of the interactions between values, governance, and ICT organisation systems. Through the proposed framework, a practitioner or theorist may design and plan for multiple instances of system components, such as alternative moral frameworks, within the governance and co-evolving systems. Through planning, designing, and acting for requisite diversity in all aspects of governance, governors help drive organisational transformation towards the desired vision.

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