**Technology Evaluation Study Plan – Detailed Assignment Description**

This assignment is the third and final part Analysis of Alternatives exercise.

Choose one of the student-written Technology Selection papers from the list posted by your instructor in the Week 7 conference.

Read your chosen Technology Selection paper to learn more about the selected technology. Next, consider what type of formal evaluation study could be used to learn more about this technology and how it is likely to interact with people, processes, and technologies. Then, design a formal evaluation study which could be used to obtain more information about one or more of the following:

* + characteristics (features and capabilities) of the technology
  + interactions among technologies, people, environments, and processes (use cases or scenarios)
  + risks or vulnerabilities associated with adoption of this technology
  + costs and benefits associated with adoption of this technology

**CHOOSE YOUR EVALUATION METHOD**

Your evaluation study design must use one of the following:

* + Case Study
  + Delphi Study (panel of subject matter experts)
  + Quasi-Experiment (e.g. penetration testing or pilot testing in a controlled environment)
  + Pilot Implementation (in a demonstration environment)

See the *Technology Evaluation Methods* module in the Week 2 conference for detailed descriptions of each of these types of evaluation methods.

**DESIGN YOUR STUDY**

Identify the specific questions that your formal evaluation study will address. These questions must be security-focused (review the *Pillars of Information Security* and *Pillars of Information Assurance* for ideas). Your design should include a description of the specific security issues which will be tested or security capabilities which will be evaluated. Use standard terminology when writing about security issues (see the rubric).

**DEVELOP YOUR EVALUATION STUDY PLAN**

Use your study design to prepare a high-level plan for your evaluation study. Your plan must include the following:

* + Introduction
    - description of the emerging technology and justification for including it in an evaluation study
  + Research Question(s)
    - These must be security focused. Use the *Five Pillars of Information Assurance* and / or the *Five Pillars of Information Security*.
    - Use “how” or “what” questions (writing good “why” questions is beyond the scope of this course).
    - Examples
      * What vulnerabilities exist that could be attacked to compromise confidentiality?
      * How could an attacker compromise availability?
    - For each research question, provide a brief description of a scenario or use case which could be used to answer the question. Your description should be one paragraph (no longer).
  + Methods
    - high level design of the study (focus upon the evaluation model and your research questions)
    - description of how the technology will be incorporated or used in the study (including specific security issues which will be tested or security capabilities which will be evaluated)
    - notional system or network architecture diagram showing the pilot test environment (only if you are doing a pilot study)
  + Limitations or Special Considerations
    - any special considerations or security concerns which must be addressed (e.g. “clean room,” test data sanitization, or isolation environment to prevent the pilot study from causing harm to operational systems)
  + Timeline of Events (Notional)
    - A notional timeline (expressed in days or months after start date) for your study

**NOTIONAL TIMELINE OF EVENTS**

The notional timeline of events (stated in days or months after start) that provides an estimate of how long you expect your evaluation study to take. For a Delphi Method study, your study could take as little as a day or two. For a Delphi Method Study, include the number of “rounds” and how long each round will be (the time allotted for experts to consider information and reply back with their opinion on the questions or issues). For a case study, quasi-experimental, or pilot implementation design, your study may span several months; in this case, divide your timeline into phases (setup, testing, reporting).

**COST ESTIMATE IS NOT REQUIRED**

Normally, an evaluation study plan will include a cost estimate. For this course, we will NOT be including cost elements in our evaluation study plans as the information required to develop these items is not readily available to students. If you wish to address this area of a study plan, limit your discussion to a brief listing of the cost elements (people, technologies, facilities) and state that a cost estimate will be provided separately.

**DOCUMENT YOUR PLAN**

Your Technology Evaluation Study Plan should be at least three pages in length but no more than ten pages (excluding the title page and references page). This should be a high level design that can be read quickly. Your study plan must contain the five major sections defined above and comply with the formatting guidance provided by your instructor.

**GRADING**

**Grading Rubric:** Consult the grading rubric for specific content and formatting requirements for this assignment.

**APA Formatting:** Consult the sample papers and paper template provided under Content > Course Documents > APA Resources.

All papers in this course must comply with APA Style for references and citations. You are expected to write grammatically correct English in every assignment that you submit for grading. Do not turn in any work without (a) using spell check, (b) using grammar check, (c) verifying that your punctuation is correct and (d) reviewing your work for correct word usage and correctly structured sentences and paragraphs. These items are graded under *Professionalism* and constitute 20% of the assignment grade.