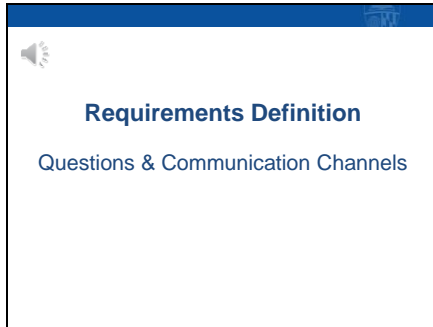
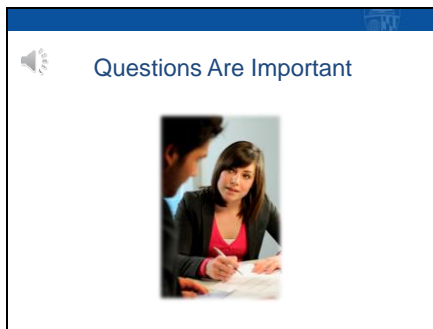


1



In this lecture we'll discuss how asking better questions is related to channels of communication.

2

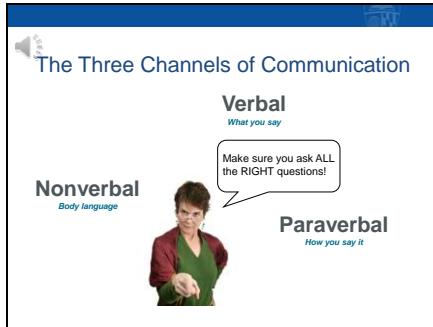


Asking effective questions are an important part of the software engineering process, especially during the requirements phase of a project. And...asking questions is usually the primary technique used to elicit information...so this is a very important skill set.

History has shown that business-side stakeholders, the source of requirements information, are generally not aware of the kinds of information and the level of detail that need to be gathered during the requirements phase. You may recall my comments from an earlier lecture regarding how different stakeholders have different understandings about what a requirement is. You may also recall that 80 percent of requirements defects are due to incorrect and incomplete requirements information being gathered...so more effective questions can significantly help to mitigate this problem.

Now, even though I'm discussing the topic of better questions in the context of defining requirements, being able to ask effective questions is a useful skill that applies to any phase in a software engineering project.

3



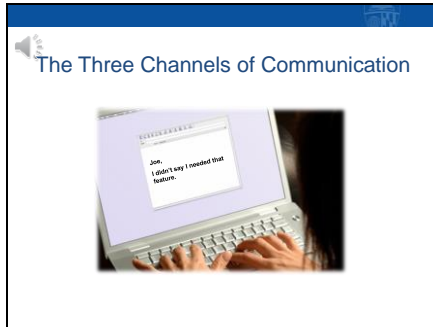
Something that's really important when it comes to asking better questions is to understand what is called the three channels of communication.

When people communicate, there are three channels that send information to someone. The first channel is the verbal channel...what you say...or what you write if the communication is in written form. The second channel is the paraverbal channel, and it consists of how you say what you say in terms of word emphasis, tone of voice, and pacing. And the third channel is the nonverbal channel...or body language.

When people communicate feelings, needs, likes, and dislikes, 93 percent of the information that is sent is sent in the paraverbal and nonverbal channels. In fact, 55 percent is sent in the nonverbal channel, 38 percent in the paraverbal, and only 7 percent in the verbal channel.

You can tell a lot just by looking at this picture. Her body language and the emphasis on the words used can make most people hear her...even though it's a static image.

So...how can we use the three channels of communication? In several ways. One way is to be on the lookout for when the three channels are not in synch with each other. For example, in this image, if the verbal and paraverbal channels went something like this..."you've made me the happiest manager in the whole darn company"...the channels would be out of synch. The verbal and paraverbal wouldn't match the body language, would they? When the channels are out of synch, the nonverbal channel is the one that people believe. So...I might have to ask some very carefully constructed questions to get to the bottom of what someone is really thinking.



A second way to use the three channels of communication has to do with risk...particularly risk associated with getting correct and complete requirements information.

I work with a number of client organizations where the primary form of getting requirements information from stakeholders is through email. In fact, for some clients there is very little face-to-face or even voice-to-voice communication...and that presents a significant risk. We lose two channels of communication when written correspondence is used...the paraverbal and the nonverbal.

Now...take a look at this email message that my client is sending me. As a reader of that email, I may not be able to tell exactly what my client means. There's a couple of different interpretations possible.

- I didn't say **I** needed that feature. That might imply that somebody else needed it, but not my client, and she may not really care about it.
- I didn't say I **needed** that feature. She doesn't think she needs it, so why is it there?
- I didn't say I needed **that** feature. That might imply she needed something else.

One of my clients is an automobile manufacturer. I was at one of their plants talking with a group of their business analysts and I used this same example. Their eyes widened and they gave each other knowing looks. As it turns out, virtually all communication between them and their stakeholders uses email, and they constantly misinterpret the requirements. Face-to-face communication didn't appear to be an option for them, so I recommended having virtual meetings where at least the paraverbal component would be added.