

## **Theme B – Friday AM**

### **Community Engagement and Social Action**

Notes taken by Warren Scheske

#### **Ian Bishop, University of Melbourne**

Synopsis; Introduction of a brief reflection of the Australian Debate of the proposed Carbon Tax, and how it has been received. Prompted the question, how can create better communication and understanding of these issues. Finally, how do we move forward?

Australian Carbon Tax Debate:

- An unpopular program partly due to a poor quality/uninformed debate on the topic.
- General population does not truly understand the tax and its implications
- For Australia, Climate Change is an issue with long term outcomes but little local control (i.e. Only 1% of global emissions come from Australia)

Case Study: Tasmanian Eucalypt Forest, Scenario Chooser.

A project designed to explore forest management options in the wet Eucalypt Forest in Tasmania and understand the outcomes of a variety of strategies.

- Identify issues and concerns
  - Collect Opinions and views on forest management
  - Create scenarios that reflect views and interests
  - Collect a variety of participants to model options
- Scenario Builder
  - Input a series of harvesting systems
  - Create scenario tables to understand outputs based on different Harvesting systems
  - Result of participants chosen scenario get mapped to GIS (some scenarios are restricted by scenario options, some are totally open)
  - Results are outputted as a panoramic renders
- Key Features for Users
  - Easy to understand
  - Easy to compare and contrast up to 8 scenarios

- Web Interface
- Key Features for Researcher
  - Interaction is recorded via time stamps during scenario modelling process.
- Results
  - Interface output data to be analyzed and understand how people compared and used the variety of tools
  - People found it easy to use effectively to make decisions
  - Visualization tactic (panoramic renders) was effective while not becoming a distraction from the overall goals of the project

What Next?

iPhone applications, video games, augmented reality – all of these are potential visualization and scenario modelling tools. The question is how do you attract users, engage them, and sustain interest.

These media must be independently useful, and entertaining, not just a form of clever propaganda.

**Katy Appleton, University of East Anglia: Evaluating the Use of Visualization for Community about Climate Change**

Synopsis; There is a need for the evaluation of technological tools being implemented in research. Therefore, we must understand how we evaluate them and measure their success in fulfilling their goals.

Complications:

The pace of technological advancement

Variety of uses for visualization

Variety of audiences that interact with technology

How do we evaluate and what works the best?

All applications of technology must be tied back to underlying purpose for visualizations and checked against a series of critical questions. Do visualizations:

- Improve engagement
- Improve understanding
- Improve support for wide political change or initiatives
- Improve willingness to participate

All of these need to be evaluated differently and must extend to the entire evaluation process.

How do we evaluate Visualizations?

- Cognitive Response
- Revealed/Implicit of statement/Explicit responses
- Context of feedback mechanism (is it a group discussion, anonymous feedback etc.)

Practical Considerations

- Do these scenarios have real life applications or are they purely academic
- Nature of the sample group and their size
  - Cover a diversity of attitudes
  - What are the impacts of data collection and analysis
- Time conflicts between the process of engagement and the evaluation of outcomes (i.e. Do we survey the long term effects of studies on individuals?)
- Are there ethical issues associated with using different forms of engagement with different groups? If some methods/technologies are better than others, are there issues with giving varying information with different scenarios?

Future Evaluations: Where do we go from here?

- Implementation of a more systematic evaluation of new technological tools
- There is a strong argument that says we need more research on existing technologies, not the creation of new technologies

Research Agenda

- Build visualization in at the start of a research project, not just tacked on after research has been done.
- Consider the composition of the research team: it is important to include visualization specialists and social scientists in the research design phase.
- Embed the visualizations in an ongoing dialogue based process
- Make the research embedded in real, ongoing applications and not just academic environments

