

The resilient community and communication practice

By Susan Nicholls.

ABSTRACT

Recent thinking in the field of emergency management suggests that resilience and adaptability need greater focus for both pre-disaster strengthening of communities and for the longer term psychosocial welfare of communities affected by disasters (Cork, 2009, 2010). Resilience is intimately associated with good communication whereby mutual understanding, fostered by two-way communication, delivers both needed resources to communities, and intelligence regarding community needs to relevant agencies. Without resilience, communities are not likely to recover after disaster. In this context, governments are rightly concerned with the maintenance of robust and fully functioning communities that are able to withstand the shock of disaster, whether caused by nature or human intervention. However, the problem for government agencies is how to communicate with people at risk – which, given recent extreme weather and geological events, is virtually the entire population – initially to encourage preparation and mitigation activities, and later to assist with recovery following disaster. Communication strategies for both of these stages are difficult to implement well and can be politically risky. My contention in this paper is that communication intended to foster resilience means more than simply delivering information. This is true of all stages of the emergency process – prevention, preparedness, response and recovery. This paper examines the components of resilience in the context of disaster; the role communication can play in promoting resilience, and proposes some pointers toward the use of communication to assist in building and maintaining resilient, adaptable communities. ^R

Introduction

This paper focuses principally on effective communication with communities seeking to adapt to, and be resilient in the face of, new and difficult circumstances in times of disaster. It also attempts to examine barriers and challenges that communicators face in contributing to such adaptation, providing examples of how these might be overcome. The discussion is in the context of natural disaster, during and after which the need for resilience is greatest.

The paper begins with a brief discussion about resilience, examining the components of resilience in the context of disaster. Next, concepts relating to information and communication, and the crucial role communication can play in promoting resilience will be explored. The paper concludes with suggestions for improving communication practice to improve resilience and adaptation, as well as ideas for further research in this field.

Broadly speaking, crises and disasters occur in the wake of inadequate anticipation and preparation. Sometimes this is because of poor strategic planning and risk management and sometimes it is because things happen that are outside the bounds of probability dealt with by these processes. Some strategic thinkers argue that there is insufficient imagination applied to anticipating where “inevitable surprises” might come from (Schwartz 1996, 2003; Searce *et al.* 2004). The inquiry into the September 11 terrorist attacks in New York City and Washington DC concluded, for example, that the biggest failure on the part of security agencies was a “failure of imagination” (National Commission on Terrorist Attacks Upon the United States, 2004). It is not difficult to see how that conclusion could be applied to recent disasters in Australia such as the bushfires that affected Canberra and parts of Victoria, or the Queensland floods. None was surprising in hindsight but each caught authorities and the public off guard. Like the events of September 11 in the USA, these were events that had not occurred in the same way in those places before. Similarly, the periods of severe drought in parts of south-eastern Australia over the past decade pushed water sharing arrangements in NSW, Victoria and South Australia to failure point because such dryness had not occurred in the lifetimes of most people involved in water policy – they had, however, occurred in the longer term past (Connell 2007).



I contend in this paper that a greater emphasis on effective communication on the part of relevant agencies and authorities, by which I mean a productive dialogue with affected communities rather than the basic transmission of information, would help significantly in reducing the vulnerability of communities and increase their adaptive capacities in stress situations – that is, would increase community resilience (Kent and Taylor 2002).

Resilience

There are a number of definitions for such terms as resilience, adaptation and sustainability. Resilience is a word on many tongues across governments, communities and disciplines as diverse as engineering, psychology, medicine, ecology and economics (Cork 2010b, c). Resilience is fundamentally a property that gives individuals, social institutions, organisations and/or ecosystems the ability to cope with shocks without losing their essential functions, characteristics and identity (Walker and Salt 2006; Cork 2010a).

Resilience emerges from complex interactions among people, animals, plants and environmental social and economic processes that make up the coupled social and environmental systems of which humans are a part. As such, resilience is complex, and being able to create it or even determine for sure whether a system has enough of it are still big challenges. Nevertheless, we can identify the components of social-ecological systems that give them resilience, as well as the sorts of preparations that are likely to enhance or decrease the ability of such systems to cope with shocks and recover after them.

Research on resilience has focused on how ecosystems and social systems have dealt with shocks in the past and drawn conclusions about what characteristics allowed these systems to retain their identity. One of the most important conclusions has been that it is unhelpful to think of resilience as “resisting change”. Systems that resist change are unlikely to adapt and likely to collapse once their resistance has been overcome. A resilient system changes within limits and does not necessarily “bound back” to exactly the same state as it was in before a shock (Walker *et al.* 2004).

A distinction has been drawn between “specified” resilience (i.e., resilience to specific pressures) and “general” resilience (i.e., resilience to a range of potential shocks) (Walker *et al.* 2004). Often there are trade-offs between specified and general resilience in that having more of one means having less of the other. General resilience is conferred by many aspects of systems but chiefly by diversity (e.g. of ideas, skills, resources, species, function), modularity (connections between parts of a system such that if one part fails it does not bring the rest of the system down with it) and feedback (ways in which information about changes in the system is transferred rapidly to wherever in the system it is needed and timely action is taken at appropriate scales) (Walker *et al.* 2004, 2006). It is the feedback aspect that is a focus of this paper. In governance systems, for

example, these characteristics have been interpreted in terms of the concept of subsidiarity – allocation of responsibility, authority and resources at levels in a hierarchy that are appropriate to the scale of challenges and necessary responses (Marshall 2008, 2010). In terms of communication for resilience, this aspect of subsidiarity can be applied to diffusion of information through the use of credible spokespeople and opinion leaders to transmit information and to receive and pass on feedback (Katz and Lazarsfeld, 1955).

Norris *et al.* (2007) supply a useful list of 21 definitions of resilience, which includes definitions from the physical, psychological, ecological, social and community spheres, among others. In the disaster context, they define resilience as ‘a process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance’ (p.130). They specifically nominate communication and information as crucial components of “networked adaptive capacities” which characterise community resilience, along with economic development, social capital and community competence (p.150). Further, Norris *et al.* offer an illuminating understanding of the characteristics of resilient systems: *robustness, redundancy and rapidity*. I argue that each of these has a specific relationship to communication.

For the purposes of this paper, I define adaptation and sustainability as subsets of resilience, the former signifying successful flexibility in the face of unpredictable or fluid situations, the latter as a state of ongoing capacity to maintain successful adaptive behaviour.

The role of communication in fostering resilient communities

The role of communication in fostering community resilience in a disaster context is threefold: to assist in prevention, preparation and mitigation through carefully designed and pre-tested communication campaigns; to facilitate emergency response during a crisis; and to contribute to and, where possible, expedite recovery, through a combination of information and dialogue.

Effective engagement of people across society aimed at anticipation of and preparation for disasters is vital in supporting resilient communities. Mechanisms for timely communication of relevant information (equating to “rapidity”, where key messages are quickly transmitted to targeted audiences), such as social media and local broadcasting, are vital components of resilient communities. Equally important is investment in a diversity of skills and resources, and a variety of ways to deal with a wide range of potential challenges, including multiple communication methods and channels (“redundancy”, where messages are not reliant on just one channel, such as mobile phones). As well, development of high levels of trust and shared values and objectives must be aligned with understanding and accepting differences in views and aspirations (Cork 2010a; Nicholls 2010).



Information or communication?

Where communities are faced with crisis, and when there is a strong need for information, there is also a strong need to *enable* communities to meet their own needs for information by connecting with them in a process that allows a two-way interaction. For example, research following the Canberra bushfires showed that while people knew they could obtain some information from the ACT Bushfire Recovery Centre in the form of leaflets, their particular and time-related needs for information could only be met by personal contact where they asked for what they needed when they needed it, modified or enlarged their request in conversation, and (ideally) achieved their aim. In the Canberra case, two-way communication, or dialogue, was strongly fostered by organisational structures (Camilleri *et al.* 2007; Nicholls and Glenny 2005). Through dialogue, the providers of information were thus able to meet expressed needs.

Being a mechanism for empowerment, dialogue supports community *robustness*.

As dialogue is two-way, involving both speaking and listening on the parts of participants, it not only supplies specifically required information to those asking for it, but also informs the providers about what information is being sought. As such, it is a key means for agencies to understand how individuals perceive and act on (or the reverse), processes that contribute positively (or negatively) to their own adaptive behaviours.

Without information, communities and individuals under stress are unable to make good decisions. A sense of helplessness and despair follows. But without intelligent hearing on the part of the information givers, it is more difficult for individuals to express their situation: to understand and convey their informational needs. Through their own understanding they enable themselves to take the necessary steps to return to equilibrium. Communities that (re)build their own resilience after disaster and, for that matter, before – at the stages of mitigation and preparedness – are likely to experience a more robust and satisfactory outcome.

At this point, I would like to clarify what I mean by the words “community” and “disaster” in the context of this paper. Here, a “community” is a social grouping that interacts, albeit inconsistently, on a number of levels – often but not necessarily bounded by a geographic commonality but bounded by the effects of the disaster – and is characterised by a self-recognised and self-defined commonality of experience which changes over time (Nicholls 2006). “Disaster” has a plethora of definitions depending on which discipline is using the term (Saylor 1993; Perry 2007). For this paper I define ‘disaster’ as involving the following factors (Eyre 2006, Seeger 2002, Fearn-Banks 2002):

- an event in time that has an identifiable beginning (although often not a clear end-point)
- the destruction of property, injury and/or loss of life
- affecting a large group of people adversely

- out of the realm of ordinary experience
- public and shared by members of more than one family
- disrupting the normative or cultural system of a society
- traumatic enough to induce stress in almost anyone exposed to it, and
- the subject of intense media interest.

Regarding the first point, it should be noted that disasters which have long-term, major social, psychological, economic, infrastructural, environmental and other effects take time to recover from. It is difficult to anticipate when a disaster will be “over” or even to identify a point at which an end occurs (Nicholls and Glenny 2005).

Robustness: preparation, mitigation and communication

It is a truism that effective preparation for disaster, and mitigation practices to reduce the impacts of disaster, are essential components of a community’s capacity to recover – i.e. its resilience (Eyre 2006). The more thoroughly a community readies itself for the impacts of disasters, the more robust it is likely to be in the event. Preparation for any kind of impact involves, as I have mentioned above, imagining what could happen and taking steps to be ready for that event. In Australia, local and State Government agencies typically take responsibility for providing information about such preparation. The Australian Government Attorney-General’s Department (2009b) notes: “The concept of the prepared community concerns the application of the comprehensive, all hazards and all agencies approaches at the local level [typically at local government level]”. The focus here is on what agencies do. The other part of the equation, the community, is unfortunately seen as a monolithic receptor of information and instructions from relevant agencies.

Given that many individuals are resistant to warnings, and minimise their risk preparation in the belief that ‘it won’t happen here/to me’, persuasive and trustworthy communication plays a vital part in realistic and credible warning about risk as a first step (Paton 2003). Dialogue is a logical method to establish trust and to persuade an uncommitted audience. A second step, part of this dialogue, is to suggest a clear and practical set of actions that will mitigate the danger, taking into account feedback regarding a community’s or individual’s current perceptions and capacity to act on this advice. A third is to communicate the means by which these actions can be accomplished to prepare effectively for impact. This advice should be formulated in such a way as to convince audiences that if they make the effort: a) they have a reasonable expectation that they can accomplish their intention; b) it is a worthwhile thing to do; and c) there are advantageous and desired rewards for their effort (Vroom 1964 cited in Wood *et al.* 2004).



Robustness: response and recovery communication

Post-disaster, that is, after the initial emergency phase, a new range of communicational purposes come into play. Unfortunately, research about crisis and post-crisis communication focuses heavily on media management, and while media play a significant role in informing audiences about what measures are being taken in response to disaster, this focus ignores the capacity of affected communities to respond effectively in their own ways if given the opportunity – opportunity that dialogic communication can help provide. In fact, rendering communities powerless by disregarding their own agency in self-protection and resilience can be harmful to longer-term recovery. Moreover, the view that communities are helpless and prone to panic tends toward two unhelpful outcomes: it encourages an attitude within communities of over-reliance on government services that are often already at or beyond breaking point during disasters; and media is likely to exacerbate an audience's anxiety with alarmist and sensational coverage, as occurred after Hurricane Katrina (Tierney *et al.* 2006).

It is also worthwhile pointing out in this regard, given the difficulties of conveying accurate and timely information to affected communities during the response phase of a disaster, that the phenomenal growth of social media has already affected how information is shared among communities. Social media has tremendous potential to assist people facing disaster by providing trustworthy, timely contact and mutual support. Interestingly, it is characterised by the reciprocated responsiveness of sender and receiver.

Few studies have looked closely at how communication can assist recovering communities (Camilleri *et al.* 2007), but good dialogic communication is key to enabling communities to acquire agency in their own recovery. When a community is faced with disaster, individuals are in the curious dilemma of needing a great deal of information, often not knowing precisely what information they need, and often not being able to effectively assimilate or act on information when it is received. These factors come into play to a greater or lesser extent before, during and after disasters (underscoring the connectedness of all stages of disaster in contributing to recovery). There is a particular difficulty when it is government, often mistrusted or held responsible by communities for their plight, which is attempting to communicate.

Following a major emergency such as bushfire or flood, communities immediately begin their own recovery by bonding together, often demonstrating notable altruism (Wraith and Gordon 1988). Emergent groups appear, combining individuals who may have little in common but their shared disaster experience and their desire to re-establish normality (Gordon 2004). These groups often apply to government agencies for help. If agencies are not in the habit of engaging in dialogic communication, groups can feel rebuffed and become politicised (Stallings and

Quarantelli 1985). This, in turn, can result in conditions of conflict detrimental to resilience.

One of the difficulties of post-disaster or recovery communication is in understanding what actually constitutes recovery. Fear, anxiety, disrupted relationships and depression are the shadow side of recovery, the unglamorous, slow, painful journey with few milestones or signposts.

Following these ideas, I define recovery as *an ongoing state of being, experienced differently by individuals in a community that has suffered disaster, in which there are varying states of restoration, recuperation, renewal and revival of physical, emotional, economic, and infrastructural conditions that had been damaged or destroyed by the disaster.*

There are no 'one-size-fits-all' solutions for individuals who are recovering from a disaster. Their needs are multiple. They include, differently for different people, material, emotional, aesthetic, social, environmental and spiritual assistance. Dialogic communication plays an essential role in elucidating and responding to diverse needs, thus encouraging and supporting resilience.

Resilience supported by communication: some examples

The Canberra experience of the aftermath of 18 January 2003 can teach us many lessons about recovery, especially about how extremely varied it can be from person to person. Research undertaken three years after the Canberra bushfire gave many contradictory indications about what helped and what hindered people's recovery. For example, some people found that media coverage repeatedly showing familiar places – even their own houses – engulfed in flame was deeply upsetting; others thought it was a good thing because it showed the rest of Australia, and the world, what they had gone through (Camilleri *et al.* 2007). A major finding was that people thought *Community Update*, the weekly recovery newsletter, a very great help and emphasised that they regarded it as 'their' newsletter.

As mentioned above, the structure of the recovery organisation itself was highly conducive to dialogic communication. A Community and Expert Reference Group was established, with representatives widely drawn from the community and relevant organisations, and the Canberra Bushfire Recovery Centre was also a source of mutual exchange of information, views and needs. This combination of formal and informal mechanisms fostered dialogic communication (Nicholls and Glenny 2005).

Communication was seen to fail dramatically during Hurricane Katrina in the USA. When devastation of large areas of infrastructure in New Orleans and neighbouring cities combined with a society divided by poverty, an already weak system of governance struggling to respond was overwhelmed. Most affected Louisiana communities were shown to be highly vulnerable and lacking in the key components of resilience.



Resilience: the capacity of systems to “bounce back” after shocks.

Communication – the mutual giving and receiving of information – is a crucial component of community resilience.

The role of communication in fostering community resilience in a disaster context is threefold:

- to assist in prevention, preparation and mitigation through carefully designed and pre-tested communication campaigns;
- to facilitate emergency response during a crisis; and
- to contribute to and, where possible, expedite recovery, through a combination of information and dialogue.

Dialogue in the disaster context can be understood as two-way communication allowing a mutual exchange of understanding between affected communities and the agencies charged with assisting them.

Communities need informational resources, enriched by dialogue with providing agencies, to successfully advance their own recovery and create resilience.

However, recovery communication brought to bear some time after Hurricane Katrina, like that following the 11 September attacks in 2001, was a highly sophisticated TV and print campaign designed to help a diverse group of people who were distressed (Nicholls and Healy 2008). An important aspect of both of these campaigns was their recognition that “telling” was insufficient, and two-way communication was essential: every TV commercial and all printed material had a free call number so that personal support could be reached. This, in turn, provided authorities with a clearer idea of where people were in their recovery and what their concerns were, leading to more refined and targeted information provision. In addition, hard-to-reach communities – such as particular “closed” ethnic groups and first responder teams – were recognised as having distinct communication needs and methods of access to help (April J. Naturale, Project Liberty, New York City pers. comm.).

Conclusion

Placing the principle of dialogic communication at the heart of disaster communication to foster resilient communities is the strong recommendation of this paper. Policy decisions that are informed by the feedback mechanisms of dialogic communication have a far greater chance of favourable outcomes than decisions made in isolation and without an informed understanding of the communities they affect. Research into recovery communication after the Canberra bushfires indicated that, among other communication strategies, the feedback mechanisms in place through a range of face-to-face encounters allowed recovery authorities to match services and information to needs. In relation to emergency communication management more

broadly, one way to deal with the likelihood of shocks that are outside the experience or memory of current government policy-makers and people across society is to develop scenarios of multiple possible futures based on sound analysis of past trends, clarification and challenging of current assumptions and mindsets, and application of informed imagination to what *could* occur if current constraints on the environment, society and/or the economy change (Schwartz 1996; Searce *et al.* 2004). Central to such activity is focused, feedback-enriched communication. Allied to this approach is the building of resilience (if it is lacking) or maintenance of resilience (if it is already adequate) across institutions and society more broadly using dialogic communication as a principal strategy (Walker and Salt 2006; Cork 2009; Resilience Alliance 2010, Cork 2010a; Nicholls 2010).

Further research into communication practices among other disaster-affected communities would reveal useful parallels and differences that would ultimately enhance efforts to create a society more resilient to the likely shocks associated with, for example, climate change. In particular, the growth of social media cannot be overemphasised, and needs to be explored in this context.

NOTE: An earlier version of parts of this paper appears in Cork, S (Ed) 2010, *Resilience and Transformation – Preparing Australia for Uncertain Futures*. CSIRO Publishing: Collingwood.

References

- Australian Government Attorney General's Department** (2009a) *Community Engagement*. Australian Government, Canberra, <http://www.ema.gov.au/www/emaweb/emaweb.nsf/Page/EmergencyManagement_Communities_CommunityEngagement>.
- Australian Government Attorney General's Department** (2009b) *Community Engagement*. Australian Government, Canberra, <http://www.ema.gov.au/www/emaweb/emaweb.nsf/Page/EmergencyManagement_EmergencyManagementApproaches#PC>.
- Citranningtyas T** (2010) *Beyond resilience in the face of disaster – transforming adversity by transforming ourselves and our systems*. In 'Resilience and Transformation – Preparing Australia for Uncertain Futures'. (Ed. S Cork) pp. 189-196. CSIRO Publishing: Collingwood.
- Camilleri P, Healy C, Macdonald E, Nicholls S, Sykes J, Winkworth G and Woodward M** (2007) 'Recovering from the 2003 Canberra bushfire: A work in progress'. *Emergency Management Australia*, Canberra, <http://www.ema.gov.au/www/emaweb/emaweb.nsf/Page/EMA_Library>
- Connell D** (2007) *Water politics in the Murray-Darling Basin*. (Federation Press, Sydney)
- Cork S** (2009) (Ed.) 'Brighter prospects: Enhancing the resilience of Australia.' (Australia 21: Canberra)
- Cork S** (2010a) (Ed.) 'Resilience and Transformation – Preparing Australia for Uncertain Futures.' (CSIRO Publishing: Collingwood)



Cork S (2010b) *Introduction and synthesis of key themes.* In 'Resilience and Transformation – Preparing Australia for Uncertain Futures'. (Ed. S Cork) pp. 3-4. (CSIRO Publishing: Collingwood)

Cork S (2010c) *Policy implications.* In 'Resilience and Transformation – Preparing Australia for Uncertain Futures'. (Ed. S Cork) pp. 5-20. (CSIRO Publishing: Collingwood)

Eyre A (2006) *Literature and Best Practice Review and Assessment: Identifying People's Needs in Major Emergencies and Best Practice in Humanitarian Response.* (UK Government, London)

Fearn-Banks K (2002) *Crisis Communications: A Casebook Approach.* (Lawrence Erlbaum Associates, Mahwah, New Jersey)

Gordon R (2004) *The social system as site of disaster impact and resource for recovery.* *Australian Journal of Emergency Management* 19:16–22

Katz E and Lazarsfeld P (1955) *Personal influence: The part played by people in the flow of mass communications,* (Free Press, Glencoe)

Kent M and Taylor M (2002) *Toward a dialogic theory of public relations.* *Public Relations Review* 28:21–37

Marshall GR (2008) *Nesting, subsidiarity, and community-based environmental governance beyond the local level.* *International Journal of the Commons* 2:75-97.

Marshall GR (2010) *Governance in a surprising world.* In 'Resilience and Transformation – Preparing Australia for Uncertain Futures'. (Ed. S Cork) pp. 49-56. (CSIRO Publishing: Collingwood)

National Commission on Terrorist Attacks Upon the United States (2004) *'The 9/11 Commission Report. Executive Summary.'* National Commission on Terrorist Attacks Upon the United States, Washington DC.

Nicholls S (2006) *Disaster memorials as government communication.* *Australian Journal of Emergency Management* 21:4 36-43

Nicholls S (2010) *The role of communication in supporting resilient communities.* In 'Resilience and Transformation – Preparing Australia for Uncertain Futures'. (Ed. S Cork) pp. 181-187. (CSIRO Publishing: Collingwood)

Nicholls S and Glenny L (2005) *Communicating for recovery: A case study in communication between the Australian Capital Territory government and the ACT community after the ACT bushfires, January 2003.* In *Public Relations Issues and Crisis Management* (Eds C Galloway and K Kwansah-Aidoo) pp. 41–58. (Thomson Social Science Press, South Melbourne)

Nicholls S and Healy C (2008) *Communication with disaster survivors: towards best practice.* *Australian Journal of Emergency Management* 23:14–20

Norris FH, Stevens SP, Pfefferbaum B, Wyche KF and Pfefferbaum, RL (2008) *Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness,* *American Journal of Community Psychology* 41: 127-50

Paton D (2003) *Disaster preparedness: a social-cognitive perspective.* *Disaster Prevention and Management* 12,:210–216.

Perry RW (2007) *What is a disaster?* In *Handbook of Disaster Research.* (Eds H Rodriguez, EL Quarantelli and RR Dynes) pp. 1–15. (Springer, New York)

Resilience Alliance (2010) *Resilience.* Resilience Alliance <http://www.resalliance.org>

Saylor CF (Ed) (1993) *Children and disasters.* (Plenum Press, New York)

Scearce D, Fulton K, Global Business Network (2004) *'What if? The art of scenario thinking from non-profits.'* (Global Business Network: Emeryville, California, USA)

Schwartz P (1996) *'The Art of the Long View.'* (Currency Doubleday: New York)

Schwartz P (2003) *'Inevitable Surprises: Thinking Ahead in a Time of Turbulence.'* (Gotham Books: New York)

Seeger MW (2002) *Chaos and crisis: Propositions for a general theory of crisis communication.* *Public Relations Review* 28:329–337

Stallings R and Quarantelli EL (1985) *Emergent citizen groups and emergency management.* *Public Administration Review* 45, 93–100.

Tierney K, Bevc C and Kuligowski E (2006) *Metaphors matter: Disaster myths, media frames, and their consequences in Hurricane Katrina.* *Annals of the American Academy of Political and Social Science* 604:57-81

Walker B, Holling CS, Carpenter SR, Kinzig A (2004) *Resilience, adaptability and transformability in social-ecological systems.* *Ecology and Society* 9, 5 [online]. <http://www.ecologyandsociety.org/vol9/iss2/art5/>

Walker B, Salt D (2006) *'Resilience Thinking: Sustaining Ecosystems and People in a Changing World.'* (Island Press, Washington DC, USA)

Walker BH, Anderies JM, Kinzig AP, Ryan P (2006) *Exploring resilience in social-ecological systems through comparative studies and theory development: introduction to the special issue.* *Ecology and Society* 11, 12 [on line]. <http://www.ecologyandsociety.org/vol11/iss1/art12/>

Wood J, Chapman J, Fromholtz M, Morrison F, Wallace J, Zeffane RM, Schermerhorn JR and Osborn RN (2004) *Organisational Behaviour: A Global Perspective.* John Wiley & Sons Australia Ltd., Milton, Queensland

Wraith R and Gordon R (1988) *'Human responses to natural disasters (series) Part 8: Community responses to natural disaster.'* *Macedon Digest* 3(2).

About the author

Dr Susan Nicholls, formerly lectured in the communication field at the University of Canberra. She convened a Government Communication Group in the School of Professional Communication. She was also involved in a multidisciplinary research project funded by EMA and ACT Health investigating recovery in the ACT community following the January 2003 bushfires. Dr Nicholls is also a Fellow of Emergency Media and Public Affairs. She can be contacted on halcyon@home.netspeed.com.au

