

# Influence of Social Media in Australian EIA

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## **Abstract**

*Social media is revolutionising public consultation in Environmental Impact Assessment (EIA) in Australia - but how effective is it in positively influencing assessment processes and outcomes?*

*This paper uses a contemporary EIA case study to demonstrate how various forms of social media (Twitter, Facebook, RSS feeds, YouTube) were used to effectively engage with the community and for the public to voice its views and opinions to EIA practitioners on environmentally sensitive proposals.*

*In determining the effectiveness of social media in influencing assessment processes, we analyse the case study against the International Association for Impact Assessment's Principles of Best Practice and consider the resulting environmental outcomes.*

*We conclude by challenging EIA practitioners to rise above the many new logistical and technological obstacles, and to adapt to the digital era because our investigations show that social media is an important tool for public consultation in that it positively influences the EIA processes through improving the purpose, efficiency and cost effectiveness, participation, ability to adapt, credibility and transparency.*

## **1. Introduction**

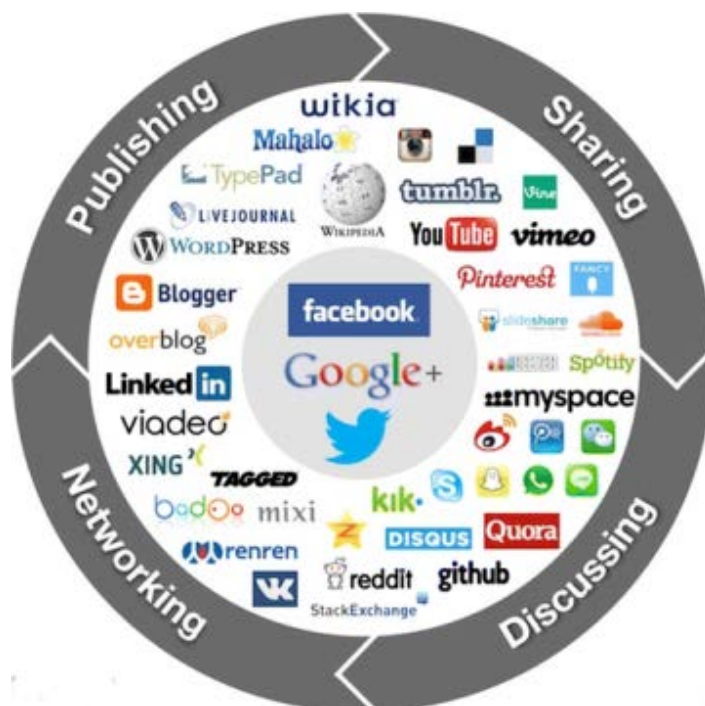
Social media is currently transforming public exposure and input to EIA in Australia. Whilst the important relationship between social media and public participation was established at IAIA 12 (Naber and Enserink, 2012; Peirson-Smith, 2012), there are very few follow-up papers in the environmental science literature to assist EIA practitioners in understanding or managing this phenomenon.

The purpose of this paper is to add to the knowledge in this field by considering and adapting concepts from related disciplines, and applying them to a case study. Through this process, we aim to examine how effective social media is in influencing assessment processes and outcomes.

There are many definitions and descriptions of social media in the literature, the most informative coming from the fields of information technology (Cromity, 2012), decision systems (Power and Phillips-Wren, 2011), media communications (Poell, 2014) and town planning (Fredericks and Foth, 2013).

However, in terms of practical application for EIA, Nagle and Pope's (2013) map of the social media landscape is perhaps the most relevant definition as it visually links the social media tools to the important components of public consultation - publishing, sharing, discussing and networking (Figure 1). Through the case study, this paper applies Nagle and Pope's social media landscape to the Western Australia approach to EIA.

**Figure 1** Broad social media landscape (adapted from Cromity, 2012 and Nagle and Pope, 2013)



## 2. Methodology

A “case study” is generally used where the study relates to “how” or “why” questions, where the researcher has limited control over behavioural events within the study, and where the focus is on a contemporary phenomenon within a real-life context (Yin, 1989). This approach suits this paper’s investigation into the effectiveness of social media in influencing EIA in Western Australian because:

- a “how” research question was being posed;
- the authors had no control over the community’s use of or influence through social media; and
- the focus was on the use of social media in relation to a number of assessments during 2014.

A secondary reason for selecting this approach is that it allows the study to retain the holistic and multi-dimensional context within which EIA occurs.

Single-case studies are a particularly effective research strategy when a critical case is testing a well-formulated theory (Yin, 1989). In this study the critical case is the extremely high use of social media in Western Australian EIA during 2014 and the well-formulated theory is that applying the “basic” Principles of EIA Best Practice (IAIA, 1999) results in better EIA processes and outcomes. The work by Sadler (1996) and Hanna and Noble (2015) on determining the effectiveness of EIA also informed the analysis of the case study.

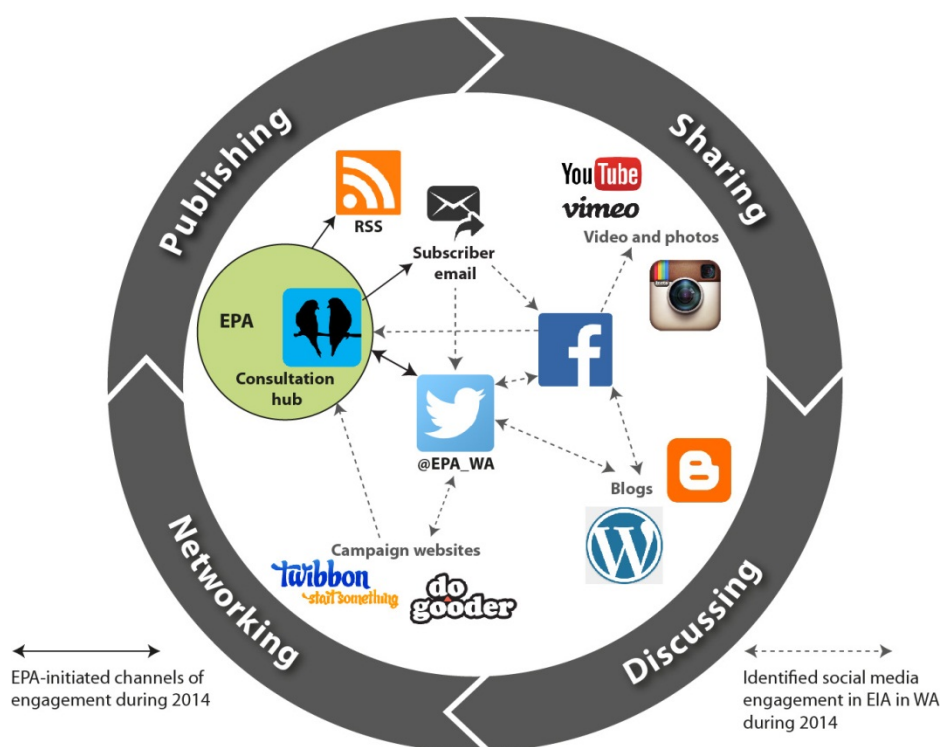
Finally, the authors are aware that there are concerns about the confidence with which qualitative information from a single case study can be generalised beyond the study environment. This concern can be countered by using a case study to make “analytic generalisation”, rather than “statistical generalisation” (Yin, 1989). Consequently, for this investigation, the emphasis is on generalising the results of the case study analysis to a broader theory (EIA Best Practice Principles), rather than determining if the case study is a valid sample from which to generalise to a broader population.

### 3 The Western Australian Approach

The Western Australian approach to social media is conceptually summarised in Figure 2. The central item is the “Consultation Hub” which the EPA uses for all of its consultation activity. This cloud-based software (Citizen Space by Delib) provides a comprehensive platform for online consultation that enables the EPA to:

- manage all its consultation activity;
- create consultations and surveys;
- publicise and promote EIA consultations
- analyse and report on responses; and
- feed back to the public.

**Figure 2: The Western Australian Approach to Social Media in EIA (adapted from Cromity, 2012 and Nagle and Pope, 2013).**



The consultation hub was extensively used in 2014 for a number of contentious assessments including proposals to implement a shark mitigation program and proposals to explore and mine in areas of natural bushland with high biodiversity values.

Interested stakeholders can subscribe to be notified when new items are published on the Consultation Hub by signing up to an email mailing list.

During 2014 there were 81 consultations with a total of 16,335 responses. Responses to three consultations relating to shark mitigation accounted for 14,794 (90.6%) of this total.

The EPA also uses Twitter to inform the general public and stakeholders of information relating to EIA and policy development, including notification of new publications; opportunities for public comment/submissions; media releases and other announcements. Twitter allows users to post and exchange short messages up to 140 characters in length as well as photos and links to internet content. The EPA monitors the @EPA\_WA account,

reads all comments and ensures that any emerging themes or helpful suggestions are considered in decision making. Over half of the Twitter users engaging in the EIA process during 2014 did so from internet-enabled mobile devices.

The EPA's Twitter account has 319 followers and published 271 tweets during 2014. Twenty-six items were retweeted, of which eight related to shark mitigation. @EPA\_WA was mentioned in 214 Twitter conversations, of which 184 (86%) related to shark mitigation. In addition, a third-party account specifically established to coordinate public opposition to the shark mitigation measures and which encouraged participation in the EIA process (@NoWASharkCull) had 1,496 followers and 3,570 tweets.

Interested people may also subscribe to pages on the EPA's website through RSS (Really Simple Syndication) which alerts them to content updates as they are published.

Third-party Facebook pages and blogs were used to publish information on the assessments of contentious proposals, and a number of campaign websites coordinated public submissions. Videos and photos were shared, and some submissions to the EPA linked to this content.

While the EPA's engagement in social media is conservative and primarily "one-way", monitoring the channels being used enabled us to respond when we perceived there was incorrect information or misunderstanding about steps in the EIA process. This response was generally by providing relevant links to assessment procedures and guidance.

Having described the Western Australian approach to social media in environmental impact assessment during 2014, we will now analyse the effectiveness of this approach using IAIA's EIA Best Practice Principles (see Table 1).

**Table 1: Analysis of the Western Australian Case Study against the International Association for Impact Assessment's Principles of EIA Best Practice**

<b>EIA Best Practice Principles</b>	<b>Assessment of the Western Australian Case Study- How effective is social media in influencing EIA?*</b>
<b><i>Purposive</i></b>	✓✓ Social media via the "consultation hub" communicated a clear purpose for EIA and provided direct opportunities to inform decision makers and receive feedback. This resulted in high levels of environmental protection and community participation.
<b><i>Rigorous</i></b>	✓ The use of social media improved the transparency of information and accountability of decision making, which in turn ensured decision makers rigorously reviewed methods, data and results. The use of "peer reviewed science" was a key means of demonstrating that a rigorous approach was taken to decision making.
<b><i>Practical and Relevant</i></b>	✓ The use of social media improved the transparency of information and accountability of decision making, which in turn ensured that decision makers provided sufficient, reliable and usable information to stakeholders for comment and input, and provided practical outcomes
<b><i>Cost-effective and efficient</i></b>	✓✓ The use of social media enabled cost-effective broad-scale public participation, within the limits of available information, time, resources and methodology. The "consultation hub" enabled more efficient public consultation with minimum cost burden in terms of time and finance on proponents and participants.
<b><i>Focused</i></b>	✓ The use of social media improved the transparency of information and accountability of decision making, which in turn encouraged decision

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		makers to concentrate on significant environmental effects and key issues.
<b>Adaptive</b>	✓✓	Social media, through facilitating early, two-way communication between stakeholders and decision makers, provided more opportunities to adapt the proposal during the public consultation phase and allowed the process to be iterative, incorporating lessons learned during decision making.
<b>Participative</b>	✓✓	Social media through the Consultation Hub, Twitter, RSS feeds and Facebook provided greater scope to target interested and affected publics (particularly youth); and to immediately receive their feedback. The community's inputs and concerns were addressed explicitly in the documentation of the decision making.
<b>Interdisciplinary and Integrated</b>	✓	The use of social media improved the transparency of information and accountability of decision making, which in turn ensured that decision makers explicitly integrated the relevant bio-physical and socio-economic disciplines, and employed the relevant experts to ensure an interdisciplinary approach.
<b>Credible</b>	✓✓	The use of social media enhanced the credibility of the assessment process as it demonstrated to stakeholders that decision makers were providing an objective, fair and rigorous process, and that the proponent's information was subject to independent checks and verification.
<b>Transparent</b>	✓✓	The use social media enhanced transparency by enabling open and immediate access to information on: the requirements of the EIA process; the key environmental factors that would be taken into account in decision making; and the limitations of data used in decision making.
<b>Systematic</b>	✓	The use of social media improved the transparency of information and accountability of decision making, which in turn encouraged decision makers to fully consider all the relevant information in a systematic manner, including alternatives and residual impacts.

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*Assessment Scale	✓✓	<i>Use of social media directly positively influences EIA principle</i>
	✓	<i>Use of social media indirectly positively influences EIA principle</i>
	-	<i>Use of social media has a neutral influence on EIA principle</i>
	✗	<i>Use of social media negatively influences EIA principle</i>

## 4 Conclusion

The analysis shows that social media can be an important tool for public consultation in that it positively influences the EIA processes through:

- (i) communicating a clear purpose for EIA and providing stakeholders with opportunities to directly inform decision makers and receive immediate feedback;
- (ii) enabling efficient and cost-effective large-scale public participation;
- (iii) allowing greater adaptability during the public consultation process;
- (iv) providing broader participation by targeting interested and affected publics, particularly youth;
- (v) enhancing credibility by demonstrating that decision makers are providing an objective, fair and rigorous process; and
- (vi) showing greater transparency by providing open and immediate access to information on the EIA requirements and the key factors that would be taken into account in decision making.

Although there are limitations associated with generalising results from a single case study, these learnings provide other EIA practitioners across the international community with a sound starting point to engage social media to positively influence EIA processes, which in turn, should lead to better environmental outcomes.

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