KNOWLEDGE MANAGEMENT: THE MISSING LINK IN DESTINATION MARKETING ORGANISATION GOVERNANCE?

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Authors:

Associate Professor Deborah Blackman, University of Canberra

Dr Monica Kennedy[1], University of Canberra

Dr Brent Ritchie, University of Queensland

[1] Dr Monica Kennedy

1C25

University of Canberra ACT 2601

Phone: +61 414251732

Email: monica.kennedy@canberra.edu.au

ABSTRACT

This paper considers the role of knowledge management in developing effective Destination Marketing Organisations (DMOs) and how this affects their Governance. It is argued that recognition of the complexity of knowledge creation, transfer and storage makes it important to actively manage, in situations where learning from one situation is crucial, in order to better manage the next. It is posited that the range of stakeholders within a DMO makes sharing and collecting knowledge difficult across the boundaries created by distance, differences in interests and time. Carlile's (2004) work on boundary spanning is used to consider potential organisational and governance issues and how they should be managed.

INTRODUCTION

This paper considers the role of knowledge management in developing successful Destination Marketing Organisations (DMOs). Initially, what will be argued is that, in an increasingly complex world with multiple sources and forms of crisis, DMOs with ability to create new knowledge and develop novel responses will be those that will create the most value for all their stakeholders. The paper will then consider the potential for boundaries to reduce knowledge transfer and the potential for boundary spanners to overcome these challenges. It will be argued that, if there is to be effective DMO governance, the decisions about systems and structures will need to be taken after active consideration of the role of knowledge, the potential boundaries to knowledge transfer and the role of boundary spanners. Suggestions pertaining to a range of knowledge types are offered to enable the spanning of a variety of boundaries.

1. DMOs AND KNOWLEDGE MANAGEMNT

In late 2008, terrorist attacks in Mumbai, political action that closed airports in Thailand and a world wide economic slump provided vivid examples of the increasing number of disasters and crises affecting the tourism industry (see Faulkner 2001) in general, and Destination Marketing Organisations (DMOs) in particular. In future years, it is anticipated that natural disasters will occur with increasing frequency and severity in the face of climate change (Flannery 2005). However, in our tightly connected world, these events resonate across borders to impact sharply and unexpectedly on organisations, industries and states.

The key role of DMOs in a crisis or disaster is related to two key activities: crisis communication with key stakeholders or publics, and the development and implementation of crisis recovery marketing strategies (Ritchie and Blackman 2007). As noted in Armstrong and Ritchie (2007) and Henderson (1999), crisis communication is the key to reducing negative media coverage, bringing together the public and private sectors and implementing consistent messages and recovery marketing techniques. This includes working with internal stakeholders (staff), and external stakeholders including governments, tourism industry members, tourists or potential tourists, the media and other DMOs. Such multifaceted activities require careful attention to the knowledge that is created, accessed, developed, shared and institutionalised.

New forms of knowledge and new perspectives of tourism opportunities must be developed by DMOs if they are to fulfill their roles as the arbiters of destination promotion in this context. The role of DMOs in keeping ahead of the dynamic and heterogeneous tourism market (Pike 2004; Gretzel, Fesenmaier et al. 2006) is well recognised; however, the rate of change in the context of disaster focuses attention even more closely on the critical need for innovative action in the sector, a focus which is yet to be fully explored through empirical work. Consequently, increased recognition of disaster management approaches, responses, recoveries and organisational continuities (Lee and Harrald 1999) as a result of the seeming ubiquity of crises, has led to a strengthening of research in the field (see also, for instance, Fall and Massey 2006 Evans and Elphick 2005).

Alongside this accelerated interest in tourism crisis management is evolving a preoccupation in organisational research with the value of knowledge to organisational effectiveness. It is now well accepted that organisations whose people have superior knowledge and who are able to harness that knowledge, will be able to act faster and more effectively than those without (De Geus 1997; Teece, Pisano et al. 1997). Indeed, Stewart claims that:

> *'Knowledge has become the most important factor in economic life. It is the chief ingredient of what we buy and sell, the raw material with which we work. Intellectual capital… has become the one indispensable asset of corporations"* (in Little, Quintas and Ray 2002: 2).

As a consequence, the ways in which knowledge is created, developed, shared, utilised and institutionalised is an increasingly focal point in organisational theorising and practice. In situations where rapid response and innovation is crucial, such as in tourism crisis management, effective knowledge activities are central.

In DMOs, as in many contemporary organisations, knowledge activities are often directed at supporting the storage of knowledge and innovations for use by others; rarely is activity directed at developing the supporting processes that enable new knowledge creation, recognition and utilisation, thereby adding value to crisis response and management. Whilst several authors note the capacity of crises or disasters to act as turning points for destinations and businesses (Faulkner 2001; Burnett 1998), these 'transformational connotations' or positive potentialities are exploited only when new knowledge is acquired or applied in novel ways, so that stakeholders are enabled to change their perceptions of the situation and future outcomes. Paraskevas and Arendell (2007) suggest that DMOs should advocate a 'no-fault learning culture' within the destination in order to facilitate learning transfer and the sharing of crisis knowledge and experience without fear of failure or blame.

Knowledge manipulation activities of this type are captured within knowledge management systems. Mistilis and Sheldon (2006: 42) suggest that a destination level shared knowledge system is needed to address tourism crisis and disasters more effectively. In its simplest terms, a knowledge management system is a way whereby knowledge can be recognised and used in a planned, ongoing manner. Many definitions of knowledge management stress its strategic importance:

> *"Knowledge management caters to the critical issues of organisational adaption, survival and competence in face of increasingly discontinuous environmental change.... Essentially, it embodies organisational processes that seek synergistic combination of*

data and information processing capacity of information technologies, and the creative and innovative capacity of human beings" (Malhotra 1997: np).

This definition describes how knowledge management combines technological and human elements, bringing them together so that they can enable the organisation to adapt to change. McElroy (2000), however, stresses that changes have been taking place so that there is now much more emphasis on the human dimension:

> *"Among the changes now taking place in the practice of KM [Knowledge Management] is a shift in thinking from strategies that stress dissemination and imitation to those that promote education and innovation. To date, the goal of KM has been to capture, codify and distribute organizational knowledge (usually in centrally managed computer systems) so that it can be shared by an organization's knowledge workers in the field. By contrast, the educate and innovate strategy, while placing no less importance on sharing and informed decision making, grants a higher value to learning and knowledge creation. ..."* (McElroy, 2000: 199).

Given the 'stickiness' of knowledge (von Hippel 1994), its elusiveness, complexity and resistance to definition (Tsoukas and Vladimirou 2001), it is unsurprising that a broad range of organisational knowledge theories and management approaches have emerged in recent years (Choo and Bontis 2002; Baets 2005; Dimitriades 2005). Nevertheless, however difficult it is to define, capture or manage, the desired outcome for organisations is to bring about changed understandings in their employees, as individuals, collectively and organisational units. Without changed understanding, there cannot be any alteration to the ways in which entities perceive and interact with the world (Blackman and Henderson 2005) and, therefore, innovation cannot occur.

Although the intention seems simple, the actual ability to alter understanding is often disappointing (Storey and Barnett 2000; Malhotra 2002). Whilst there is no consensus on the reasons why knowledge management strategies so frequently fail, Carlile (2004) builds an argument which places responsibility with the increasingly complex circumstances possible at a boundary and the lack of appropriate knowledge manipulation activities available to negotiate across boundaries. That is, individuals' and groups' inability to connect their different worlds across personal and institutional boundaries prevents the combination of the different areas of knowledge which leads to the requisite novelty so desirable for individual and organisational innovation.

In the current context of increasing complexity and change in the tourism industry, we argue that the role of DMOs, and the ways that they define and manage knowledge, must change. DMOs are in a position to assist the industry adapt and proactively deal with change, to the advantage of both the industry and the tourism consumer. However, they can only do this if they are capable of developing and sharing appropriate knowledge; consequently, knowledge management becomes a fundamental element of effective practice. Schianetz, Kavanagh and Lockington (2007) note that a learning organisation approach by DMOs could help create a shared understanding for adaptation to a changing environment, promote a collective awareness of eventual economic, social and environmental risks and impacts as well as how risks can be minimized and/or counted.

Indeed, research on DMO challenges following the September 11 attacks (Gretzel, Fesenmaier et al. 2006), suggested strategies for dealing with the increasing complexity of the environment and role of DMOs focused on interaction, complexity and connectivity. Among the challenges for contemporary DMOs identified by industry experts were 'managing expectations' and 'recognizing creative partnering as the new way of life'. The industry experts discussed DMOs' reliance upon modes of delivery in which information was transferred through print and web, stating the need for new foci, particularly those enabling more effective communication and knowledge development across organisational and disciplinary boundaries.

2. BOUNDARY SPANNING AND TYPES OF BOUNDARIES

There are boundaries present within, and between, all aspects of organisations. These boundaries mark the division of social structures, differentiating roles, actions (Hazy and Tivnan 2003: 88) and specialised domains (Carlile 2004: 555) where they may provide either a source of, or a barrier to, innovation (Carlile 2002 in Carlile 2004). In crisis management there is, necessarily, a variety of stakeholders who need to work with each other in order to integrate their different fields of knowledge to develop and implement effective crisis management strategies. Indeed, 'requisite diversity' and boundary spanning activity lead to an organisation's ability to effectively deal with an increased rate of environmental change (Hazy and Tivnan 2003). The context specific nature of this work increases the need for parties to transfer, translate and transform knowledge across boundaries. Each stakeholder group has agents working within their specific domain and the boundary is created both by access and by the differing languages, assumptions, goals and objectives of each of the stakeholders. If there is to be effective knowledge management there needs to be a system to enable the sharing and re-interpretation of knowledge across the boundaries. As Turner and Toft suggest

> *"...lessons identified need to be passed on effectively to those who need to know about them, and that they be passed on in such a way that appropriate action indicated by them is encouraged"* (2006: 203).

In DMOs, effective knowledge sharing between highly diverse groups of people is critical. The role of the DMO is, after all, to coordinate and communicate with the overall tourism industry at a given destination (Gretzel, Fesenmaier et al. 2006: 117). DMOs work at the intersection between private, public and third sector organisations, with stakeholders in tourism businesses, international governments, aid organisations, media outlets, and other DMOs. Communicating across the various and often conflicting interests of these stakeholders is complex as a result of differences in organisational priority and language, dependency between the stakeholders and the novelty of circumstances (Carlile 2004) which can often prompt the parties to engage with each other. This complexity creates boundaries that require enormous effort to breach and demand focused action by people whose role it is to act as bridges between the differing boundaries.

Boundary spanners provide *"a means of cultivating the organizational ability to deal with the challenges of managing across boundaries"* (Levina and Vaast 2005: 338). They facilitate the sharing of expertise by linking people separated through location, function, hierarchy or goals (Cross and Parker 2004). Thus, in terms of knowledge management, they can act as the agents who identify, interpret and facilitate the movement of ideas, knowledge and innovative practices between domains. It is increasingly accepted that there is a contextual basis to knowledge

(Haggis 2005; Søndergaard, Kerr et al. 2007) and boundary spanners work within their communities, understanding the knowledge in practice and then translating that across a boundary in some way (Levina and Vaast 2005). The boundary spanner needs to be able to unite different domains in a manner which will be advantageous to both/all parties. It should be recognised at the outset that this is a difficult, and often uncomfortable role (Wiesenfeld and Hewlin 2003) and many potential boundary spanners choose to either ignore the possibilities of spanning or to favour one domain over another, in order to minimise the discomfort created by trying to merge two or more different sets of understandings and ideas.

How much energy is required of the boundary spanner depends upon the nature and the complexity of the knowledge held at the boundary and *'...boundary spanning becomes more important as the pace of change in the environment increases'* (Hazy and Tivnan 2003: 115). Table 1 is based upon work by Carlile (2004) and outlines three properties that can be held by the knowledge at the boundary; it highlights the importance of context and complexity in crisis situations.

TABLE 1

Knowledge Properties applied to Crisis Management (Adapted from Carlile 2004)

Properties of Knowledge at a boundary	Theoretical Explanation	Application to Crisis Management
Difference	Difference in the amount or type of knowledge held by agents within different domains at the boundary. As difference increases so too does the effort required to share and assess each other's knowledge	When a disaster occurs the local knowledge of the conditions and cultural context may be far richer than that held by those who are wishing to help. Foreign governments, for example, may think they know what is needed in a given situation, but in fact, alternative aid may be required in this specific context. Previous experiences may highlight and expand differences, rather than enabling successful crisis management.
Dependence	Where entities or agents rely upon each other to achieve a goal. Actors must combine (or at least take into account) their different knowledge in order to develop adequate 'common knowledge' so that they can achieve a specific goal	Often different aid agencies will need to work together, each reflecting their specialism if there is to be a coherent strategy. The various knowledge bases of agents must be coordinated and made visible if innovative solutions to problems are to emerge.

Novelty	The novelty of circumstances provides a further relational complexity. 'When novelty arises there is often a lack of common knowledge to adequately share and assess domain-specific knowledge at a boundary' (Carlile 2004: 557)	In a novel event, for example a political airport blockade, agents may have difficulty identifying what is of consequence. Insufficient common knowledge may exist between DMOs and foreign representatives to ensure that travellers are provided with appropriate options for travel and safety. Foreign representatives may re-use a common knowledge and constrain the ability of the DMO to influence appropriate action.

In the circumstance that a crisis occurs which mirrors a similar event at a previous time or in a related part of the world, the focus will be on exerting effort to resolve differences in type or amount of knowledge between agents and making explicit the dependent relationship that exists between parties, in order that an already formulated strategy can be applied. This approach will rely upon access to, and transfer of, extant explicit knowledge. However, in the increasingly likely event that there is a high level of novelty, the development of new ideas and meanings will need to be the primary focus of communication at the boundary and the knowledge management approach. In this case the type of boundary to be spanned becomes of more concern; Carlile (2004) identifies three types of boundary which will need different approaches for spanning (Table 2).

TABLE 2

Types of Boundary (Adapted from Carlile 2004)

Type of Boundary	Definition
Syntactic or Information Processing	The focus at the syntactic boundary is upon transferring knowledge across the boundary in order that it is understood by all agents. For such an approach to be successful there will need to be a common lexicon developed which will enable the effective communication and mutual understanding of knowledge. This will usually need stable conditions, rarely found within contemporary organisations. In the case of crisis management it will be where there is an incident similar to one that has occurred before and can have the same strategy applied.
Semantic or Interpretive	This boundary focuses upon translating knowledge. It will occur when novelty affects the levels of difference or dependency. Here, the new knowledge will necessitate the creation across the boundary of new meanings to explain the discrepancies and enable shared understandings. This may occur through the translation of meanings and/or negotiation between agents in order to reach a common agreement. This will occur in crisis management where there is a new incident to be addressed but where current knowledge will enable a solution, providing everyone can access and understand what is being planned and meant. The focus will be upon effectively sharing the ideas being implemented. In terms of future planning it will be important that there is a shared understanding of what occurred previously and why it did or did not work.
Pragmatic or Political	The focus here is upon transforming knowledge. Transformation will occur when novelty presents different knowledge outcomes or requirements which leads to different interests among agents needing to be resolved. This boundary recognises that knowledge is invested in practice and that there are potential conflicts and/or costs to do with sharing if to do so creates negative consequences for those in another domain. This is where resistance to innovation and adaptation may occur and where the most complex processes will need to be developed to overcome such potential difficulties. In crisis management terms this will be where currently understood and applied strategies are ineffective and new ones must be developed either, because some parties simply are unaware of current possibilities, or because the way the problem is being addressed is unsuitable.

What can be seen in Table 2 is that where novelty and transformation is going to be the key to an effective DMO crisis strategy, it is likely to be more difficult to enable the sharing of knowledge; it will require careful consideration of the most effective boundary objects used in spanning. Such situations will require stakeholders to share knowledge, possibly across locations and between organisations that may have different goals, history, expectations, budgets and knowledge levels.

A syntactic boundary requires the transfer of information across boundaries and between agents with a common language. The syntactic boundary does not provide a limitation to knowledge sharing and assessment where a common lexicon exists and where stable conditions accommodate replication and re-use of common knowledge – circumstances rarely available in crisis situations. While a semantic or interpretive approach can facilitate the development of shared understanding in situations of novelty by providing opportunities for the development of common knowledge through transfer, interaction and translation between different domains, the resistance of knowledge owing to it being inherently situated within a given context remains a challenge.

At the same time, political differences between organisational members in different domains make the recognition of 'what counts' as valuable knowledge problematic. When people with different bases of common knowledge meet at domain boundaries they struggle to assert the value of their domain-specific common knowledge – the resulting mismatch requiring effort in negotiation so that the novelty is recognised and can be transformed across the boundary.

3. MANAGING KNOWLEDGE ACROSS BOUNDARIES

Making knowledge available and assessable in order to support organisational responses in times of crisis and disaster is an inherently complex problem for DMOs. Much work has been done in the knowledge management literature to explore the approaches that organisations take in their attempts to create and manipulate organisational knowledge. Earl's (2001) taxonomy captured the central approaches to knowledge management and the underlying attributes on which they were built. Blackman and Kennedy (2009) extended the taxonomy to reflect advances in knowledge management theory and acknowledge the various philosophies underpinning their development. The taxonomy aligns with, and augments, Carlile's (2004) integrative framework, suggesting the opportunity for more effective practice in increasingly turbulent environments.

Table 3 identifies Carlile's 'Transferring Knowledge' domain as being within the Technocratic School, illustrating the preoccupation with information systems in providing opportunities for information exchange. This fits with the current focus upon IT solutions, and the ideas the provision of an appropriate information system will enable knowledge transfer. 'Translating Knowledge' is evidenced within the Behavioural School, with translation being reliant upon a directed focus on community where collaboration, contactivity and exploitation of knowledge drives members toward production and sharing of institutionally sanctioned knowledge. Those subscribing to this view argue the need for review groups, action learning sets and ways of supporting managed interactivity. 'Transforming knowledge' occurs in the integrative school where interaction and diversity, through negotiation of conflicting interests and epistemological stances, inspires novel forms of knowledge. Transformation of organisations may occur when knowledge creation is enabled and the organisation structures itself to accommodate novelty.

Structures for this are harder to develop but will emerge where groups work towards new ideas without being driven by prior experience. It is here that boundary spanners are vital as the integration of different world views and experiences may lead to novel ways of linking knowledge in order to develop new ways of working.

TABLE 3
Knowledge Management Taxonomy (Blackman and Kennedy 2009 adapted from Earl 2001)

School	Technocratic			Economic	Behavioural			Integrative	
Attribute	Systems	Cartographic	Engineering	Commercial	Organizational	Spatial	Strategic	Complex	Epistemological
Focus	Technology	Maps	Processes	Income	Networks	Space	Mindset	Interaction	Nature of knowledge
Aim	Knowledge bases	Knowledge directories	Knowledge flows	Knowledge assets	Knowledge pooling	Knowledge exchange	Knowledge capabilities	Knowledge creation	Knowledge wholism
Unit	Domain	Enterprise	Activity	Know-how	Communities	Place	Business	Individual/ collective	Individual/ collective/ organisational
Critical success factors	Content validation Incentives to provide content	Culture/ incentives to share Knowledge networks to connect people	Knowledge learning and information Unrestricted distribution	Specialist teams Institutional-ised processes	Sociable culture Knowledge intermediaries	Design for purpose Encouragement	Rhetoric Artefacts	Learning Accommod-ating emergence Narrative	Variety
Principal IT contribution	Knowledge-based systems	Profiles and directories	Shared databases	Intellectual asset register and processing systems	Groupware and intranets	Access and representation-al tools	Eclectic	Social network analysis Web 2	Multiple targeted
'Philosophy'	Codification	Connectivity	Capability	Commercial-isation	Collaboration	Contactivity	Consciousness	Complexity	Cognition

The integrative school provides important knowledge management concepts and practices for improving the availability of current, useful and accessible knowledge that is available across boundaries. This access and ability to assess knowledge is vital if DMOs are to develop appropriately tailored strategies that allow them to gain value from 'the transformational connotations' emerging from crisis and disaster.

Insights from complexity theories (Waldrop 1994; Kauffman 1995) inform approaches to organisational knowledge that recognize that knowledge emerges through the interaction of diverse agents within a specific context and historical milieu (McElroy 2000; Stacey 2001; Kennedy 2007), while tourism has been recognized as a complex system (McKercher 1999). It is the conflict and negotiation of interests between boundary spanning agents within a changing environment that leads to adaptation (Hazy and Tivnan 2003) and transformation. Complexity highlights the emergence of surprise outcomes resulting from this interaction of individuals, the self-organising capacity of groups and the concerning limitations inherent in attempts to direct groups toward fixed outcomes. It provides a perspective within which the system can be seen as less rational (Frank and Fahrback 1999: 269) than traditional views on organisation suggest. It focuses attention on the influence of exogenous impacts on individuals and their interaction with diverse others within, and beyond, the organisational boundary, recognising the impact of the context or landscape within which individuals attempt to improve their fitness (Anderson 1999).

Requisite diversity has long been proposed as critical to creative social interaction and the type of innovation critical to organisations responding effectively to novelty (Nonaka and Takeuchi 1995) and crisis. As Kauffman succinctly states, 'Diversity begets diversity' (1995: 296). Other authors in organisational theory who draw on complexity add further weight to the appropriateness of the strategy of 'mixing it up': for example Stacey asserts that,

> *'Transformation is possible only when the entities, their interactions with each other and their interaction with entities in the system's environment are sufficiently heterogeneous, that is sufficiently diverse'* so that *'New themes emerge as people struggle to understand each other and as their conversations are cross-fertilised through conversations with people in other communities and disciplines'* (Stacey 2003: 417).

Workplaces, therefore, which limit diversity in workplace experience or 'inter-subjective encounters' (Dovey and White 2005: 246) constrain opportunities for development of new knowledge. Exposure to contextual change opens new niches within which diversity can emerge through opportunities for new interactions; in a continuous way, it enables DMOs to cooperate in ways that can result in an increased capacity to respond to new environmental opportunities. Diversity, then, leads to the development of new knowledge through the interaction and relationships between individuals in groups with diverse and even divergent interests. However, in Carlisle's (2004) terms, when innovation is desired, it is important to reduce the practical and political mismatches that occur at the boundaries between organisational domains. He argues that in contexts which are characterised by high levels of novelty (such as those in times of crisis and calamity), organisational members have inadequate common knowledge to appropriately '…share and assess domain-specific knowledge at the boundary'. So, increasing novelty requires increased effort on the organisation's part to ensure knowledge sharing, critique and creation takes place.

The challenge for DMOs in gaining advantage from the transformative connotations of crisis and disaster exists in their ability to invest energy and resources in strategies that generate new common knowledge amongst stakeholders. This generation necessarily demands approaches that recognize complexity and support the creation and dissemination of transformed domain-specific knowledge. These approaches are espoused in a broad range of literature (Wheatley 1999; Stacey 2001; van Eijnatten 2004; Kennedy 2006); possible strategies include: promoting interactivity and validating emergent knowledge; recognising knowledge as complex, situated and active; providing expansive environments for learning (Fuller and Unwin 2004); supporting autonomy; tolerating risk and providing opportunities for collectives to work on shared problems.

4. IMPLICATIONS FOR EFFECTIVE GOVERNANCE AND MANAGEMENT

The question is what are the implications of all this for effective DMO governance and management? Overall, it means that DMOs need to actively consider what knowledge they need, how to harness it, how to share it and what does this signify in terms of boundaries and boundary spanners. Governance is the process of deciding how an organisation should be determined in terms of its structures for management (Schwarzkopf, Osterheld, Levy and Hall 2008). Since governance is the process of decision-making as well as the process by which decisions are implemented, an analysis of governance focuses on the formal and informal actors (boundary spanners) involved in decision-making and implementing the decisions made and the formal and informal structures (boundaries) that have been set in place to arrive at and implement the decision. In terms of the DMOs and knowledge management, this means that there need to be conscious decisions about how to facilitate communication and knowledge transfer between the different partners and stakeholders. A key governance decision that needs to be active, rather than emergent, is who should be the boundary spanners. For this to occur the function must be acknowledged, such that the whole concept of the role and how it should be addressed will need to be actively discussed within the DMO. As a part of this the boundaries will need to be identified and then all three forms of knowledge need to be considered at this stage: transferring, translating and transforming.

4.1 Transferring

There needs to be a greater focus on the various ways in which knowledge exists within and between organisations and the ways in which it is validated and utilised. Investing energy in facilitating continuous discussion between members of stakeholder organisations to enable greater common knowledge must become a core role for the DMO and, in times of crisis, bringing people together (either through Web2 environments or face-to-face) for problem articulation and translation exercises. Identifying the various sources of difference, dependence and novelty and attempting to articulate the ways in which these impact on interaction is also an important role for DMOs. Providing ways in which stakeholders of all sizes and power bases can contribute meaningfully to the knowledge base of the collective industry will also provide opportunities for new and novel outcomes. Again, Web2 technologies can 'level the playing field' (Gretzel, Fesenmaier et al. 2006: 121) so that less powerful agents can make significant contributions to the emergent knowledge required for these complex circumstances. Pforr and

Hosie (2007) agree by suggesting that because of the geographical dispersal of tourism organisations, the use of technology (such as content management and digital storage devices) may be an effective strategy.

Not only must there be regular communication, there must also be effective data storage and retrieval so that effective tracking of history and decisions is possible. Blackman et al. (2006) argue that without clear reporting, although decisions may be recorded the reasons will be lost; governance decisions about tracking and reporting will be crucial for interpreting events and outcomes at a later date. Research has illustrated that DMOs involved in crisis management may not develop and transfer emergent knowledge from past crisis experiences (Armstrong and Ritchie 2007; Cioccio and Michael 2007; Hystad and Keller 2006, 2008). This in part may be because there is an assumption that large-scale incidents are unique and unlikely to re-occur (Turner and Toft 2006). In this case the boundaries will be anything that prevents the effective transfer between stakeholders, thereby preventing historic understandings to be applied appropriately. Boundary spanners will be those who enable the knowledge to be captured, stored, shared and disseminated in ways that all interested parties can both access and understand. In terms of governance, structures and systems must enable the sharing of intellectual property and the management of risk effectively in this area.

4.2 Translating

DMOs need to be innovative and adaptive in order to be able to manage and support learning in the current context of changing/turbulent situations. In order to do this they will not only need to store and transfer knowledge, they will also need to actively seek out knowledge that may not be obviously relevant, or may only become relevant when seen through the eyes of another. Blackman and Henderson (2004) argue that, unless there is managed challenge to mental models, what is found through environmental scanning will merely replicate the knowledge already in place; those seeking will look in the same place and expect the same outcomes. Consequently, for there to be novelty through translation occurring by finding new ideas or knowledge, or by linking ideas together in a new way, there must be ways of ensuring that individuals come together who will see the world in different ways. This will need to be a governance issue, as structures must support cross-disciplinary developments, encourage the regular changing of advisors and senior team members to ensure changes of mind sets and then implement the management of human resources practices to ensure that a range of learning and leadership styles are employed. Again this will promote difference which will enable translation knowledge.

4.3 Transforming

Knowledge management in the integrative school requires agents to develop clear understandings of their own internal models and exert energy in attempting to understand those of other stakeholders. In terms of governance, this is about discussing all the potential issues and trying to enable self-organising systems which do not continually try to break down structures and knowledge sets. Something is self-organizing if, left to itself, it tends to become more organized, which may seem unlikely (Dempster 1998). What is important is that the driver for change is internally triggered rather externally. In terms of governance, this means that review systems

need to encourage managed sceptism, on going challenge and freedom to change in order to prevent systems or benchmarking becoming too restrictive (Blackman and Henderson 2005). DMOs and tourism stakeholders must negotiate political, knowledge or organisational boundaries in constructive ways, using various interests to transform domain-specific knowledge through interaction. An integrative approach leads to the consideration of optimal diversity and encourages practice and opinion that disrupts stagnant internal models at individual, collective and organisational levels. The key is to continually reconsider the outcomes and the vision and be driven by that, rather than the inputs and processes designed to get things done. The governance strategy needs to treat knowledge transformation as a necessary organisational capability and make sure that there is enough room and freedom for growth, that novelty is always welcomed and questioned in terms of utility not necessarily certainty; this implies that there needs to be a move towards managed pragmatism as well (Menand 1997). Such a concerted effort to actually discuss the nature of the knowledge required for DMOs may lead to very different governance and structural systems and processes.

CONCLUSION

In this paper we have argued that knowledge management is crucial to the effective governance and management of DMOs, especially in times of crisis. There needs to be recognition that, unless the appropriate knowledge is available to enable better decisions, valuable time and impact may be lost. It is likely that, as there are multiple stakeholders involved, there will be boundaries between the parties that will need to be actively managed. We have linked Carlile's (2004) boundaries to the different schools of knowledge management and identified that all three forms of knowledge need to be governed and managed in order to enable effective DMOs. This is a theoretical paper that calls for integrative knowledge approaches and, potentially, managed pragmatism and sceptism. We call for more research which applies these ideas and considers if the implementation of these proposals leads to greater effectiveness.

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