



Influence, Stakeholder Mapping and Visualisation

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Purpose: The purpose of this paper is to describe the usefulness of two stakeholder mapping techniques that can be used to develop a stakeholder engagement strategy.

Abstract:

Stakeholder identification, management and engagement are recognised as key project management skills; however, this is a ‘soft’ skill that requires both intuition and a strong capacity for analysis. There are few tools and methodologies to which people undertaking stakeholder management activities can turn. Highly complex problem solving activities, such as stakeholder management, can benefit from high level conceptual approaches that allow those involved to see clearly or to visualize the situation being examined. Metaphors, particularly highly visual representations of complex situations, can be very helpful in triggering simplification of complex situations to a level where understanding of the situation can yield fruitful results in moving forward to developing plans and actions. Visualisation tools for stakeholder management can be of great value. Describing stakeholder visualisation tools that can be used to develop a stakeholder engagement strategy can therefore raise awareness of these tools. The development and use of two such tools are described. While they are both independently useful they could be effectively combined. This prospect could reduce the chances of project failure and enhance success through having clearer pictures of stakeholder influence patterns.

Key Words: Stakeholder management, organisation behaviour, organisational politics.

Introduction

The purpose of this paper is to offer two specific stakeholder visualisation tools as useful frameworks that can be deployed as one of many tools that project managers use to deliver projects.

One motivation for writing this paper is based on the authors’ practical experience of trying to define and visualise risks posed by potentially hostile project stakeholders or how to engage with potentially supportive stakeholders. There appears to be few tools available that can be used to interpret stakeholder-related risks and opportunities. There are a number of tools that provide risk management tools such as @risk™ that can be used to model various financial risks and also there are also visualisation programs that use computer aided design or virtual

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reality (VR) tools to undertake ‘walk through’ simulations or test on-site configurations for physical hazards or safe construction techniques such as those described by Frodin (2000). However, we are unaware of specific tools that can help project managers and team leaders to visualise how people may emotionally react to project management (PM) political issues—such as gauging stakeholders’ response to a project’s stated value proposition (its *raison d'être*) or how team members may be engaged to develop plans and to deliver projects.

The main question that emerges above, that we address in this paper, is how can stakeholder behaviours be modelled and/or analysed to help project teams visualise abstract threats or opportunities in a meaningful and graphic way?

One approach that may have merit is to make an abstract concept more ‘real’ through the use of metaphor (Gibson and Zellman-Bruhn, 2001; Grisham, 2006). The idea is to choose a metaphor that those ‘viewing’ it can relate to, and therefore better understand the concept and how it can be practically used. We therefore, chose to discuss two tools developed to do this for project team members to visualise the impact of stakeholders’ behaviours on their project goals.

The first tool, the *Stakeholder Circle*[®], was developed, tested and used to identify stakeholders and their positive or negative impact upon five case study projects. The second technique or tool, the Organisational Zoo tool, helps project teams to engage with a client’s end-user team to identify ‘lead users’ who can influence effective knowledge transfer of post-project operational and maintenance activities associated with change management or facilities management projects.

Stakeholder management is an important part of the project management (PM) process for construction and other project types and many lessons can be learned from approaches being developed and adopted in the general project management world. Much of the stakeholder literature relates to the validity of considering the needs of stakeholders rather than shareholders (Donaldson and Preston, 1995; Jones, 1995; Davis, Schoorman and Donaldson, 1997; Freeman, 1999; Jones and Wicks, 1999; Gibson, 2000). This concern can be extended to managing projects and about useful techniques that may be applied to mitigate risk posed by hostile stakeholders. Example of these are provided by Cleland (1999: Chapter 6) and Winch (2004).

This paper is structured as follows. First, we will state our position on how we view stakeholder management using the Stoney and Winstanley (2001) framework. We then discuss the context of this paper being a reflection upon a doctoral study that Bourne (2005) undertook and how this relates to the paper’s aim. In that section we also briefly describe the context of the development of a way of looking at stakeholders developed by another of the authors. Next we clarify the method used to develop those two tools. This section is followed by a description of the tools. We then reflect upon these tools and how their integration may have improved the case studies that were undertaken in the doctoral study and how it could more broadly be applied. Finally, we provide conclusions that summarise our view of the usefulness of the tools discussed and how this may affect project management (PM) practice.

Underlying Assumptions and Frameworks

Any definition of what a stakeholder is, and how stakeholders may be engaged in projects, requires definitions of stakeholders and as well as what we mean by a project. These may be influenced by our ontological position and so we should declare what influences our perceptions.

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Stoney and Winstanley (2001) argue that we should first clarify our position with regard to our beliefs and position on who can be viewed as valid stakeholders so that our biases and chosen ontological perspective are clear. We also need to comment upon which stakeholder theories have influenced our position

The work of Stoney and Winstanley (2001) is useful for this purpose and we have indicated using black dots placed inside the pentagon illustrated in Figure 1, where we believe our positioning places us upon the framework they provide. This provides a map with five dimensions that helps us describe the various ways of mapping our ontology in conceptualising stakeholder management. For example the first dimension addresses the *political perspective*. Hodgson and Cicmil (2006) in their book, together with their chapter co-authors, review the nature of projects and project management and provide a persuasive argument that our notions of ‘facts’ about PM are socially constructed perspectives that we choose to subscribe to. Much of the energy in categorically arguing and defending our views of ‘what is’ is futile. This is because so called ‘facts’ are merely our chosen interpretations of complex ideas. We generally make choices on what we believe to be facts. These are in turn based on cultural arguments (belief systems) that may be clear to the individual holding that belief but may be totally unclear to others involved in the debate.

Definitions used to validate much of what we argue are contestable. For example we could start by asking what is a project? The Project Management Institute (PMI) body of knowledge has a serviceable definition based on its members experience and its leading thought-leaders—“*a temporary endeavour undertaken to create a unique product, service or result*” (PMI, 2004: p5 section 1.2.1). This general definition has been refined over decades as PM attention shifted from being centred on tangible projects like construction, aerospace, shipbuilding and even IT software products to more ethereal and intangible outcomes such as works of art or implementing a change management process.

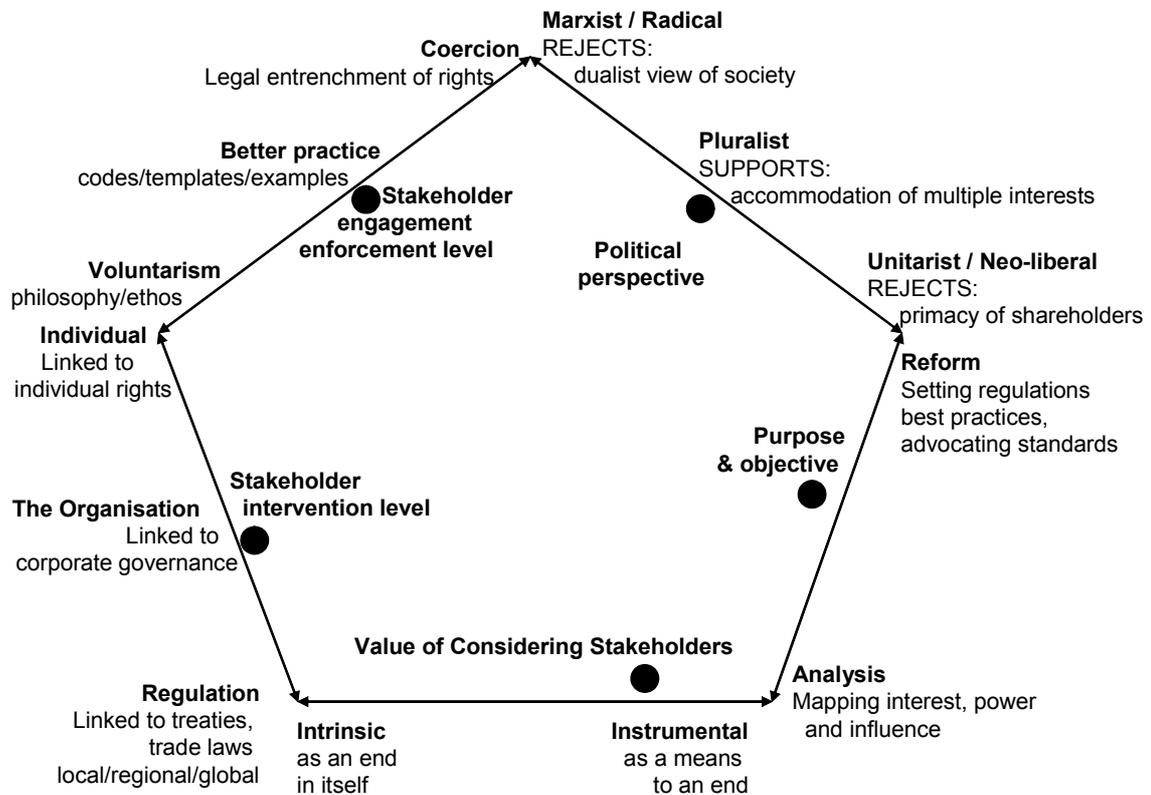


Figure 1 - Stakeholder Ontological Positions

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Figure 1 helps explain the position that we adopt in this paper as follows:

1. **Dimension 1 –Political Perspectives of Stakeholders.** At one extreme lies the Marxist view that everything is a political struggle between the two forces of capital and labour and so this view rejects the stakeholder concept. Similarly at the other end of that continuum lies the unitarists who believe that capital shareholders hold primacy in terms of legitimacy of benefits. We do not expand on discussion of these dimensions as this is better documented in Stoney and Winstanley (2001). We adopt the position indicated by the shaded dot, a pluralist perspective in which we believe that there are a range of diverse stakeholders with valid claims to consider.
2. **Dimension 2 –Purpose and Objectives of Considering Stakeholders.** This ranges across a continuum with one extreme being a purpose for reform by defining policy for regulations to be specified on who are valid stakeholders and how they should be treated. At the other end of that continuum lies stakeholder mapping which relates to analysing stakeholders to map their interest and, through understanding them, to be able to design a new way to manipulate power, access and influence in some way. We see merit in elements of both these positions as our personal beliefs and values support some level of intervention to practically manage projects through understanding stakeholders and their aspirations.
3. **Dimension 3 –Value of Considering Stakeholders.** This could be viewed as seeing them as instruments and agents to be harnessed and controlled at one extreme, or as having intrinsically moral rights for their needs to be considered. We lean towards instrumentality because we believe that by understanding a stakeholder's value proposition and their characteristics, an improved engagement strategy may result in PM success (Bourne, 2005).
4. **Dimension 4 –Considering the Stakeholders Intervention level.** This dimension has a continuum with the community right to intervene through regulations at one end—be that at local government, regional, national or global authorities. At the other end of the spectrum lies the individual's intrinsic right to intervene. At the mid point, where we position our main interest, lies the organisation. We argue that organisations can benefit from understanding what influence and power stakeholders may have and should negotiate a planned approach to allow that influence to shape plans and actions. Thus, we see the need for stakeholder engagement and integration into project planning, communication planning and risk management.
5. **Dimension 5 –Considering the Degree of Stakeholder Enforcement.** This dimension relates to the way in which stakeholder interests may be institutionalised within a PM engagement plan. At one extreme lies voluntary action on the part of stakeholders and PM team members. This is where suggestion and argument prevail as the driving force. At the other end is coercion where a plan MUST be enacted as formulated. We tend towards the better practice point in this continuum and recommend that sound analysis of issues and plans with stakeholders can be effectively addressed through tools and processes that we have developed and will later discuss in more depth.

Given our position as stated above, we can summarise our ontology of stakeholders and their valid influence upon PM processes. Therefore, the definition of *stakeholder* that will be used in this paper is: *Stakeholders are individuals or groups who have an interest or some aspect of rights or ownership in the project, and can contribute to, or be impacted by, either the work or the outcomes of the project* (Walker, Bourne and Rowlinson, 2008).

Figure 2 illustrates stakeholders in four groups: upstream stakeholders; downstream stakeholders; downstream supply chain partners; external stakeholders; and the project team stakeholder group. *Upstream stakeholders* comprise the paying customer and end users of the product/service. *Downstream supply chain* stakeholders include suppliers and sub-contractors. *External stakeholders* are often ignored and comprise the general community and independent

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concerned individuals or groups who feel that they will be impacted by the project and its outcomes. These include invisible stakeholders who engage with the project team in delivering the ultimate project benefit but whose cooperation and support is vital for project success and also knowledge network members that interact with the project delivery team in a variety of ways. Finally, there is the highly visible *project stakeholder group* comprising the project sponsor or champion as well as the project delivery team. Thus we see stakeholders from a convergent stakeholder theory perspective (Jones and Wicks, 1999) with elements of instrumentality (Donaldson and Preston, 1995; Jones, 1995) and a need to understand who these stakeholders are and how their influence may impact upon project plans and actions (Frooman, 1999).

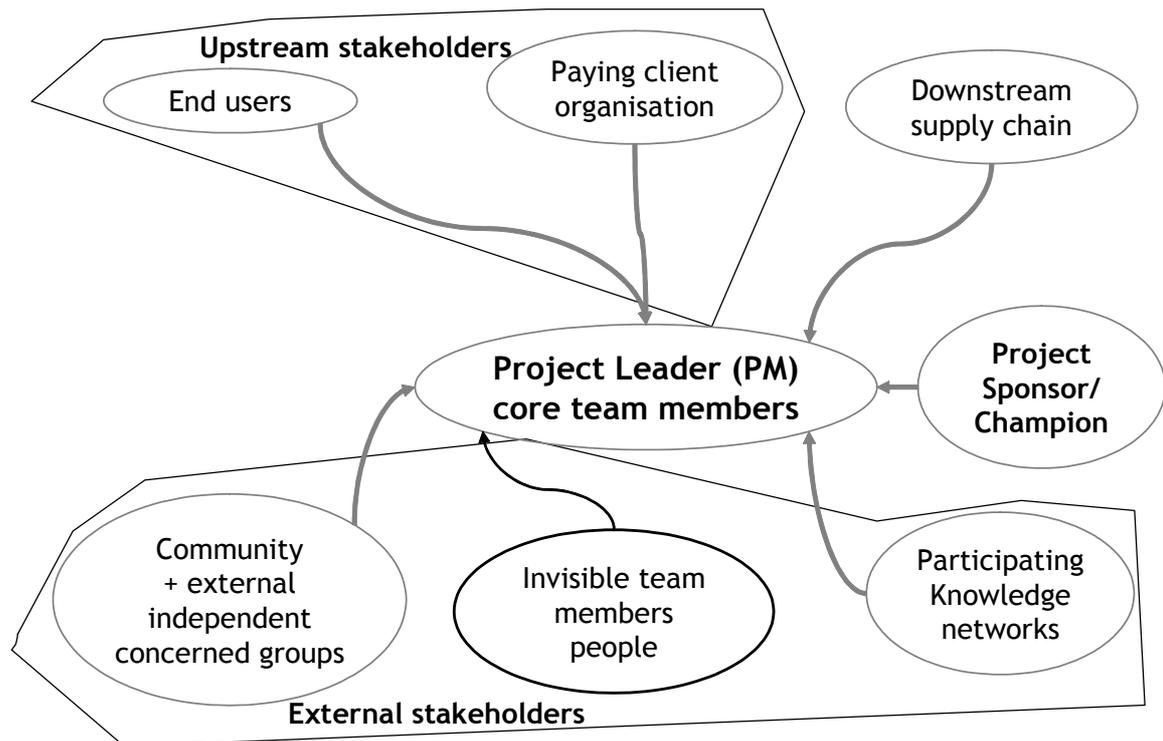


Figure 2 - Stakeholder Types: Source Adapted from (Walker, 2003: p261)

Figure 2 is based on developing ideas put forward by many PM academics for example (Briner, Hastings and Geddes, 1996; Turner, 1999). We believe and draw upon empirical work by (Bourne, 2005) among others to show how external stakeholders may have significant impact upon project and PM success. For example in a recent book chapter (Lloyd-Walker, Lingard and Walker, 2008), work life balance and the quest for attracting talent are argued as becoming increasingly important in staffing project teams and seeking out supply chain partners who can effectively contribute to PM success. Figure 2 also illustrates the importance of harnessing stakeholder knowledge and behaviours to prepare effective PM plans and actions.

Identifying stakeholders can help trigger a course of investigation that leads to a better understanding of the nature and types of power and influence that may be exerted on, within and to PM teams. Newcombe (2003) argues that the client or 'project owner' is often a many headed creature. In hospital projects for example, there can be many committees and groups, from doctors to facilities managers, who form 'the client' and each may have a bewildering array of conflicting expectations and demands; for example the acceptable level of tolerance in air quality, or noise impact in undertaking renovations, extensions or rebuilding activities in a hospital project environment. Similar experiences are common with many large

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corporations from educational institutions to large corporate clients. Yates (2006) for example highlights the effort required at the briefing stage with a large corporate client in developing a 'green' design to meet employee, corporate and customer expectations. Another important internal stakeholder that is frequently forgotten in producing an effective project communication plan is the project sponsor or champion (Maidique, 1980; Morris, 1994; Crawford and Cooke-Davies, 2006). For advice on how to effectively 'manage' a project champion see Howell (2005: p112). With external stakeholders it is often difficult to trace or map the potential knock-on influence that a seemingly low powered stakeholder may enlist. Several situations can be envisaged—such as a resident potentially affected by a development being a mentor to a community activist leader with effective media contacts to influence public opinion.

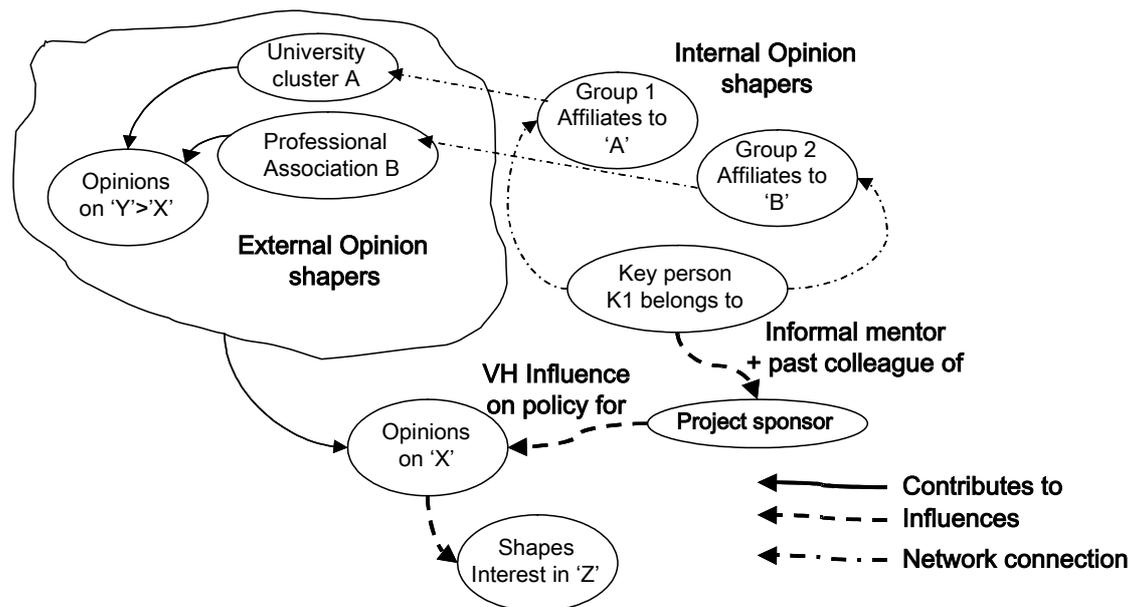


Figure 3 Influence Mapping: Source (Walker et al., 2008: p76)

Figure 3 illustrates the process of influence shaping through social networks, which provides a useful illustration (Walker *et al.*, 2008: p76). A number of opinion shapers exist within any organisation or entity and they tend to belong to several social groups. For example Group 1 may have affiliates through university classmates and alumni and Group 2 may represent belonging to a professional association (or indeed any type of 'club'). Mentoring and seeking validation from reference groups can lead for example to a sponsor referring to a key network link who then seeks information, knowledge and advice from network colleagues. This helps to explain how opinion shapers outside any organisation can exert a hidden (though not necessarily sinister) force that contributes to or results in firm impressions and perceptions being formed about issues. In this way, we can see that tools that help us visualise influence and impact are pivotal in any stakeholder management approach.

We could further elaborate on this aspect, particularly the impact of trust and commitment as it relates to an instrumental view of managing stakeholders; however, scope limitations restrict discussion about this element of the topic. Interested readers could refer to the following (Bennett and Jayes, 1995; Rousseau, Sitkin, Burt and Camerer, 1998; Wood and McDermott, 1999; Burgess and Turner, 2000; Pinto, 2000; Wong, Then and Skitmore, 2000; Smyth, 2003; Walker and Hampson, 2003; Walker *et al.*, 2008). Suffice to say that trust, commitment and risk can be seen as linked with the practical application of stakeholder management.

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Thus far we have depicted stakeholders as an amorphous entity. Often a metaphor is useful and acts as a proxy to better describe and understand phenomena. It helps us visualise and grasp concepts in an effective short hand form (Gioia and Poole, 1984; Green, 1996; Cornelissen, 2002; Grisham, 2006). One use of metaphor in visualising people's behaviour is the animal. The notion of sharks for example and other creatures to describe office politics is part of our folk law and easily grasped and has been used in describing leadership behaviours and team characteristics (Briner *et al.*, 1996). Shelley developed a typology of animal characteristics to describe team members as well as stakeholders behavioural trends and tendencies based upon how the metaphorical animal's behaviour relates to a specific project team role (that can also be applied to a stakeholder role), what motivates that character, what attributes may or may not be attributed to the animal and how that animal should be managed i.e. how its role can be advantageous or detrimental to team performance (Shelley, 2007). The added value to stereotypical characterisations of team members or stakeholders as animal forms in the Shelley (2007) typology, can be useful as a short-cut metaphor in encapsulating the PM team environment and can provide a useful tool in developing stakeholder engagement strategies. This is because it clarifies the reasons why certain animal characteristics are valid and appropriate in given circumstances. It moves beyond stereotype by attributing qualities and roles that can be used to more clearly delineate and visualise conceptual representations of, for example, an aggressive or passive team member (or stakeholder). This detailed practical insight of roles is largely absent from references to stereotypes as discussed by for example Briner *et al.* (1996).

This Paper's Study Context

Bourne's (2005) doctoral thesis is extended to incorporate some new ideas developed by Shelley (2007). These two sets of ideas focus upon how stakeholder behaviours can impact project success or failure. Moreover, they offer useful metaphors to enable visualisation of stakeholder behaviour and impact. The aim of the Bourne (2005) study was to investigate project/PM success or failure and through a series of action learning case studies, to develop a visualisation tool and stakeholder engagement protocol that enhances the impact of stakeholder engagement on improved project delivery process. The Shelley (2007) work was developed over a period of two or three years through designing and delivering workshop tools that helped project teams to visualise team member behaviours in the context of hidden agenda, organisational politics and culture and a need to share expert knowledge.

The Bourne (2005) study adopted a rigorous method that included action learning interventions (Coghlan, 2001; McKay and Marshall, 2001; Zuber-Skerritt, 2002) on five live projects as part of a successful doctoral thesis investigation. More details on the method will follow shortly. Two of the projects studied were construction related. The Shelley (2007) work was based upon deep reflection in action and reflection on action (Schön, 1983; Argyris and Schön, 1996) and involved a series of designing workshops for participants followed by soliciting and obtaining feedback then refining the workshops over a period of several years. Both studies are related in that each of these, upon reflection, could have benefited from a synergistic use of each tool. There was no opportunity to test the combination of these tools and so this paper is speculative in that it presents a *post hoc* evaluation of how these could have worked together during the time that the tools were independently developed and refined. We recognise that as a limitation. There is much to be gained in linking the two strands of insights presented here.

Research Method Used to Develop Both Tools

The first stage of the Bourne (2005) work was undertaken after considerable review of the stakeholder and associated literature. It began out of Bourne's several decades of PM experience where poor stakeholder engagement due to not 'seeing where some stakeholders were coming from', led to project delivery failure. Emerging ideas were combined with reflection upon experience as well as feedback from many colleagues, and presentations of the evolving ideas to over 300 practicing project managers. Feedback on the *Stakeholder Circle*[®] was provided at some half dozen professional PM association seminar presentations over a 2 year period and four more formally peer reviewed conference papers. This stage in the tool's development provided a working hypothesis of how to better identify key stakeholders and visualise their impact upon a project.

The working hypothesis was then tested on a real, live project where the researcher engaged with the project team as facilitator to develop a stakeholder engagement plan that was subsequently trialled. This, upon reflection and feedback, generated sufficient ideas for improvement for a second phase where an improved process was trialled on three diverse projects in which the impact of identified stakeholders was depicted as a circle that indicated the strength and degree of potential impact of 15 key identified stakeholders. The workshops involved all key project team members that could provide meaningful input, and the workshops took on average a half a day with follow up clarification and feedback. Workshop protocols will be explained in more detail shortly. Once the testing and feedback in Stage 2 reached saturation point where any modifications to the visualisation model yielded only minor improvements, the stabilised model was validated on workshops for another two projects and the results written up. The model and process was then subsequently commercialised and is now being sold and distributed as a global web-based tool (the *Stakeholder Circle*[®]) with several clients currently using the tool and engaging in further refinement as is normal with any software tool.

Shelley's (2007) visualisation tool was independently developed at the same time as the *Stakeholder Circle*[®] tool. The original aim of the Shelley (2007) tool was to help better elicit knowledge and experience through a knowledge management (KM) process that recognised various 'stakeholders' as having diverse knowledge but having leveragability of that knowledge if combined. The main task was to identify stakeholders who could benefit from knowledge elsewhere in a major global confectionary and food processing company. For example, knowledge relating to how the mouth's juices function when a person uses chewing gum had relevance in developing competitive advantage in other food process products from jam to confectionary. A key problem that was identified in effective knowledge sharing was how to identify potential knowledge contributors and to encourage them to engage in developing communities of practice (Wenger, 1999) that could share knowledge and develop an organisational culture that supported and encouraged knowledge sharing. Much of the difficulties encountered in trying to achieve this related to office politics (Pinto, 1998) and the impact of power and influence on organisational culture to more effectively share knowledge (Lawrence, Mauws, Dyck and Kleysen, 2005).

In essence this can be seen as a stakeholder engagement problem as it relates to helping disparate groups perceive cause and effect loops in their interactions, and in providing a supportive environment where knowledge transfer can take place. This encompasses many of the factors identified by Szulanski (1996; 2003) as reducing what he describes as 'stickiness' of knowledge. The way that this realisation of the impact of people's interactions evolved, within and across teams, shaped the experimentation of development of a tool to provide an engaging metaphor that employees at KM workshops could relate to and potentially change their behaviours.

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Twenty workshops involving the Organisational Zoo metaphor were held from 2004 to 2007 involving approximately 400 skilled team members. Feedback was gathered and reviewed with notes and reflections gathered by the author and subsequent email correspondence. The animal metaphors have also been presented at knowledge conferences between 2004 and 2007 in Singapore, Australia, USA, Spain and Korea with positive feedback and also generating significant discussion in the blogosphere amongst recognised knowledge management professionals. Output and outcomes from this pragmatic approach to developing workshop meetings is consistent with the sundry notes and reflections that results in important knowledge building (Prencipe and Tell, 2001; Koskinen and Pihlanto, 2006). Also, this was a classic action learning approach to learning where each successive workshop was improved from a reflection and improvement on its predecessor as an insider participant research (Coghlan, 2001). Thus, while the adopted method might superficially appear to be ‘un-academic’ it in fact was subjected to the rigour consistent with a reflective practitioner (Schön, 1983) as well as conforming to internal organisational rigorous quality management principles

The evolution of the ‘Organisational Zoo’ concept was an effort of trying to persuade people (stakeholders in a knowledge transfer process) to see how various situations and environments can facilitate or inhibit a knowledge-sharing culture through visualising behaviours through an animal metaphor. The animal kingdom metaphor may provide salient advice on how to live sustainably within a politically sensitive situation of power that in reality does not conform to espoused values within organisations. The power of the ‘Organisational Zoo’, as recalled by many anecdotal feedback comments, is that it provided simple easily understandable metaphors for people to make sense of the forces and pressures exerted that they may not have been aware of. People often are naïve in exposing themselves and their knowledge assets in organisations so that they may be ‘burned’ by poor experiences and thus retreat into a state of compliance rather than affective commitment—affective commitment is the ‘want to’ type of commitment rather than ‘obliged to’ or ‘am paid to do’ motivations (Meyer and Allen, 1991).

The Organisational Zoo concept when combined with stakeholder engagement theory provides a powerful combination worth further investigation and experimentation. The issue of changing behaviours through taking action based upon understanding combining synergistic animal characteristics is an intriguing prospect. Many past references to animal metaphors have been limited and are not explicit about the characteristics that make the metaphor valid without detailed characteristics and tips on ‘how to spot these’ and so they can be ineffective. A more rigorous typology of a full range of animal metaphors that describe characteristics of animal synergy and conflict is welcomed as a way for stakeholders to better visualise the world they live in and how to act. Weick (1995) presents a comprehensive body of work that focuses on the need for people to make sense of situations that trigger their affective motivation and commitment (Meyer and Allen, 1991).

In retrospect some two years after the Bourne (2005) thesis, the organisational zoo has a useful role in helping teams develop stakeholder engagement plans. The next section will provide more details on the two tools for readers to gain a broader appreciation of their potential value before we summarise our reflections.

Tool 1 Method

Key elements of the *Stakeholder Circle*[®] tool shown in Figure 4 are: concentric circle lines that indicate distance of stakeholders from the project or project delivery entity; the size of the block, its relative area, indicates the scale and scope of influence; and the radial depth can indicate the degree of impact (Bourne, 2005; Bourne and Walker, 2005; Walker *et al.*, 2008). The type of visualisation that is evident from this tool is using the metaphor of stakeholders that encircle the project and that their influence may be deep cutting across the entire radius

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from the circumference to the core or more distant lying at the circumference. It also indicates the extent of influence by virtue of area occupied on the circle and colours and shading indicate the type of stakeholder influence in terms of the project manager needing to manage upwards, downwards, sideways and internally. Figure 3.8 in Walker *et al.*, (2008: p85) illustrates one of the graphs produced for a case study in Bourne’s (2005) thesis. The Bourne (2005) original was produced in colour. This paper’s illustrations can only be produced in pure black and white so reproducing it even in greyscale becomes difficult. Figure 3.8 illustrated in Walker *et al.*, (2008: p85) produces a greyscale version with arrows added to indicate stakeholders that would otherwise be instantly identified by colour and pattern. The **Stakeholder Circle**[®] provides a visualisation tool that measures and illustrates power/influence taking an abstract concept into a visual representation.

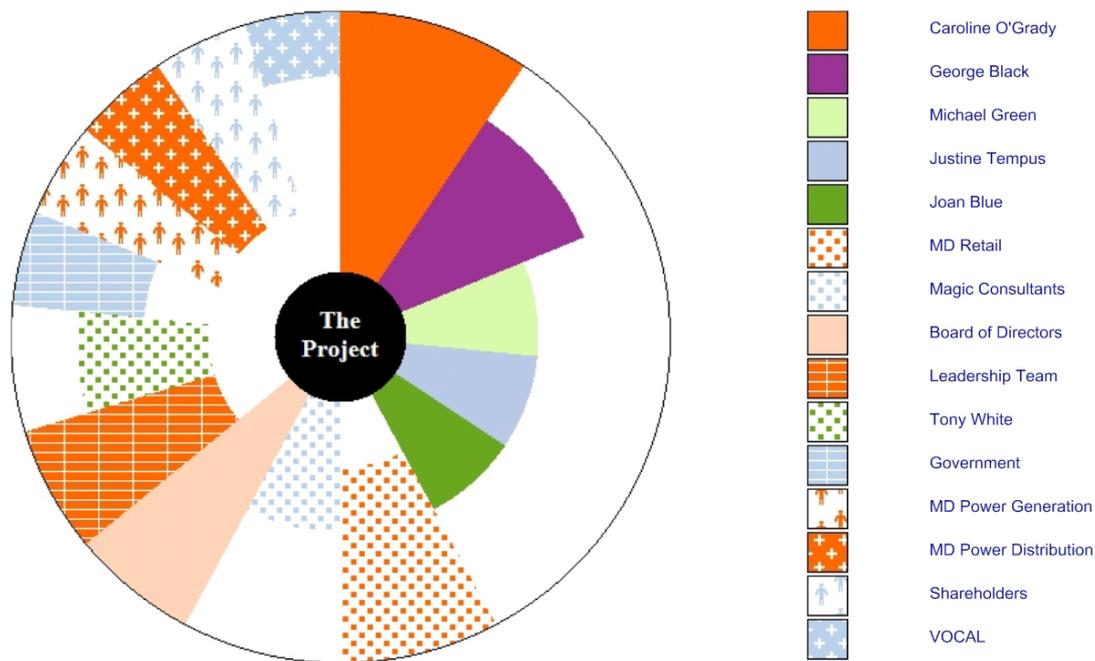


Figure 4: The **Stakeholder Circle**[®]

Patterns and colours of stakeholder entities indicate their influence on the project — for example, orange indicates an *upwards* direction – these stakeholders are senior managers within the performing organisation that are necessary for ongoing organisational commitment to the project; green indicates a *downwards* direction – these stakeholders are members of the project team; purple indicates a *sideways* direction – peers of the project manager essential as collaborators or competitors; and blue indicates *outwards* – these stakeholders represent those outside the project such as end users, Government, ‘the public’, shareholders. The final colour coding is dark hues and patterns for stakeholders internal to the organisation and light hues and patterns for those external to the organisation.

This depiction of the stakeholder community represents the project’s key stakeholders as assessed by the project team. In the **Stakeholder Circle**[®] for the Asset Management Project illustrated above, the most important stakeholder has been assessed as the Sponsor: this stakeholder appears at the 12 O’clock position; followed by the project team as the second most important and the CEO as third most important. The general drift of this concept can be easily followed. The **Stakeholder Circle**[®] method consists of five parts: step 1 – identify; step 2 – prioritise; step 3 – visualise; step 4 – engage; step 5 – monitor.

Step 1—Identify Stakeholders

First, the project stakeholders are identified and then categorised into groups indicating how they may influence the outcomes of the project: upwards for senior managers; downwards for members of the project team; sideways for peers of the project manager and outwards for other stakeholders outside the project – such as government, users, and unions. The definition of what each individual or group *requires from the project* as well as a definition of the *significance to the project* of these individuals or groups must be agreed and documented at this stage. This concept is based on the idea of mutuality as discussed earlier in this chapter. This exercise is conducted by workshops with individuals who are familiar with the project deliverables and constraints, and with the organisational structure (and the organisational politics).

Step 2—Prioritise Stakeholders

Next, prioritisation of these stakeholders is undertaken by considering three factors that can assess the relative importance of stakeholders:

- Power—is their power to influence significant or relatively limited? Proximity—are they closely associated or relatively remote from the project?
- Urgency— what is their stake? Are they prepared to go to any lengths to achieve their outcomes?

A simple definition of *power* used in the prioritisation workshops: it is based on the stakeholder's relative power to terminate the project. It is rated by the workshop participants on a scale of 1 – 4, where 4 is “high capacity to formally instruct change (can have the project stopped)”; and 1 is “relatively low levels of power (cannot generally cause much change).”

Proximity as used in this method is self-explanatory. The team must rate the stakeholders on a scale of 1 – 4, where 4 is “directly working in the project (team members working on the project most of the time)”; and 1 is “relatively remote from the project (does not have direct involvement with the project processes).”

Urgency can be viewed as having two attributes: time sensitivity and criticality. Based on these conditions, the method requires workshop participants to rate stakeholders on a scale of 1 – 5, where 5 is “immediate action is warranted, irrespective of other work commitments” and 1 is “there is little need for action outside of routine communications” (Mitchell, Agle and Wood, 1997: p867). In projects where these ratings cannot be simply applied, the method supports a breakdown of the process into two subsidiary sets: ‘vested stake’ (how much ‘stake’ does the person have in the project's outcome?); and ‘perceived importance’ (likelihood to take action, positive or negative, to influence the outcome of the project). Ratings can be combined in the software to give the overall *urgency* rating.

Step 3—Visualise Stakeholders

The data from the previous steps are transformed into the *Stakeholder Circle*[®] and these will be different for each project and for each phase of the project – the relationships that visualisation shows will reflect the project's unique relationships.

Step 4— Engage Stakeholders

The fourth part of the *Stakeholder Circle*[®] tool method is centred on identifying engagement approaches tailored to the expectations and needs of these individuals or groups. The top 15 stakeholders, defined as being the most important and influential for the project, should receive special attention, but engagement strategies for all stakeholders must be developed. Their value proposition (what they require from the project) will often include intangible

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outcomes such as enhancement of personal or organisational reputation, and satisfaction of a measure in an individual's key performance indicator (KPI) set, i.e. for delivery of project benefits.

The first step of this analysis involves identifying the level of interest of the stakeholder(s) at five levels: from committed (5), through ambivalent (3), to antagonistic (1). Next step is to analyse the receptiveness of each stakeholder to messages about the project: on a scale of 5, where 5 is - direct personal contacts encouraged, through 3 – ambivalent, to 1 - completely uninterested. The third step is to identify the optimal engagement position: the level of support and receptiveness to messages that would best meet the mutual needs of the project and the stakeholder. If an important stakeholder is both actively opposed and will not receive messages about the project, he or she will need to have a different engagement approach from stakeholder(s) who are highly supportive and encourage personal delivery of messages. Figure 5 illustrates two stakeholder's engagement level indicating the baseline engagement level, and the optimum level planned at a future time 'T'.

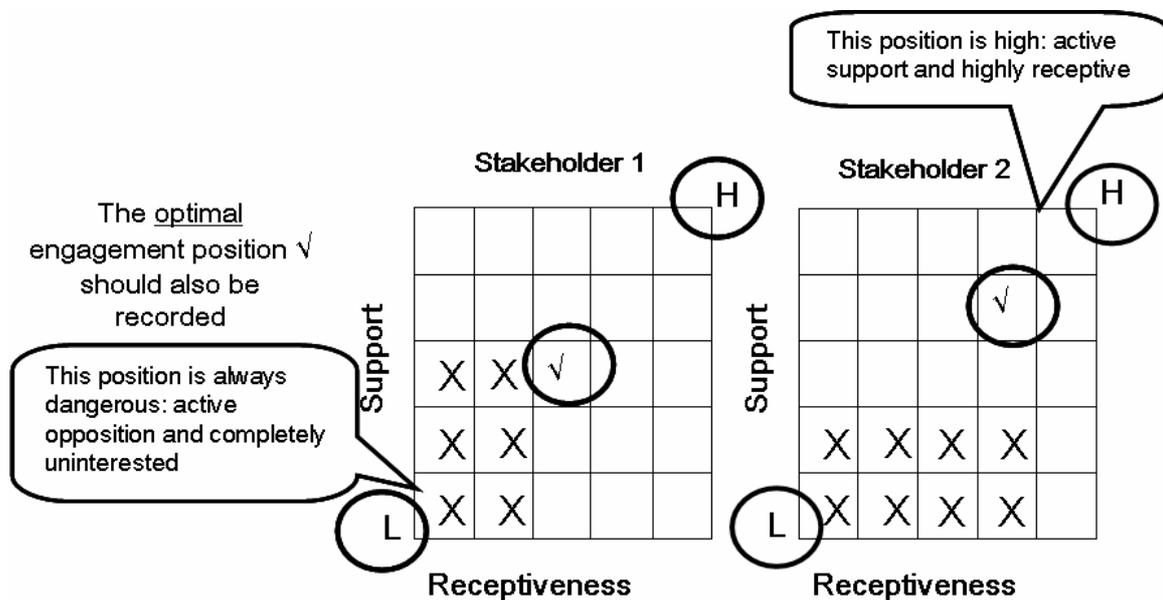


Figure 5 - Stakeholder Engagement Profiles

The 5 by 5 matrix illustrated in Figure 4 shows 'X' in the cells that become the engagement baseline starting point for measuring project communication activity effectiveness with a planned level at a future time indicated by the tick mark in the circle; it provides the target position for each stakeholder communication activity. Based on each stakeholder's engagement strategy, a communication plan will be developed, consisting of: specific messages or message forms (reports); how messages will be delivered; by whom; whether formal or informal, written or oral; at what frequency. The frequency and regularity of delivery of these messages will vary with the level of support and receptiveness of the stakeholder as well as the stage of the project. The messenger need not just be the project manager; other members of the project team may be more appropriate to deliver the message; sometimes the team needs to carefully select the messenger for important stakeholders who have a low level of receptiveness to messages about the project.

Step 5— Monitor Effectiveness of Communication

Once the Communication Plan has been developed and team communication responsibilities allocated, the principal communication points must be included in the project schedule. Including communication in the project schedule allows team communication activities to be

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reported regularly at project team meetings. Regular stakeholder review meetings, similar to risk review meetings will maintain the currency of the project's stakeholder community, or provide information about changes in that community that will cause the project's stakeholders to be re-assessed, re-prioritised and re-developed as a new **Stakeholder Circle**[®] (community).

For further details of two case studies on the use of tool refer to (Bourne and Walker, 2006; Walker *et al.*, 2008) and for substantial detail refer to Dr Bourne's doctoral thesis (2005). The tool and process was found to be useful, enthusiastically received as an effective way to analyse stakeholders and to provide a focus for developing an engagement plan.

Tool 2 Method

The basis of the 'Organisational Zoo' concept is the notion that people share characteristics with animal models that can be used to better visualise their likely behaviour. This has been recognised by medical authorities in animal model testing for drugs etc. The psychological value of animal models is contestable but without doubt people relate to animals and construct their own 'truths' about animal behaviour that to them is valid. As stated earlier we subscribe to a more interpretative concept of 'facts' or 'truth'. We argue that the projection of animal characteristics is, therefore, useful and appropriate.

Recent behavioural research has consistently shown that humans react to situations first through their instinct or pattern based "reptilian brain" before the more recently evolved logical brain can analyse (Goleman, 2006). This instinctive response ensured that early humans survived in the natural environment and is still heavily relied upon in our modern world (although triggered subconsciously and often people are unaware they do this). Goleman (2006) discussed how decisions are often taken through the faster "low road" (emotional based reptilian brain paths) and later justified (or regretted) once the analytical "high road" processes caught up and analysed what happened. Animal metaphors were widely adopted in native cultures to understand humans' place in the ecosystem. Animal behaviours were often taken as a guide for decision making, learning and storytelling to pass on knowledge through generations. Shelley believes these traditional links and humans' continued close relationships with animals, are part of the reason why people are quickly comfortable with the animal metaphor applying to their behaviour.

The animal metaphors are easily understood archetypal portraits of stereotypes. Readers are referred to Shelley (2007) for detailed descriptions of the 'Organisational Zoo' characters. Shelley (2007: p49-50) describes a lion for example as

"Lions are aggressive and powerful leaders. They rule the pride with an iron paw and immediately and aggressively ward off any challengers. They protect their pride with energy and vigor. In return, all in the pride are subservient to the lion.

Lions declare themselves king of the Zoo, but this is not always reality. They usually just reign as the temporary king of their pride. Challengers are always waiting in the wings in this highly competitive environment. The balance of power is always at risk, being maintained by fear and physical strength. On the day the lion appears vulnerable, a succession challenge is likely. A more youthful lion, if successful, will then rule in the same way until the cycle repeats itself. The first thing a new king does is eat the younger male members of the newly conquered pride to ensure that their own reign lasts longer.

Young male offspring are tolerated in the pride only until they start to become strong enough to be a threat to the lion. They are ejected before they have the confidence to attempt a challenge. These young lions then roam alone or with siblings looking to be new kings in the pride of an aging lion.

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As the king, they have others (primarily the lionesses) do much of the hard work for them, but the lion will always feast on a kill first while the rest of the pride wait to feed on the leftovers.

Relating to the Lion:

The lion is a force to be reckoned with. They are powerful, fast and agile beasts very aggressive if you are in their territory. They have a small army of loyal pride members they can rely upon to ambush you and they will not hesitate to do so. This is not out of cruelty. It is just daily business to them, and they do it very well. They are not interested in outsiders joining their pride. They prefer to develop their own members from within.

Be wary of lions and always know where they are and what they are up to (even if you are one yourself). Never put yourself in a vulnerable position with them. If you happen to be unlucky enough to get landed into such a position, prepare as best as you can for an attack and get your sorry butt out of there as quickly as possible.

Lions are great to have in the right places in your Zoo, but they can also be dangerous. In the competitive corporate world, they are essential to fend off challenges from competitors and to command respect from your commercial teams. You just need to be sure they understand who the real competitors are. They sometimes spend more time competing with other lions within your own Zoo, than they do attacking lions from elsewhere.

Lions see themselves as powerful fearful creatures and so do most other creatures around them.

Success for the Lion:

Being in charge and feared. Defeating a challenger.

Attributes often applied to the Lion:

Strong, Powerful, Aggressive, Controlling, Lazy, Self-interested, Territorial, Manipulative, Confident

Attributes not often applied to Lions:

Dedicated Hardworking, Caring, Shy

The development and refinement of the whole zoo concept was undertaken from 2000 to 2004. It involved the kind of deep reflection about how people in teams share knowledge and react to change management initiatives within a major global foods manufacturer consistent with Schön (1983). The nature of the reflection included countless informal conversations with colleagues and associates within the company as well as numerous conversations with colleagues from other businesses. Copious notes were taken recoding ideas that later were edited to become the book (Shelley, 2007). The ideas were continually validated between 2003 and 2007 through workplace workshops in which the tool was used. Feedback from participants was rigorously integrated into incremental improvement of the ideas and workshop materials. The tool can thus be considered as a highly refined and thoroughly thought through application of visualisation to a pressing stakeholder engagement problem application. The simplicity of the metaphors makes analytical measures more difficult. However, it is this simplicity that engages the workshop participants and enables them to better understand the individuals they work with and the dynamics between them. Feedback evidence gathered from workshops support the general opinion that this method is effective in bringing people to understand human behaviour and generate better outcomes (primarily because it is easy to grasp and reinforces patterns most people already have in their mental maps).

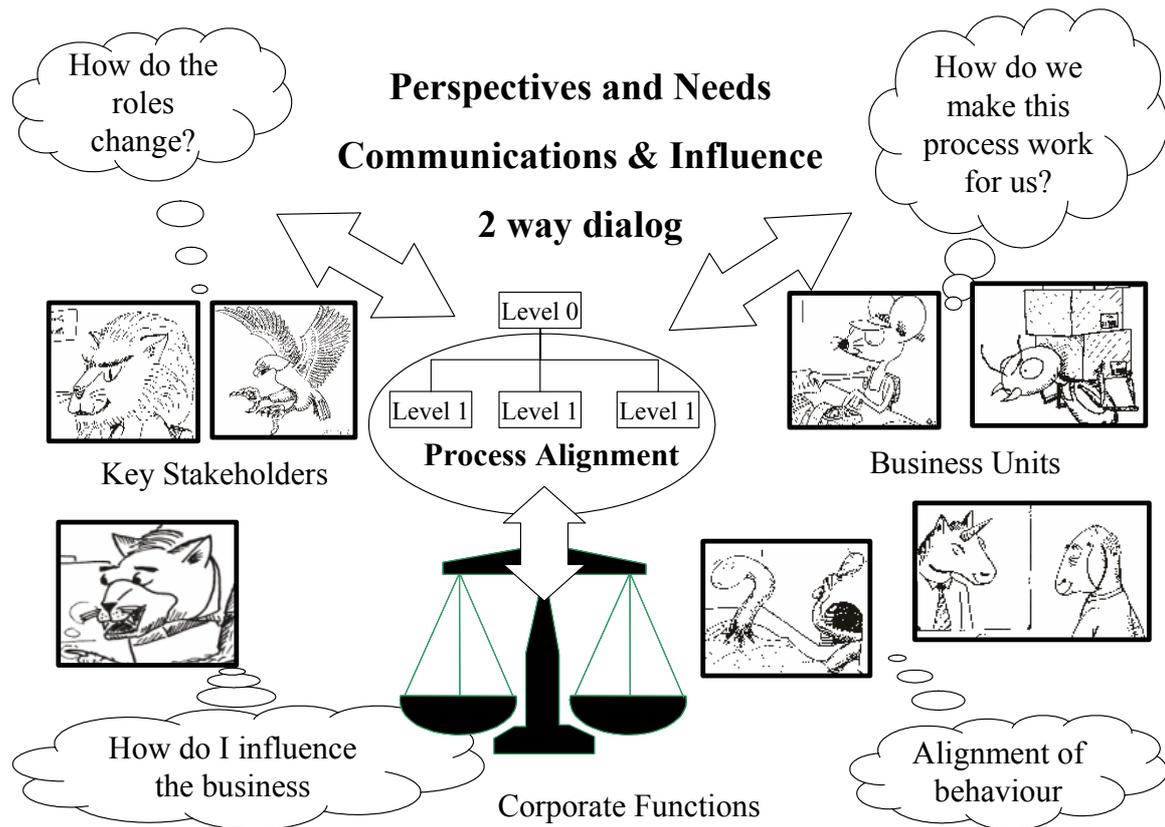


Figure 6 - Relationships and 'Zoo' Characters:
 Source based on John Szabo's illustrations in Shelley (2007)

Figure 6 provides an illustration of the way that relationships can be explained and visualised very effectively. Figure 6 illustrates lions, eagles, ants, mice, rattlesnakes, hyenas and unicorns. Shelley's (2007) book highlights the relevance of these as illustrated in Figure 5 with the lion example. While some readers may not think this is serious, the fun aspect is in fact the whole point of the exercise. Seeing the animals from a behavioural perspective, rather than from a hierarchical one helps people to better understand how they are likely to react and why. Being able to better predict the behaviours and requirements of stakeholders enables team members to cater for these in their proposals. Recognising the team have acknowledged their needs the stakeholders are more engaged and a stronger working relationship builds between them and the team. In many ways this representation technique is similar to that used in soft systems methodology (Checkland, 1999) in which 'rich pictures' are developed as visual aids in which complex situations can be more readily understood.

Other animals have similar format descriptors in Shelley's (2007) typology so that the framework not only describes stakeholders based on an animal metaphor but it also provides a reasoned argument of how to deal with a character. Shelley (2007) built a series of workshops in his organisation to help participants manage other 'animal' stakeholders and this has moved from being used on KM to change management programs that reflect the range of applications that this approach can be useful in facilitating stakeholder management.

This tool illustrates how stakeholders can be matched with a project team member with a similar set of behavioural traits to enable a more productive relationship. It uses an animal metaphor to enable project management team members to better visualise likely team member and stakeholder behaviours and this highlight the best path to engage them. It can also be used to identify which team member is most compatible with which stakeholder so that the relationship is more aligned and productive.

Discussion and Conclusions

We started this paper with an overview of some of stakeholder theory and then stated our ontological position so that it is clear what our assumptions, world-view and biases are. This enables readers to judge whether our position conflicts fundamentally with their values and perceived 'truth'. We presented a summary of upstream and downstream stakeholders and how they may influence project teams. We then briefly discussed the paper's context and provided details on the tools we describe together with citations of literature that may be followed up by those readers interested in this in greater detail. We then summarised how the tools presented could be used.

Opportunities have been offered to integrate two independent but complimentary concepts that can be combined to facilitate (1) identification of key stakeholders and mapping and measurement of their impact and influence and (2) provide a useful metaphor for a visualisation tool. The combination is useful because it enables stakeholders attempting to manage their relationships with others in a PM team to better appreciate political and engagement aspects of their relationship, thus helping them to respond practically and appropriately. This provides potential for further future research where these two tools are used in combination. For example by using the zoo metaphor, the stakeholder engagement plans can more action-oriented and provide direction to the team on how to design plans that better accommodate conflict risks and encourage synergy. This has not yet been attempted. The paper thus offered a way to improve stakeholder engagement as a conceptual paper rather than report on an experiment where this has been attempted. That is something that can and should be undertaken as future research to flow from identifying the potential compatibility of these tools being used in unison.

We can not state whether the two techniques should or could have been amalgamated at the time that each was developed. Neither author was aware at that time that they developed each tool that they could have been potentially complimentary. The paper shows how stakeholder theory relating to PM provides opportunities for melding these tools and techniques and how they can be used together. The *Stakeholder Circle*[®] has demonstrated strength in identifying key stakeholders and the nature of their impact using an engaging visualisation tool. It will be more effective if augmented by tools that help visualise influence networks, and provide guidance on selection of messengers in highly political or sensitive situations. The Organisational Zoo has similar characteristics. It helps identify the stereotypical characteristics that can form the basis of a 'first-cut' engagement strategy. It also helps identify effective engagement strategies and tactics. Stereotypes can be misleading, so the 'Organisational Zoo' approach is a primer for further analysis, however, it provides a powerful 'first cut' that should be challenged as all stereotypes should be taken as a course-grained view of reality. Combining *Stakeholder Circle*[®] data and analysis with 'Organisational Zoo' insights can provide a potent combination and an area for further research that we suggest readers should consider.

For more information on the *Stakeholder Circle*[®] see: www.stakeholder-management.com

For more information on the Organizational Zoo see: www.organizationalzoo.com

References

- Argyris, C. and Schön, D. (1996). *Organizational Learning II: Theory, method, and practice*. Reading, MA Addison-Wesley.
- Bennett, J. and Jayes, S. (1995). *Trusting the Team*. Reading, UK Centre for Strategic Studies in Construction, The University of Reading.
- Bourne, L. (2005). Project Relationship Management and the Stakeholder Circle. Doctor of Project Management, *Graduate School of Business*, Melbourne, RMIT University.
- Bourne, L. and Walker, D. H. T. (2005). "Visualising and Mapping Stakeholder Influence." *Management Decision*. **43** (5): 649-660.
- Bourne, L. and Walker, D. H. T. (2006). "Using a Visualising Tool to Study Stakeholder Influence - Two Australian Examples." *Journal of Project Management*. **37** (1): 5-21.
- Briner, W., Hastings, C. and Geddes, M. (1996). *Project Leadership*. 2nd. Aldershot, UK Gower.
- Burgess, R. and Turner, S. (2000). "Seven Key Features for Creating and Sustaining Commitment." *International Journal of Project Management*. **18** (4): 225-233.
- Checkland, P. (1999). *Systems Thinking, Systems Practice*. Chichester, UK John Wiley & Sons Ltd.
- Cleland, D. I. (1999). *Project Management Strategic Design and Implementation*. 3rd. Singapore McGraw-Hill, Singapore.
- Coghlan, D. (2001). "Insider Action Research Projects: Implications for Practising Managers." *Management Learning*. **32** (1): 49-60.
- Cornelissen, J. P. (2002). "On the 'Organizational Identity' Metaphor." *British Journal of Management*. **13** (3): 259-268.
- Crawford, L. and Cooke-Davies, T. J. (2006). *Project Governance - The Role and Capabilities of the Executive Sponsor*. PMOZ - Achieving Excellence, Melbourne, Australia, 8-11 August, PMI - Melbourne Chapter: 1-11 CD-ROM paper.
- Davis, J. H., Schoorman, D. F. and Donaldson, L. (1997). "Towards a Stewardship Theory of Management." *Academy of Management Review*. **22** (1): 20-48.
- Donaldson, T. and Preston, L. E. (1995). "The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications." *Academy of Management Review*. **20** (1): 65-91.
- Freeman, R. E. (1999). "Divergent Stakeholder Theory." *Academy of Management Review*. **24** (2): 233-236.
- Frodin, J. (2000). Evaluation of Simulation Based Design Tools for the Construction Industries - Final Report., Research. Norwich, UK, Health and Safety Executive (HSE): 27.
- Frooman, J. (1999). "Stakeholder Influence Strategies." *Academy of Management Review*. **24** (2): 191-206.
- Gibson, C. B. and Zellman-Bruhn, M. E. (2001). "Metaphors and Meaning: An Intercultural Analysis of the Concept of Teamwork." *Administrative Science Quarterly*. **46** (2): 274-303.
- Gibson, K. (2000). "The Moral Basis of Stakeholder Theory." *Journal of Business Ethics*. **26**: 245-257.
- Gioia, D. A. and Poole, P. P. (1984). "Scripts in Organizational Behavior ." *Academy of Management Review*. **9** (3): 449.
- Goleman, D. (2006). *Social Intelligence: The New Science of Human Relationships*. New York, USA Bantam Books.
- Green, S. D. (1996). "A Metaphorical Analysis of Client Organizations and the Briefing Process." *Construction Management and Economics*. **14** (2): 155-164.

Influence, Stakeholder Mapping and Visualisation

- Grisham, T. (2006). "Metaphor, poetry, storytelling and cross-cultural leadership." *Management Decision*. **44** (4): 486-503.
- Hodgson, D. and Cicmil, S. (2006). *Making Projects Critical*. Basingstoke, UK Palgrave MacMillan.
- Howell, J. M. (2005). "The right stuff: Identifying and developing effective champions of innovation." *Academy of Management Executive*. **19** (2): 108-119.
- Jones, T. M. (1995). "Instrumental Stakeholder Theory: A Synthesis of Ethics and Economics." *Academy of Management Review*. **20** (2): 404-438.
- Jones, T. M. and Wicks, A. C. (1999). "Convergent Stakeholder Theory." *Academy of Management Review*. **24** (2): 206-221.
- Koskinen, K. U. and Pihlanto, P. (2006). "Competence transfer from old timers to newcomers analysed with the help of the holistic concept of man." *Knowledge and Process Management*. **13** (1): 3-12.
- Lawrence, T. B., Mauws, M. K., Dyck, B. and Kleysen, R. F. (2005). "The politics of organizational learning: Integrating power into the 4I framework." *Academy of Management Review*. **30** (1): 180-191.
- Lloyd-Walker, B. M., Lingard, H. and Walker, D. H. T. (2008). Project Procurement and the Quest for Talent. *Procurement Systems - A Cross Industry Project Management Perspective*. Walker D. H. T. and S. Rowlinson. Abingdon, Oxon. Taylor & Francis: 311-357.
- Maidique, M. A. (1980). "Entrepreneurs, Champions, and Technological Innovation." *Sloan Management Review*. **21** (2): 59.
- McKay, J. and Marshall, P. (2001). "The Dual Imperatives of Action Research." *Information Technology & People*. **14** (1): 46-59.
- Meyer, J. P. and Allen, N. J. (1991). "A Three-Component Conceptualization of Organizational Commitment." *Human Resource Management Review*. **1** (1): 61-89.
- Mitchell, R. K., Agle, B. R. and Wood, D. J. (1997). "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts." *Academy of Management Review*. **22** (4): 853-886.
- Morris, P. W. G. (1994). *The Management of Projects A New Model*. London Thomas Telford.
- Newcombe, R. (2003). "From client to project stakeholders: a stakeholder mapping approach." *Construction Management & Economics*. **21** (8): 841-848.
- Pinto, J. K. (1998). *Power & Politics in Project Management*. Sylva, N.C. Project Management Institute.
- Pinto, J. K. (2000). "Understanding the Role of Politics in Successful Project Management." *International Journal of Project Management*. **18** (2): 85-91.
- PMI (2004). *A Guide to the Project Management Body of Knowledge*. 3rd Edition. Sylva, NC, USA Project Management Institute.
- Prencipe, A. and Tell, F. (2001). "Inter-project learning: processes and outcomes of knowledge codification in project-based firms." *Research Policy*. **30** (9): 1373-1394.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S. and Camerer, C. (1998). "Not So Different After All: A Cross-Discipline View of Trust." *Academy of Management Review*. **23** (3): 393-405.
- Schön, D. A. (1983). *The Reflective Practitioner - How Professionals Think in Action*. Aldershot, UK BasiAshgate ARENA.
- Shelley, A. (2007). *The Organizational Zoo: A Survival Guide to Workplace Behavior*. Connecticut USA Aslan Publishing.

Influence, Stakeholder Mapping and Visualisation

- Smyth, H. J. (2003). Trust: A Conceptual Framework for Management in Project Working Environments, http://www.bartlett.ucl.ac.uk/research/management/Developing_Client-Contractor_Tr.pdf,
- Stoney, C. and Winstanley, D. (2001). "STAKEHOLDING: CONFUSION OR UTOPIA? MAPPING THE CONCEPTUAL TERRAIN." *Journal of Management Studies*. **38** (5): 603-626.
- Szulanski, G. (1996). "Exploring internal stickiness: Impediments to the transfer of best practice within the firm." *Strategic Management Journal*. **17** (Winter special Issue): 27-43.
- Szulanski, G. (2003). *Sticky Knowledge Barriers to Knowing in the Firm*. Thousand Oaks, CA. Sage Publications.
- Turner, J. R. (1999). *The Handbook of Project-based Management: Improving the Processes for Achieving Strategic Objectives*. 2nd. London, UK McGraw-Hill.
- Walker, D. H. T. (2003). Implications of Human Capital Issues. *Procurement Strategies: A Relationship Based Approach*. Walker D. H. T. and K. D. Hampson. Oxford. Blackwell Publishing: 258-295.
- Walker, D. H. T., Bourne, L. and Rowlinson, S. (2008). Stakeholders and the Supply Chain. *Procurement Systems - A Cross Industry Project Management Perspective*. Walker D. H. T. and S. Rowlinson. Abingdon, Oxon. Taylor & Francis: 70-100.
- Walker, D. H. T. and Hampson, K. D. (2003). Developing Cross-Team Relationships. *Procurement Strategies: A Relationship Based Approach*. Walker D. H. T. and K. D. Hampson. Oxford. Blackwell Publishing: Chapter 7, 169-203.
- Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA Sage.
- Wenger, E. C. (1999). "Communities of Practice: The Key to Knowledge Strategy." *The Journal of the Institute for Knowledge Management*. **1** (Fall): 48-63.
- Winch, G. M. (2004). Managing Project Stakeholders. *The Wiley Guide to Managing Projects*. Morris P. W. G. and J. K. Pinto. New York. Wiley: 321-339.
- Wong, E. S., Then, D. and Skitmore, M. (2000). "Antecedents of Trust in Intra-Organizational Relationships Within Three Singapore Public Sector Construction Project Management Agencies." *Construction Management and Economics*. **18** (no. 7): 797-806.
- Wood, G. and McDermott, P. (1999). "Building on trust: a co-operative approach to construction procurement." *Journal of Construction Procurement*. **7** (2): 4-14.
- Yates, M. (2006). *The Building as an Organism for knowledge and Cultural Change in Organisations*. The 6th International Conference on Knowledge, Culture & Change in Organisations, Prato, Italy, 11-14 July, Kalantzis M., Common Ground: 1-8 Electronic.
- Zuber-Skerritt, O. (2002). "A Model for Designing Action Learning and Action Research Programs." *The Learning Organization*. **9** (4): 171-179.