

WHY PROTOTYPE?



"...the value of prototypes resides less in the models themselves than in the interactions they invite." "...innovative prototypes generate innovative teams. The prototype plays a more influential role in creating a team than teams do in creating prototypes."

Michael Schrage – Serious Play

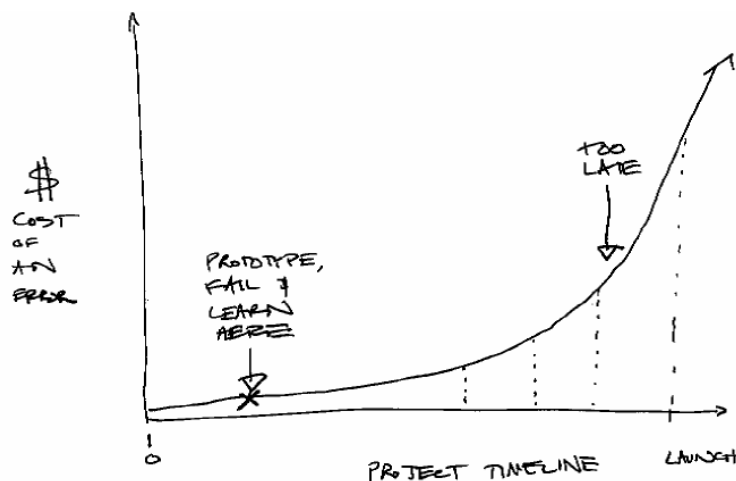
"...Prototypes provide the means for examining design problems and evaluating solutions. Selecting the focus of a prototype is the art of identifying the most important open design questions."

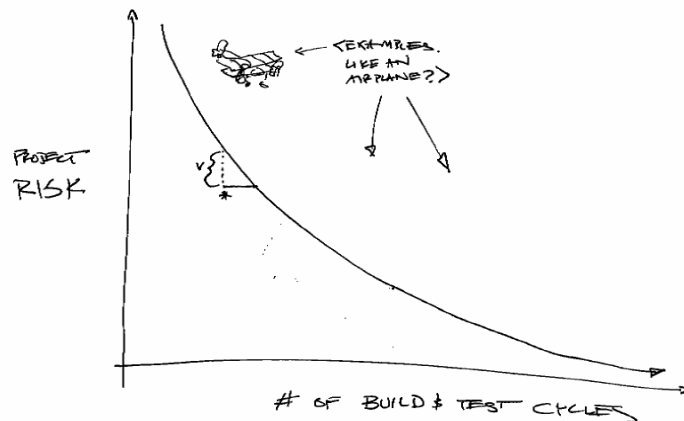
Houde and Hill – What do Prototypes Prototype?

Enlightened trial and error succeeds over the planning of the flawless intellect

David Kelley

Fail Early



Fail Often**HOW DO YOU CHOOSE WHAT TO PROTOTYPE?**

- Who will we show it to in what setting?
- What do we expect to learn?
- How will we evaluate that learning?

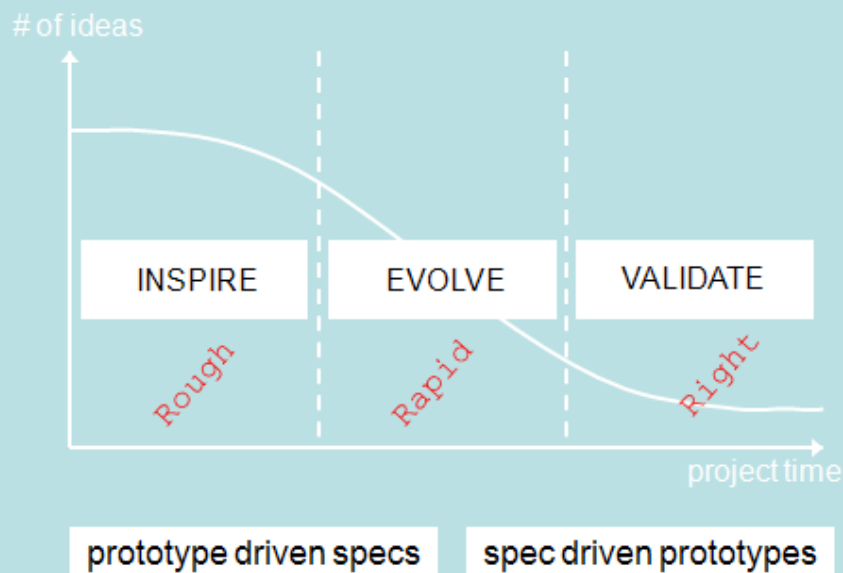
DIMENSIONS OF PROTOTYPING

- Looks like... (Form)
- Works like .. (Action)
- Feels like .. (Experience)

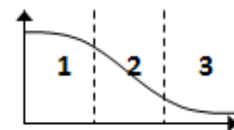
WHAT CAN BE A PROTOTYPE?

- Sketches
- Diagrams & Frameworks
- Hand Made Constructions
- Machined Constructions
- Virtual Models
- Graphics
- Packaging
- Spaces
- Role Play, Experiences
- Video

Prototyping in 3 stages of design



INSPIRE	EVOLVE	VALIDATE
Embrace Failure	Expect Changes	Manage Changes
Build it Yourself	Build it with an Expert	Have an Expert build it
Leverage your Design Community	Leverage our Experts	Leverage our Vendor Network
Prototype to specify	Prototype is partially specified	Prototype is specified
Low resolution model	Targeted model	Integrated model



EXPERIENCE PROTOTYPING

- Methods that allow designers, clients, or users to “experience it themselves” rather than witnessing a demonstration or someone else’s experience
- Less a set of techniques than an attitude

- Think of design problem in terms of designing an integrated experience, rather than one or more specific artifacts
- Not about the creation of a formalized toolkit or a set of techniques, but is about developing an attitude and language to solve design problems

- Activities
- Understanding existing user experience and context
 - Exploring and evaluating design ideas
 - Communicating ideas to an audience

USING IMPROVISATION

You can use improvisation exercises to immerse yourself into the mindset and experiences of people other than yourself. You can gain empathy for people different from yourself; learn how to be empathic to those whom you are going to observe and engage with. The experience of an object, say food, exists in a larger context of people, space, other objects and the interplay between these. We seek to immerse you in the experience of a person other than yourself so that you can begin to identify and then understand the impact that various elements have on an individual's experience.

EMPATHY TOOLS

- Physical: put yourself into the physical situation of your user: if you are watching kids, get on your knees; if people are eating in the car, keep one hand in your pocket as you eat an entire meal, etc.
- Situational: try to mimic the situation that your users find him/herself in so you can understand all of the inputs that are shaping that experience. If you are trying to understand how busy parents manage to feed their kids, ask 2 friends to come over for a meal, but they must time themselves to sit for only 4 minutes. After that, they leave the table, and you know what it is like to have a 3-year old's attention span constrain how you deliver sufficient volume of food and nutrients to them.
- Emotional: your goal is to be able to identify with the emotions of your subject, the feelings and motivations that are informing their behavior. Some ways to do this are:
 - Mine your experience for an analogous situation; how did you feel at that time?
 - Find someone who went through a similar experience, and engage them to uncover their emotions during that time, and now
- Abstract: put yourself into the position of the artifact and imagine the experience from that point of view. How did you get there? What is your purpose? Who have you interacted with? How are you acquired?

GOLDEN RULES OF PROTOTYPING

1. One question, one prototype
2. Go far enough
3. Stop before it's perfect
4. Cannibalize as much as possible
5. Don't fall in love with your prototype
6. Always build and share more than one prototype
7. Create to provoke and persuade