Nick Forleo

**Chapter 11**

11.1 Why is it so important to determine the cost of features early, but not too early in the requirements engineering process?

It is important to determine feature costs at the appropriate time in the requirements engineering process because you will want the customer to be aware of how much the total cost of the system will be, but you don’t want to scare or frustrate them into not considering the system. For example, if you begin with a total cost estimation, the customer may be hesitant right off the bat to continue with the system, or they may be unwilling to suggest new but important features at the risk of ballooning the cost of the project. If you wait until the right time to do cost estimation, you can counter the cost with potential ROI. Once the customer has better contextual understanding, the costs can more accurately be considered.

11.2 What factors determine which metric or metrics a customer can use to help make meaningful cost-benefit decisions of proposed features for a system to be built?

There are a multitude of factors that will help a customer determine which metrics to use when making meaningful cost-benefit decisions. One of these factors may include using the overall purpose of the system. For example, if the purpose of the system is to increase employee efficiency for a given task, then a metric that measures that would be more beneficial than time to development (not to say that it should not be included at all.) Another factor may in fact be the product’s timetable. If the users of the product are expecting a feature to exist within a certain frame, then the metric used to calculate development cost or ROI may be adjusted accordingly.

11.3 How does the role of ranking requirements help in feature selection cost-benefit decision-making?

Ranking requirements helps in this case because it will help when determining which features must be included in the system. Then, the lower ranked requirements can be evaluated with more scrutiny to determine if they should be implemented. For example, if after all high ranked requirements were to be implemented and there was only 5% of the budget left over, you could go through the remaining requirements to see if they can be afforded or if the budget should be expanded if a remaining requirement has a high enough ROI.

11.4 What changes (if any) would you need to make to the COCOMO, COSYSMO, or feature/function point equation calculations to incorporate ranking of requirements?

You would need to add a modifier to the equation that would take into account the number of ranked requirements in each range. Let’s use the tool found at <http://softwarecost.org/tools/COCOMO/>. If you were using high, medium, low to rank your requirements, there could be three rows under the Project section where you input the number of requirements in each rank. The modifier would then assign a weight to each rank, such as high having a bigger weight and low having a smaller weight. This is because you would probably want to spend more money on the more important requirements. This would then produce a ranked requirements modifier that you can include in the overall cost equation equation.