Rapid Design Labs
A Tool to Turbocharge Design-led Innovation

Jim Nieters
Sr Director, UX and Innovation Studios
HP Travel & Transportation
17-November, 2014
Inspiration from Clay Shirky

Are corporations where good ideas go to die?

If so, how can we change that?

Introducing Rapid Design Labs
What does innovation look like?
Theo Jansen – Kinetic Sculptor

Peculiar?
Transformative
Exercise: Barriers to Innovation

Ever had a big idea that got crushed? In the real world, coming up with a breakthrough idea doesn’t mean it will get to market. By nature, innovative ideas are different and represent new ways of thinking.

Getting stakeholders to recognize the value of these market-shaking ideas, buy into and support them, and agree to build them, requires a new kind of design skill: Facilitation!

What challenges have you found introducing new ideas?
It’s tough when markets change, and your people within the company don’t—HBR
Never doubt that a small group of committed people can change the world. Indeed it is the only thing that ever has.
- Margaret Mead
What is a Design Lab?

an intensive period (several days) of research, ideation, convergence, collaborative design, user testing, and commitment. Designers, engineers, product managers, and often users work together to solve a focused challenge and align teams around this solution.

Results: Validated concepts with teams aligned.
Eng, PM, and Design each perceive different constraints and opportunities. The only way to solve big problems is to ensure our products solve for all constraints and opportunities.

Marty Cagan points out that to create products customers love, we have to get Eng, PM, and Design in the same room.
Not new...

→ championed by IDEO: Deep Dive Workshops

→ FROG Design: FROG Think

→ Cooper: Ideation + Exploration

→ Sapient: Fusion Workshops

Taught at various universities, such as Stanford d-school
Based on Design Thinking

**Empathy**

- Learning about the audience for whom you are designing

**Define**

- Redefining and focusing your question based on your insights from the empathy stage.

**Ideate**

- Brainstorming and coming up with creative solutions.

**Prototype**

- Building a representation of one or more of your ideas to show to others.

**Test**

- Returning to your original user group and testing your ideas for feedback.
Adapted by In-house Design Groups

- eBay: preVIZ
- Google Ventures: Design Sprints
- Mindjet: Mindjet Design Labs
- Yahoo: Yahoo Design Labs (YoDeLs)
- Hewlett-Packard: HP Envision Workshops
- zSpace: Devise Design
- Splunk: Splunk Dunk Immersion Labs
• Proactive group
• Diverse skills
• Manage ambiguity
• Great environment
• Facilitation

• 4 days
• 20-40 people
• 4-6 prototypes
• 3 usability sessions
A cross disciplinary team from a very divergent background:

- Film Industry
- Interaction Design
- Marketing/Advertising
- Fine Arts
- Business Development
- Communications & Media
- Engineering/Development
Design Sprints, Jake Knapp
Rapid Design Lab Process
Design Lab Components:

1. Agree on the problem
2. Brainstorm (divergent thinking. Co-creation?)
3. Filter ideas (convergent thinking)
4. Engage in collaborative design
5. Gather user feedback and iterate rapidly
6. Establish action plans and follow through
Putting it in context:

- Innovation is a long process
  There’s an entire lifecycle to innovation

- Workshops are one small part of that process
  But workshops are really, really valuable
Key Ingredients of a Successful Design Lab

• Clear and significant problem to solve
• Executive Sponsor / Stakeholder
• A committed (and talented) cross-functional team
• A skilled facilitator
Examples

• Deutsche Telekom Labs—Gesche Joost
• Yahoo—Jim Nieters
• MindJet—Carola F. Thompson
A Rapid Design Lab Case Study

YAHOO!
YoDeL case study

An intensive week of ideation, design, and user testing, where we worked together to design the optimal order booking experience.

23 participants (recommend 12):
- 8 users (US, EU, AP)
- 4 UED’s and 2 UERs
- 4 Product Managers
- 4 Engineers
- 3 Internal Tools
Day 1: Download, then consensus

• Identified a clear problem statement
• Identified the user workflow
• Agreed on an Innovation Promise
User Workflows

Workflow for Online Editorial Content

Story Generation
- PIO
- Press Releases
- Breaking News
- Event
- Your Competitors
- Reporter's Sourcebook
- Intranet
- Shared Bookmarks
- Aggregators
- Best-related
- Conferences
- Industry meetings & webinars
- Local online communities
- Social media sites
- Local blogs
- Across platforms, not just on your site
- Use trackbacks
- Make sure content is archived & indexed correctly
- Reports & Editors must participate
- Against other blogs
- Against other websites
- Copy Edit
- Are cuttings + metadata correct?
- Do links work?
- Add metadata
- Links - do they work?
- "Package" story, if
- Scale? One-off story or multiple?
- Production (writing, producing)
- Contextual Content
- Related Content
- Talks w/ad
- External
- Add in all hyperlinks
- Content partner notification
- Databases

Story Development
- Initial meetings w/multimedia folks
- Initial meetings w/editors & producers
- Social media sites
- Source meetings
- Local, online communities
## Product promise:

### UI Promise
Make complex order generation fast, intuitive, and flexible

### Product Goals
Optimize efficiency for non engineers, fewer steps, scalable across channel, platform, Measureable improvement over legacy systems, Obvious task flows, Flexibility in UI with open access under the hood, Optimize for complexity, easy recoverability.

### Pain Points
Current solution too complex. Too many tabs and no logical work flow. Application is not navigable. Search is complex. Doesn’t inform of invalid combos until returning IS results, no proactive inventory view, no “window shop” save, or geo in IS, Placement columns not relevant or editable, can’t view multiple BT’s, can’t assign creatives to placements, need more visibility to avail inventory by ad size.

Fast is:
- Discoverable
- Efficient
- Learnable
- Performant
Day 2: Teams design

Team Everest

Team Denali

Team Kilimanjaro
Day 2: Sketch
Day 3: Refine
Day 4: Test
Day 5: Roadmap
After: Digitize

Order View
Day 2: Sketch
Day 3: Refine
Day 4: Test
Day 5: Roadmap
After: Digitize

Order View
Day 2: Sketch
Day 3: Refine
Day 4: Test
Day 5: Roadmap
After: Digitize

Order View
Old Process: 19 Steps

1. Query for Company
2. Click on Opportunity
3. Click New and Create Opportunity
4. Drill into Opportunity
5. Click Create Quote
6. Click on Quote Lines and Create Order Lines
7. Click on Validate AI
8. Click on Create Order
9. Click on Documents tab
10. Click on New
11. Click Generate Manual Order
12. Click Attachments and Refresh until Order Document is Generated
13. Attach Order to Email and send to Customer for Signature
14. Upload Signed Order into Order Attachments
15. Change Order Status to Customer Approved
16. Click on Create Approvals
17. Revenue Assurance receives Order Approval Email
18. Revenue Assurance Approves Order
19. Order Commits and is sent to Ad Center

Old Process: 19 Steps
New Process: 5 Steps

Step 1: Create a new Order
Step 2: Associate existing client company and contact
Step 3: Associate existing agency
Step 4: Associate Account(s)
Step 5: Preview and send eIO, or generate manual IO and send
Old design

34 tabs!
New design
Responses to Design Lab

“The Yodel was such a refreshing experience! We worked with designers, users, and engineers to create a powerful tool that will save time, reduce frustration and improve our relationships with clients. I was thrilled to provide real, front line feedback toward improving these crucial systems for our users.

Woah…this looks amazing! When we first started, everybody had a unique perspective on the end product and it was awesome to see how everyone reached the same goal. The wireframes are almost like a dream come true— they’re exactly how we imagined it!

I am really excited about the future of this product— it’s looking good (finally!)

Executive Testimonial: “My team is thrilled with the relationship we’ve built with your organization. Coming together in the YoDeLs made my Sales team feel heard and empowered. I’m giving you a thumbs-up on your plans. I like it that we can go back to the CEO with a positive story.”
Rapid Design Lab Process

Innovation Promise Pyramid

Divergence → Convergence

Brainstorm | Converge
Prototype | Visualize | Validate
Deutsche Telekom Innovation Model
### Innovation Workshops at Deutsche Telekom Labs: Example: Gender and ICTs

#### Question & Problem
- How can I address needs of female customers towards mobile communication without being trapped in gender clichés?
- Mobile phones for female customers follow all the same paradigm: shrink it and pink it.

#### Approach
- Conduct innovation workshop involving real users! Involve a cross-functional and interdisciplinary team in a workshop, and invite end-customers to participate!
- Create new ideas of:
  - what are customer’s needs?
  - how can they be translated into a product or service?

#### Results
- In innovation workshops, we came up with more than 50 concepts for female communication.
- After refining, we worked with video prototypes and first mock ups to check the feasibility.
- **Several concepts will be launched on the market in 2009.**
Concept: Social Accessories. **Insights:**

„Sometime I play around with my mobile, be busy with typing an sms just to avoid a smalltalk. “

Concept: Social Accessories  
Design Proposal: Call Ur Self
Concept: Social Accessories

Design Proposal: Call Ur Self
Rapid Design Lab Process

Innovation Promise Pyramid

Divergence → Convergence

Brainstorm | Converge
Prototype | Visualize | Validate
Lay it all on the table before trying to solve the problem

• Present data about user pain points, comparative products, marketing data, loyalty data, and so on.

• Let participants express opinions, concerns, and frustrations

• Do not shut down opinions, even if you disagree.

People need to express their thoughts and be involved emotionally to support outcomes
Download - sample artifacts

Comparative product analysis
User profile and usage data
Capture Pain Points as you go...
Create Affinity Diagrams

• Affinity diagrams help synthesize large amounts of data and identify patterns and themes.
• They are a useful first step in prioritizing and synthesizing ideas.
Prioritize Ideas with Group Voting

Brainstorm then vote to narrow pain points, goals, and promise:

• Each participant receives three Post-its

• Place votes beside by the most important factors

• A few ideas tend to stand out

• To narrow further, vote a second time with fewer votes
Summarize in an Innovation Promise Pyramid

- Present pain points at the bottom of the pyramid
- Cluster and prioritize:
  - Affinity diagrams to extract trends from large data sets
  - Group voting to prioritize
- Goals: Start thinking about the positive
- Promise: Get excited about what can be
Day 2: Brainstorm Solutions

• Brainstorm solutions to pain points and goals in your promise pyramid

• Go broad, diverge.

• *Recruit subjects for Day 4 validation.*
Rapid Design Lab Process

Innovation Promise Pyramid

Divergence → Convergence

- Brainstorm
- Prototype
- Visualize
- Validate
- Converge
Brainstorming

Four rules of brainstorming:

1. **Defer Judgment**
   - Say Yes!
   - Save analysis for later
   - Save evaluation for later

2. **Go for quantity**
   - Fluency - lots of ideas
   - Flexibility - lots of *different* ideas
   - You can filter and vote later

3. **Get radical**
   - Encourage wild, improbable, eccentric ideas
   - Getting the group excited and having fun contributes to creative thinking.

4. **Leapfrog**
   - Build on others’ ideas
   - Use the “yes, and what if...” approach to contributing ideas.
Method: Trendcards

Megatrends

Use tools to stimulate discussion around relevant trends.
“Everybody knows the problem: we need to be more innovative. Now we’ve got the solution: Gamestorming. This smart, fun, hands-on book will energize your brain and mobilize your creativity—and do it using stuff you already have in your office supply closet!”

—Daniel K. Pink, author of Drive and A Whole New Mind
Rapid Design Lab Process

Innovation and Brand Promise Pyramids

Divergence → Convergence

Brainstorm | Converge
Prototype | Visualize | Validate
Day 3: Create Design Concepts

- Create designs based on the best ideas from Day 2
- Designs should be complete enough for a user to walk through a flow on Day 4
- Refine design concepts and prepare for usability study
Rapid Prototyping
Iterate

• Keep going until you meet your goals
• Resist moving to pixels until you have agreement
Solving Specific Challenges: Visual Design Language & Moodboards
Four primary attributes of a successful visual design

- Tone
- Language
- Identity
- Personality
Traditional Finance
Function Over Form
Web 3.0

Visual Design Attributes

Identify an Exploration Spectrum

Define Exploration Statements

What if Apple designed an enterprise application
What if Frank Gehry designed a business dashboard
What if Porsche designed a reporting tool

Mash up innovative brands with product components. Create a set of personality types.

4 Application Components
Dashboard
Data Visualization
Navigation
Wizards/Tours

Innovative Brands
Apple
Porsche
Skype
VW
Frank Gehry
BMW
American Express
Sony
Nike
Visual Design Attributes

What if Apple designed an enterprise application
Visual Design Attributes
Mood boards & mash ups based on exploration statements

What if Frank Gehry designed a business dashboard
Visual Design Attributes
Mood boards & mash ups based on exploration statements

What if Porshe designed a reporting tool
Team agrees on personality types. Designers ideate on personality traits.

**Visual Design Attributes**

<table>
<thead>
<tr>
<th>The Innovator</th>
<th>The Sports Car</th>
<th>The Architect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traits:</td>
<td>Traits:</td>
<td>Traits:</td>
</tr>
<tr>
<td>Inspirational</td>
<td>Fast</td>
<td>Edgy</td>
</tr>
<tr>
<td>Ambitious</td>
<td>Contemporary</td>
<td>Sleek</td>
</tr>
<tr>
<td>Simple</td>
<td>Fun</td>
<td>Modern</td>
</tr>
<tr>
<td>Consistent</td>
<td>Sexy</td>
<td>Titanium</td>
</tr>
<tr>
<td>Perfection</td>
<td>Proud</td>
<td>Innovative</td>
</tr>
<tr>
<td>Flawless</td>
<td>Envious</td>
<td>Smart</td>
</tr>
<tr>
<td>Clean</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Artifacts take shape
The Innovator

What if Apple designed an enterprise application

2 months later. Over 200 pages of visual design documentation

Visual Design Attributes

Exploration Statements & Visual Personas serve as a Implementation Compass
Example Mood Board 1 from previous Rapid Design Labs course
Example Mood Board 2 from previous Rapid Design Labs course
Day 4: Validate with Users and Refine

• Bring real users or at least user proxies in to validate your ideas

• Ideally have all people within the company watch the validation of all of the ideas

• Refine designs based on feedback from all studies
Day 5: Solutions and Action Plan

• Present Final Solutions

• Agree upon next steps including
  – Roadmap— which ideas can be implemented when
  – Each representative presents to their teams
  – Plan a time to present to an extended team
  – Formalizing & detailing the designs
  – Present to senior leadership
  – Short and long term milestones
“Winning an argument is less important than coming to a solution”

— John Maeda

Results: Validated solutions with teams aligned