Being agile: evolving IA in a changing world

Anthony Sutton, *Executive Director, EPA Services, Department of Water and Environmental Regulation, Western Australia, anthony.sutton@dwer.wa.gov.au*
Donna Weston, *Communications Consultant, Sand Between My Toes, Western Australia, hello@sandbetweenmytoes.net*
Angus Morrison-Saunders, *Professor in Environmental Management, School of Science, Edith Cowan University, Australia; Research Unit for Environmental Science and Management, North West University, South Africa a.morrison-saunders@ecu.edu.au*

Abstract:

This paper addresses the conference theme - "Evolution or Revolution: Where Next for IA?" - using the example of evolution strategies in impact assessment (IA) practices in Western Australia for increasing agility to keep pace with a rapidly changing community and the communications revolution underway. Our approach is about accelerating evolution as gradual development, not revolution and the radical change that it represents.

Being adaptive has long been upheld as an international best practice IA principle. It is an evolutionary strategy typically and has always been a feature of IA in Western Australia, including adaptation of the regulatory setting to meet new and emerging challenges. In the face of rapidly changing demographics, rapid urbanization and accelerating technological innovation, evolutionary practices must accelerate. Being agile in IA has become increasingly important.

We conclude this paper by providing a summary of the lessons learnt from the Western Australian experience in evolving IA processes, which are directly transferable to other international IA jurisdictions and relevant to IA practitioners.

1. Introduction

Regarding the IAIA19 conference theme question - Evolution or Revolution: Where Next for IA? - we are advocates for ongoing evolution and the notion of being agile to keep up with the pace of change.

As defined by Banhalmi-Zakar et al. (2018) when discussing the conference theme, evolution represents the 'gradual development of something, especially from a simple to more complex form' while revolution 'calls for a complete, wide-reaching, and radical change that, by definition, typically means overthrowing the existing methodologies (systems) and establishing a new approach'. Because we are practitioners working within an existing IA system, our approach is about accelerating evolution as gradual development, not revolution and the radical change that represents.

The IA topics addressed in our paper were inspired by the exploration of global megatrends in the context of IA undertaken by Retief et al. (2016) such as rapidly changing demographics, rapid urbanisation, accelerating technological innovation and power shifts, along with resource scarcity and climate change.

Retief et al. (2016) propose four challenges for IA practitioners arising from the global megatrends they examined. Two of these regarding 'dealing with efficiency' and 'dealing with communication and participation' are the specific focus of our paper.

We address each of these topics in turn in the sections that follow using examples of evolution strategies in IA practices in Western Australia, before providing conclusions that return to the evolution versus revolution theme.

2. The challenge of IA process efficiency

Being cost-effective and efficient are two basic principles for international best practice IA intended to ensure that the objectives of the process are achieved in a timely fashion whilst imposing minimum cost burden on those involved (IAIA & IEA, 1999).

Retief et al. (2016) especially draw attention to the need for practitioners to ensure procedural efficiency that will need to 'provide legal certainty to all role players and provide time for the information/scientific inputs to the decision-making process' (p57) whilst being able to 'simultaneously inject more trust and flexibility into the decision making process'. They also note improvements in the 'ability to generate and disseminate information' in the future 'presents opportunities to improve efficiency but also brings with it the threat of potentially reducing effectiveness through incorporation of unmanageable information loads' (p57).

Within this context, we have provided the following practical examples of how the Western Australian EPA is evolving to address the ever-increasing challenge of IA process efficiency.

(i)   Legal Certainty for IA

The Environmental Protection Authority (EPA) has established a very clear framework for IA in Western Australia[1] by separating the "procedures for IA" from the "environmental considerations in IA". This separation provides greater legal certainty in decision-making and in subsequent appeals processes (merits review) or court proceedings (judicial review of procedures) because the legal administrative requirements and the environmental merits of each assessment are transparently considered and reported.

A legally robust IA process leads to more efficient decision making and a sound basis for the timely consideration of appeals and legal challenges.

(ii)   Flexibility in IA

The IA legislation in Western Australia, the *Environmental Protection Act* 1986, provides only high-level specifications for IA practice, providing the EPA with flexibility in applying the IA process to meet changing circumstances. The IA process is documented in Administrative Procedures (EPA 2016) and a more practical Procedures Manual (EPA 2018a), including whether each step in the IA process is a "Legal Requirement" or a practice "Option". Under these procedures, a proposal which results in highly significant environmental impacts attracts a more comprehensive assessment, whereas one with a low level of impact may not require assessment or at a basic

---

[1] http://www.epa.wa.gov.au/framework-assessment-procedures-eia

level. Greater flexibility provides for a more efficient IA process as the level of IA effort is matched to the level of impact significance – a "fit for purpose" approach.

(iii)   *Trust in IA*

Although trust is not something that can be designed into a system, the Western Australian EPA seeks to engender trust and confidence in the IA process by: developing positive relationships with stakeholders; exercising informed judgement in decision-making; and showing consistency in process and procedures. These three essential elements of "trust" (Zenger and Folkman, 2019) are primarily demonstrated through the EPA providing opportunities for public involvement in each step of the IA process from referral to reporting and full transparency for each step including the basis of IA decision-making (Morrison-Saunders and Bailey, 2000).

Moving forward, the EPA is looking to engender greater trust through assuring the quality of environmental impact statements by using certified IA practitioners and through seeking independent peer review of critical IA studies, such as health risk assessments.

(iv)   *Strategic and Cumulative IA*

Under the Western Australian *Environmental Protection Act*, greater efficiencies in IA can be obtained by taking a broader more strategic approach to IA, where environmental factors and impacts can be assessed at a regional or landscape scale, and the cumulative impacts can be taken into consideration. These efficiency benefits can be further enhanced through the assessment of a project as a "Strategic Proposal", which allows the setting of conditions in a regional context, which then can be applied to subordinate "future proposals". In effect, a single strategic IA provides a "menu" of pre-approved conditions which can be applied to secondary, smaller scale proposals, without the necessarily the need for further detailed assessment.

The BHP Billiton Pilbara Strategic Proposal (EPA, 2018b) is an example of where IA was conducted at a regional scale in northern Western Australia. This strategic approach to IA is evolving and has tremendous potential to create ongoing and long-term efficiencies in IA practice.

(v)   *Digital Information for IA*

The efficient management of complex, large-scale, baseline survey data for IA is an ongoing challenge in the biodiversity rich environment of Western Australia. To meet this challenge the Index of Biodiversity Surveys for Assessments online portal[2] was developed to capture and consolidate data contained in biodiversity survey reports to support IA and to provide a platform to make the information publicly available. The EPA is also a partner in further evolving digital IA by investigating ways in which digital technologies could be used to streamline the capture, supply and interpretation of data in the impact assessment process. The consolidation of biodiversity data into an easily accessible format can provide substantial efficiencies in the IA process. Looking over the horizon, the next logical evolutionary step is for the digital approach to IA processes to be extended to digital IA products, such as a digital environmental impact statement recently trialled in the Netherlands[3]).

---

[2] http://epa.wa.gov.au/forms-templates/instructions-preparing-data-packages-index-biodiversity-surveys-assessments-ibsa
[3] https://www.royalhaskoningdhv.com/en-gb/specials/digital-eis

(vi)   Future Agility in IA

In considering future improvements to Western Australia's IA process there are many potential benefits in looking across other disciplines for learnings. For example, there are many similarities between software development and the IA improvement processes. The "Agile" approach to software engineering defines four principles, which we suggest are applicable to IA: stakeholder collaboration over fixed non-negotiable outcomes; working software processes and products over bulky, wordy documentation; individuals and interactions over processes and tools; and responding to change over following rigid processes and plans (El-Abbassy, Muawad and Gaber, 2010).

By considering the learnings from other disciplines, IA will be in a stronger position to evolve and be relevant in a highly diverse global economy.

3. The challenge of IA communication and participation

Retief et al (2016) note that while best practice IA 'places a particular emphasis on the role and importance of information' (p58) and that the rapid pace of technological innovation in communication does provide 'improved access to information through various information technology options' substantial 'challenges relate to the management of information to ensure that it is sufficient, reliable, and usable to decision makers' (p58).

In Western Australia, the EPA's approach to public consultation and engagement processes through social media is conceptually summarised in Figure 1, updated from a figure first presented at IAIA 15 conference (Sutton and Weston, 2015). The central item is the EPA's website, supported by a "Consultation Hub"[4] which provides a comprehensive platform which the EPA uses for all of its consultation activity.

Figure 1:   The Western Australian Approach to Social Media in EIA (adapted from Cromity, 2012 and Nagle and Pope, 2013).

---

[4] https://consultation.epa.wa.gov.au/
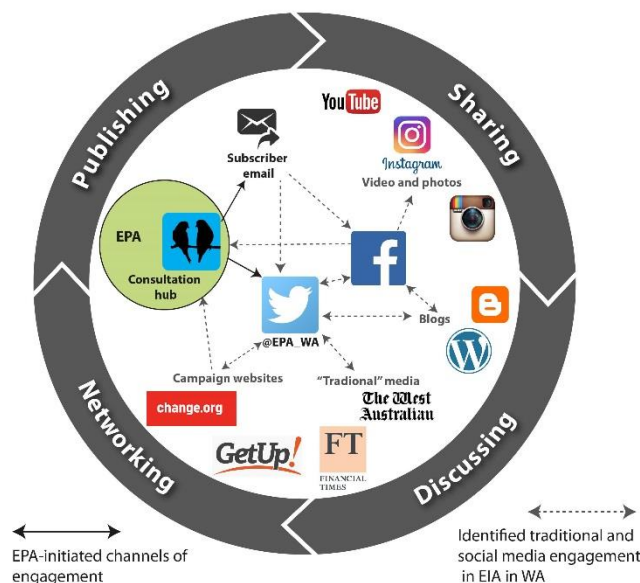
As can been seen in Figure 1, the EPA's engagement in social media is primarily "one-way", but through monitoring other social media (such as third-party Facebook pages and blogs, and website campaigns) the EPA is able to respond.

More recently, the EPA has recognised an increasing use of more extensive and intensive on-line campaigns by the environmental Non-Government Organisations. The campaigns, such as the *Cleanstate* (Action on Climate Change), appeal to the broader community who rarely formally input to the IA process, and they attract many thousands of pro-forma submissions. These campaigns demonstrate to the media and Government the level of community concern for a proposal, but are less effective in influencing the IA process.

For IA purposes, a campaign is most effective when it is also supported by a detailed analysis of the environmental impacts of a proposal or policy, and recommended solutions which are practical and reasonable to implement.

4. Conclusion

In returning to the IAIA19 conference theme - Evolution or Revolution - we have sought in this paper to demonstrate that current evolutions in IA processes and outcomes are incrementally contributing to a more agile approach to IA which is keeping pace with a rapidly changing world.

In conclusion, we believe the lessons learnt from the Western Australian experience, which are transferable to international IA jurisdictions and relevant to IA practitioners, are that evolution in IA processes can be achieved through:

i.   legally robust IA processes, which lead to more effective decision making and a sound basis for the timely consideration of appeals and potential legal challenges.

ii. flexible IA processes, which are "fit for purpose" by matching the level of IA resourcing to the level of significance of proposal impacts;

iii. trust in the IA processes, which results in greater stakeholder confidence and acceptance of the overall assessment outcomes. Key strategies include assuring the quality of environmental impact statements by using certified IA practitioners and through seeking independent peer review of critical IA studies;

iv. *strategic approaches* to IA which consider cumulative impacts at a regional and landscape scale, and provide long-term certainty for stakeholders;

v.   new digital approaches to IA processes and products where the most significant information is captured and drives IA processes and decision making, replacing overly bulky, wordy documentation**;**

vi. seeking opportunities for learning from other disciplines which have similar challenges; and

vii. keeping pace with technological innovations in social media, e-campaigns and web-design to harness public consultation and engagement in IA processes.

References

Banhalmi-Zakar Z, C Gronow, L Wilkinson, B Jenkins, J Pope, G Squires, K Witt, G Williams and J Womersley (2018) Evolution or revolution: where next for impact assessment?, *Impact Assessment and Project Appraisal*, **36**(6): 506–515.

El-Abbassy A, R Muawad and A Gaber (2010) Evaluating Agile Principles in CS Education. *International Journal of Computer Science and Network Security*, **10**: 19-28.

Cromity J. (2012). The Impact of Social Media in Review. *New Review of Information Networking.* **17**(1):22-33.

Environmental Protection Authority (2016). *Environmental Impact Assessment (Part IV Divisions 1 And 2) Administrative Procedures 2016,* Environmental Protection Authority: Western Australia, available: http://epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Gg223.pdf

Environmental Protection Authority (2018a). *Environmental Impact Assessment (Part IV Divisions 1 And 2) Procedures Manual,* Environmental Protection Authority: Western Australia, available: http://epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EIA Procedures Manual 300418.pdf

Environmental Protection Authority (2018b) Pilbara Expansion Strategic Proposal. BHP Billiton Iron Ore Pty Ltd. Report 1619, July 2018, available at http://www.epa.wa.gov.au/sites/default/files/EPA_Report/BHP%20Strategic%20-%20EPA%20Report%20and%20Recommendations.pdf

IAIA & IEA – International Association for Impact Assessment and Institute for Environmental Assessment UK. (1999), *Principles of Environmental Impact Assessment Best Practice*, available at http://www.iaia.org/uploads/pdf/principlesEA_1.pdf.

Morrison-Saunders, A. and Bailey, J (2000). Transparency in EIA Decision-Making: Recent Developments in Western Australia. *Impact Assessment and Project Appraisal*, **18**(4): 260–270

Nagle T, and Pope A. 2013. Understanding social media business value, a prerequisite for social media selection. *Journal of Decision Systems*. **22**(4):283-297.

Retief F, A Bond, J Pope, A Morrison-Saunders, N King (2016) Global megatrends and their implications for environmental assessment practice, *EIA Review*, **61**: 52–60.

Sutton, A. and Weston, D. (2015), Influence of Social Media in Australian EIA, *Impact Assessment in the Digital Era, 35th Annual Conference of the International Association for Impact Assessment*, 20-23 April 2015, Firenze Congress & Exhibition Centre, Florence, Italy

Zenger, J. and Folkman, J. (2019) The 3 Elements of Trust, Leadership and Managing People Digital Article, *Harvard Business Review*, 5 February 2019.