Extending Social-Ecological planning into real-time: Progress Reports

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Progress made since last report

Since this is the first progress report this section will sum up what has been done to date.

The majority of the work has gone into the development of the *Web BPDA* application. It is currently at a stage where BPDA models can be fully designed using the application, in the full and rich BDPA graphical modeling language. These models can then have base probabilities and CPT's attached to them to make them full Bayesian Networks. Once the Bayesian network is setup it can be used to perform inference. Observations can be set and the resulting probabilities can calculated. The Bayesian networks can be exported to ".xbn" format (which can then be converted to most other formats using BNJ.

I have written out a skeleton of my thesis, basically showing the planned section structure.

I have also started on the skeleton of a paper I would like to write about the implementation and design of the *Web BPDA* application. I feel that given the amount of effort that has gone into the system I should make full use of it as a

research artifact. I am most interested in elucidating on the reasoning behind the many design decisions within the context of Modern Web collaboration, the participatory nature of BPDA and the larger Social-Technological context of decision augmentation systems.

Planned progress for next report

The Web BPDA application needs to be slightly extended to be able to import models from a standard format (like .xbn). Once this is done the MySQL based models in the Sisyphus system need to be exported to an independent format. I was told that this functionality had been implemented but have not been able to find it. Once that is done it will be possible to load Sisyphus models into the Web BPDA application (Which will be awesome).

Problems and difficulties

I have been struggling to get dedicated time to work on my masters. I realize that I over extended myself by taking on too many side projects (work for friends and various web sites). Fortunately these are all going to come to an end in the next week, which will allow me to focus on my masters. I am struggling to sit down and write, but I think that this will become much easier once I have finished the above aspects of the *Web BPDA* application.

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Progress made since last report

- Completed Description and implementation chapters of web BPDA paper

- Extended web BPDA to use multiple Bayesian backends

- Looked at Komati catchment data

Planned progress for next report

- Complete Contextualization and background chapters for web BPDA paper

- Get cleaner more organised data

Problems and difficulties

- Failed so far to import Sisyphus models into web-BPDA

- Been distracted