Study Protocol			
Questions (Group A)	Questions (Group B)	Questions (Group CA)	Questions (Group CB)
Part 0 - Informed Consent			
Participant satisfies eligibility requirements? (Y/N)			
Signed and reviewed informed consent? (Y/N)			
On the above scale rate your familiarity with requirements engineering.			
On the above scale rate your familiarity with the i* (or iStar) modeling language.			
Randomly Assign Subject to Group			
Part 1 - Introduction / Training			
Review or introduce goal modeling and the "Leaf" goal modeling tool (Video 1A - Welcome-Video).			
Do you have any questions about the video, goal modeling or the leaf tool?			
Load Model 1 - Trusted Computing			
Name all the actors in the model.			
Name all the leaf nodes in the model (nodes without incoming dependencies).			
Name all the top-level nodes in the model (nodes that do not contribute to other nodes and/or no outgoing dependencies).			
Introduce Forward Analysis (Video 1B - Forward-Analysis).			
Do you have any questions about the video or its content?			
If "Profit" is FS and "Produce PC Products" is FD, what will be the value of "Sell PC Products for Profit"?			
If "Purchase PC Products" is FS and "Obtain PC Products from Data Pirates" is FD, what will be the value of "PC Products Be Obtained"?			
If "Allow Peer to Peer Technology" is FS, what will be the value of "Desirable PC Products"?			
Does "Make Content Available Peer to Peer" propagate its value to "Pirated PC Products" OR does "Pirated PC Products" propagate its value to "Make Content			
Which is the stronger relationship, "helps" or "depends"?			
If the "PC Product Provider" can only do one of "Produce PC Products" or "Allow Peer to Peer Technology" which on is best for the top goals (use forward analysis to			
Part 2	Part 2	Part 2	Part 2
Introduce Dynamic Intention Construct (Video 2A - Dynamics).	Introduce Stochastic Variation Construct (Video 2B - Stochastic).	Introduce Advanced Forward Analysis (Video 3C - Forward-Analysis-Advanced).	Introduce Advanced Forward Analysis (Video 3C - Forward-Analysis-Advanced).
Do you have any questions about the video or its content?	Do you have any questions about the video or its content?	Do you have any questions about the video or its content?	Do you have any questions about the video or its content?
Load Model 2 - Network Admin	Load Model 2 - Network Admin	Load Model 3 - City Dump	Load Model 3 - City Dump
If "Develop Project" has M+ as its dynamic type and PD as its current evaluation, what possible evaluations will it have in the future?	Identify which elements in this model change over time?	Identify all the alternative decisions in the model.	Identify all the alternative decisions in the model.
If "Political Will" has R as its dynamic type and PD as its current evaluation, what possible evaluations will it have in the future?	How do each of these elements change?	Use repeated forward analysis (varying initial evaluations) to choose the best alternative for each decision.	Use repeated forward analysis (varying initial evaluations) to choose the best alternative for each decision.
Identify which elements in this model change over time?	If we consider the model to be stochastic and "Political Will" has PD as its current evaluation, what possible evaluations will it have in the future?	In your own words describe how the element evaluations vary over your analysis? Do any trends emerge?	In your own words describe how the element evaluations vary over your analysis? Do any trends emerge?
How do each of these elements change?	Are there any nodes in the model that you could describe better than stochastic? If so, which ones and how.	For each alternative decision, which goal has the greatest impact on the decision?	For each alternative decision, which goal has the greatest impact on the decision?

Which elements (if any) would you have assigned a different dynamic function?	For the purpose of communicating with stakeholders, how would you represent these dynamics symbolically in the model?	What would be the impact if "Environmental Concern" changes in the future?	What would be the impact if "Environmental Concern" changes in the future?
If you can only do one of "Update Current Technology" or "Increase Capacity" which one is best for the top goals (use forward analysis to evaluate the alternatives)? Why?	If you can only do one of "Update Current Technology" or "Increase Capacity" which one is best for the top goals (use forward analysis to evaluate the alternatives)? Why?	Assume you can sequentially complete both "Build Green Centre" and "Build Small Dump". Which order is best for the top goals (use forward analysis to evaluate the alternatives)? Why?	Assume you can sequentially complete both "Build Green Centre" and "Build Small Dump". Which order is best for the top goals (use forward analysis to evaluate the alternatives)? Why?
If you had drawn this model, would you have drawn it differently? If so, how?	If you had drawn this model, would you have drawn it differently? If so, how?	If you had drawn this model, would you have drawn it differently? If so, how?	If you had drawn this model, would you have drawn it differently? If so, how?
Part 3	Part 3	Part 3	Part 3
Introduce Simulation with Dynamic Intentions (Video 3A - Dynamic-Analysis).	Introduce Simulation with Stochastic Intentions (Video 3B - Stochastic-Analysis).	Introduce Dynamic Intention Construct (Video 2A - Dynamics).	Introduce Stochastic Variation Construct (Video 2B - Stochastic).
Do you have any questions about the video or its content?	Do you have any questions about the video or its content?	Do you have any questions about the video or its content?	Do you have any questions about the video or its content?
Load Model 3 - City Dump	Load Model 3 - City Dump	Load Model 2 - Network Admin	Load Model 2 - Network Admin
Identify all the alternative decisions in the model.	Identify all the alternative decisions in the model.	If "Develop Project" has M+ as its dynamic type and PD as its current evaluation, what possible evaluations will it have in the future?	Identify which elements in this model change over time?
Use the simulator to choose the best alternative for each decision.	Use the simulator to choose the best alternative for each decision.	If "Political Will" has R as its dynamic type and PD as its current evaluation, what possible evaluations will it have in the future?	How do each of these elements change?
In your own words describe how the element evaluations vary over the simulation? Do any trends emerge?	In your own words describe how the element evaluations vary over the simulation? Do any trends emerge?	Identify which elements in this model change over time?	If we consider the model to be stochastic and "Political Will" has PD as its current evaluation, what possible evaluations will it have in the future?
For each alternative decision, which goal has the greatest impact on the decision?	For each alternative decision, which goal has the greatest impact on the decision?	How do each of these elements change?	Are there any nodes in the model that you could describe better than stochastic? If so, which ones and how.
What would be the impact if "Environmental Concern" changes in the future?	What would be the impact if "Environmental Concern" changes in the future?	Which elements (if any) would you have assigned a different dynamic function?	For the purpose of communicating with stakeholders, how would you represent these dynamics symbolically in the model?
Assume you can sequentially complete both "Build Green Centre" and "Build Small Dump". Which order is best for the top goals (use simulation to evaluate the alternatives)? Why?	Assume you can sequentially complete both "Build Green Centre" and "Build Small Dump". Which order is best for the top goals (use simulation to evaluate the alternatives)? Why?	If you can only do one of "Update Current Technology" or "Increase Capacity" which one is best for the top goals (use forward analysis to evaluate the alternatives)? Why?	If you can only do one of "Update Current Technology" or "Increase Capacity" which one is best for the top goals (use forward analysis to evaluate the alternatives)? Why?
If you had drawn this model, would you have drawn it differently? If so, how?	If you had drawn this model, would you have drawn it differently? If so, how?	If you had drawn this model, would you have drawn it differently? If so, how?	If you had drawn this model, would you have drawn it differently? If so, how?
Part 4 - Debriefing			
What suggestions or changes would you recommend to the developers of this goal modeling tool?			

Scale: 1 – Completely Dissatisfied, 2 – Mostly Dissatisfied, 3 – Somewhat Dissatisfied, 4 – Neither Satisfied or Dissatisfied, 5 – Somewhat Satisfied, 6 – Mostly Satisfied, 7 – Completely satisfied
On a scale above rate your level of satisfaction with the tools:
ease of use
appearance
modeling functionality
analysis functionality
Scale: 1 – Extremely Unlikely, 2 – Unlikely, 3 – Neutral, 4 – Likely, 5 – Extremely Likely
How likely is it that you would recommend this goal modeling tool to a colleague?
What is your current program of study? (Bachelors, Masters, PhD, Non-Student)
Participant Goal Modeling Feedback and Discussion: The participant will be given feedback by the researcher on their performance in basic goal modeling.
Study Update Form and Thank You