

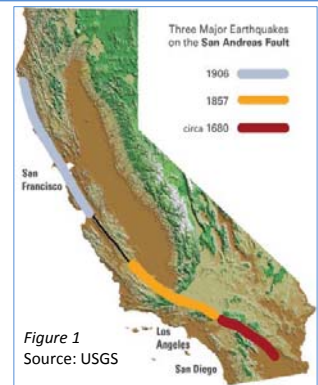
EXPLORING THE USE AND VALUE OF VISUALS USED IN THE 2008 SOUTHERN CALIFORNIA SHAKEOUT PUBLIC EARTHQUAKE PREPAREDNESS CAMPAIGN



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1. INTRODUCTION

California is well-known as “earthquake country”. Along the southernmost section of the San Andreas Fault, over 300 years has passed since the last major earthquake (see Fig. 1), and it is now predicted that such an event is likely to happen on this section of the fault within the next 30 years¹. Increasing the awareness of the Californian public regarding the nature of the earthquake risk is therefore essential. The 2008 Southern California ShakeOut was a co-ordinated regional public earthquake drill². The basis of the drill was the hypothetical scenario of a magnitude 7.8 earthquake occurring on the southern part of the San Andreas Fault³.



2. RESEARCH QUESTIONS

The ShakeOut public education materials utilised a range of visual types, including map, animation and video-based visuals. Evaluating the use and value of these ShakeOut visuals is a necessary part of their continued development, as an important means of engaging the public in earthquake preparedness.

The following exploratory research questions were the focus of this project:

What is the use and value of the ShakeOut visuals?

Are the intended messages of the visuals received by the public?



Figure 2. Credits: Theo Alexopoulos



Figure 3. Credits: Theo Alexopoulos

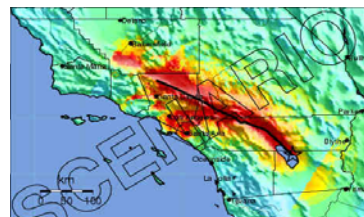


Figure 4. Source: USGS

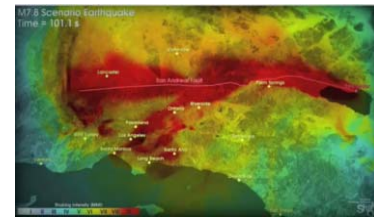


Figure 5. Source: So. Cal. Earthquake Center

3. METHODOLOGY

Three visuals were selected for evaluation, to represent the main types:

Preparedness Now Video: lasting approximately five minutes, providing a visual portrayal of the ShakeOut earthquake scenario (Fig. 2), followed by an outline of earthquake preparedness actions (Fig. 3).

ShakeMap: the primary USGS map type – a plan view of Southern California (Fig. 4).

Earthquake Wave Animation: satellite perspective of Southern California and the San Andreas Fault, showing the 3 minute real-time propagation of the earthquake ground-shaking (Fig. 5).

Recognising the broad spectrum of individuals involved in the design and participation of ShakeOut, it was decided that this Los Angeles-based study would involve obtaining views from the ShakeOut committee staff – involved in the design of the scenario and associated visual materials; emergency management and response staff involved at local and city levels; and members of the general public – through a qualitative approach involving a public questionnaire and key informant interviews, and subsequent content analysis.

4. CONCLUSIONS

- The intended messages were received by the studied sample of the California public.
- The video was highlighted as the most useful visual – providing a personalised introduction to ShakeOut, evoking the strongest emotional responses and highest number of action-oriented responses.
- In order that the visuals are effective motivational tools, focus needs to be given on end-user evaluation and the ‘positivity’ of information messages.
- Marketing principles for public preparedness campaigns can be utilised further to engage a wider audience, particularly through the development and incorporation of a variety of engaging visuals.
- Engaging visuals are crucial as part of a sustainable public campaign – which build momentum through increasing public involvement. Visuals can play an important role in bringing the campaign issue ‘into the everyday’.
- The common recommendation of increased user-interactivity highlighted this as a necessary aspect of visuals’ capability to engage people, and for users to have increased control over personalising the informational resource.
- The recommendations determined for the ShakeOut visuals can be used as part of the their continued development.

References

1. Field, E. H., Milner, K. R. 2008. Forecasting California’s Earthquakes – What Can We Expect in the Next 30 Years? USGS Factsheet 2008-3027.
2. ShakeOut. 2009. www.shakeout.org
3. Perry, S., Cox, D., Jones, Bernknopf, R., Goltz, J., Hudnut, K., Mileti, D., Ponti, D., Porter, K., Reichle, M., Seligson, Shoaf, K., Treiman, J., Wein, A. 2008. The ShakeOut Earthquake Scenario – A Story That Southern Californians Are Writing. USGS Circular 1324.

Acknowledgements: Aon Benfield Hazard Research Centre, USGS, SCEC, UCLA, RiskRED, Red Cross, & the communities of Venice, Pacific Palisades & Santa Monica.

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