*Posted on February 24th, 2014*

**COMP 361 - Techniques for Information Gathering**

There are many techniques for gathering information about system requirements. Several of them are discussed in the course textbook, all with the goal of "understand[ing] the business functions and develop[ing] the system requirements [1]." Three of these techniques are:

1 - Review existing reports, forms and procedure descriptions

2 - Conduct interviews and discussions with users

3 - Conduct joint application design (JAD) sessions

Each of these techniques can be valuable, but they also have their own unique advantages and disadvantages.

Review of the existing materials is probably the most important of these techniques. Satzinger, Jackson and Burd highlight this importance by mentioning that they should be "...the first in fact-finding activities." Every business has procedures that need to be followed in order to run the business. Therefore, reviewing these procedures and associated documents are an absolute necessity in all systems development projects. However, this technique is not flawless in providing a complete understanding of business functions and rules. It only provides a basis on which to expand understanding with the use of other information gathering techniques. Again, we turn to Satzinger, Jackson and Burd reiterate the point: by mentioning that information gathered should be reviewed with users to ensure that everything is correct [2]. So it seems that reviewing documentation is an integral part of the information gathering process, but it cannot be used in isolation.

One of the most valuable additional techniques systems designers can employ is conducting interviews and discussions with the users of the system. The textbook mentions that this technique is "… by far the most effective way to understand business functions and business rules [3]." This technique works well when trying to asses general attitudes, or to clarify questions and assumptions made when reviewing existing documentation. However, this technique need not be used when users are designed to be already heavily involved in the project, such as in some adaptive design techniques. The formal interviews can be replaced with general advisement and quick, informal chat sessions. Nevertheless, when these interviews are conducted, analysts need to make sure they are organized and prepared to conduct useful interviews. Yet there are some major drawbacks exposed by Jakob Nielsen. He states that "The critical failing of user interviews is that you're asking people to either remember past use or speculate on future use of a system. Both types of responses are extraordinarily weak and often misleading [4]." He emphasizes the fallibility of human memory and that users think of things in concrete ways because they are not designers themselves [5]. Therefore, it is clear that the information gathered from users can be useful for clarification purposes but it cannot be considered as ultimately definitive in all aspects.

Finally, another way to involve users and gather information is to conduct JAD sessions. These sessions can be quite valuable because they speed up the time-intensive process of meeting, interviewing and discussing with users. These sessions can be useful, only if the required resources to run a session are made available. These resources include a special room or off-site location, computers, and other general meeting materials. If this equipment is unavailable or not provided, the JAD session will not be effective, resulting in loss of both time and money. Despite the needed investment of materials, JAD sessions can be extremely effective. But as with the other techniques mentioned, it is not a perfect solution, and there are other drawbacks related to working with groups. Information systems student Sophia Kuchmistaya states these concerns as the need for all participants to have an equal voice and chance to contribute and that ensuring this equality is the responsibility of a good facilitator [6].

These three techniques can all contribute to the valuable process of information gathering. Yet each one can not be used alone to create a complete picture of the business needs and system requirements of an organization. Additional techniques should also be used to supplement the three mentioned above. And any techniques should be carefully used in the right situations and in the right ways to minimize their shortcomings and apply them successfully.

**References**

[1],[2],[3] J. W. Satzinger, R. B. Jackson and S. D. Burd, Systems Analysis and Design in a Changing World, 5th ed. Boston, USA: Thomson Course Technology, 2009.

[4],[5] Jakob Nielsen, “Interviewing Users.” *Nielsen Norman Group*, last modified July 26th, 2010, <http://www.nngroup.com.articles/interviewing-users/>.

[6] Sophia B. Kuchmistaya, “Incorporation of Joint Application Design (JAD) in Systems Requirement Determination,” (term paper, University of Missouri – St. Louis, 2001).