Module 4: Concept Development: Prototyping

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Concept Development

Research > Develop > Launch

Make in Order to Learn

Source: LUMA Institute 2012
Prototyping | Google Glass

https://www.youtube.com/watch?v=d5_h1VuwD6g
Prototyping | Google Glass – Critical Question

https://www.youtube.com/watch?v=d5_h1VuwD6g
Prototyping | Google Glass

Prototyping Rule #1: Find the quickest path to experience.

Prototyping | Google Glass

Prototyping Rule #2: Doing is the best kind of thinking.

Prototyping | Google Glass

Prototyping Rule #3:
Use materials that move at the speed of thought to maximize your rate of learning.

Identifying Critical Questions

Crafting Tests
Let’s Practice
Prototyping | Physical Product
Explore  |  Evolve  |  Validate

# OF IDEAS

LOW  |  Quality of Prototype  |  HIGH

Source: IDEO, 2013
Prototyping | Walgreen’s
Prototyping | Walgreen’s
Prototyping | Fake Front End

Increased Discharge Rate from 0% to 36%
Prototyping | Fake Back End

Rubicon MD
Prototyping | Experience of an Elderly Person?
Prototyping | Inexpensive Alternatives
Prototyping | Experience of Pacemaker Patient?
Prototyping | Experience of Pacemaker Patient?
**Question**
Do people want a more portable, wallet-size medication list?

**Prototype**
Sketched and printed out various options cut and pasted together. Interviewed users and asked them to compare them to current tracking systems.

**Evidence**
Users overwhelmingly preferred wallet-size list to their own systems.

Source: IDEO
PillPack | Live Mall Kiosk

Pricing and Messaging

Question
How much are people willing to pay for service in addition to co-pays - $9, $19, or $29 / month?

Prototype
Mall Kiosk testing a different price each day through conversation and mock-ups

Evidence
$19/month was the most believable price. Learned additional information regarding marketing and website messaging.

Source: IDEO
**PillPack** | What do customers value?

**Question**
What would customers value and how to message it?

**Prototype**
Three rounds of Facebook-sponsored stories, testing and optimizing for the best-performing ads.

**Evidence**
Click-through rates (quantitative metrics) and comments users made below the ads (qualitative).

Source: IDEO
**PillPack | Incomplete Website**

**Question**
Would PillPack’s website communicate the offering in a way that compelled people to sign up?

**Prototype**
Live website, evolved from many prototype iterations, with the essential pages (still missing some pages).

**Evidence**
Google analytics and sign-up (or even inquiry) metrics revealed how visitors engaged content and how PillPack could make changes based on what worked well and what didn’t.
Usability Testing
Apply online for health care with the 1010ez

Fill out this application with the most accurate information you have—the more accurate it is, the more likely you are to get a rapid response.

All of the information you submit is used to determine your eligibility and to help us provide the best service to you.

Federal law provides criminal penalties, including a fine and/or imprisonment for up to 5 years, for concealing a material fact or making a materially false statement. (See 18 U.S.C. 1001)

Note: You will not be able to save your progress once you have started the form.

Get Started »
Prototyping | Paper Prototyping

(1) Home Screen

(2) Inbox Main Screen

(3) HBS Inbox
A prototype:
• Is a question
• Lowers the risk of exploration
• Asks the questions you forgot to ask

Prototyping
• Makes abstract ideas concrete
• Allows you to think through a problem with your hands
• Maximizes impact and minimizes sunk time and cost
• Challenges and tests assumptions
• Avoids premature emotional attachment
• Advances the design process through milestones

Source: IDEO
Concept Development | Prototyping

1. **QUESTION**
   - What question are you trying to answer or assumption are you trying to prove?

2. **PROTOTYPE**
   - What can we make and show to people in order to test this?

3. **EVIDENCE**
   - What will we measure or observe to answer our question?

Source: IDEO
Prototypes come in many forms

Source: IDEO
No Submission Required, Be Prepared to Discuss

• Assignment #13: View PBS Frontline Video: Play Pump

• Reflect on the following questions:
  1. What do you like about Play Pump
  2. If you were the entrepreneur, what are the critical questions you would have tested in the process of developing the concept?

• Boston Children’s SimPeds
  – Center for Life Sciences Building, 18th Floor 3 Blackfan Circle, Boston MA 02115