

The Fire Knowledge Network Results of Online Information Needs Survey

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1 Summary of Findings

The main themes emerging from the survey indicated that users felt what is needed is access to research, case studies and data, so that they can work with colleagues both in research and in practice, to improve concrete outcomes in emergency and fire management. The approach users wanted to see within the industry was to integrate as well as educate communities that are served, and result in a dynamic situation where the Fire industry is constantly improving research and practice.

The main findings can be summarised as:

'Support for professional networking' is required:

- Connecting colleagues through;
 - workshops
 - networking
 - face to face, socially interactive means.
- Access to experts,
- Networking with communities.

'Convenient, accessible delivery of information' focussing on:

- Access to research materials,
- Accurate and timely climate and geographical data, including forecasts and historical records,
- Email ('in your face', prioritised),
- Websites

Case studies—both to inform practice and research, and as a part of an evidence-based approach.

Possible considerations for TFKN include the development of:

- Collaborative online communities of practice,
- Forums/self publishing,
- Linking/networks,
- Focussing on evidence-based practice (translation from the ‘data’ to the operational),
- Technology/practice transfer and community integration.

2 Response to Questions

2.1 “What type of information do you need to do your job?”

Note: in this category respondents were able to give multiple answers in the space provided.

Theme	Count
Research Materials and Trends	63
Climate and Environmental Data & Research	45
Ecology/Biodiversity	13
Policies/Procedures	10
Fire Fighting Techniques	7
Case Studies	6
Legal matters/legal research	4
Total	148

Responses to this question indicate that access to Research Materials in general, as well as more specifically climate and environmental research and data, is critical information for the respondents.

The availability of accurate and timely climate and landscape data (as shown in some of the comments below) is particularly critical. In addition, some of the comments bore out the need for appropriate professional and ‘operational’ networks, depending on the situation (i.e., research versus critical short-time span decision-making in an operational setting).

Some quotes from respondents regarding the type of information they need to do their job:

- “Ecological information, weather and climate data, accurate fire maps (for working out fire frequency across the landscape)”
- “New technologies, manufacturers, suppliers, peer assessment of such technologies”
- “Comprehensive forecasts. Comprehensive info on completed hazard reductions. Reports on fire-ground operations and tactics at previous fires (case studies)”
- "Vegetation/land system mapping; Climate data (long term); Weather patterns (averages, predictive); Weather forecasts and observations (Inc. soil dryness etc);
- Knowledge of risk assessment and risk management; Knowledge of fire ecology
- Knowledge of fire operations; Awareness of new initiatives/thinking/opportunities.”
- “Who else to talk to (good professional network)”

2.2 How do you access the information you need to do your job?

Note: respondents in this category were able to give multiple answers in the space provided, hence the count displayed below.

• How do you access the information you need to do your job?		
websites	160	11.64%
intranets	126	9.16%
colleagues	165	12.00%
professional journals and trade journals	119	8.65%
fire and land management agency magazines / newsletters	86	6.25%
professional associations and / or networks	107	7.78%
libraries	94	6.84%
conferences	128	9.31%
workshops	120	8.73%
field days	64	4.65%
research organisations	97	7.05%
universities	74	5.38%
Other	35	2.55%
Total	1375	

The data shows that access to colleagues and websites were the two most important information sources for respondents. Professional associations and/or networks, conferences, and workshops all play similar (if not overlapping) roles of information sharing, knowledge and technology transfer, and the further enhancement and/or renewal of existing professional networks.

To summarise:

- Opportunities for networking, technology transfer, and knowledge transfer and knowledge renewal are critical for respondents' jobs.
- Websites amongst other online tools such as intranets are important support technologies for the respondents work.

2.3 How do you acquire new knowledge on the latest research, methods and processes relating to bushfires in Australia and internationally?

Note: that the respondents in this category were able to give multiple answers.

Theme	Count
Conferences	47
Websites/Internet	44
Research resources such as journals, databases	42
Experts/Colleagues--discussion, contact	28
Workshops/Seminars	22
Networking with others	19
E-mail/Mailing Lists	14
Total	216

Responses are in line with responses to previous questions showing that the critical information sources remain colleagues, research materials, and internet based research tools, with perhaps a slightly higher emphasis on recent/ground-breaking methods and processes as they are likely to be presented in professional forums such as conferences and online research updates.

The importance of networking/professional contact is also raised, and some of the comments below reinforce this as an area of importance for users:

- "Through the Bushfire CRC and the Fire Research Working Group and international contacts."
- "Conferences, discussion with researchers, workshops, reading journals & newsletters etc"
- "Most commonly attend conferences or receive updates through our research section or by articles that get sent around (e.g., BCRC articles). Also periodically set a mini project with a dedicated officer to search the www for a specific range of detail."
- "Unfortunately by chance. Rarely have the time to systematically trawl through a variety of locations."
- "I am probably unaware of latest research, methods, etc. I rely on the training provided by my employer. I suspect that this training is not the 'latest' and would like to know more."

- "Networking within Australia. Regularly email counterparts in other fire & emergency services org's in Australia. Limited networking internally; Web search."

2.4 What sources of information do you currently rely on that you find to be credible, reliable and accurate?

Note: respondents in this category were able to give multiple answers in the space provided, hence the count.

What sources of information do you currently rely on that you find to be credible, reliable and accurate?		
websites	112	11.32%
intranets	88	8.90%
colleagues	121	12.23%
professional journals and trade journals	108	10.92%
fire and land management agency magazines / newsletters	70	7.08%
professional associations and / or networks	81	8.19%
conferences	110	11.12%
workshops	87	8.80%
field days	40	4.04%
research organisations	88	8.90%
universities	62	6.27%
Other	22	2.22%
Total	989	

Responses show that peer reviewed material (journals, conferences etc.), word of mouth, and websites are seen as the most credible sources. The formal and informal knowledge of colleagues was also seen as highly credible. This ties back to networking, and knowledge transfer issues—particularly from research to practice.

'Other' information sources respondents relied on included:

- Employer
- NT & WA Governments
- expert knowledge
- commercial databases
- libraries
- email
- Training drills
- Annual Reports and similar publications
- research data from fire ground
- CSIRO
- Word of mouth
- specialist consultants
- Formal & informal training

2.5 What is your preferred method for receiving information?

Respondents indicated a preference to receive information through:

- **Face to face, socially interactive means**
 - Colleagues,
 - Workshops,
 - Networking.
- **Convenient electronic means**
 - Email ('in your face', prioritised),
 - Websites.

'Other' ways people preferred to receive information included:

- on mailing lists
- Feedback from experienced volunteers
- e-mail summaries
- Reports e.g. Coronial inquiries, Royal Commissions, agency debriefs, etc
- libraries
- On the job training & mentoring
- travel to overseas laboratories
- Training study programs
- internal directive
- Emails from credible source, i.e., CRC, AFAC etc
- Popular magazines, journals, newspapers
- word of mouth
- This issue is hard as there is no one fit for all sectors of our work
- Specialist consultants
- stakeholders/clients (e.g., teachers)
- searching the internet
- Difficult to answer this question because the means of accessing the information depends on the subject and the intended target audience.
- list of relevant websites
- Referenced material has a higher value than the current unreferenced conference material

2.6 What information do you need to do your job that you don't have access to now?

Note: respondents in this category were able to give multiple answers in the space provided, hence the count.

What information do you need to do your job that you don't have access to now?		
access to expert advice	74	16.82%
latest research	80	18.18%
operational procedures	50	11.36%
case studies	91	20.68%

policy	30	6.82%
standards	32	7.27%
codes of practice	33	7.50%
legislation	23	5.23%
Other	27	6.14%
Total	440	

Case studies, latest research, and access to expert advice are the areas identified by respondents as currently lacking and should be pursued.

‘Other’ responses in this field included:

- Benchmarking & best practice
- I like information presented to me. Doesn't matter the format, but put in front of me and say read this or view this.
- journal summaries
- Training
- unrestricted internet access
- training materials; reports of fire investigations; research by agencies
- Location of various professional groups/networks
- evaluation
- community attitudes
- Data promised by end user agencies
- some data from some agencies; accuracy of record keeping at agencies
- Generally always have access to all of the above, issue is knowing where/how to access
- progress reports on current research
- Many of the above but as they relate to other agencies in a summariesd format.
- More time in one day...
- I can gain access to a lot of this info now, but sourcing it can often be difficult
- Understanding of who is carrying out what research e.g., university PhDs, academics, internal organisational research projects

2.7 In your opinion what type of information, knowledge and resources does the bushfire industry need most today?

Responses to this last question reiterated the importance of research, case study material, and community engagement.

Users clearly need access to research, case studies and data, so that they can work with colleagues both in research and in practice, to improve concrete outcomes in emergency and fire management.

Note: respondents in this category were able to give multiple answers.

Theme	Count
Access Research/Data Exchange and Networking (broad areas of interest)	73

Case Studies	13
Community Engagement	12
Training	8
Climate Change specific	6
Better knowledge and technology transfer to the field esp. regarding environmental factors	4
Total	116

‘Other’ responses included:

- “I would like to see some findings from incidents written in such a way that they can be used for training-scenarios, exercises e.g., lessons learnt but without attaching blame to people. Various fires we have had -written up, with details of spread rates, photos, incidents, etc”
- “Enhanced sharing of information - clearing house. Improved science to implement protection programs.”
- “Case studies on particular incidents, problems and innovative solutions”
- “A multi-disciplinary perspective that places bushfire suppression, fire-fighter and community safety within the broader context of the Australian landscape, history, culture, environment and land use”
- Quality data on operations and decision making in relation to resourcing and incident management and risk reduction”
- “More training on urban interface, incident control, strategic planning and resource management
- “Ecological effects of fire, community information flow, community education.”
- "Accurate mapping of vegetation etc.”
- “Community view point. Research on the reality of communities attitudes to bushfire preparedness and perception of risk.”
- "Technical transfer information on research outcomes.”
- “How to resource and align latest research with practice and training in the agency in an ongoing system of continuous improvement. “
- "Networked knowledge on lessons learned from real experiences and internal reviews. These are available through the informal network but not readily available from a secure source. Access to this information is easier through the IAWF in the USA than in Australia.”
- “Technical transfer of research knowledge.”