THE IMPORTANCE OF DOMAIN KNOWLEDGE FOR SQA ENGINEERS

Presented by Stephen Dobro for the Software Quality Group of New England (SQGNE) March 14, 2012

Introduction

- More about me and the topic
- Why this topic?
- Let's have a discussion

Discussion Topics

- What is domain knowledge?
- What are the types of domain knowledge?
- Can it help you do your job better?
- Can it help your organization?
- Can it help your career?
- Other benefits? Negatives?
- How do you obtain domain knowledge?
- What do other QA Manager's say?
- Summary

What is Domain knowledge?

- Wikipedia: "...in software engineering, domain knowledge is knowledge about the environment in which the target system operates..."
- www.usabilityfirst.com: "...knowledge about a specific field of interest; knowledge about the content area for which a piece of software is being designed..."
- A.k.a. subject matter expertise
- Contrast to domain-independent knowledge

Types of Domain knowledge

- Industries
 - BFSI, retail, telecommunications, education, etc.
- Organizational
 - Government, nonprofit, for-profit
- Specialty Product Areas
 - Medical devices, laboratory automation, etc.
- Profession
 - Accounting, medicine, law, etc.

Can domain knowledge help you do your job better?

- Better understanding of requirements
- Better test cases created
- Better test parameters selected
- More acceptance of design feedback
- Better customer perspective

How can your domain knowledge help your organization?

- Do your job better
- Assist other groups
- Help customers

How can domain knowledge help your career?

- Do your job better
- Help your organization
- Expand your network
- Improve your resume
- More easily change your career path

Is it more important for agile or traditional methods?

- Traditional / Sequential
- Agile or Lean

Are there other benefits?

- Learning new things
- Joy of being an expert
- Can you add any others?

Are there non-benefits?

- Time taken away from learning product and technical skills
- Time taken away from test activities
- Perception or Reality?
- Can you add any others?

How do you obtain domain knowledge?

- Internal
 - Training courses
 - Informal knowledge sessions
 - Incidental information
 - Interactions with those that have the knowledge
- External
 - Courses (college, trade, seminars)
 - Customer interactions
 - Internet sources, trade magazines / journals, books
 - Societies / Organizations

What do other QA Manager's say?

- Asked 5 questions related to the topic
- The response scale was:
 - Strongly agree
 - Agree
 - Neutral
 - Disagree
 - Strongly disagree

What do other QA Manager's say?

- I have worked for a company where it was necessary for QA Engineers to have domain knowledge
- Nearly all "Strongly Agree" or "Agree"

What do other QA Manager's say?

- I feel it is important that companies hire QA Engineers with domain knowledge
- All "Agree" or "Strongly Agree"

What do other QA Manager's say?

- I feel that QA Engineers perform better when they have more domain knowledge
- All "Agree" or "Strongly Agree"

What do other QA Manager's say?

- I do not think it is necessary for a QA Engineer to have domain knowledge
- Nearly all "Disagree" or "Strongly Disagree"

What do other QA Manager's say?

- I feel domain expertise is beneficial to a QA Engineer's career
- Nearly all "Agree" or "Strongly Agree"

Summary

- It helps you do your job better
- It helps your organization
- It helps your career
- There are additional benefits
- There may be some trade-offs
- It is a definite PLUS!

