From Needfinding to Prototyping

Scott Klemmer

Quiz 1 Announcements

- Don't open your quiz until class starts
- Remember to turn off all devices that beep
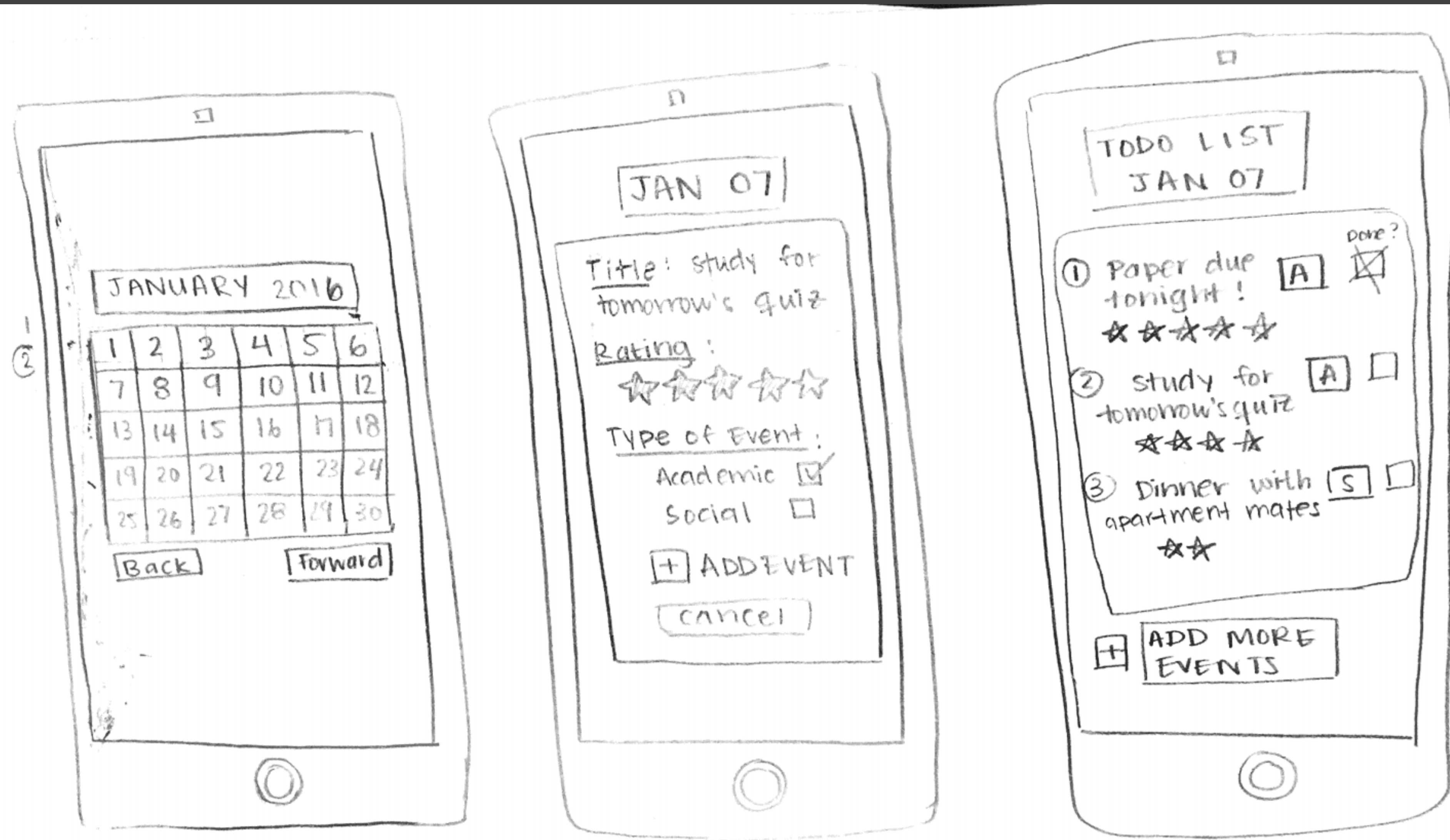
Quiz 1 (10 mins)

Fold top paper into 3 and write name on it like this:

A1 Announcements

- Sketch vs. prototype, wire framing
- Submitting assignments online

Chau-Lucky Nguyen

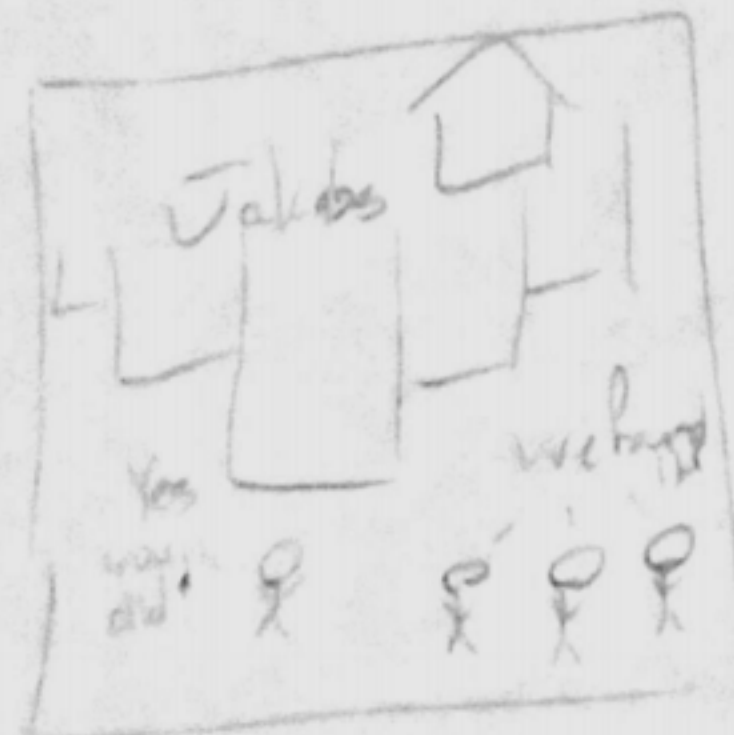PARTNER 2 (FRESHMAN)

Thomas Tucker
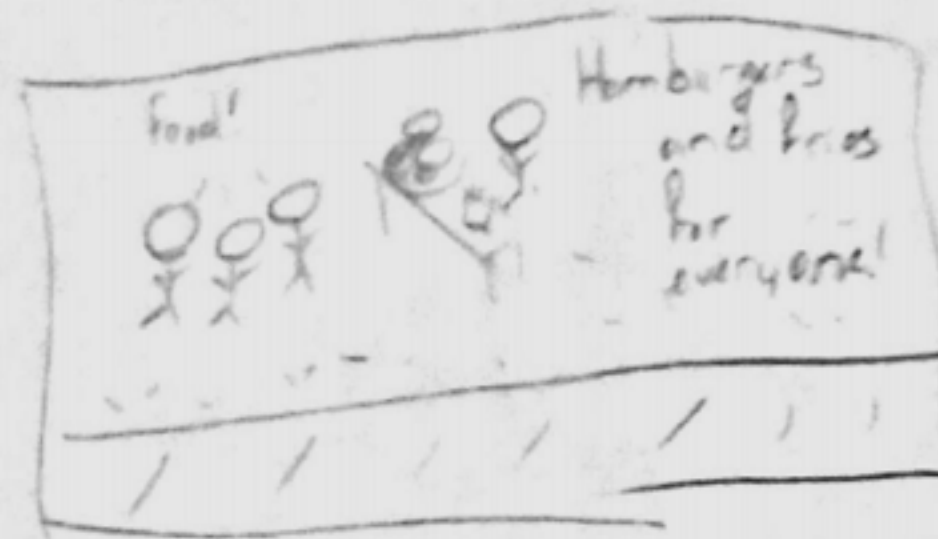

Campus scavenger hunt.
Part of freshman orientation.
Free food provided based on how
many locations visited.
UCSD apparel provided to
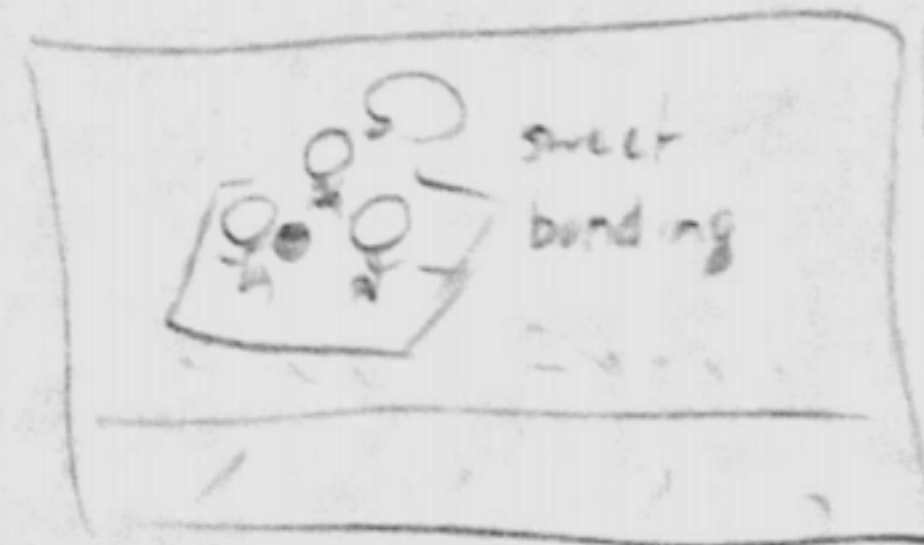1st and 2nd place teams(must travel together to
be a team)
Also held once a week after
school begins.

food!   Hamburgers   freshmen are
          and fries   awarded
          for   with food
          everyone!

Jacobs

Yeah
way
did!

Freshmen are discovering
a new place on campus,
signified by the orientation
leader

sweet   freshmen eat and
bonding   bond as they discuss
          the new places they
          have discovered

○ What can be done in
  order to ensure our
  persona is effective?

• How do you find the
  middle ground between
  a leading question and
  one which is too generic?

⌐→ Repeat later to reinforce

Today's Plan

- Introduce Interviewing and Needfinding
- Activity: Your turn!
- Discuss A2

INTERVIEWS

Follow up

- Adjust your questions to their previous answers
- Ask questions in language they use / understand
- Pick up on and ask for examples
- Be flexible

Scheduled Interviews Facilitate Depth

Plans are useless
Planning is invaluable

Create a "Field Guide" (Steve Portigal's insights)

· Introduction and participant background
· Main body
· Projection/dream questions
· Wrap Up

Do a Trial Run first
(gives you practice, catches bugs)

where to interview?

should you record audio or video?

Audio/Video: Drawbacks

- Time-consuming to review / edit
- Can change participants' responses
- Requires permission

Audio/video: Benefits

- A robust record
- Highlights are GREAT for communication
- Helps you focus on interviewing

Photos Are Powerful Reminders

What are the gems?

- You've uncovered a surprise or found what is missing
- You can explain why people do unusual things
- You want to tell others about what you have learned

Share with your team

- Stories
- Photos
- Sketches
- Quotes

Save Records - It'll help later

- Keep photos, notes, and artifacts
- Helps tie all design to use, rather than debating things on an abstract plane

DISTILLING YOUR INSIGHTS

Your goal:
a point of view

Flare, then focus.
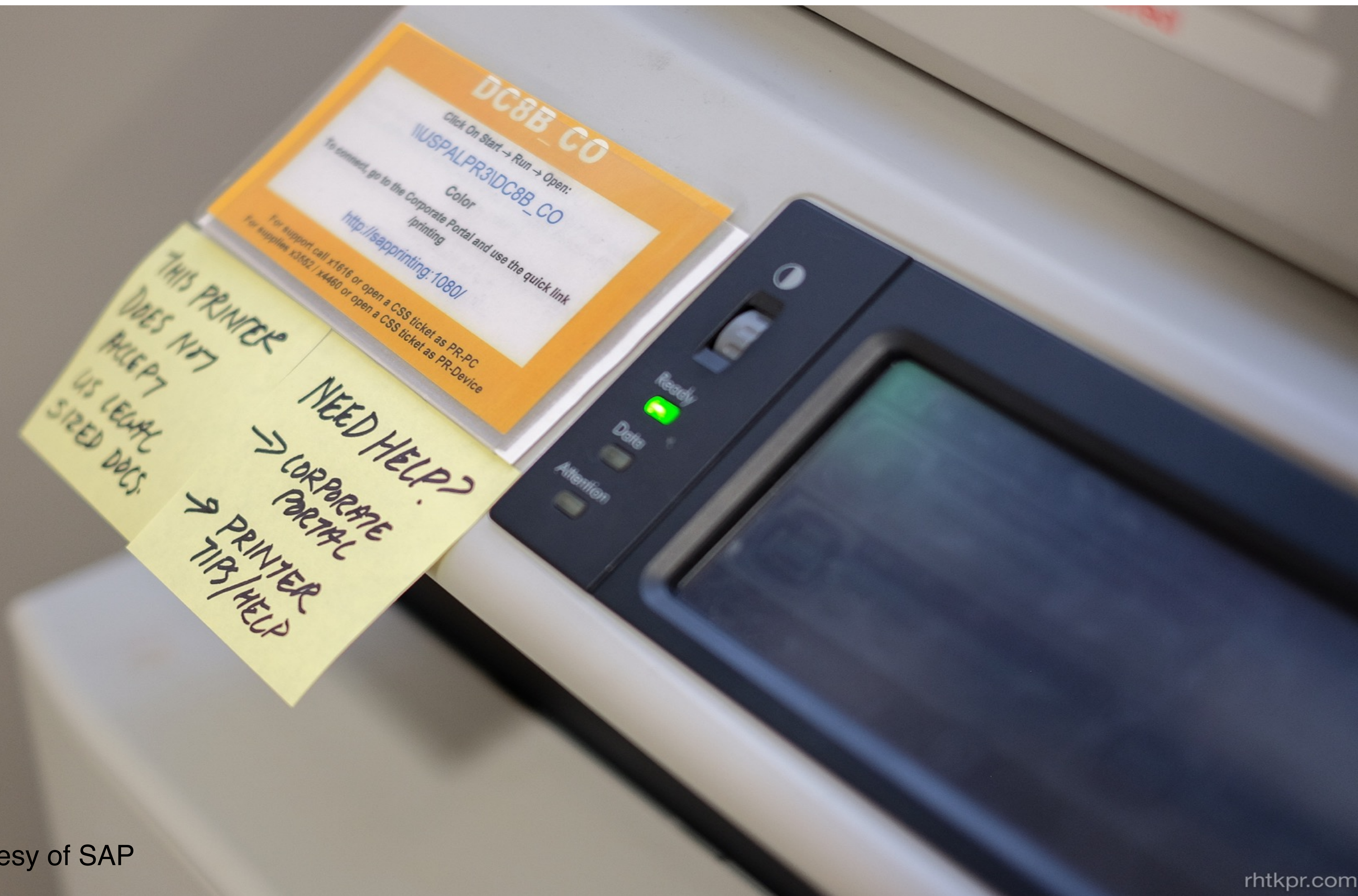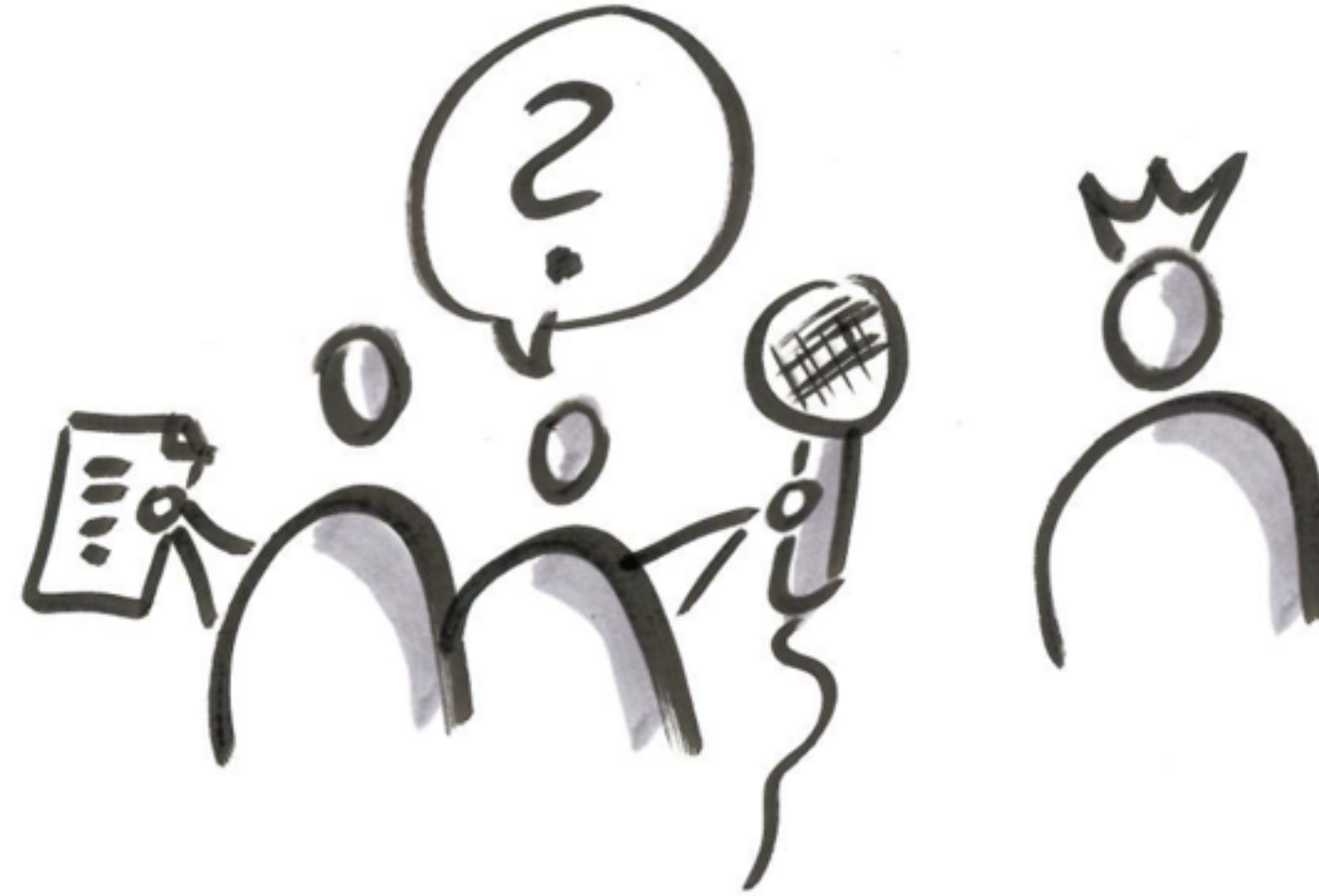
Observation alone does not guarantee a great design.
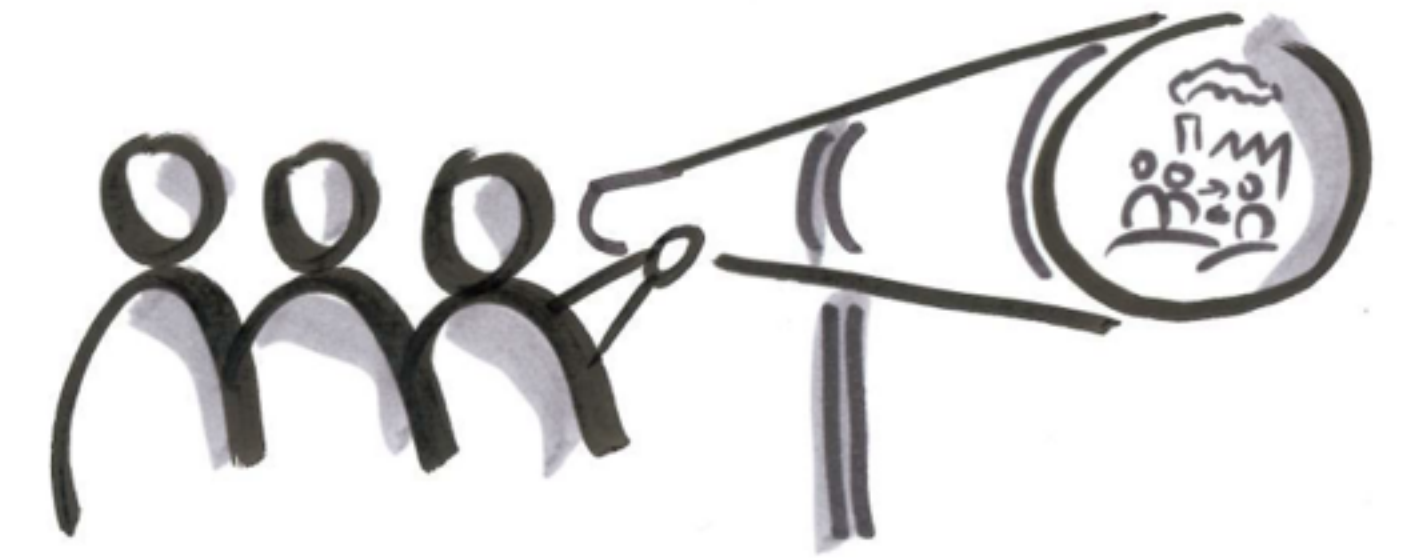
Image courtesy of SAP

Were the users just "dumb"?

Try & do   **Ask & listen**   **Watch & Observe**

Picture courtesy of SAP

Need finding through Facebook

- Scenario: How might we help people get to and around campus without driving solo?

- In Facebook, use key terms to search for groups to fit your community (2 mins)

- Turn to your partner to discuss the groups you found (4 mins)

Collecting Needfinding Data on Facebook

· From the previous scenario, think of some Facebook status updates you might post to gather information about user needs

· Share your status ideas with your partner. What questions did you ask? How did they differ? (4 mins)

· BONUS: if you're curious, choose a time you think will get the best responses to post the status and see what you get

The outcome of activity analysis

- What are the steps?

- What are the artifacts?

- What are the goals?
  (how you'll measure success)

- What are the pain points?

Example: steps

- Unlock driver's door
- Take a seat behind the wheel
- Insert key in ignition switch
- Turn key fully clockwise
- When engine starts, release the key
- from http://www.nwlink.com/ ~donclark/hrd/isd/cognitive-task-analysis.html

Example: artifacts

- key
- car
  - door-lock
  - ignition switch

Example: goals

- (your point of view comes in here)
- Turn on the car?
- Pick up bread?
- Make a meal?
- Have a satisfying evening?

Example: pain points

- In the narrow version: necessary to put the key in? It's already in the car. Why not just drive off?

- In the slightly broader framing, the pain point could be needing a car to get bread. (Alternatively, bread could be delivered, or you could walk/bike/...)

Actvitity Analysis is easiest for...

- Workflows like doing taxes or travel planning
- Repeated activities, like scheduling (why does it take 17 emails?)

Challenge: we don't design tasks

- Activities and objects don't map 1:1 (a smartphone is not just one "activity")
- We design artifacts. So a forum has multiple tasks.

Have multiple related activities

- The same person uses the same design to achieve slightly different things
- Also, different people may do things slightly differently
- Because they have slightly different goals, expertise, …
- For empathy, keep 'em human

Needfinding Activity

Prototyping grounds communication

Image courtesy of SAP

Image courtesy of SAP

- Innovation
- Collaboration
- Creativity

Image courtesy of SAP

- Enables designers to test their hypothesis

Image courtesy of SAP

- It's not about the artifact, it's about feedback and iteration

Image courtesy of SAP

- Colleagues
- Clients
- Users
- Yourselves

Image courtesy of IDEO

Image of Kodak DC220- Kodak DC Series from wikipedia.org
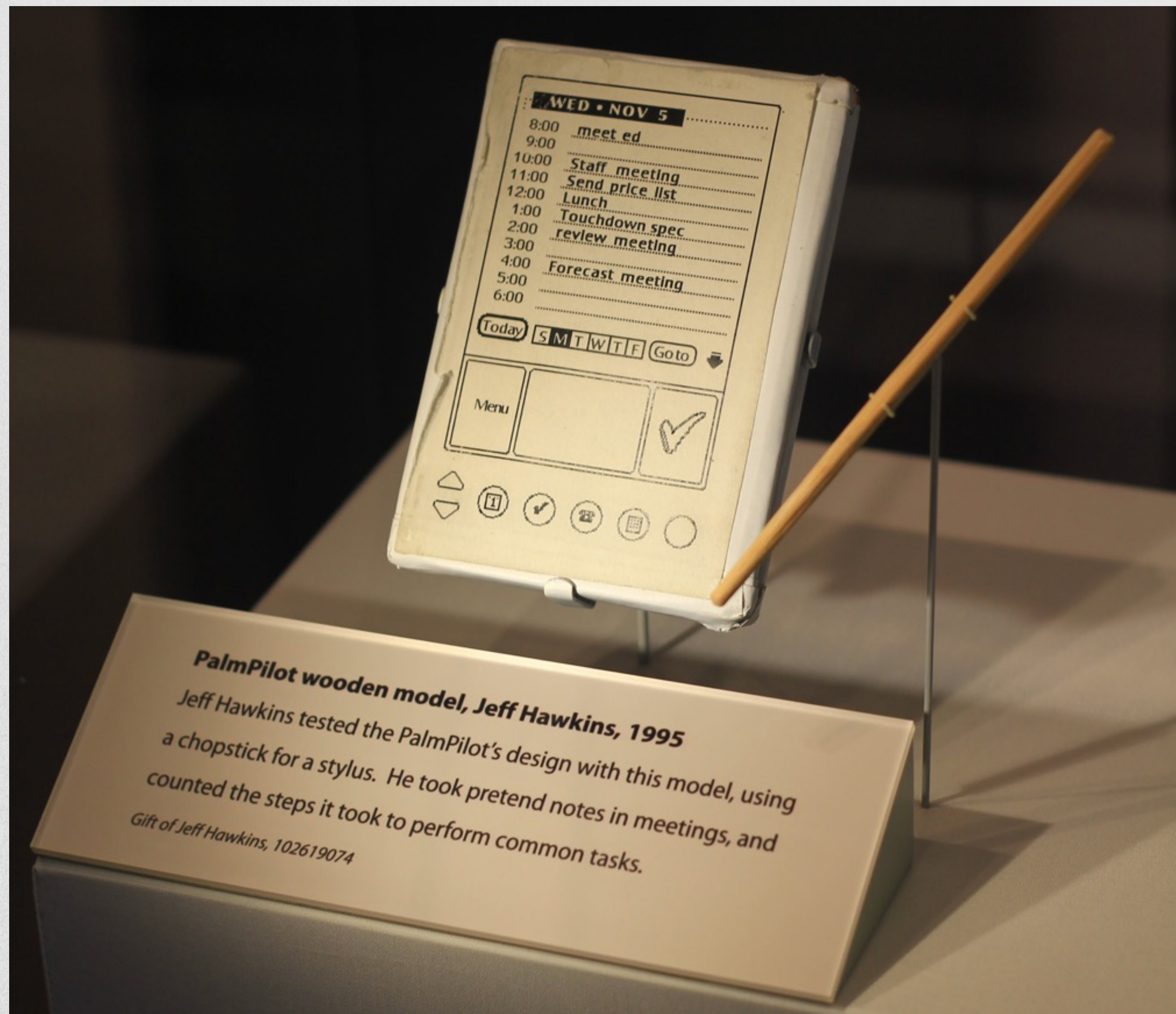
Focus on goals in evolving your design

In 2000, Palm sold nearly 8 million units and had a 76% share of the PDA market. *

The journey to 8 million users begins with a block of wood

"If I wanted to check the calendar I'd take it out and press the wooden button."

-Jeff Hawkins

Computer History Museum in Mountain View, CA courtesy of Michael Hicks's image on flickr
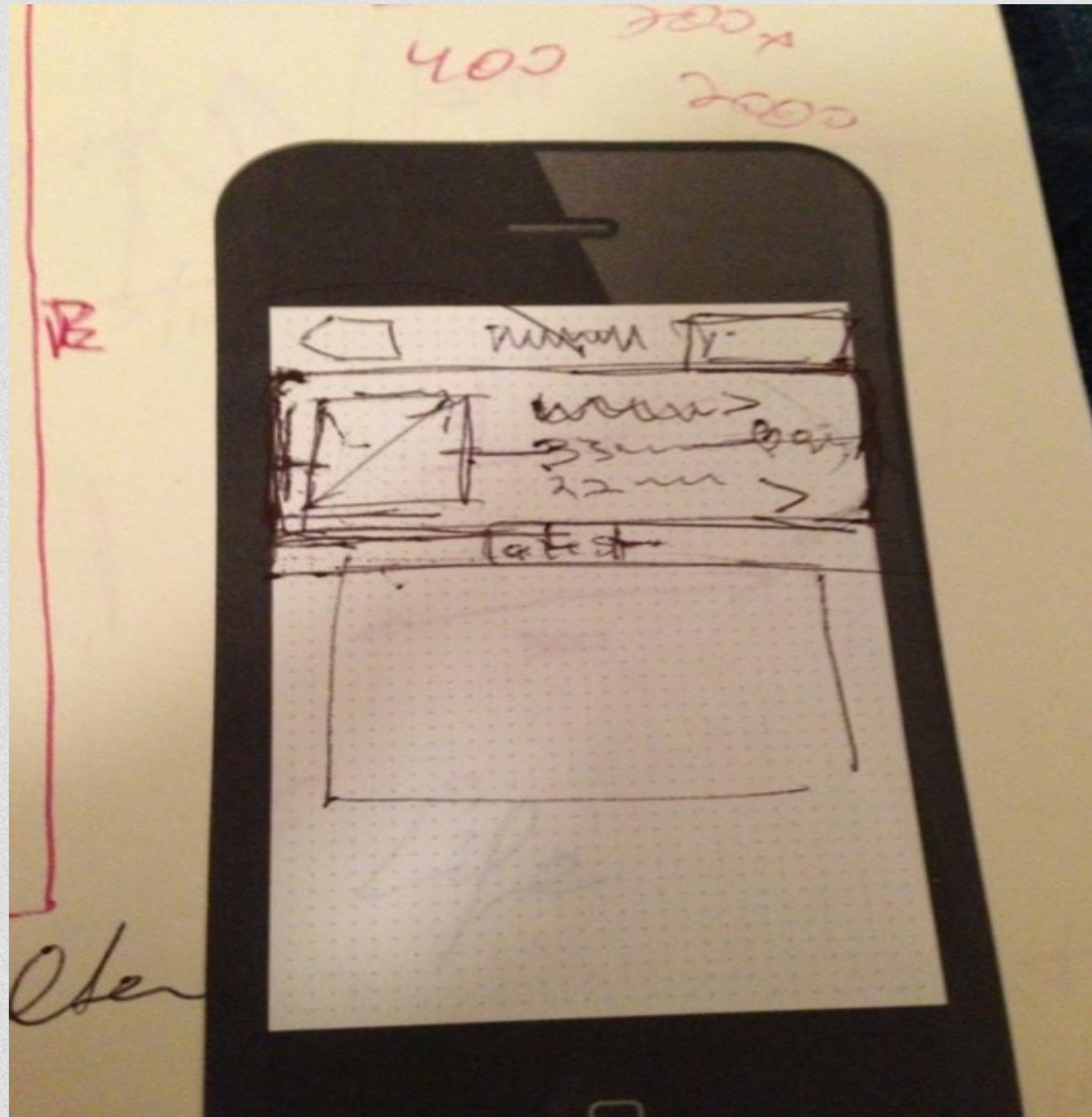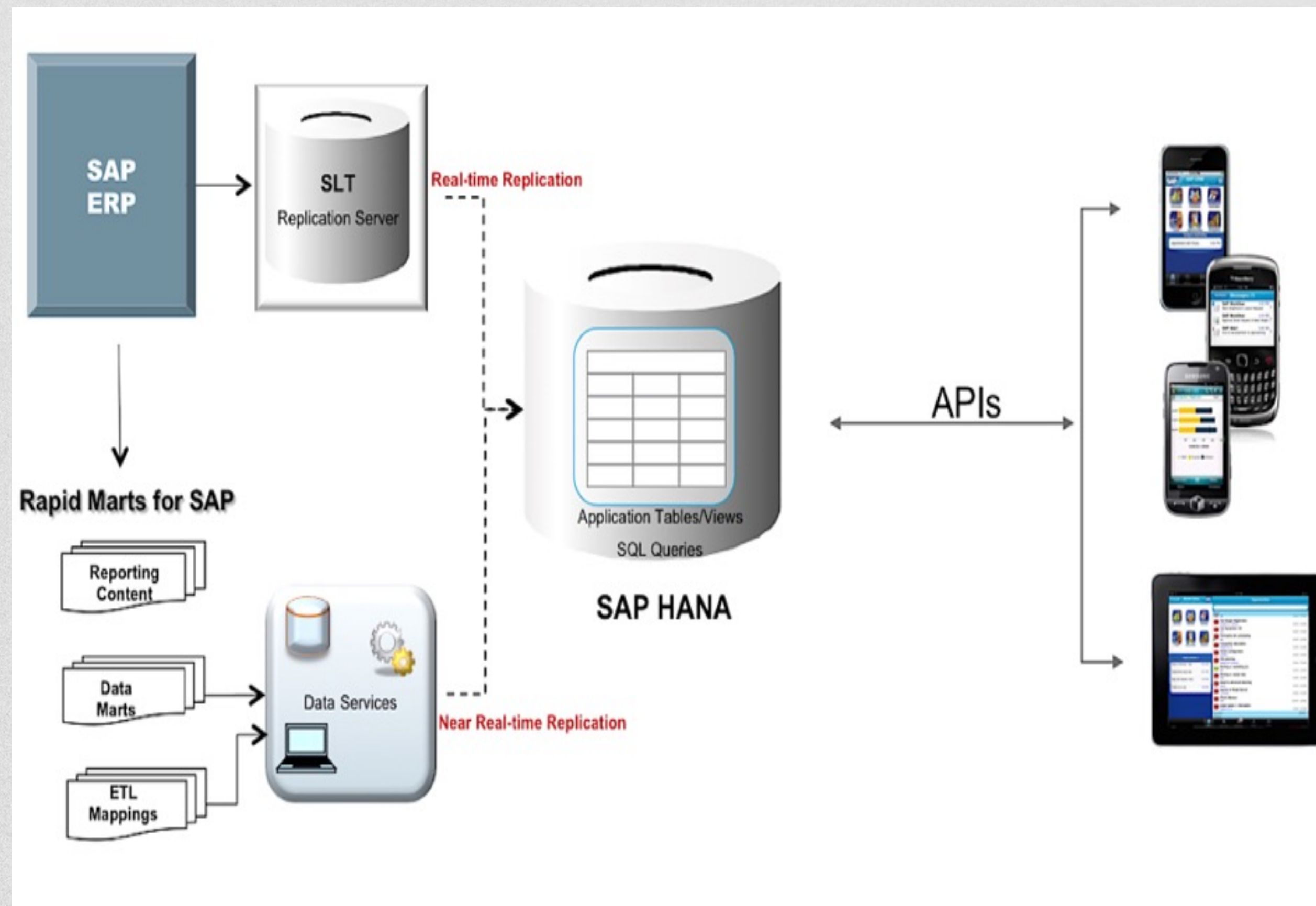
Prototypes answer questions, like…

Image courtesy of Mike Krieger

How might it <u>look</u>?

Prototypes answer questions, like...

How might it <u>work</u>?

Image courtesy of SAP

Prototypes answer questions, like…

What might the <u>experience</u> be?

Image courtesy of SAP

Walter Dorwin Teague reviewing a prototype.
Picture from www.Teague.com

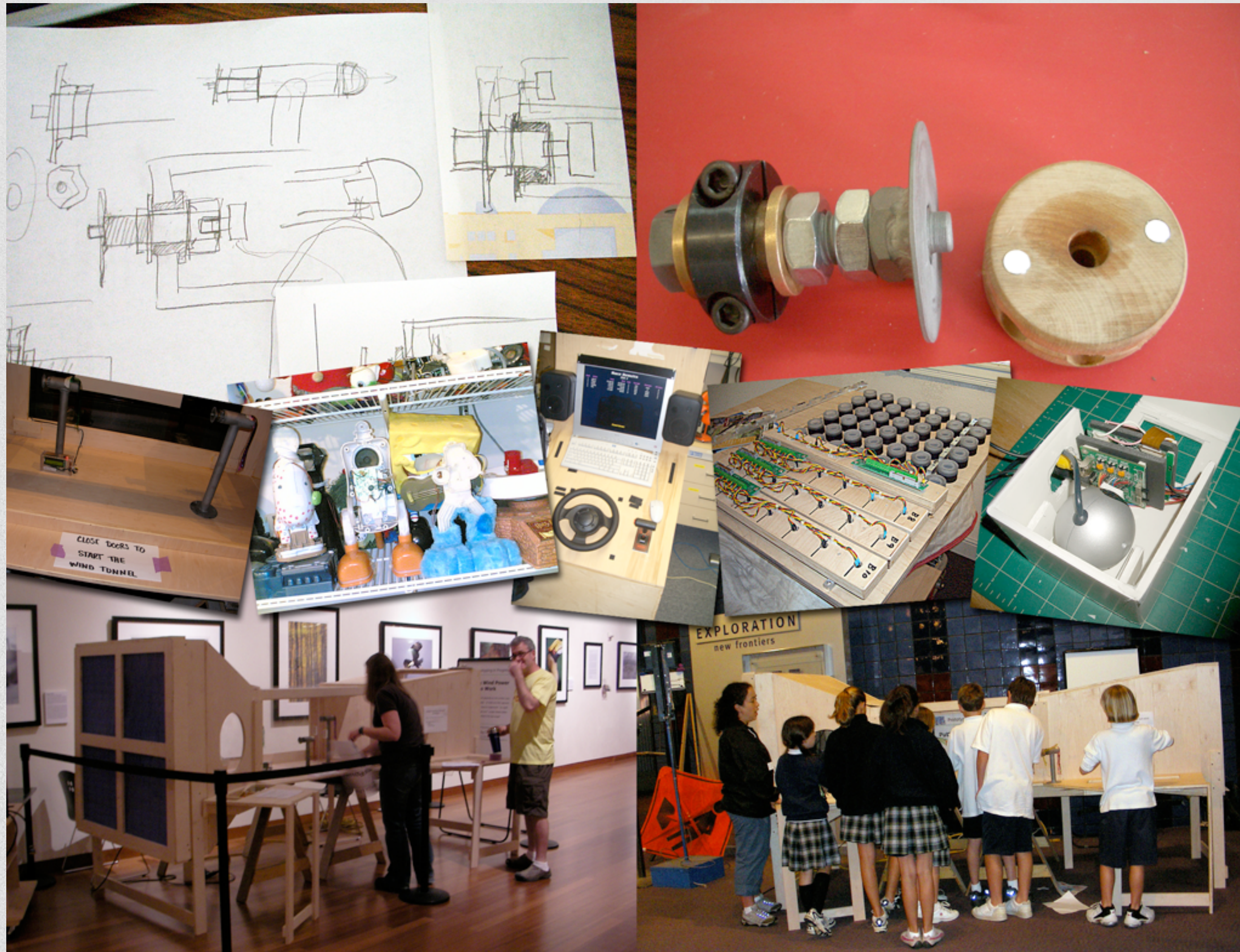"The best way to have a good idea is to have lots of ideas."
- Linus Pauling

Image from http://www.notablebiographies.com/Ni-Pe/Pauling-Linus.htm

Mouse prototype ideas IDEO produced for Microsoft

- Prototypes are questions
- Ask lots of them

A2