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The role of language technologies and government policies to facilitate and support effective multicultural and multilingual crisis communication

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SUMMARY

In highly multicultural and multilingual societies like Australia, effectively communicating health information to vulnerable populations and those who may have low levels of literacy in the official language(s) can be a major challenge. Many stakeholders play an important role in communicating health messages and mitigating risks. In this brief, we focus on two aspects that are pivotal in effective multicultural crisis communication—language experts and technologies, and government policies concerning crisis management. We review and analyse the literature on language technologies, the role of translation in crisis communication and policy documents concerning disaster, emergency and crisis management in Australia, as well as reflect on the handling of the public health crisis to date. Our analyses show that while language professionals and translation technologies can contribute significantly to mitigating health risks and aiding emergency management, relevant policy frameworks do not specifically address how to incorporate this aspect in crisis prevention and management and, thus, hamper the actions taken. We argue that there is a need for multicultural communication to be explicitly addressed in Australian crisis management policies and, crucially, that all stakeholders need to work together to ensure we are better prepared for future crises.

INTRODUCTION

In highly multicultural societies, effective communication is key to reducing the vulnerability of the communities that do not master the official or de facto national language(s), especially in times of crisis and emergencies (O'Brien & Federici, 2019). The ongoing global health crisis has highlighted how crucial it is to provide widely accessible and tailored official information to culturally and linguistically diverse (CALD) communities for the effective management of public health risks. Before the exponential rise in confirmed COVID-19 cases led to the declaration of a state of disaster in Victoria, nine public housing towers in Melbourne were placed under a 'hard lockdown' on 4 July 2020. In a timely study, Wild et al. (2020) report the challenges faced by CALD residents of the towers regarding the communication of health information in their own languages (e.g. hygiene protocols, social distancing, COVID-19 symptoms, testing, etc.), and assert that "collaboration with CALD communities was key" to ensuring the effective dissemination of health messages. The failure to successfully communicate these messages on time, Wild et al. (2020) argue, put the residents in the towers, CALD communities and the larger Melbourne community at risk. In this instance, CALD community leaders, who acted as translators, helped to solve the communication issues.

As Pym (2020) argues, "trust matters more than translation" in communicating effectively with CALD communities. In order to build trust in the recipients of health promotion information and successfully influence their adherence to official health recommendations, all stakeholders (federal and state governments, NGOs and NPOs, community leaders, healthcare professionals, and language professionals) play an important role in communicating health messages and mitigating risks.

In this research brief, we highlight and discuss two aspects that are pivotal in effective multicultural crisis communication: 1) language experts and technologies, and 2) government policies concerning crisis management. We argue that the former should play the fundamental role of acting as trusted mediators, who not only help in translating relevant information into the languages spoken in the CALD communities, but also in communicating the information to the communities in an efficient and contextualised manner. Further, in order to develop effective information-sharing practices that will protect all at-risk populations, an overarching policy framework is needed for crisis prevention and management. Such a framework should incorporate clear and detailed protocols concerning multicultural and multilingual communication.

LANGUAGE TECHNOLOGIES AND RESOURCES IN CRISIS COMMUNICATION

First, when it comes to overcoming cultural and linguistic barriers in communicating with CALD communities, translation and interpreting services can contribute significantly to mitigating health risks and aiding emergency management. In Australia, the competence and skills of translators and interpreters are attested by the national accreditation authority (NAATI). In the past few months, these professionals have been translating a large number of official communications, quickly responding to the need for updates related to the pandemic. In such a volatile situation, when demand for translation services can be extremely high and time-critical, wider use of available technologies such as computer-aided translation (CAT) tools can be beneficial. Nowadays, CAT tools are a staple in every professional translator's desktop (Zaretskaya et al., 2018). At the "core of CAT tools" is translation memory (Doherty, 2016, p. 950), that is, databases that store translations and their source texts so that they can be reused in future translation tasks (Melby & Write, 2015). NPOs that are crucial stakeholders in crisis communication are notable users of such technologies. For example, [Translators Without Borders](#) (TWB), a non-profit organisation that provides translation services for humanitarian aid, has customised an open source tool called [Kató](#), a translation memory system and platform to cater for the needs of volunteer translators and other NPOs.

While translators rely on CAT tools to produce translated messages more speedily and efficiently, the 'go-to' resource for those organisations that are unable to immediately secure the services of qualified language professionals during a crisis is Machine Translation (MT). MT is an artificial intelligence-based technology that allows "automatic conversion of a text from one natural language to another" (Kenny, 2020, p. 305), as in the case of well-known online applications such as Google Translate and Deep L. Yet MTs need to be used with caution. Although this technology has improved significantly from its inception, and the promotional discourse of developers suggests that MT output meets quality expectations (Pym, 2020b), the reality is that while MT enables lightning-speed translations, these may lack the nuanced quality and professional rigour of human translation. Using MT without post-editing by a human translator carries significant risks including impaired communication and loss of trust (Way, 2020; Guerberof Arenas, 2020; Poirier, 2018).

Language clarity and consistency are essential in crisis management. This is especially true when engaging with communities who may use the official language(s) but have low levels of literacy. For example, TWB's [Kató Speak](#), "the first voice translation memory system", can provide understandable spoken translations of "life saving information" for multilingual audiences. There are a number of language technologies that assist in providing health information in "plain language" (O'Brien 2020), such as the [TWB Glossary App](#), a mobile application that allows field responders to access language-specific glossaries, and thus helps to clarify the language and keep the messages consistent. Another example is the tool [Acrolinx](#) that allows the content author to run checks for adherence to previously encoded stylistic rules for text simplification (O'Brien, 2020).

Multilingual health information is not only provided in written form but also often communicated orally, usually through interpreters in face-to-face encounters. The advance of technologies has given rise to interpreting modes other than the conventional face-to-face setting, such as 'distant', 'remote', and 'webcast' interpreting (Braun, 2020). Particularly during the ongoing global pandemic, the "need for remote interpreting has exploded" (Austermuhel, 2020).

Various cloud-based platforms have emerged including online interpreting platforms that allow participants (speakers, audiences and interpreters) in a multilingual event to play their corresponding roles from different geographical locations (Bond, 2020). Additionally, the improvements in audio and video quality and stability, and the convenient and cost-effective solutions of accessing interpreting services via smart phones supported by mobile networks, have enabled linguistic mediation when the need arises unexpectedly and where language professionals are unavailable, especially in the context of "medical emergencies and humanitarian crises" (Braun, 2020, p. 570).

A technology that has proved invaluable in situations where it is impossible or impractical for the interlocutors to communicate in writing or when languages only exist in an oral form is automatic speech recognition (ASR). ASR consists of "language-specific computer programs that convert spoken input into written text in the language of the original speech" (Ciobanu & Secara, 2020, p. 92). Once text has been converted from spoken to written, MT may be used if there is a need to translate the output of speech-to-text conversion. The conversion is two-way. ASR can also be used to convert written text into speech through the use of the technology of text-to-speech, a "technology [that] converts electronic text into speech waveforms" (Ciobanu & Secara, 2020, p. 92). Speech-to/from-text conversion is only a fundamental stage that paves way for translation later on. The text converted from speech will be machine-translated into another language, which, then, will be turned back into speech.

An example of an App that combines ASR and MT is [VoiceTra](#), developed for the postponed 2020 Olympics in Japan (O'Brien, 2020). The process involving speech-to-text conversion, machine translation, and text-to-speech reconversion accommodates the needs of people who do not command the lingua franca of the place where they live, those with low-literacy levels, as well as facilitating communication with people with disabilities in hearing, sight or speech (O'Brien, 2020).

Despite the various advantages mentioned above, there are also inherent challenges in the use of technologies. A major technical challenge is the availability of autonomous devices and offline resources, as technology relies heavily on electrical power and internet connection (O'Brien, 2020). One issue that relates particularly to the use of MT during crises is the quality of machine-translated texts for low-resource languages. MT systems need to be trained and supplied with large amounts of written samples of the languages in question (O'Brien, 2020; Caswell & Liang, 2020). As is the case for many minority languages, especially those that have no written form, there is not enough data to train the MT systems properly, resulting in unreliable translation outputs. When it comes to automatic speech technologies, whilst they can assist language experts in speeding up the translation process and widen the scope of their services (Ciobanu & Secara 2020) (which is particularly critical in crisis settings), using them without the supervision of trained professionals may lead to communication breakdowns with serious consequences. Finally, as we argue in the following section, for translation technology and resources to develop to an extent where they can be efficiently and effectively deployed to reduce the risks and vulnerability of CALD communities in times of crisis, governments and policy makers play a crucial role.

LANGUAGE EXPERTS AND POLICY MAKERS: THE NEED FOR TEAMWORK

In recent years, researchers from the field of Translation Studies have been paying close attention to the role that translation plays in the prevention and management of disasters and crises. O'Brien et al. (2018), for example, examine the use of translation in disaster response taken at the policy level in Japan, New Zealand, Ireland, the UK, and the USA.

The authors draw on a rights-based framework to analyse the “right to translation”, as manifested in documents concerning disaster response policies, in terms of availability, accessibility, acceptability, and adaptability (the ‘four As’). The first ‘A’ advocates for the recognition of “translated material as an essential product and service” in the policies, in order to ensure its availability. ‘Accessibility’ refers to translated information being freely available in a wide range of media and relevant languages.

‘Acceptability’ pertains to the assurance of translation quality and, finally, ‘adaptability’ refers to the need for translation to adapt to “different scenarios. . . fluid language requirements, literacies, technological demands, new modes of delivery, diverse hazards and movement of peoples” (O’Brien et al., 2018, p. 628). Countries with explicit [language](#) and [translation](#) policies such as Australia could be expected to be the most responsive in ensuring that, in times of crisis, the ‘four As’ are met. However, if language services, including ‘official’ translations, do not fulfill the purpose of reducing the risks for vulnerable communities, in the sense attested by Wild et al. (2020), both their accessibility and acceptability are questionable.

All the above-mentioned factors that could potentially lead to miscommunication of health information, and thereby, ineffective crisis management, reveal an underlying problem, that is, the absence or limited acknowledgement of multilingualism and multiculturalism in existing policies concerning crisis management. In their analysis of the inclusion of translation in the disaster management policies of Ireland, the UK, New Zealand, Japan, and the USA, O’Brien et al. assert that “the right to translated information is not generally foregrounded in national approaches to disaster management” (2018, p. 634). That said, a top-down approach may be what we need when it comes to multilingual and multicultural inclusion. The right of the citizens and residents to be provided with information in their languages needs to and should be incorporated in the national policies concerning disaster/ crisis/emergency management, especially in super-diverse societies.

In Australia, the federal government sets out general nation-wide policies but the management of health care and emergencies lies primarily in the purview of the States and Territories. In our review of policy documents concerning disaster and emergency management in Australia, we found pre-pandemic policy frameworks for disaster preparedness at both the federal and state levels (e.g. [Australian Disaster Preparedness Framework](#), 2018; [Victorian Preparedness Framework](#), 2018). We also found specific COVID-19 response plans established at the outset of the pandemic (e.g. [Australian Health Sector Emergency Response Plan for Novel Coronavirus \(COVID-19\)](#), March 2020; [Pandemic Plan for the Victorian Health Sector](#), March 2020). A quick check for references to CALD communities within the four abovementioned documents revealed that, with the exception of the [Australian Disaster Preparedness Framework](#) (2018), the documents emphasised engaging the community to manage the impact of a crisis, and explicitly mention the requirement to tailor the provision of health services to the needs of CALD communities. However, none of these documents elaborates on how to address the task of protecting CALD communities and adapting crisis management strategies to their needs.

We appreciate that the federal and state governments have made significant efforts to provide information materials concerning the health crisis in multiple languages. At a state level, the websites of [Victoria’s Department of Health and Human Services](#) and the [Victorian Multicultural Commission](#) provide information about COVID-19 in 55 languages other than English, and [‘easy to read’ recommendations](#) in English on how to slow the spread of the virus. Moreover, [SBS](#) provides multilingual texts and videos with Coronavirus information, and the Victorian Government sponsors [Health Translations](#), an online database that provides CALD communities and health professionals with relevant information in more than 100 languages. Similar initiatives exist in the other states and territories, including the [NSW Multicultural Health Communication Service](#) and the [Queensland Multicultural Health Resources](#).

Nonetheless, there are tensions between explicit policies of translation and multiculturalism in Australia and contesting political discourses concerning the rights of CALD communities to access appropriate health advice in their first languages. While the [Victorian Government](#) announced that the Victorian Multicultural Commission was “actively engaging community leaders”, and the [Premier](#) declared that “interpreters speaking 15 different languages are in the towers, and phone translation services are available at all hours”, [Translators and Interpreters Australia](#) claimed they were impeded from helping the tower residents because of an industrial dispute with the federal government’s [Translating and Interpreting Service](#). Moreover, prominent in the media in the days after the Towers lockdown was an interview with a high-profile [Queensland politician](#), who made a link between the competence in the English language of residents of the locked down buildings and their non-adherence to social distancing measures, protesting, contradictorily, that non-English speaking occupants should not be provided with “literature” in their own languages.

To sum up, there are several communication-related problems concerning crisis management in Australia that we have identified in this brief research. At the level of government policies, scant attention has been paid to the ‘four As’ (availability, accessibility, acceptability and adaptability) which directly address CALD communities’ right to translation in times of crises.

Even though policy documents mention the need to communicate health information with CALD communities, there are no specificities as to how to do so nor guidelines on how we can do so effectively. We, thus, argue for the need for multicultural communication to be explicitly addressed in Australian policies regarding crisis/disaster management. We suggest, firstly, the introduction of explicit protocols for the provision of language services in crises/disasters. Second, guidelines on the effective use of widely available and accessible language technologies should be included in such protocols. These measures would reduce the risk of miscommunication and misunderstanding. The communication-related problems encountered during the current pandemic have highlighted the extensive coordination and cross-cultural communication efforts required to reach vulnerable populations with differing languages, norms, beliefs, and practices and, consequently, the pressing need for all stakeholders (language experts, educators, policy makers) to work together so that we will be better prepared for future crises.

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