

The World Wide Web and Environmental Communication:
A study into current practices
in the Australian Minerals Industry

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Declaration

I, Sumit K. Lodhia, hereby certify that this thesis, entitled ‘The World Wide Web and Environmental Communication: A study into current practices in the Australian Minerals Industry’, submitted for examination in the degree of Doctor of Philosophy, is the result of my own original work and that where reference is made to the work of others, acknowledgement is duly given.

.....

(Sumit K. Lodhia)

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Publications

Refereed journal articles based on the initial stages of the literature review

- Lodhia, S. (2007). Corporations and the environment: Australian Evidence. *International Journal of Environmental, Cultural, Economic and Social Sustainability* Vol. 3, No. 3, pp. 183-193
- Lodhia, S. (2004). Corporate environmental reporting media: A case for the World Wide Web. *Electronic Green Journal*, Vol. 20. <http://egj.lib.uidaho.edu/egj20/lodhia1.html>

Refereed journal articles based on the initial stages of data collection

- Lodhia, S. (2006). The World Wide Web and its potential for corporate environmental communication: A study into present practices in the Australian minerals industry. *International Journal of Digital Accounting Research*, Vol. 6, No. 1, pp. 65-94.
- Lodhia, S. (2006). Corporate perceptions of web based environmental communication: An exploratory study into companies in the Australian minerals industry. *Journal of Accounting and Organizational Change*, Vol. 2, No. 1, pp. 74-88.
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Abstract

This thesis explores the factors that influence the extent to which the World Wide Web (henceforth web) is utilised by corporations in an environmentally sensitive industry to communicate with their stakeholders in relation to environmental issues. The study initially establishes, in theory, the communication potential of the web and possible factors which can impact on the extent to which this potential is utilised for environmental communication. Subsequently, it examines the use of the web by specific companies in the Australian minerals industry for communicating environmental issues to their stakeholders over time. Explanations for current practices are established through an analysis of the impact of the factors established in theory on web based environmental communication in the Australian minerals industry.

A model was established to guide the research process for this study. Drawing upon media richness theory (Daft & Lengel, 1984, 1986; Sproull, 1991; Valacich et al., 1993), the Media Richness Framework was developed to provide criteria for assessing the communication potential of the web. It was also posited that the extent to which this potential is utilised in practice is dependent on management's web based communication needs. These needs incorporate timeliness, accessibility, presentation and organisation, and interaction. Contextual factors, which include limitations of web based technologies, economic, internal organisational and external stakeholder issues, influence these needs.

Case study research (Hagg & Hedlund, 1979; Yin, 2003a, 2003b; Scapens, 2004) was used as the methodological approach for this thesis in order to obtain an in-depth understanding of current web based environmental communication practices. An evaluation of the websites of mining companies was used as the basis for selecting three companies as cases. These cases involved a triangulation of approaches towards data collection: monitoring corporate websites on a regular basis; interviewing appropriate personnel in these organisations; and evaluating documents related to the companies' environmental communication practice. Data gathered from interviews, websites and documents were analysed for individual cases and then through cross-case comparisons. The intention was to confirm the research model and to potentially extend it through a consideration of other factors not identified in theory but evident in current practices.

The findings of this research indicate that even though the web has the potential to enhance environmental communication in an environmentally sensitive industry that is subject to extensive stakeholder pressures, there is variation in its use by companies in the Australian minerals industry. An evaluation of the practices of the three chosen companies highlighted that while the web is used extensively by these companies in comparison with other corporations in the industry, the case study companies were at different stages of web based environmental communication.

Management's web based environmental communication needs and the influence of contextual factors on these needs explained the variation in web based environmental communication across all three companies. Moreover, two other factors emerged from the field; these are referred to as the double-edged sword and change in management philosophy. These findings from the field highlight that the need for communication through the web could have unintended consequences while a change in management could alter the current approach towards web based environmental communication.

This study into the use of the web in the Australian minerals industry highlights that the medium has an impact on environmental communication practice. Further research could assess the communication potential of the various media used for environmental communication in order to extend the explanatory power of the current study. This study also outlines arguments in support of extending theorisation in environmental communication. Existing theories for social and environmental accounting, such as stakeholder and legitimacy theory (Roberts, 1992; Lindblom, 1993; Deegan, 2002) need to be accompanied by other theoretical perspectives in order to capture a range of potential factors that could impact environmental communication practices. Such insights could provide a comprehensive understanding of environmental communication in different contexts.

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