CBSG Virtual Workshops – A Resource for Organisers

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Introduction

Web-based tools allow people from distant locations to meet in real time, sharing sound and vision, without the cost, time, carbon and preparation involved in physical travel. These web-based environments are improving all the time, becoming more reliable, more sophisticated and more life-like. There are clear incentives and real potential for applying these tools to the delivery of CBSG conservation planning workshops.

To explore this potential, a CBSG workshop was carried out in 2009 in which participants from three countries and four time zones met and collaborated using only virtual tools. Based on a series of anonymous surveys the experience of workshop participants was overwhelmingly positive. Respondents felt part of a collaborative effort, found the environment better than expected and judged the planning outcomes to be as good, or better, than those expected from a face-to-face workshop. It is hoped that this feedback, along with the following guidelines and suggestions, will encourage greater and more ambitious use of virtual tools in CBSG workshops.

The following content reflects the experience gained from the workshop pilot described above, which addressed conservation planning questions for mala (*Lagorchestes hirsutus*), an Australian desert-living marsupial. A full report on workshop activities and outcomes is available at: [http://sites.google.com/site/cbsgaustraliadpalapilot/home](http://sites.google.com/site/cbsgaustraliadpalapilot/home)

Background to the Mala Pilot

The collapse of populations of mala or rufous hare-wallaby (*Lagorchestes hirsutus*) in the first half of the 1900s was associated with the arrival of European settlers. In 1991 the last wild population was wiped out by a wildfire.

A number of animals remained in managed facilities which have since expanded to include six separate predator-proof locations across three Australian States and Territories.

In 2009, CBSG Australasia was approached by the Alice Springs Desert Park to assist conservation planning efforts for the species. The first stage of this planning required a review of a 2004 PVA model built for one of the remaining populations – that held at Watarrka paddock in the Northern Territory. The intention was to use the resulting model as a basis for planning and ongoing adaptive management of mala at that and other locations, and for integrated management of all as a meta-
population. With the support of the Alice Springs Desert Park and workshop participants the pilot project was carried out as an experiment in the use of web-based tools.

**Workshop Goals**

The workshop had a dual function – to review/refine the 2004 mala model and to test the utility of a virtual workshop environment. Different goals were associated with each of these functions and these were as follows:

**Content Goals:**

1) To review and refine a population simulation model that would enable managers to test the likely impacts of different management strategies on long-term genetic and demographic performance of remaining mala populations.

2) To identify the conditions that would lead to the following population targets being met, over a 100 year period, for the population held at Watarrka:
   - positive stochastic growth ($r>0$)
   - probability of extinction below 5% ($PE<0.05$)
   - gene diversity at or above 90% wild source ($GD≥0.90$)

**Process Goals:**

These goals related to evaluating the virtual environment as a platform for PVA-style collaboration

- to build a virtual team
- to collaborate on developing a population model
- to agree and test at least three management scenarios
- to build a report on the results collaboratively
- to evaluate this use of the virtual environment

**Workshop process**

A Project Team was assembled comprising six subject matter experts and three dedicated CBSG participants including a facilitator and modeller. This Team was required to participate throughout the workshop period. Additional collaborators were also identified and included valuable subject matter contributors and important stakeholders in the second phase of the project.

The workshop used two different web-based environments - VYEW and Google Sites.

VYEW enabled the Project Team to meet in real time, sharing audio* and screen. It was most useful for:

- giving presentations
- brainstorming
- reviewing progress

Four live or “synchronous” sessions were scheduled, approximately one week apart, as the core of the workshop process.

Tasks designed to move the project forward were agreed and delegated at the end of each live VYEW session and were completed by Project Team members in advance of the next. Details of these tasks and their progress were posted on a dedicated web-site built through Google Sites. This site - the Mala Site - was most useful for:
During and between live sessions, the behaviour of participants was guided by the standard CBSG Working Agreement and an additional list of agreed Project Team responsibilities (see “Facilitating Live Sessions”).

A brief survey, focusing on perceptions of progress and the quality of experience provided, was conducted after each live session. Surveys were anonymous. A compilation of responses is available on the Mala Site (go to the Home Page, Evaluation and Feedback).

*Note that the audio facility in VYEW proved too unreliable and was instead achieved using standard teleconferencing.

**Outcomes**

The following table summarises survey responses relating to workshop goals.

<table>
<thead>
<tr>
<th><strong>CONTENT GOALS</strong></th>
<th>Achieved</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review and refine the 2004 population model</td>
<td>★★★</td>
<td>This was achieved to the satisfaction of all participants.</td>
</tr>
<tr>
<td>Identify the conditions for success</td>
<td>★★★</td>
<td>Work pertaining to genetic targets was deferred pending the results of molecular work (currently underway).</td>
</tr>
<tr>
<td><strong>PROCESS GOALS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build a virtual team</td>
<td>★★★</td>
<td>This was a regular theme of post-session surveys and responses were consistently positive with participants feeling strongly that they were part of a collaboration.</td>
</tr>
<tr>
<td>Collaborate on developing a population model</td>
<td>★★★</td>
<td>Respondents felt that they had collaborated well.</td>
</tr>
<tr>
<td>Agree and test at least three management scenarios</td>
<td>★</td>
<td>Respondents felt that this was achieved, though quantifying the scenarios proposed proved challenging.</td>
</tr>
<tr>
<td>Build a report on the results collaboratively</td>
<td>★</td>
<td>Not fully tested. Material was contributed to the Mala Site by both participants and collaborators but most of the report was produced by the modeller. This is usually the case for PVA-style workshops and a face-to-face meeting would have had the same result.</td>
</tr>
<tr>
<td>Evaluate this use of the virtual environment</td>
<td>★★★</td>
<td>All respondents considered that this had been achieved.</td>
</tr>
</tbody>
</table>

**Evaluation**

The following strengths and challenges emerged as a result of post-session surveys and discussions:

**Strengths**

*Reduced cost and carbon*

The workshop was less expensive than an equivalent face-to-face meeting. No travel or catering costs were incurred and no labour costs associated with meeting organisation and logistics. The virtual tools were free (though this is not always the case). The one significant expense was that of
the weekly conference call. With careful pre-testing it would be possible to remove this cost using a computer-linked tool such as Skype. Electricity generation to power the computers was the only source of carbon emissions that we were aware of.

**Flexible scheduling**
The length of uninterrupted time required for a face-to-face workshop makes it difficult to secure all required stakeholders. Virtual meetings can be split into smaller chunks and scheduled around daily duties and other events. For example during the mala pilot, one of the live sessions was attended by two participants who were simultaneously attending a conference in St. Louis, USA. Another session was successfully re-scheduled with only a few days notice.

**Potential for additional collaborators**
Face-to-face workshops are limited to around 40 participants. There is no limit to the number of collaborators able to input to the off-line components of virtual workshops. A number of invited collaborators contributed to asynchronous discussions via the Mala Site and this enriched the content significantly. Fully harnessed this could become a powerful source of extra information and advice during workshops.

**Time**
The extended period over which the workshop was carried out allowed for more thoughtful input from participants. It was possible to revisit some issues as new ideas and advice emerged.

**Challenges**

**Creating a level playing field**
Discomfort with the technology can inhibit participation. Inevitably some are more comfortable with the technology than others. Careful selection of tools and pre-workshop training and testing can overcome this.

**Visual cues**
When asked what would enhance their experience of the virtual environment participants prioritised video footage of their co-workers. Behavioural cues that we take for granted in face-to-face workshops are absent from the virtual environment and this can be disorientating for facilitators and participants. The impact can be managed to some extent by sensitive workshop facilitation and careful tool choice (see below).

**Promoting social interaction**
Social interaction helps establish trust and build relationships. In a face-to-face meeting, social interaction arises organically around other primary imperatives – eating, drinking, travelling from A to B. There is no natural substitute for this in the virtual environment. On the positive side, we know that intense social interaction is possible across the web – hence the success of Facebook, chat rooms and other social networking applications. Discreetly incorporating this kind of interaction into a virtual workshop remains a challenge.

**Sustaining Energy**
The positive energy generated by face-to-face workshops is important. It helps sustain commitment throughout the workshop, secure support for the outcomes and create a general sense of benevolence towards the process. This energy is probably created through a combination of factors,
including the immersive experience associated with a 3-4 day off-site workshop, the pressure maintained by facilitators to keep working groups on-time and on-task and the intense social interaction during and outside working hours. We saw glimpses of this energy during the mala pilot live sessions and there is scope for building on this.

A Guide for Facilitators

**Pre-requisites**
The following are recommended pre-requisites for a virtual workshop:

- participants speak a common language equally fluently
- participants have reliable, fast internet connections

It may be possible to relax the former as more tools become available.

**Choosing the right tool**
Many tools now support virtual collaboration (see Robin Good’s compilation using the link at the bottom of this document). Points to consider when choosing are:

**What’s your budget?** Tools vary in cost but many are free or have free versions with reduced functionality. It may be best to stick with these until an application emerges that is clearly worth the investment.

**How willing/able will participants be to download software?** Some computer systems – especially in bigger organisations – will not allow individual users to download software without some process of product vetting. Where this is likely to be a problem it may be simpler to opt for a tool that does not require any user downloads.

**What kind of interaction are you looking for?** Tools vary considerably in functionality. It is worth thinking carefully about the kind of interaction you need before trawling for options. Do you just need to share a screen so that others can watch as you talk? Or do others need to input visually? To what extent do you need to record the interaction? Are you looking for somewhere that will also store project-related materials? Do you want people to interact asynchronously as well as during live sessions? The answers to these questions and others will help guide tool selection.

**How much facilitation will be required?** The absence of visual cues presents a challenge for facilitators. The impact of this can be reduced by choosing tools that allow participants some rudimentary gestures such as hand-raising, and which provide for some use of web-cam.

**Does the size/complexity of the project warrant the amount of training required?** There are trade-offs between how much a tool can do and the duration of set-up and familiarisation. For a one-off workshop with participants who are new to the virtual environment it is probably best to go with something simple and intuitive.

**Pre-workshop Set-up**
It is vital that the tools work on the day and that as far as possible, all participants are comfortable using them. The following steps will help with this:
in advance of the workshop, set up a one-to-one session with each participant to test their system and fix any glitches;
create a specific area within the tool where participants can go to “play” with the available features. Set specific tasks to encourage exploration;
after each live session, check in with participants about their experience and record any technical problems so that they can be fixed before the next session.

Designing Live Sessions
CBSG workshops are always individually tailored to the needs of the participants and the issue at hand. In addition to this, virtual workshops need to be tailored to the challenges and strengths of that environment. In particular, working on-line requires considerably more concentration because of the reduction in visual cues – careful listening is essential, and tiring. The following pointers may be useful:

- Limit virtual sessions to a maximum of 90 minutes.
- Tackle only one topic or issue per session.
- Structure the session so that you walk participants through the conversation that you want to have with them. Remove from the session structure anything superfluous to this.
- Keep presentations short - no more than 10-15 minutes each. If more information needs to be imparted before work can be done, provide this as pre-work.
- Design for maximum engagement. Live sessions are where the most energy is created – they should be lively and promote continual interaction. Encourage participants to provide input on-screen as well as verbally – virtual multi-user whiteboards are a good tool for this.

As virtual environments become more sophisticated and life-like these guidelines can be relaxed.

Facilitating Live Sessions
In a web-based workshop environment participants are more isolated than usual. There are no body language cues to guide proceedings and individuals may occasionally disappear from the workshop where internet and/or phone connectivity is unreliable. The following points should help facilitators prepare for these challenges:

A Back-up Facilitator is Essential – internet and phone connections are never infallible. When a facilitator becomes disconnected unexpectedly it can cause disorientation and loss of momentum within the group. Before any live session it is essential to identify and prepare at least one back-up facilitator to take over in the event of a connection failure.

Check-in Regularly with Participants – in the absence of visual aids it is essential to check-in regularly with participants to ensure that they are a) still connected to the workshop and b) comfortably engaged with the proceedings. In several applications this can be achieved by asking participants to confirm their status by raising a virtual hand. In other applications another signal may be needed and this should be determined before the workshop.

Establish a Back-stage Chat Facility – it can be useful for facilitators and organisers to communicate with each other during the session without interrupting workshop flow. This can be achieved by setting up a special group within the “chat” facility - most environments will have one.
Modify the CBSG Working Agreement – it can be useful add an extra dimension to the standard CBSG Working Agreement to take account of the novel environment. For the mala pilot the following Project Team Member Responsibilities were added:

- complete all online pre-meeting tasks ahead of the call
- show up on time, on the phone and online
- let us know how you are doing
- stay focused, avoid distractions during the meeting
- complete post call surveys
- communicate early and often

Begin with a Progress Review – the extended periods with no direct contact make it especially important to remind participants of what has been achieved and to reassure everyone involved that progress is being made. The report should be brief – details can be provided elsewhere.

End with Post-session Tasks – most of the work is done in between live sessions but there is motivational value in assigning and agreeing tasks with all participants present. Make sure that everyone leaves the live session with a clear idea of what they need to do before the next link-up.

Between Live Sessions
What happens in between live sessions – or “asynchronously” – is a strong determinant of workshop success. This is where all the work gets done!

Post-session Discussion – allocate 10-15 minutes immediately after each session to stay on line and discuss the events with the other facilitators/organisers. The feedback from this will inform the design or modification of the next live session.

Drive Asynchronous Activity – mala pilot participants felt strongly that asking them to do something and then leaving them to get on with it was not a good way to get workshop actions completed!! Assign tasks at the end of each live session and provide regular reminders. The following were useful during the mala pilot:

- posting a list of actions on the front page of the Mala Site, complete with deadlines and a statement on progress to date;
- sending regular email reminders;
- reporting (briefly) on work done at the start of live sessions.

Fix Technical Problems – this is not always possible but all efforts should be made to ensure that participants do not experience the same technical glitches repeatedly.

Closing
Where possible end with something memorable. Here are some suggestions:

- a brief video of something relevant but fun/evocative;
- virtual drinks in a truly virtual world like Second Life (realistic only for audiences well-versed in virtual tools);
- a series of closing messages from participants via web-cam or, if this proves difficult, with participant photos visible;
- a brief quiz with virtual prizes.
Concluding remarks
The mala pilot has shown that virtual tools can provide an appropriate environment for conducting conservation planning workshops. There is still a huge amount to be learned about the potential of these tools and how to get the best from them, but the way forward is to test them out on real situations. Hopefully this document will encourage CBSG workshop organisers to take that leap.

Further reading
Nancy White: http://www.fullcirc.com/community/desingingonlineevents.htm
Stephen Blyth: http://www.commonknowledge.net.nz/
Robin Good: http://www.mindmeister.com/12213323/best-online-collaboration-tools-2010-robin-good-s-collaborative-map

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