User Interface Software Projects

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CS 130 Fall 2015
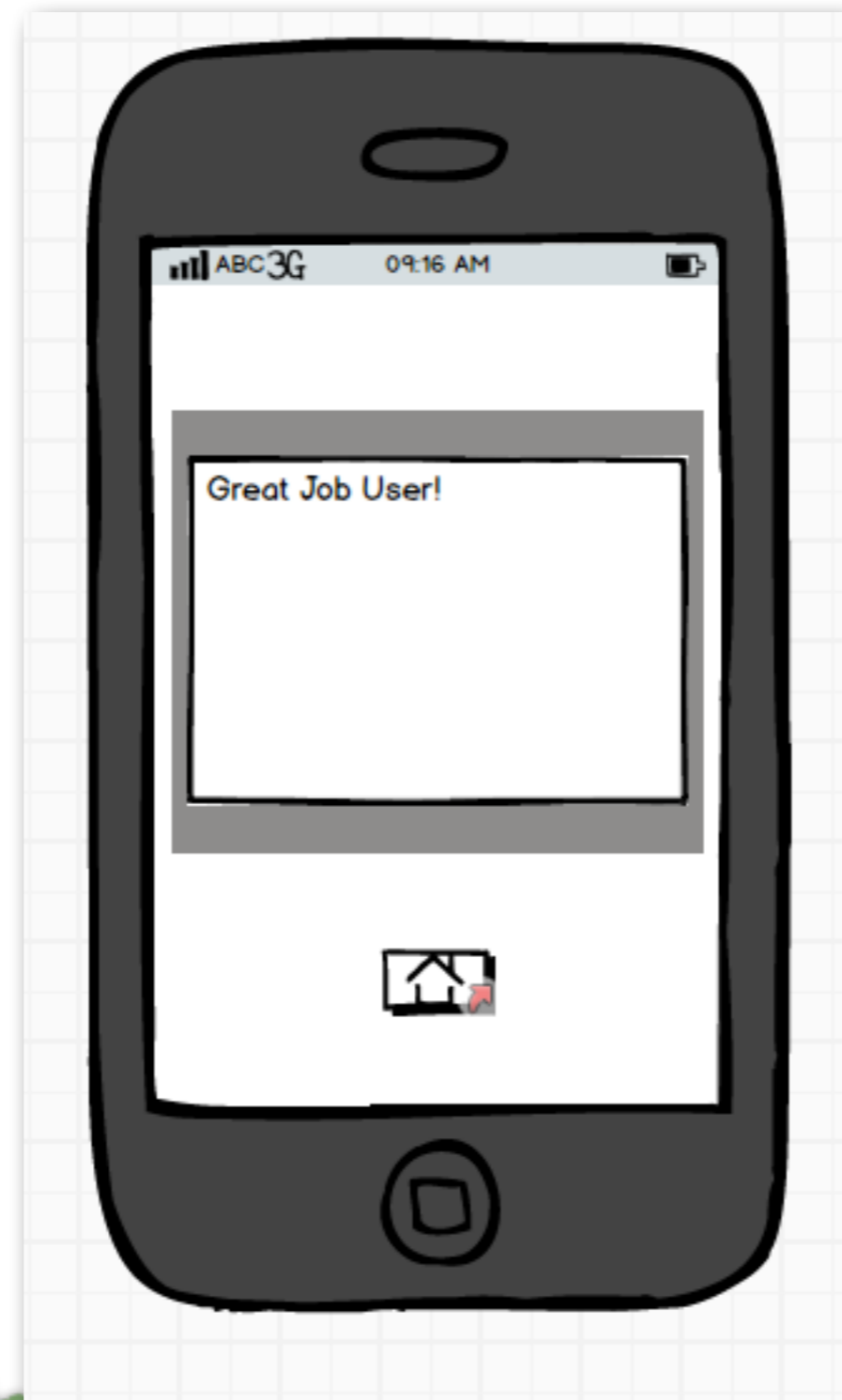
sketching → Finished U/I

PROTOTYPING

Paper Prototyping	Interactive Paper Prototyping	Digital Paper Prototyping	Digital Wireframing	Interactive Digital Wireframing	Graphic Design	U/I Conversion	Functionality

PAPER

PAPER + USERS

POP

VISIO
POWERPOINT
OMNIGRAFFLE
BALSAMIQ
(TONS OF
OTHERS)

DREAMWEAVER
PHOTOSHOP
BOOTSTRAP

WEB
FRAMEWORK:
RAILS
CAKEPHP
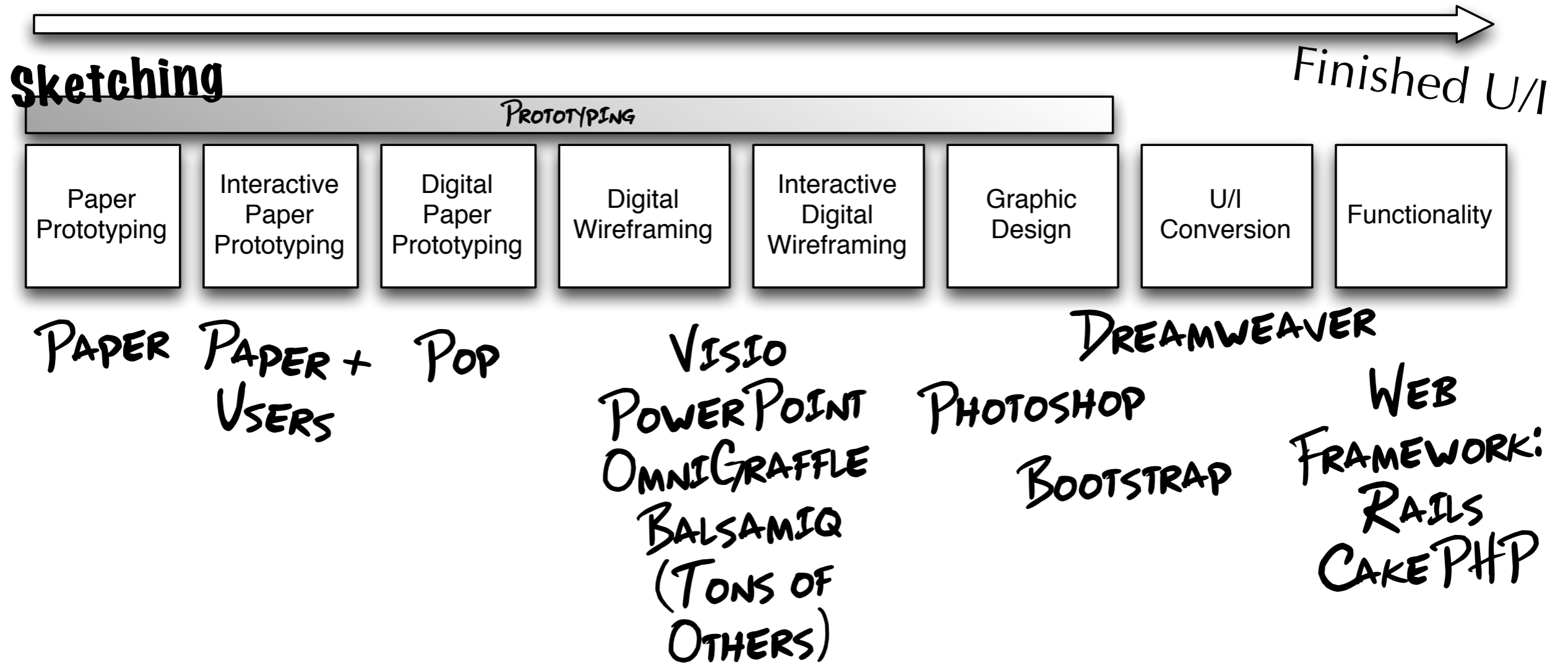
Balsamiq

Balsamiq

Interaction design tools

Design Process

What is wanted?

Analysis

Design

Prototyping

Evaluation

Implement and Deploy
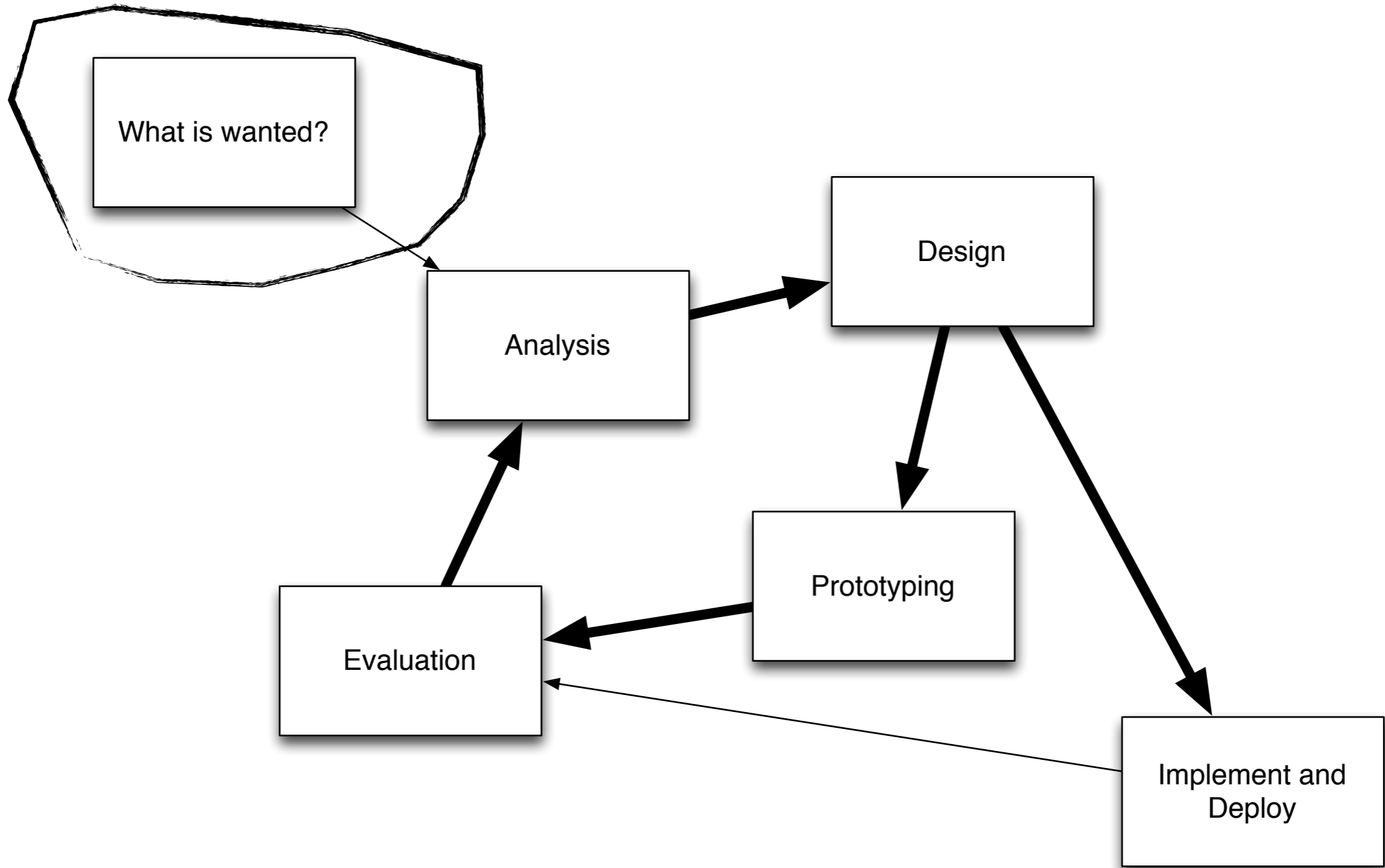
- Brainstorming

- Contextual Inquiry

Goals of Brainstorming

- Generating alternatives is a key principle in most design disciplines

- This should be encouraged in interaction design

- "The best way to get a good idea, is to get lots of ideas" - Linus Pauling

Brainstorming

- Brainstorming is used to
    - generate ideas
    - refine ideas
    - develop ideas
- "Brainstorming is used when you're searching for ideas and discovering possibilities that may be found in problems."
- General goal:
    - Include stake holders in creating:
        - a new future
        - a new innovation
        - a way to solve a problem

- Brainstorming

- Contextual Inquiry

Contextual Inquiry - what is the question and problem?

- Similar to ethnography
  - Studies the user in place
  - Tries to capture the reality of his work culture and practice

- Different from ethnography
  - It is not open-ended
  - The investigator has a specific focus
  - Its goal is to
    - find the right design
    - design the right system

Contextual Inquiry

- Contextual Inquiry
  - Is like being an apprentice to the user
  - Go to their location
    - See their work place
    - See the objects they use
    - See the artifacts they create
    - Experience their communication patterns
      - verbal
      - non-verbal
    - Gather data

Contextual Inquiry

- The user is the expert and a partner to the investigator
- However, the investigator is not passive
  - Her goal is to understand what is going on.
    - Asking questions...
    - Questioning motivations...
    - Make sense of the actions is expected
  - She must be ready to challenge her assumptions of understandings of the place, user and task

Contextual Inquiry

- Step 1
  - Data collection
    - Interviews
    - Photographs
    - Videos
    - Drawings
    - Sample collection

Contextual Inquiry

- Step 2
  - Data analysis
    - Sequential analysis of actions
    - Physical models of actions
    - Models of communication flow
    - Cultural insights
    - Artifact categorization

- Step 3
  - Outcome
    - Representation of the required task sequences, artifacts and communication channels that must be supported.
    - Understanding of physical and cultural constraints

- Resources
  - IDEO Method Cards
    - Learn
      - Activity Analysis
      - Competitive Product Survey
    - Look
      - Still-Photo Survey
    - Ask
      - Narration/Think Aloud
    - Try
      - Behavior Sampling
  - http://www.ideo.com/work/