Zero Project Conference 2015

Consultation: technology and disability-inclusive disaster risk reduction

Distinguished delegates, ladies and gentlemen

Good afternoon. Firstly, I'd like to thank the organisers for the opportunity to speak here today. By way of introduction, my background is development studies and I approach this from a disaster risk reduction (DRR) programming perspective in developing countries. While ASB's work in Indonesia has become, over the years, very much engaged in disability-inclusive DRR, I am fully aware there are others in this room better qualified to present a disability perspective here today.

DRR is, ultimately, about changing behaviours and attitudes. We know that to change behaviour requires sustained efforts over time. If we also consider the need to overcome the barriers and exclusion that many persons with disabilities face, we can see a clear point of convergence between the DRR and disability communities. Both are, in short, seeking to change mind-sets, perceptions and practice. As such, information is of central concern to us all.

I believe that the DRR information content that persons with disabilities need is, in essence, the same as for the non-disabled. For example, what to do in an earthquake. At its simplest this is how to protect yourself and how to evacuate. This holds true for a range of hazards. The question is, therefore, to what extent can ICTs facilitate a positive, and inclusive, DRR outcome? That is, how can ICTs contribute to preventing injury and loss of life.

ICTs would appear to offer unprecedented opportunities. They offer the potential to provide equitable access to information in multiple formats. This would not only benefit persons with disabilities, through overcoming barriers associated with the delivery of written or speech based DRR information for example, but would be of benefit to all living in hazard prone communities.

Much of the work on ICTs for development can be traced to the turn of the Millennium. As you all no doubt remember, the acceleration of progress in ICTs and their adoption was heralded as the dawn of a new era; a knowledge society or information age. At the same time, and in spite of the bursting of the Dot-Com bubble, there emerged great interest in harnessing ICTs for development. Information poverty came to the fore and the need to bridge the Digital Divide. These efforts were also concerned, as we are here today, with overcoming poverty and exclusion and creating new channels for dialogue. This vision was, and still is, not only to create equitable access to information and communication, but to equitable opportunities to participate in and create a better world. The links with disability, and also DRR, are, I think, clear.

So, 15 years on, and what have we learned? Well, firstly the idea of the 100 dollar laptop was rather quickly shattered by the emergence of the 20 dollar mobile phone. In Africa mobile phone penetration is approaching 70% and for the Asia Pacific 90% (ITU, 2014). But, of course, this does not mean all these users have the latest 'hot-thing' in smart phone technology; those most at-risk almost certainly do not. While this rate of adoption of mobile phones is remarkable, it also serves to remind us that access to ICTs should not necessarily be equated with access to the Internet.

Secondly, and more importantly, we have learned that access to information is only part of the issue. It's interesting to reflect that many early efforts to bridge the Digital Divide focused on access to ICTs. That is access to technology, rather than information *per se*. This is a

lesson we may wish to heed. To explain further I will draw on the work of Professor Richard Heeks from the University of Manchester.

Heeks urges us to remember that ICTs are essentially tools for capturing, storing and communicating information in digital format. In his words, and I quote, 'That's all'. This viewpoint reminds us that we should not overlook more traditional technologies. A case in point are flood early warning initiatives in Bangladesh that combine the usual audible warnings, sirens or bells, with visual warnings, such as flags, to broaden access to information to persons with disabilities in flood prone communities. The point, following Heeks, is that access to information is only a means to an end. It is the development outcome, or act, that should be our utmost concern. In this case, contributing to ensuring all can evacuate safely prior to life-threatening floods.

The Bangladesh example also strikes a chord with lessons learned from the 2011 Great East Japan earthquake. Interestingly, the most useful source of information cited by a World Summit on the Information Society (2013) survey were broadcast technologies; that is, television and, for those that could hear it, radio. Respondents also noted that although they had expected mobile phones to be useful, they found them to be effectively useless. This is quite likely a familiar story for those of you have worked directly following a disaster. Experience shows that mobile networks can be down from a matter of hours to days due to service congestion and damage to infrastructure. We, therefore, need to be mindful of the environment into which ICTs may be applied.

Multiple communication methods are crucial and an overreliance on a single technology may actually limit availability of information, for all people, and increase risk. Simply, putting all our eggs in one basket is not good risk reduction practice. These experiences also suggest the need to consider at what stage of the disaster management cycle the potential of digital ICTs may best fit. To my thinking, the greatest potential of digital ICTs in prevention/mitigation and preparedness. That is, during times when we can be relatively certain of the stability of the networks they are dependent on.

Viewed in what Heeks calls the information chain, information that is *accessed* will then be *assessed* by the user and then may require *adaptation* to that person's situation, context and means if it is to be *applied*. Clearly, the assessment of information relates to trust; not only in the source of the information, but in the content itself. For persons with disabilities, who may be subject to exclusion from participation in social life in many communities throughout the world, trust is no small issue. It is, therefore, important that ICT based disability-inclusive DRR interventions are not implemented in isolation. Risk reduction is more likely to be achieved if ICT interventions are integrated into, or combined with, awareness raising on disability and empowerment initiatives for persons with disabilities within target communities. Social context should not be overlooked.

Finally, and critically, information is of little use if it cannot be used. As DRR practitioners we may have few issues explaining to a person with visual impairment what to do in an earthquake. Indeed, this may well be facilitated by the use of ICTs. The critical issue that remains is, can that person use that information? The answer is, most likely, no. The disruption to the built environment that occurs in a major earthquake, alongside the loss of regular points of spatial orientation, would make independent safe evacuation very challenging to say the least.

So, to summarise: ICTs, undoubtedly, offer the potential to deliver access to information, and in multiple formats, to the benefit to persons with disabilities and wider communities. As such, it is essential that the information content to be delivered is designed by persons with

disabilities and the DRR community in tandem. Unfortunately, there has been little collaboration in this regard to date. However, we are hopeful that this will now change under HFA2.

We should also be aware that despite the allure, an over-reliance on one technology may not be the best way forward. Relatedly, we need to consider which technologies, whether digital or traditional, fit best at particular stages of the disaster management cycle.

In closing, it is essential that we do not let progress and potential in information delivery overshadow the outcome we want to achieve. That is, saving lives. Collaboration, fostering mutual concerns and building shared understandings between persons with disabilities and their non-disabled peers within communities is essential to realising disability-inclusive DRR. ICTs can certainly contribute to this, but an appreciation of context and face-to-face human interaction is still very much required.

Thank you.

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