Elicitation Report

Sunday, March 27, 2022   8:09 PM

The process of eliciting requirements varies from project to project. Requirements elicitation is a crucial step in beginning and project, and the quality of the requirements can largely reflect on the outcome of the overall product. Because requirements are what the software is built on and ultimately what the product should satisfy, there are a number of sources for requirements elicitation. Some sources that typically have the best requirements coming from them are the business **goals**, which are what the business hopes to gain from the creation and distribution of the product, the project **stakeholders** who will be using and affected by the creation of the product, the **domain knowledge** for which the product will be deployed in, and the **business rules** that dictate what the product can and cannot do.

With the large variety of sources to choose from, elicitation techniques are important to be familiar with. Some of the techniques often used include; **interviews** with the stakeholders and clients of the project, **prototyping** of the product (this technique is best used iteratively over the length of development), **facilitated meetings** with groups of people, and user stories that capture the who, what, and why for users of product.

 The requirements engineering process facilitates the elicitation for behavioral requirements because it seeks to find out what the software is meant to do along with constraints for how it can do those functions. Requirements are the building blocks for development and are gathered not only to ensure the project is staying within scope but to ensure the product will do what the clients want and expect it to do.

When eliciting requirements there may be a poor expression of ideas from clients and stakeholders, little understanding of the overall end goal, and poorly written requirements. These are some of the challenges with requirements elicitation because they can lead to bad requirements that don't encompass the entirety of a product or fully detail all of the wanted functionality. When discussing requirements with clients and stakeholders, it is often the job of the business analyst to further the discussion to pull out all of the details required for good development. It may also be the job of developers to have those discussions with clients to find a good middle ground for functionality and feasibility.

The process I took for elicitation was a little different from the typical process. Because of legalities, I was unable to conduct interviews myself, however, I was able to create a questionnaire for the different stakeholders and have my sponsor assist me in gathering responses from them.
Beginning my elicitation process I started with gathering some business rules from my sponsor. These business rules were;
- The product must adhere to PHI and PII practices to ensure user information confidentiality.
- Users must be U.S citizens to access the system.
- Users must be NLS members to access the system.
- Users must have a compatible device to download resources from the system.

These business rules gave me an idea of what the system can and cannot do and provided some good constraints to keep in mind when writing requirements.

The next step was to create user stories for each of the users of the system. These were;
- As a blind person, I want to find braille resources so that I can read resources provided by the Library of Congress.
- As a family member of a blind person, I want to use the BARD system so that I can assist with finding resources for them.

- As a U.S citizen, I want to access the BARD system when I travel abroad so that I can find more resources even when I am not in the U.S.
- As a deaf person, I want to find transcripts of music and audiobooks so that I can enjoy those resources without being able to hear.

These user stories give me an idea of who will be using the system and what their intended purpose for using it is. This allows me to write requirements that ensure they can do what they expect to be able to do.

With the business rules written down and the user stories created, I was able to create use cases for the different functions of the system. These use cases were for 2 sets of actors, the disabled users and the system itself.

Disabled users.	1.	Log in to the system.
	2.	Browse material.
	3.	Download material from BARD.
	4.	View wish list.
	5.	View pervious downloads.
	6.	View subscriptions page
	7.	Change email or password.
	8.	Enable digital talking-book player or another device.
	9.	Cancel BARD account.
BARD system.	1.	Authorize user.
	2.	Sort material.

I then sent my questionaire to my sponsor.

For the Library of Congress:
- *How many users are you expecting to have with an updated system?*
    - Between 1 million and 1.5 million users per year.
- *Why do you want to update the system from its current framework?*
    - Currently, the framework is a PHP framework. This is limiting functionality for the BARD and our users have been complaining about some performance issues they have dealt with on the current system framework.
- *Are you expecting to add additional functionality?*
    - No, we want to keep the BARD system functionality the same as before and only update the framework and database we use.
- *Will this new system cater to a different group of users than the current system does?*
    - We hope to provide access to more than just blind users with the updated system. With the ability for more users, we can open up our system to allow a larger user base.
- *What groups of users do you expect to be using the new system?*
    - We expect the system to be utilized by disabled communities that need special access to resources along with their family and caretakers to assist them in accessing the resources.

For CRPD:
- *Which resources will hearing-disabled users find the most accessible?*
    - These users will typically find reading resources the most accessible for themselves.
- *Which resources will users with physical disabilities find the most accessible?*
    - These users will typically find audio resources the most accessible for themselves.
- *Which resources will users with mental disabilities find the most accessible?*
    - These users will typically find reading and audio resources the most accessible for themselves.
- *Will special accommodations for your users need to be made to access the BARD system?*
    - Some users may need special accommodations such as help from an assistant or their local

library to access the BARD system.
- *Are there other communities that you expect to want access to the BARD system that we have not covered?*
    - ○ No, there are not.

For the Blind Community:
- *What do you like about the current BARD system?*
    - ○ The BARD has the most resources available for braille and talking-book users. Having one space to get resources like this is really helpful and the BARD layout makes it easy to find and download these resources.
- *What do you dislike the most about the current BARD system?*
    - ○ The current BARD system has some performance issues such as when searching for a book with filters or downloading resources to my device. I would like these processes to be quicker than they currently are.
- *What aspect of the searching process is the most helpful to you?*
    - ○ Being able to filter by so many categories helps with finding exactly what I want easily.
- *Do you use the BARD system alone or with the assistance of somebody else?*
    - ○ A majority of the respondents for this question say they use the BARD alone, with only 27% saying they require the assistance of somebody else.