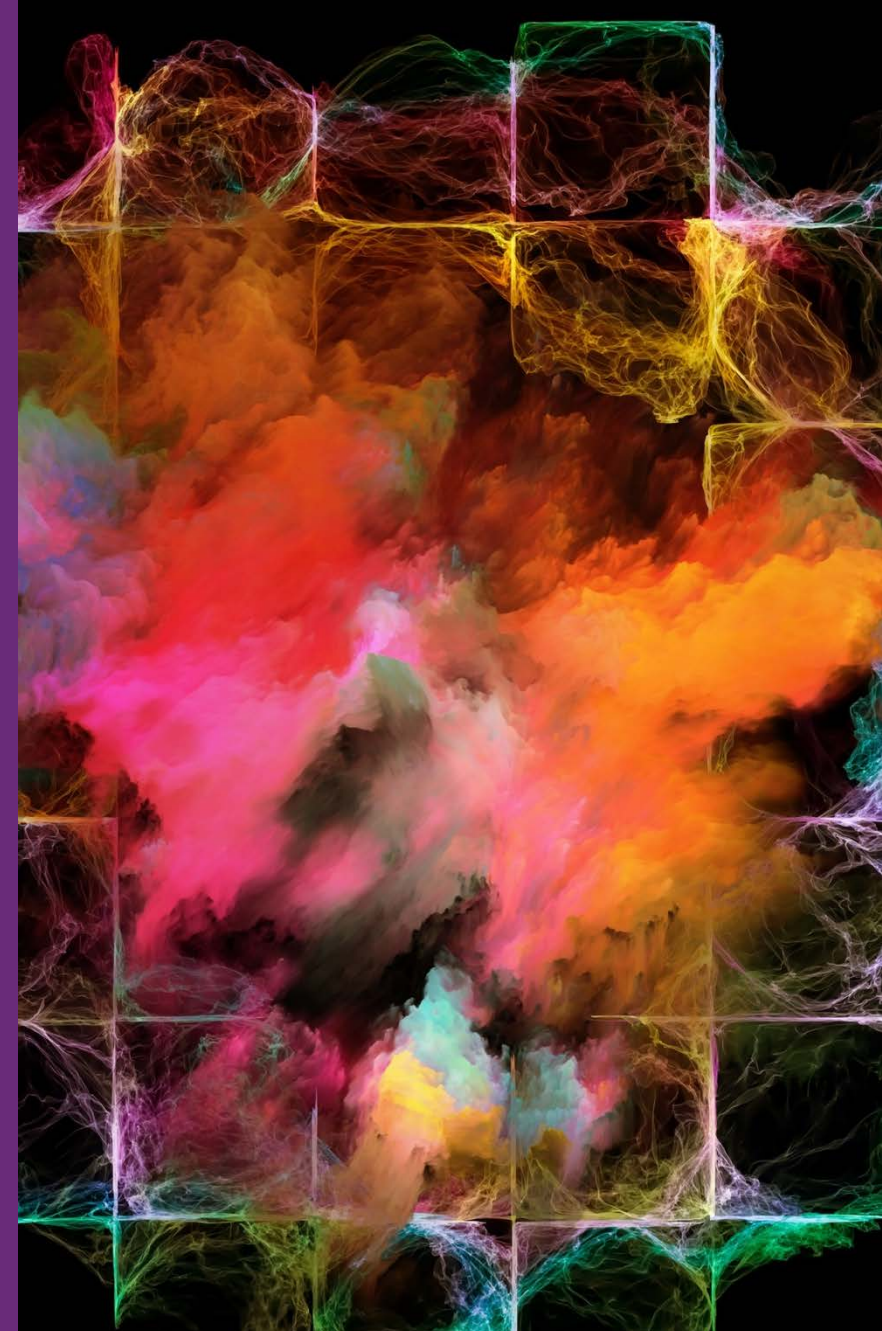


SATURN 2017

13th Software Engineering Institute Architecture
Technology User Network Conference

Customer Experience Architecture

Bett Bollhoefer – GE





Course Objectives

Goal of course: Participants will learn basic methods of contextual design and design thinking and how they apply to the architecture of a software system



Why you need to take this course

Why should I bother with this?

- [“Building software falls into an interesting case of problems known as wicked problems.”](#)
- This means basically that there are many possible solutions and that no solution is really "right" or "wrong" only "better" or "worse" given your current understanding of the problem.
- Further each problem is essentially unique, there isn't an explicit stopping rule, and as the designer you will be held liable for consequences of your solution.“
- Michael Keeling – Architect at IBM



Context

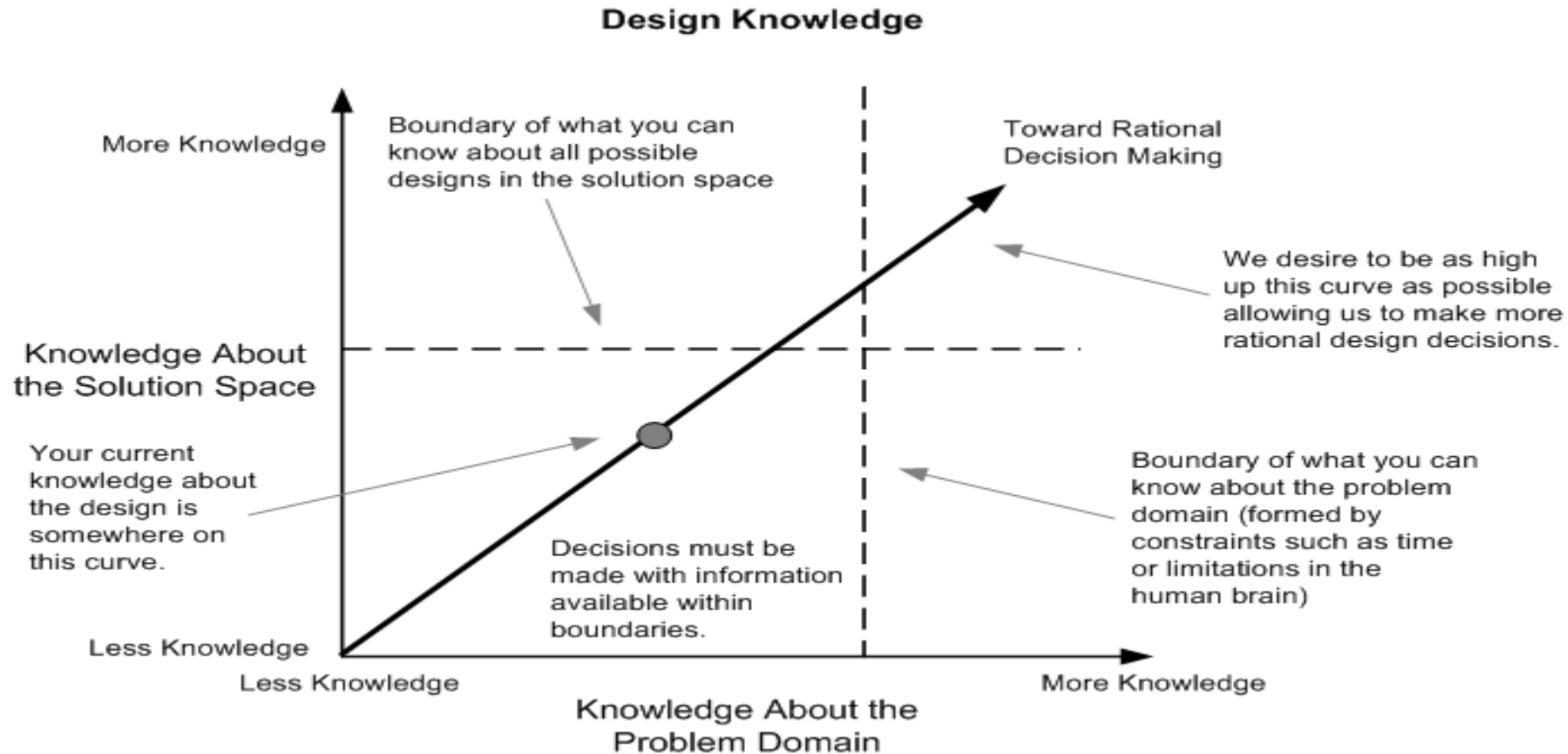
What context are we dealing with today?

Enterprise Architecture Decisions

System Level Architecture Decisions

Interface level Decisions between systems

Design Knowledge



Customer Experience Architecture



Uses Design Thinking: When using our software, what is the customer trying to do?





Exercise: Design “SATURN Networking App”

Purpose: App must make it easy to connect with people at SATURN

User story: I enjoy talking to someone and I ask if I can add them to my network. They say Yes. I take out my phone open the app and enter the name. Now I am connected to this person on all my social networks. I also get a list of all the people I met after the conference is over.

Functional requirements:

Must accept a name entered by the user

Must add all the entered name’s available social media

Must send entered name a greeting on each format

Must email list after event to remind user of each person summary and when you added them

Exercise Set up



Get into groups

Assign Roles:

- Architect(s)
- **Customer**



Reduce the Unknown

Uncover hidden requirements by using contextual design.

- Contextual Design engages the people doing the work and studies their intents and problems to ensure the software system developed is more in tune with the user's actual needs.
- It provides a powerful tool for software engineers to use as input into their requirements and architecture





Exercise: Contextual design interview

Understand the full manual process by watching your customer perform the manual tasks.

You have 5 minutes for the interview.

Be sure to ask these two questions:

How does the customer know they need to start the task?

How does the customer know the task is complete?



Reminder: Design “SATURN Networking App”

Purpose: App must make it easy to connect with people at SATURN

User story: I enjoy talking to someone and I ask if I can add them to my network. They say Yes. I take out my phone open the app and enter the name. Now I am connected to this person on all my social networks. I also get a list of all the people I met after the conference is over.

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How will what you learned impact your design?

You have 3 minutes to discuss the possible designs of your system with your group.

You can use the back of your sheet to draw the design.



In your group, discuss how you can apply this to your work

How can you apply this technique on Monday morning?

You have 2 minutes.

Final Group Discussion



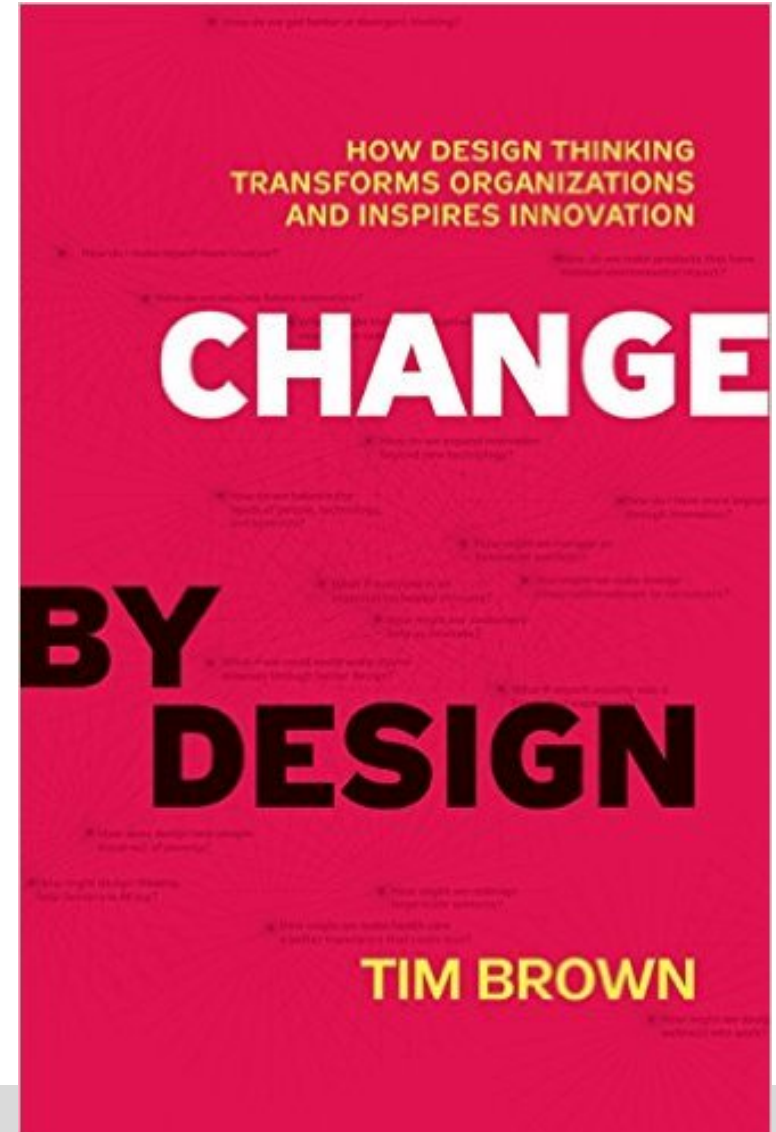
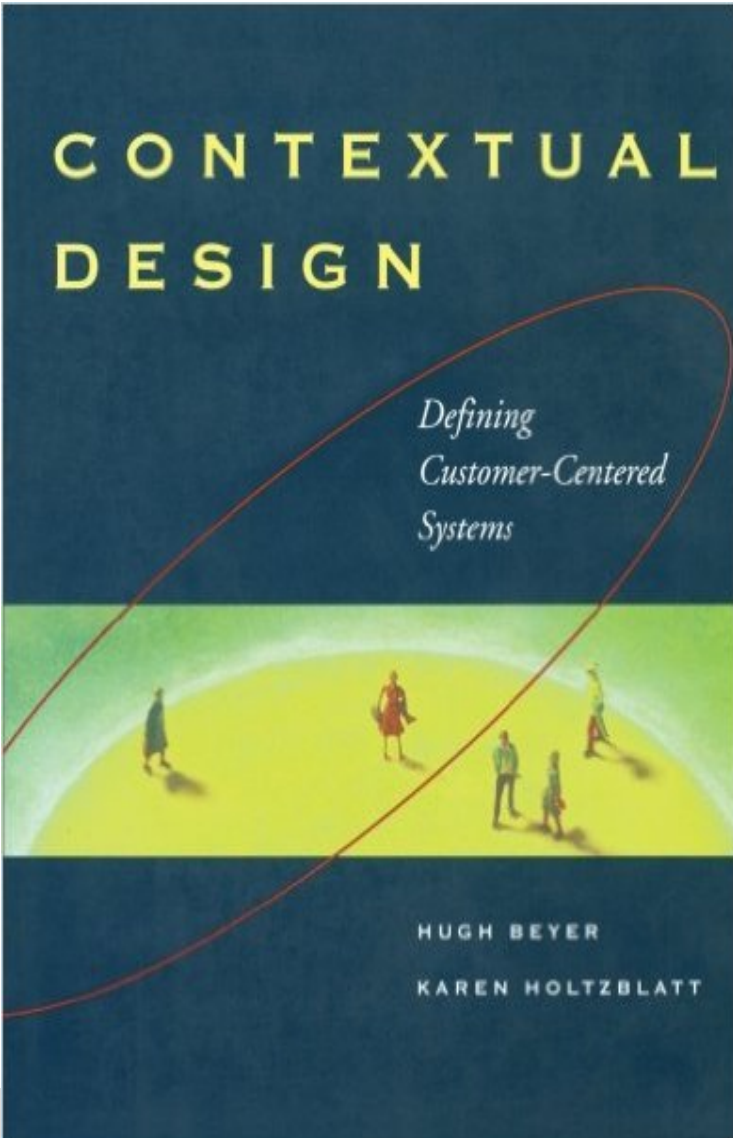
Share with the larger group:

What was surprising?

What did you learn?

How can you apply this at work?

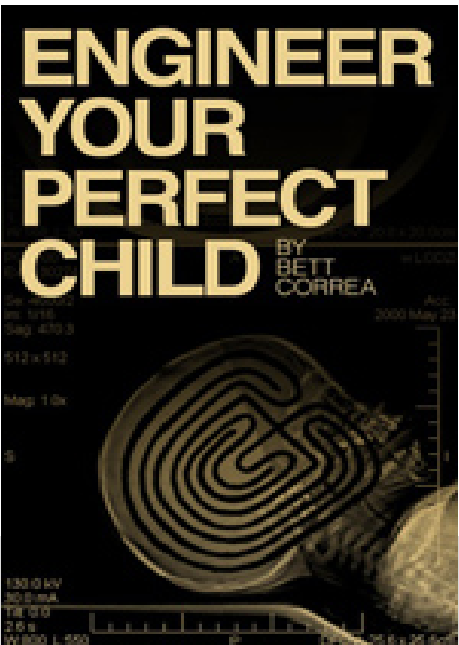
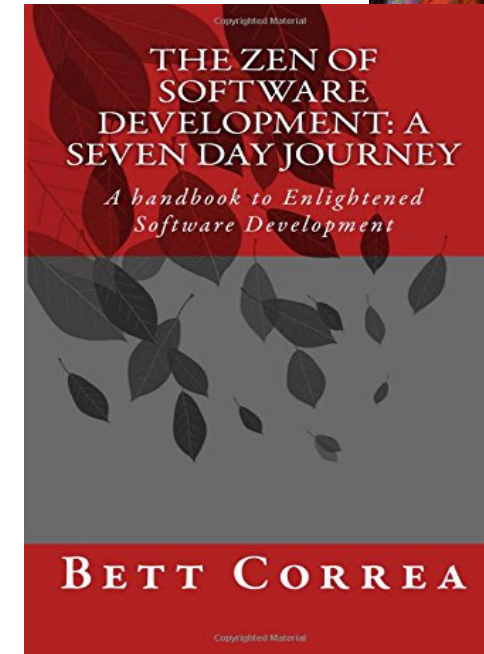
Resources



Questions?



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- Author of
- Zen of Software Development
- *You Can Be a Software Architect*
- *And Engineer Your Perfect Child*
- *And Step by Step: Write, Self-Publish, and Market Your Book*
- Podcast: architecturecast.net



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Thank you

