EXPERIENCE DESIGN

Experience Design

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In this lesson, you will learn the importance of understanding the who, what, where, when, how and why people work they way they do.

[on board: who, what, where, when, how, and why]

You'll learn how to understand their needs, goals, and values, sequences, and the system in which they occur and how to gain this understanding through different research methods. Based on these you can create a compelling, responsive designed experience.

Slides by Liz Gerber

All designed experiences involve

1. *people*
2. *activities*
3. *context*

Consider the following case study in which we were redesigning the gas refueling experience – an experience that many of us have experienced but few enjoy.

1. People

2. Activities


saction Please See Cashier
UNLEAD
PLUS
87
89
91
ay on Island or Inside
FILTER


TM Transaction Please See Cashier
3
Purchase $
Gallons
UNLEAD
PLUS
SUPER
87
89
91
Prepay on Isla
UBE·OIL·FILTER
SPECIAL PRICE $19.95
MOST CARS


QZ
1
ABC
2
DEF
3
GHI
4
JKL
5
MNO
6
PAY
INSIDE
PRS
7
TUV
8
WXY
9
YES
NO
CLEAR
HELP
CANCEL
Screen
are correct
Press clear.
For debit Pay inside

3. Context


MAXIMA
5WHK448

From this example, you can see what you can learn by watching people do their every day work, the order in which they do things, and the other systems in which they act.

Refueling gas was not as simple as we had previously imagined.

Why do we do design research?

We do design research for two reasons. First, it's no longer enough to have provide superior technical products, we need to create meaningful customer experiences in existing systems.

Consider two online travel booking websites. Both book travel, but one remembers your previous trips and makes recommendations based on what similar other people booked and the other does not remember your previous trips. Which one are you more likely to visit?

Consider the same online travel booking websites we just discussed. Both are designed to book travel, but one is designed for people to enlarge the text for those that have poor eyesight. Many products fail to meet the needs of everyone who interacts with the product – especially those who are live with cognitive and physical limitations.

Second, many products are only designed with a single stakeholder in mind. Stakeholders are individuals who are positively or negatively influenced by a product. Consider who interact directly and indirectly with the product

In the case of the travel booking website, the set of stakeholders is complex involving the people wanting to travel, the family members of those traveling, the airlines, the car rental services, the credit card services…to name a few. Adversely affected are the travel agents whose business is being taken away.

This is an example of a design created for many stakeholders needs, sequences, and the systems in which they are situated

1.4 Developing a research plan

While you probably have some information about the experience on which you are working, you likely still have many questions you need to understand the problem and want to confirm that the information you have is accurate and broad, covers many different stakeholders to understand who, what, where, when, how, and why of the experience.

Generating a list of questions

First generate a list of your questions you need to answer to understand the problem on which you are working. Use who, what, where, when, how, and why framework to avoid overlooking an important question. For now, don't worry about organizing the questions perfectly or listing repetitive questions as we can clean those out later. For now, just get them all down.

Who are the stakeholders?

People who derive value or provide value to the experience. Value can be derived through exchange of money, information, or use.

Let's consider the case when I was developing an affordable AM toy transmitter that allowed kids to hear their voice and their music on a radio station.

[draw stakeholder map on the board]

Kid, friends, parents, caregivers, school teachers, neighbors, manufacturer, toy store owners, federal regulators, radio talk show hosts

[what are their needs, goals, and desire?]

What do kids need? What are their goals?
What are parents goals?
What are caregivers
What are school teachers
What are the neighbors goals?
And so on manufacturer, toy store owners, federal regulators, musicians, radio talk show hosts

[what's the relationship between the stakeholders?]

How the people currently do their work

How is djaying currently done?
What's the sequence of events
What aspects are most painful/pleasurable for kids?

How easy must the toy be to use?
How much do the kids have to learn to use the toy?
Who, if anyone, will teach the kids to use the toy?
Do the kids have to be able to read?

How often and for what time will the kids want to play?
What would be the ideal size of the toy?
How durable does it have to be?
In what setting, will the toy be used?
What sequence will the kids be using the toy?
With what other toys will it be used?
Where will the toy be stored when not in use?

What other systems must the toy currently interact?

What are Competitive experiences?

What are competing experiences for kids? They could be playing outside. Going to the movies. Reading a book

What kind of djing toys already exist for kids? What works and doesn't work about these toys?

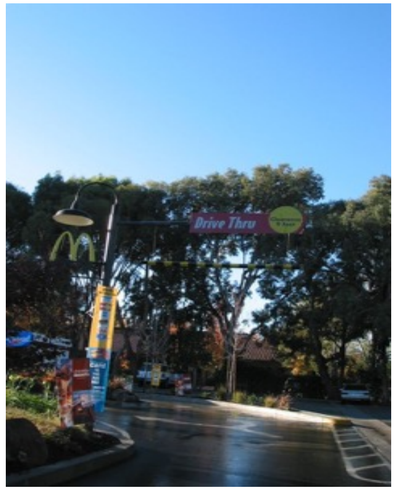
If they don't use an existing product, how are kids currently DJ? Do there existing solutions work or don't work? Why?

What other toys have different functions but are loved by kids?

Assumptions

Safari

Identify drive-thru



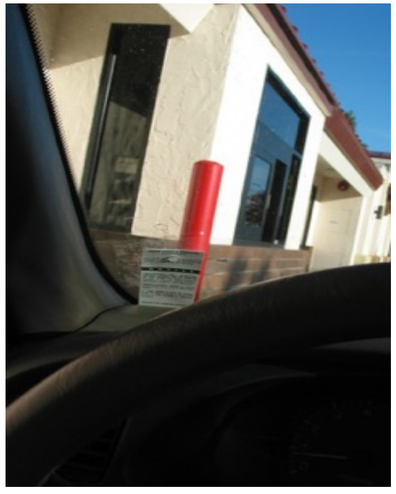
Approach drive-thru

View menu

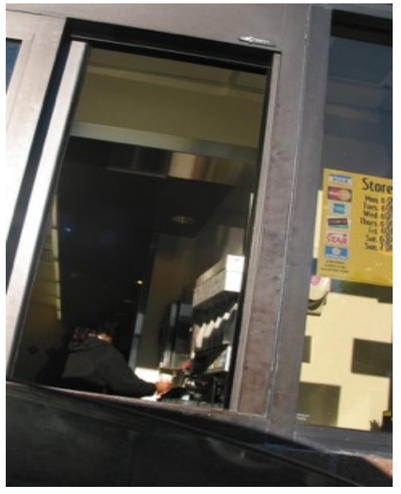
Prepare order

Order coffee

Wait



Prepare payment



Pay

Receive hot coffee

Observations

Observation

Observations should be done of the actual products in use in the context in which they are used. Observations allow you to see the people involved, the sequences of the interactions, and the systems in which they engage. When designing for airport security we went to the airport to observe the tools they used and the interactions they had with their clients.

When you arrive, introduce yourself, the purpose of your visit.

Be sure to emphasize that you are there to observe people to improve a product. You are interested in testing a product, rather than them.

We asked the following questions:

Who are the stakeholders?
What is the role of the language in the interaction?
How is the interaction co-created?
Where does the interaction fail? Succeed?
Where do they place their tools?
How do they position their body and hands?
Do they struggle with any particular position?
What are their facial expressions?
What is the role of data in this interaction?
What's happening behind the scenes

In your notebook, record the time you arrive, a timestamps in 5 minute intervals. This helps you to get a sense of the pace of events

Take 360 degree pictures

You'll also want to take what I call 360 degree pictures – the things meant to be photographed and the behind the scenes photograph. This means pictures of the things that no one else considered.

Watch for Work arounds

When a product isn't working for people, usually they don't shut down. They usually adapt the system to make it work. What does the work around say about their need

Work Arounds

Body language

People smile when they're delighted and frown when they are confused. Interpreting people's non-verbal language is a great way to gauge people's responses to their environment.

[act out body language]

Interactions

Look for the different interactions and dynamics that are occurring. For example:

- peer to peer
- customer to service people

people to space/environment

- people to objects

Triggers for Behavior

There are intentional and unintentional elements that prompt behavior. Some are obvious i.e. signs that tell us where to go. But others are more subtle i.e. the line printed on a train platform to warn customers to stand away from the edge. Look out for these examples.

What if I don’t see anything?

You’re looking from the same perspective that you always do. Try taking a new point of view… literatlly. Get down on your knees and imagine what it would be like to be a five year old kid navigating the space.

Interviews

Intercept

Scheduled

Intercept Interview

- Occur in a public place
- Last between 1-5 minutes

Experience = Expectation-Performance

Questions to ask

1. What was your expectation?
2. How it is performing?

Scheduled Interview

- Occur in a quiet places
- Last between 10-30 minutes

Steps to prepare for scheduled interviews

1. List a number of stakeholders
2. Ask friends/family for introductions
3. Schedule interviews
4. Create interview guide
5. Test interview guide for brevity and clarity
6. Gather competitive products

At the start of the interview

1. Introduce yourself and why you are there
2. Set expectations for the interview length
3. Let them know they are in control
4. Get permission to record
5. End early

Laddering makes explicit connections between an experience and the value (ex. self-esteem, accomplishment, belonging, self-fulfillment, family, security)

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Laddering Technique

Why do you like your computer?

Because I like to read the news online

Why do you want to read the news online?

Because I want to keep up with industry activity

Why do you want to keep up with industry?

Because it helps me to be better at my job

Why do you want to be better at your job?

Because I want to be able to support my family

Ask for critiques not compliments

-

The Design research kit

Research Objectives
Notebook for recording notes
Audio recorder
Camera - best camera is the one you have with you – don't trust your memory
Tape measure

[Show notebook and my phone]

What do I wear?

Who to bring along?

Write summaries within 12 hours

Evolution of design research methods

Design research methods are constantly evolving. For example, designers used to have to fly across the world to get to know the people for whom they were designing. Wide-spread internet use, social media, and video conferencing have radically changed who, how, and when we are able to talk with people.

Consider the designer in Asia who was developing software for photo editing, in a single day, she was able to interview people across Asia, Europe, and Americas using video conferencing with people she met on a blog and contacted via social media.

When do you stop doing collecting research?

You stop asking a particular question when you can reliably predict what you are going to see

In the case of the refueling gas experience described at the beginning, we began to anticipate the sequence of steps people would take.

Rapid Research

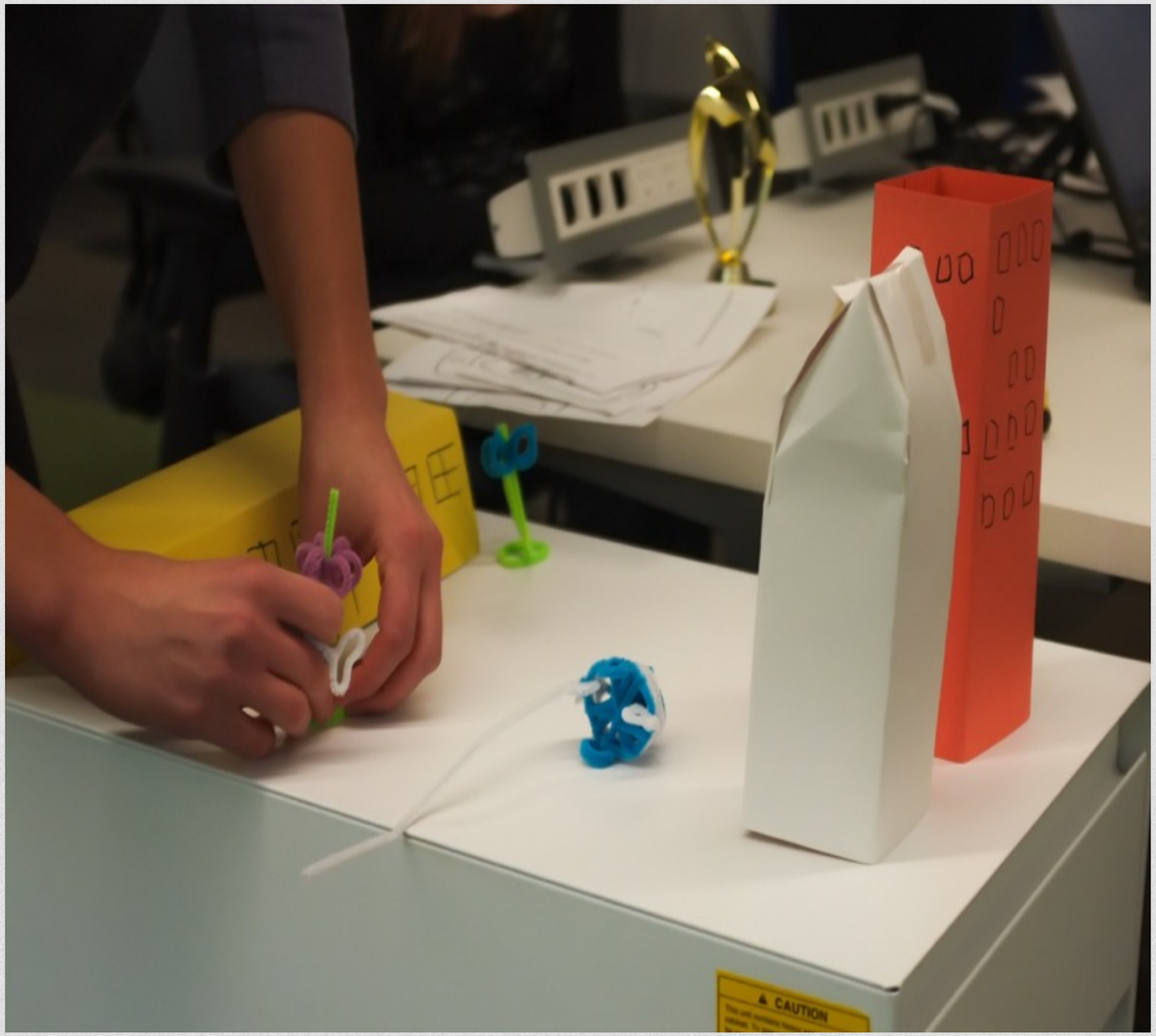
In fact, design research never ends.

As soon as you answer one question, a new question develops
. The more you learn, the more you realize what you don't know.

More on Prototypes

Prototyping grounds communication

Image courtesy of SAP



- Innovation
- Collaboration
- Creativity

Image courtesy of SAP

- Enables designers to test their hypothesis

Image courtesy of SAP

Image courtesy of SAP

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

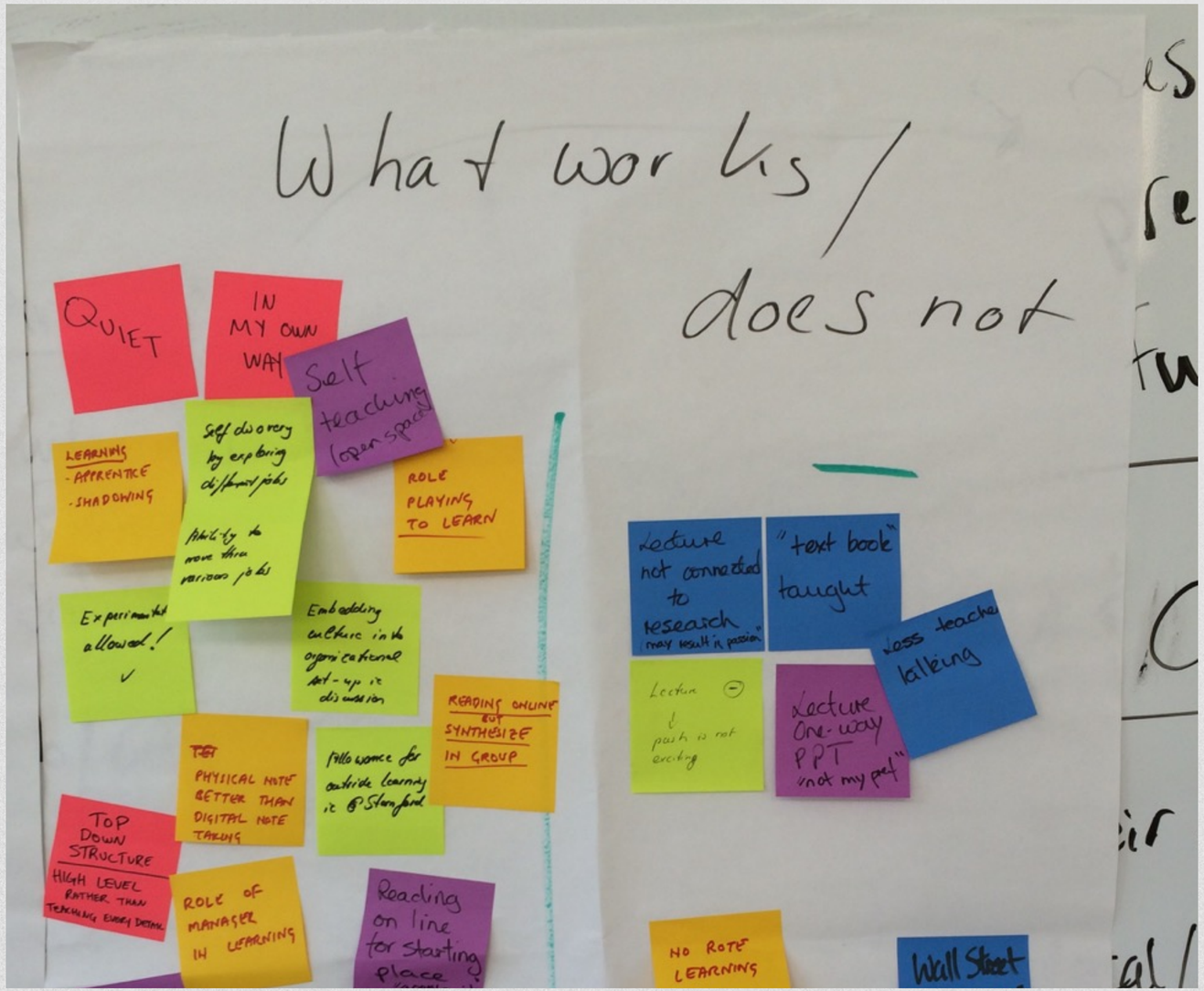


Image courtesy of SAP

- Colleagues
- Clients
- Users
- Yourselves

Image courtesy of IDEO

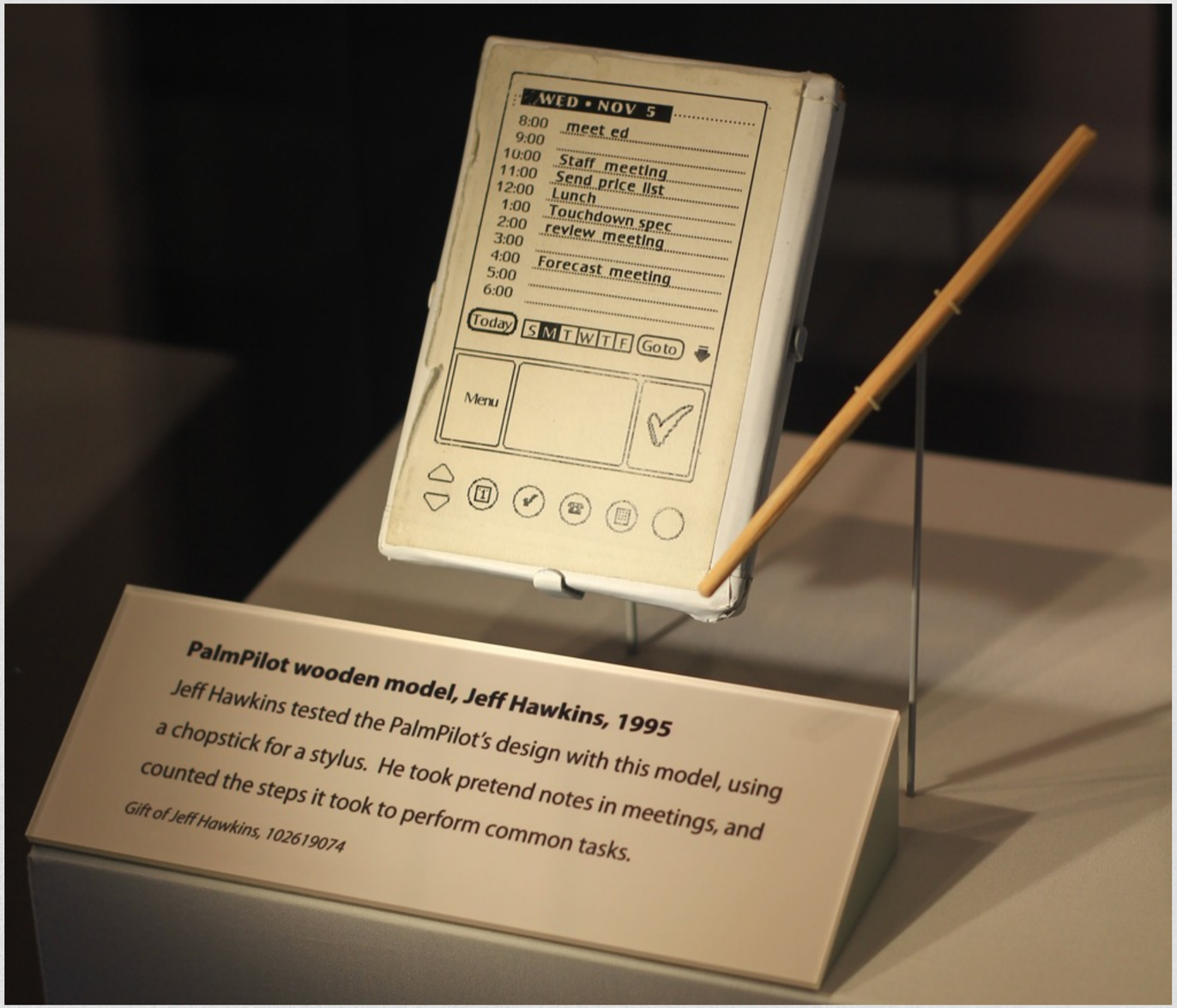
Image of Kodak DC220- Kodak DC Series from wikipedia.org

Focus on goals in evolving your design

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

Image from https://en.wikipedia.org/wiki/Palm_(PDA)
*http://faculty.tuck.dartmouth.edu/images/uploads/faculty/ron-adner/PalmOS_Final.pdf

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

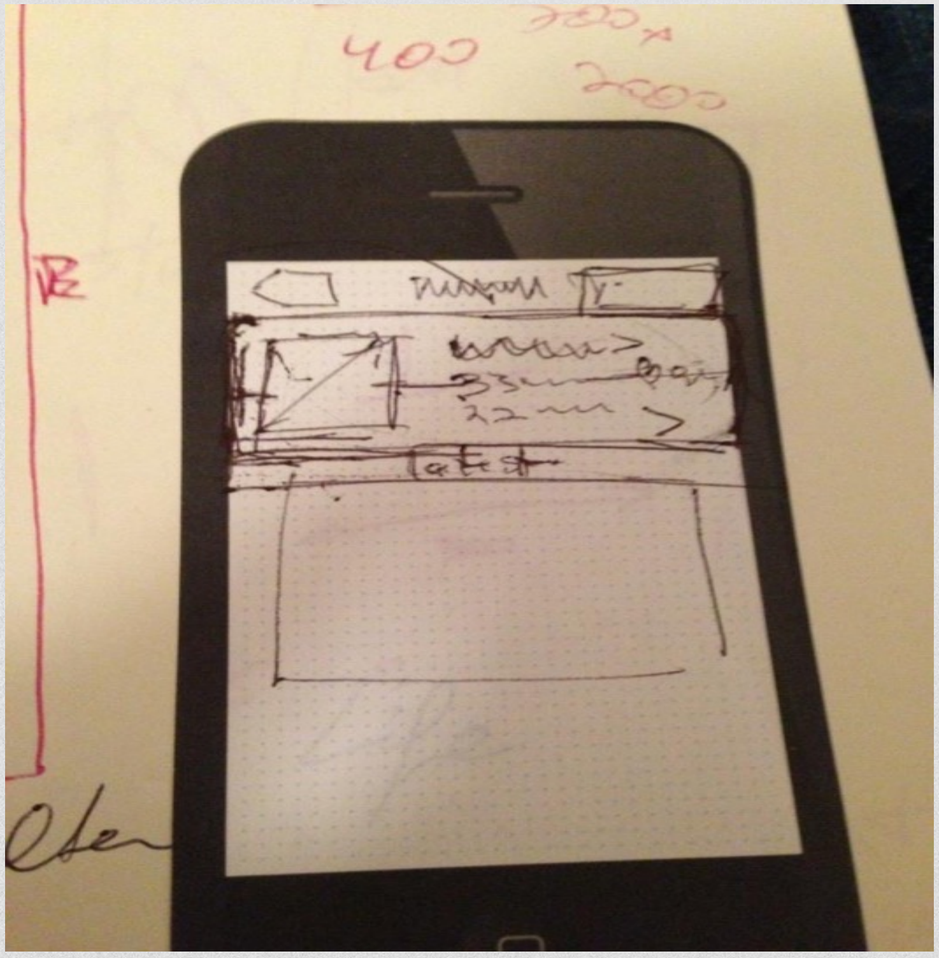


“If I wanted to check the calendar I’d take it out and press the wooden button.”

-Jeff Hawkins

Computer History Museum in Mountain View, CA courtesy of Michael Hicks’s image on flickr

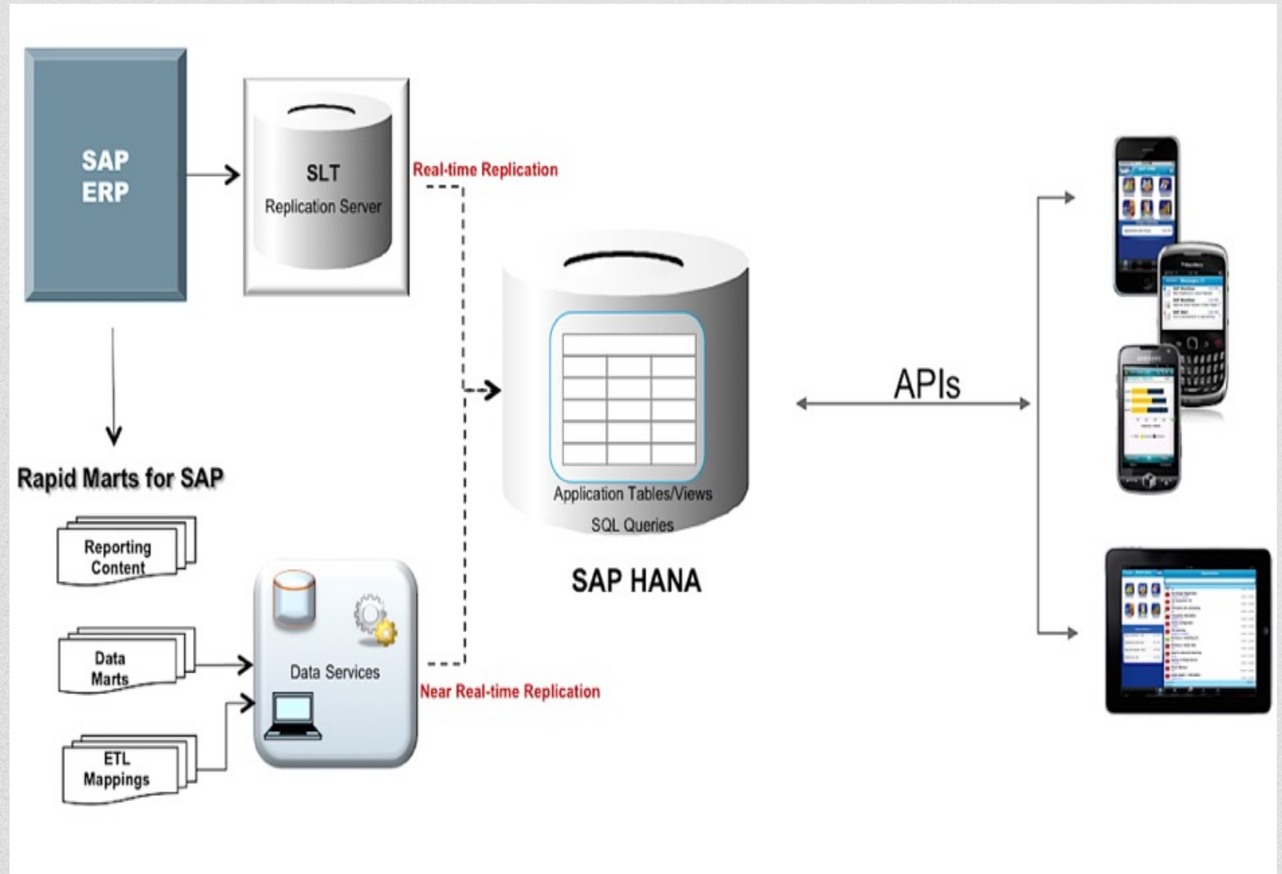
Prototypes answer questions, like…



How might it look?

Image courtesy of Mike Krieger

Prototypes answer questions, like…



How might it work?

Image courtesy of SAP

Prototypes answer questions, like…

What might the experience be?

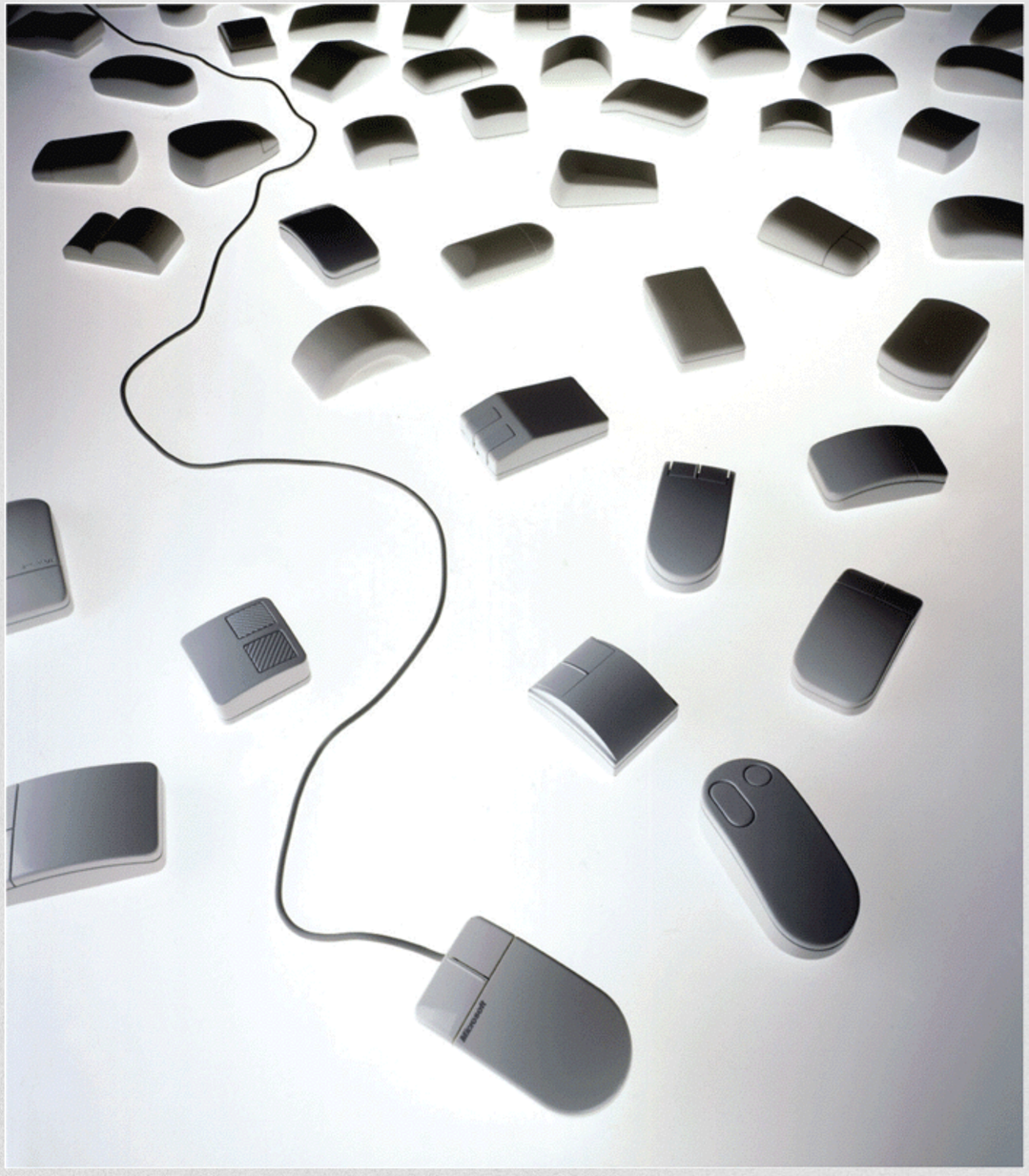
Image courtesy of SAP

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

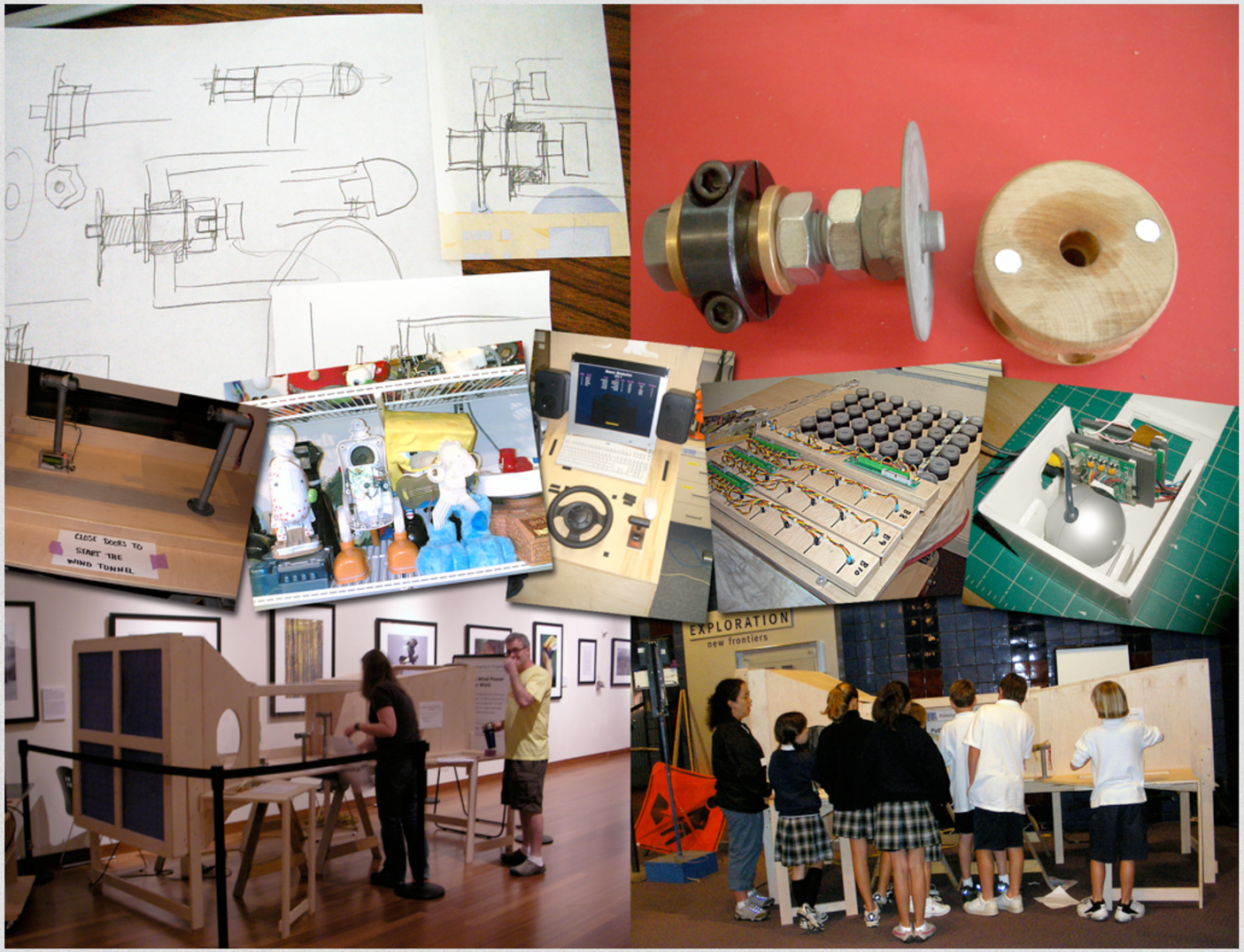
“The best way to have a good idea is to have lots of ideas.”

- 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