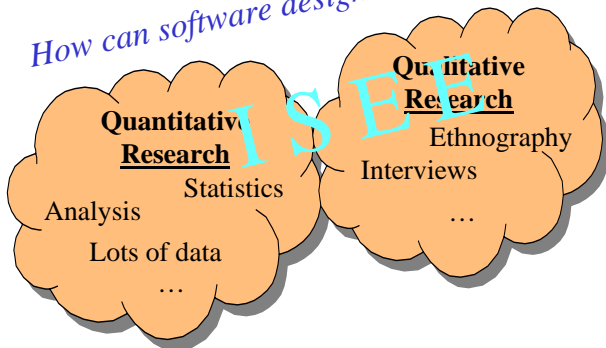


Finding My Research Home: Being Free to do Research My Way

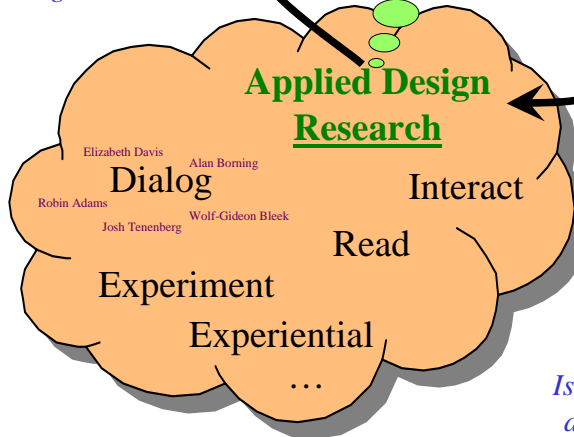
David Socha, PhD

What is software design?
How can software design be taught?



How does sustainability relate to software?
How can we create breakthrough innovations?

I can live here! 😊



design problems
software is an organizational intervention

July 19, 2004 – end of day 2 of ISEE workshop

I am *unhappy*. My mood had been sinking for two days. I don't want to do the qualitative research methods being taught here. "Why am I here?" I wonder. "Was joining ISEE a mistake?"

I find Robin Adams and express my concerns. She listens. "Well," she said, "show me what you are doing."

That's easy. I open my journal. It's full of notes, diagrams, questions from many conversations and readings about software design. From doing and teaching software design.

"That's your research," says Robin.

"Where?" I reply. I don't see any data sets. No rigorously planned and analyzed experiments or interviews.

"Right there," she says, "in your journal. Those conversations are your research."

Oh...!

That's when it dawned on me that I was already doing my research. And had been for years. Suddenly I was free to continue doing what I was doing well. What a relief!

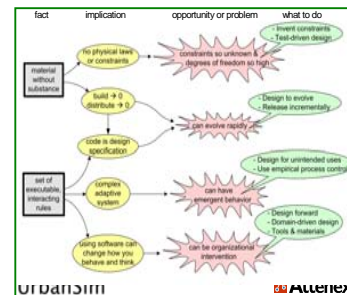
Before this day, I would tell people that "I am not a researcher."

Now I know differently. I do applied *design* research. It is more *synthetic* than analytical. More *discursive* than experimental. More *intuitive* than planned. And it is research.

This was ISEE's gift to me.

Is software different?

What is software design?



What is design?

Design is to **design** a **design** for a **design**.

(Noun 1) (Verb) (Noun 2) (Noun 3)

Noun 1 – a field as a whole
"Design is important to the national economy."

Verb – action or process
"She is commissioned to design a new kitchen blender."

Noun 2 – concept or proposal
"The design was presented to the client for approval."

Noun 3 – finished product of some kind
"The new VW Beetle revives a classic design."

Is designing software different from designing other things?

Mudd Design Workshop V
"Learning and Engineering Design"
May 21, 2005
David Socha, PhD
Skip Walter

Span of Design

Physical: Design Build Distribute Intervene Operate

Software: Design Build Distribute Intervene Operate