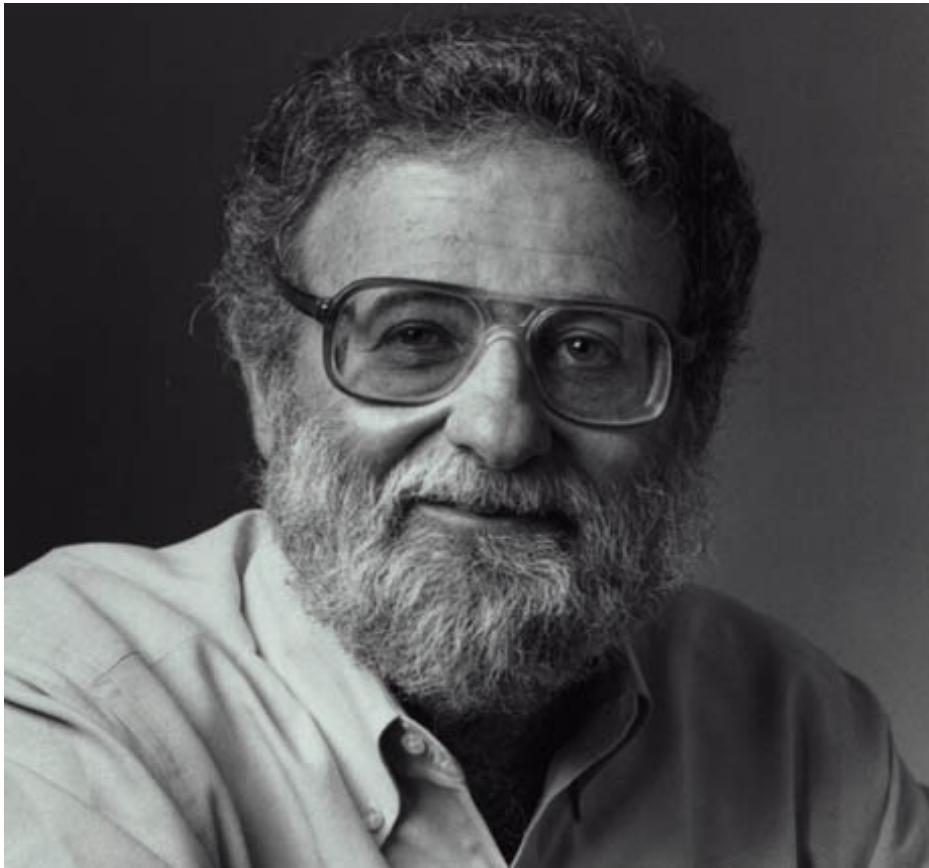


Design Thinking

Todd Davies
Symsys 130
May 22, 2013

“Cognitive Engineering” (Don Norman, 1986)



Psychological versus
physical variables

“Mental models”

Design model

User's model

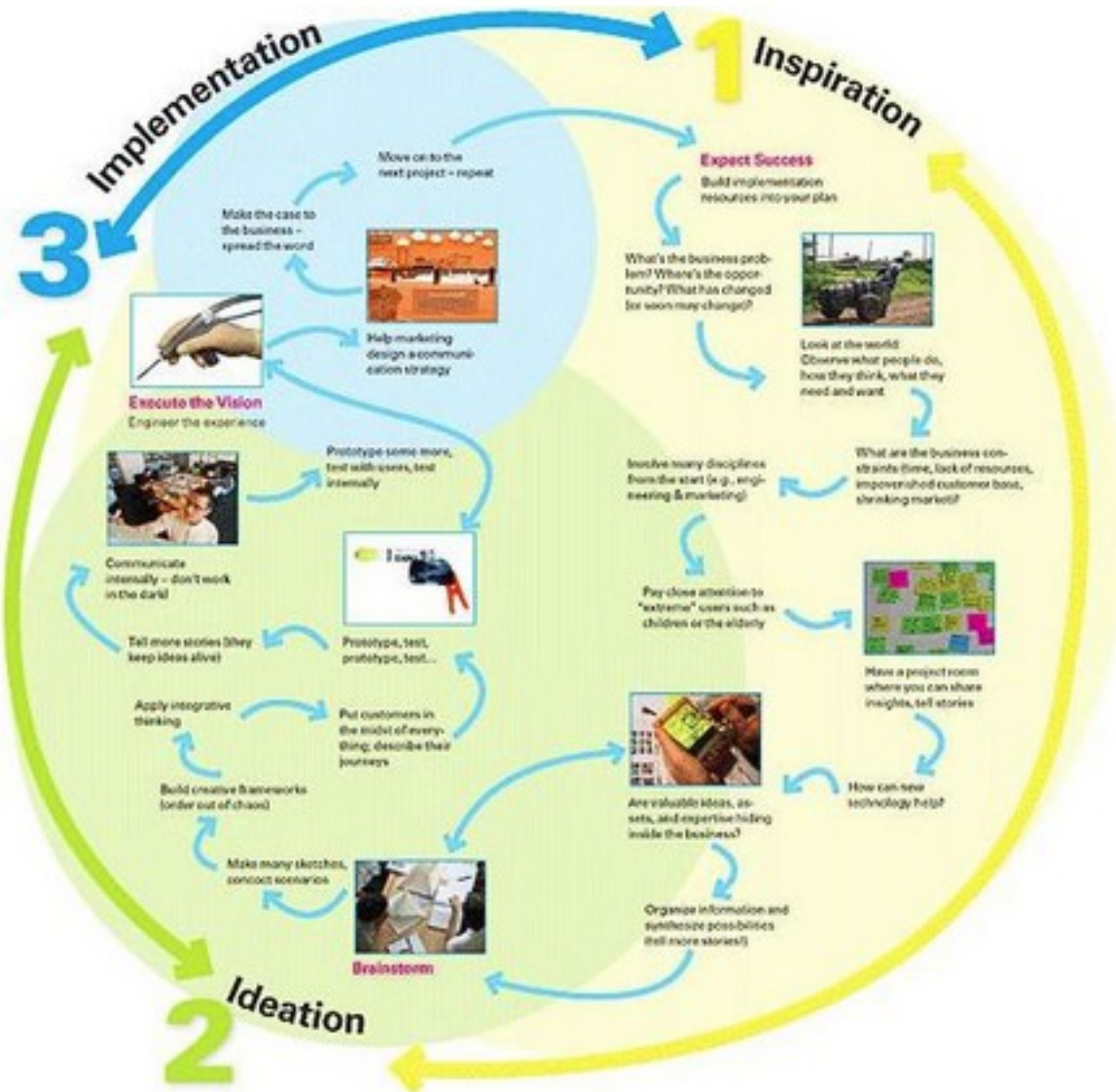
System image

Tradeoffs (e.g. info vs. time)

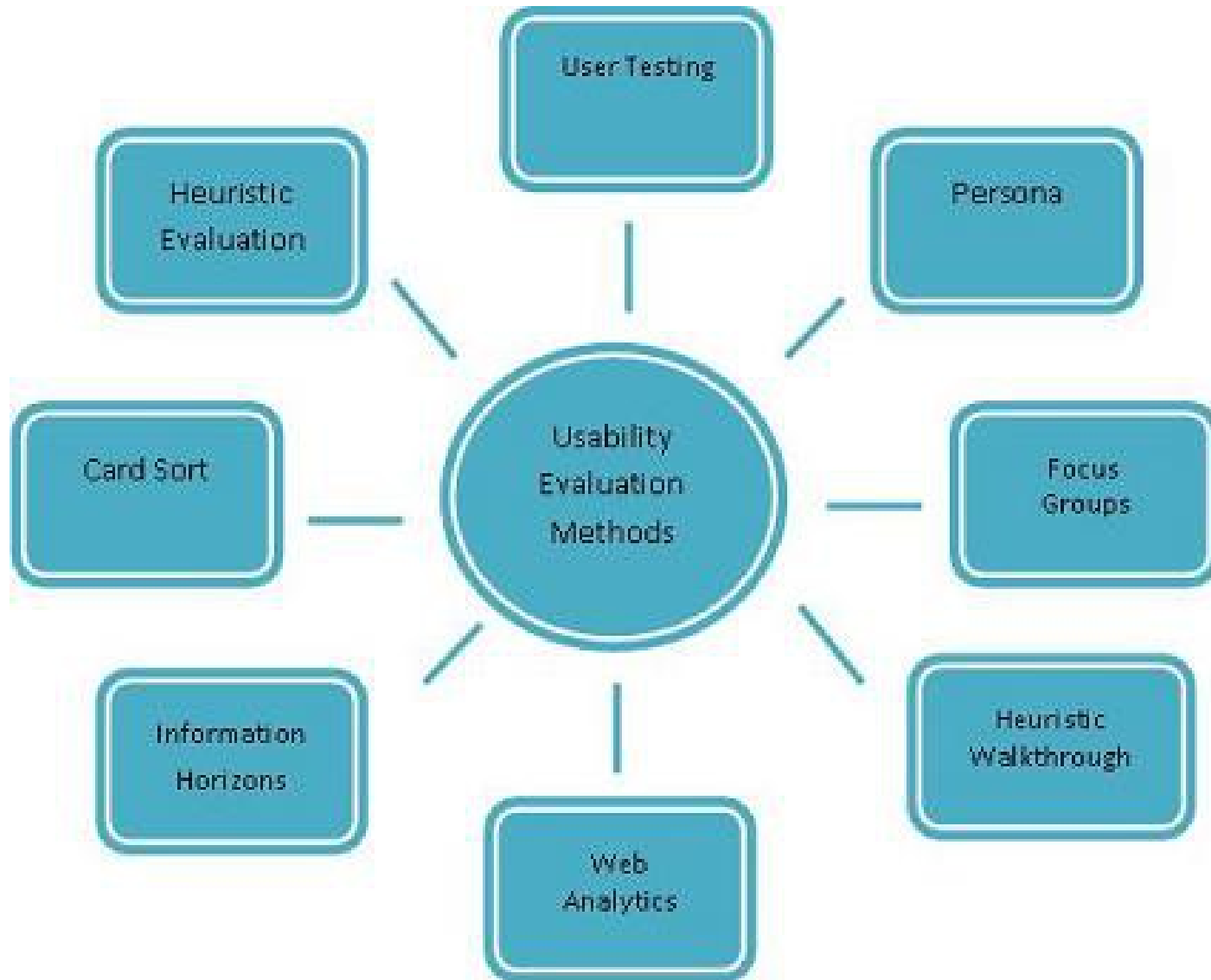
Separate the system and
interface

Start with user's needs

Design Thinking



Some Usability Engineering Methods



Additional topics

Needfinding

Visual thinking

Brainstorming

Group processes

Wicked problems

Creativity

Affordances

Forcing functions

Design Exercise

Task: Redesign the daily class time schedule at Stanford

Current system problems:

peak time crowding
double scheduling

Specify your redesign

Note the problems it solves

Note its advantages and disadvantages with respect to the current schedule

Explain why it is better