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**Title:**           **Knowledge gathering and elicitation through argumentation models**

**Topics:**       Track 3: Modeling and Simulation  
                  Track 4: Cognitive and Social Issues  
                  Track 6: Metrics and Assessment

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# **Knowledge gathering and elicitation through argumentation models**

**by**

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## ***Abstract***

The challenges of building knowledge based systems (KBS) for C2 systems include 1) gathering the knowledge from a subject matter expert (SME) and 2) structuring it for system exploitation. A good way to gather this knowledge is to have an unlimited access to SMEs, observe their day-to-day work as well as go through formal/informal interviews. In the actual military context, such approach has almost become unworkable since operational urgency makes it difficult for a SME to plan and respect meetings with knowledge engineers.

To satisfy our current need of knowledge gathering and elicitation, we propose a new approach based on the exploitation of models that have been used in the field of argumentation. This approach does not necessarily involve any automation but allow to capture most of the knowledge needed without the presence of the knowledge engineer with the SME. Even if a knowledge engineer is still required to translate/code this information under a specific KBS format, the structure it provides makes it a lot easier to accomplish. This paper presents the proposed knowledge elicitation methodology, including its implementation and validation.

## ***Paper Outline***

1. Introduction of the project under which this effort was conducted
2. A review of different argumentation models.
3. The argumentation model that was selected for the needs of gathering and elicitation of knowledge.
4. The approach that was developed to use such model.
5. An example of the use of this approach.
6. The comments of users of this approach.
7. Conclusion