Looking back, thinking ahead

In this special segment for AJEM's 40th anniversary issues, we interview past journal contributors about their early articles, what has since changed in the fields they work in, and their ideas and suggestions for the future of AJEM.

Through their eyes: capturing decisions in motion

An interview with Jim McLennan

My first article in the *Australian Journal of Emergency Management* (AJEM) came out of a bigger research program led by my late wife, Mary Omodei, in her Complex Decision Research Group at La Trobe University (McLennan et al. 2005). Mary was known for developing an enhanced system of interviewing. We were not the only ones playing with this idea, but Mary was the first to publish an account in a refereed journal.

The concept was simple but groundbreaking: strap a video camera to someone's head to capture their field of vision, and record audio for ambient sounds. Mary's initial interest was improving the performance of orienteers. Back then, the only way to study their decision-making was through post-race interviews, which had obvious limitations. We wanted to capture decisions as they happened.

In 1994, we invited a British orienteer to Christmas Hills, Victoria. The cameras were enormous - think big stereo size - so we strapped one to the side of his head and packed the recorder in a backpack. Off he went, running the course and talking to himself. Later, we played the footage back and asked him to recall what was going through his mind. The richness of that data was incredible; what he noticed, his intrusive thoughts, and his priorities. It was a goldmine.

We expanded the research with Orienteering Australia, working with juniors to improve decision-making. One day, a local television crew turned up to cover a young orienteer who topped his HSC. They stumbled upon our work and got so excited they featured Mary's research on Channel 7. That is how Denis Rich from the MFB training college heard about it. He saw potential for firefighter training and reached out to us to try it out.

Soon, we were running a project with 12 station officers preparing for promotion assessment by conducting exercises in the role of incident controller. Olga Pavlou, a brilliant Honours student at Swinburne University where I worked then, spent three weeks at the old Abbotsford MFB training college, using the head mounted recording unit, recording exercises, and debriefing participants. The officers loved it: all passed, and Olga earned first-class honours for her thesis. We had fantastic data, but life intervened. I spent 2 months at Windsor Fire Station doing more fieldwork, and then Mary was diagnosed with cancer in 1999. That slowed everything down.

Eventually, I analysed the data and wrote the paper. AJEM accepted it, although it took two years before it was published in 2005. It hasn't attracted many citations – technology moved fast, and there were union concerns about video use – but the technique, now called own point of view (OPV) cued recall, found its way into sports, hospital emergency departments, anaesthesiology training, and police training. Emergency services? Not that I am aware of.

Reflecting on how emergency decision-making training has changed since then I would say honestly, not a lot. I recently did a literature review for our current research team[1] – published in AJEM last year – and found something surprising (McLennan et al. 2024). There is still this deeply held belief that simply taking part in the exercise is enough. People would deny it, of course, but that is what the limited evidence shows. The aim seems to be 'do the exercise', with little thought to evaluating what was learned. So, I am left with the same question I had back in the 1990s: how much actual learning goes on?

Looking ahead, I would love to see AJEM publish more practice-relevant, rigorous, and innovative research. The October 2024 issue was outstanding, and not just because one of my papers was in there. It was a bumper issue with research and relevant practice. I would like to see more of that. When I first encountered the journal in the late 1990s, it felt like a newsletter. Today, it is much stronger, but there is room for growth. Perhaps AJEM could also create a space for fresh ideas that invite discussion and inspire future research. After all, it is often the unconventional ideas that end up driving real change.

1. https://www.naturalhazards.com.au/research/research-projects/enhancing-decision-making-emergency-management

References

McLennan J, Hayes P, Bearman C, Penney G, Butler P C and Fling R (2024) 'Training to improve emergency management decision-making: what the research literature tells us', *Australian Journal of Emergency Management,* 39(4):33-45. https://doi.org/10.47389/39.4.33

McLennan J, Pavlou O, Klein P and Omodei M (2005) 'Using video during training to enhance learning of emergency incident command and control skills', *Australian Journal of Emergency Management,* 20(3):10-4. https://search.informit.org/doi/abs/10.3316/informit.095586549767731

Partners in tsunami planning and preparedness

An interview with Jane Sexton

The first article I published in the *Australian Journal of Emergency Management* (AJEM) was 'Tsunami planning and preparation in Western Australia: application of scientific modelling and community engagement' (Stevens et al. 2008). It was published as part of 2 special issues on risk assessment compiled by the late Trevor Jones. It was jointly written with Russell Stevens and Gordon Hall, two emergency managers from the Department of Fire and Emergency Services in Western Australia, or FESA they were called at the time, and I was at Geoscience Australia (GA).

After the 2004 Indian Ocean tsunami there was funding to look at what the tsunami risk would be like on the Western Australian coastline. There had been nothing done in that space prior to 2004. What made that project so good, and why we wrote the paper, was because of the partnership between the scientists and emergency managers. We were all learning at the same time. GA brought the scientific modelling, and the emergency managers brought the knowledge of their communities. It was GA's role to help translate the science for the emergency managers to then go and talk to their communities about local tsunami risk and translate that into their local plans.

In terms of research, it was the first piece of work where we brought together all these different people that looked after different inputs to modelling a tsunami from source to shore -whether it was bathymetry, onshore elevation, earthquake generation of tsunami – to the people who understood the onshore impacts like civil engineers at GA through to the local emergency managers. Lots of relationships had to be developed to do this project. It was the first time that tsunami inundation modelling was done in Australia (publicly available anyway), and probably one of the first places internationally that was doing inundation modelling. There was lots of offshore tsunami modelling at the time, but not as much onshore tsunami modelling because it is incredibly complex, requiring detailed data and high-performance computing. The project won the Australian Safer Communities Award in 2007 and the Asia-Pacific Spatial Excellence award in the same year.

Between 2008 and 2025, the computing power and techniques that underpin tsunami research have advanced significantly. Increases in the accuracy and timeliness from a scientific modelling point of view have been a major step change. Sometimes I do wonder how much has actually changed, as we are fundamentally still modelling inundation and developing an evidence base for decision makers – however what we do have now is so much richer and provides important uncertainty estimates.

For the emergency management sector though, there has been a lot of change. The first National Strategy for Disaster Resilience didn't exist when this paper was published. The notions of shared responsibility and systemic risks, as well as working with culturally and linguistically diverse communities and people with disabilities was not prominent in the conversations at the time, and this has improved significantly compared to 2000s.

Thinking about the future of AJEM, we could do something really novel and have video or audio pieces, in addition to the written pieces. That gives people a different way to contribute. Reflecting on historical events is always valuable because it helps people to understand where things have come from and how it has evolved. We don't always understand what it has taken to get to the point that we are at. AIDR could use the transformative scenarios[1] to think about what the journal might look like in the future. There's the Tech Horizons scenario, for example. AJEM is already becoming digital, but what do people and the community look like? What does the emergency management profession look like in 20 years? That might be something to consider for the journal and for AIDR more generally.

References

Stevens, R, Hall, G, and Sexton, J (2008) 'Tsunami planning and preparation in Western Australia: application of scientific modelling and community engagement', *Australian Journal of Emergency Management,* 23(4):30–36. https://search.informit.org/doi/10.3316/agispt.20091120

1. https://naturalhazards.com.au/knowledge-modules/transformative-scenarios