A few class reminders:

1 **Please fill out the survey if you have not already done so**

http://www.surveymonkey.com/s/3BPMKHF

2 **All lecture material from yesterday has been posted to:**

http://aiti.mit.edu/materials/ghana-summer-2013/

3 **How did last nights homework go?**

By tomorrow 5pm you will be expected to have submitted 2 ides to Darwinator.

Please try and be here on time

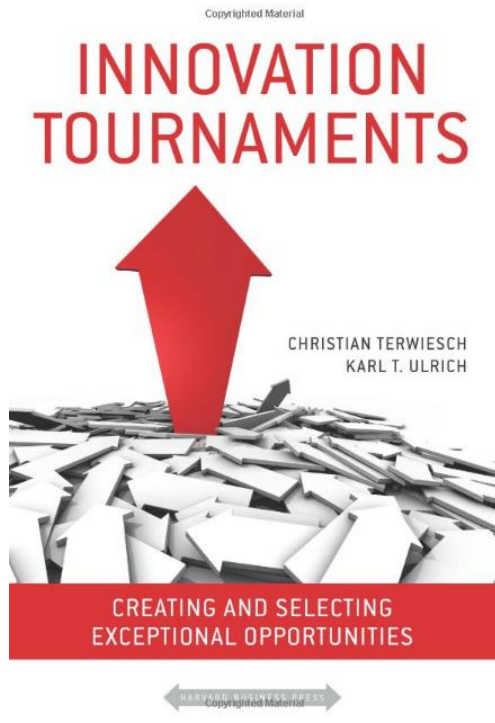# Darwinator – Ideas Tournament

Summer 2013

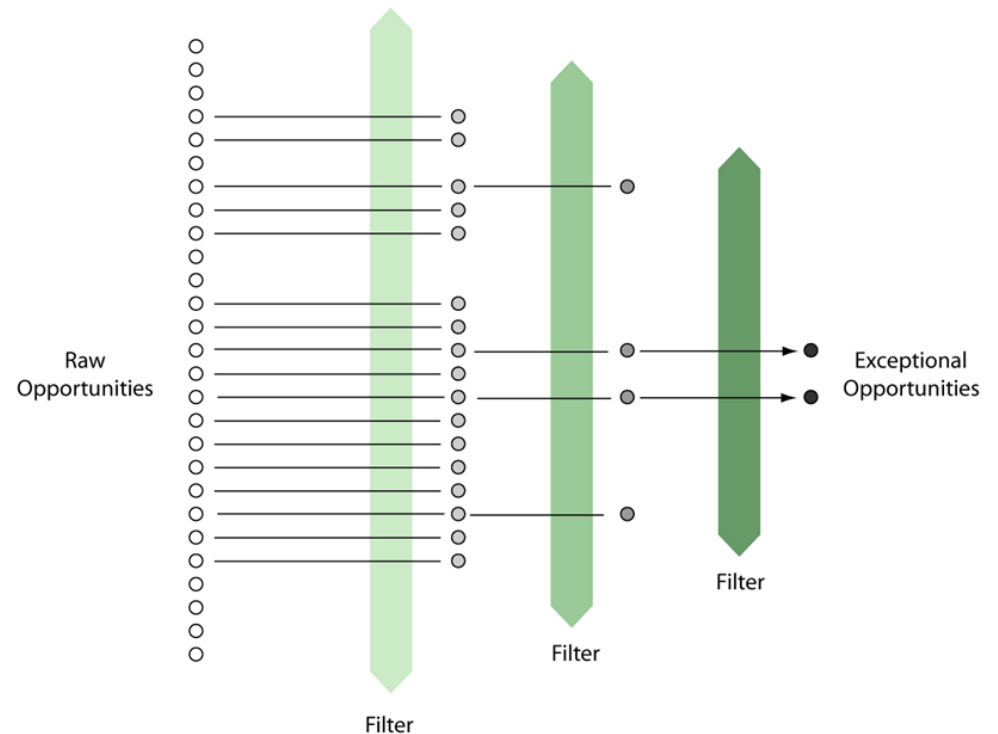Accelerating Information Technology Innovation
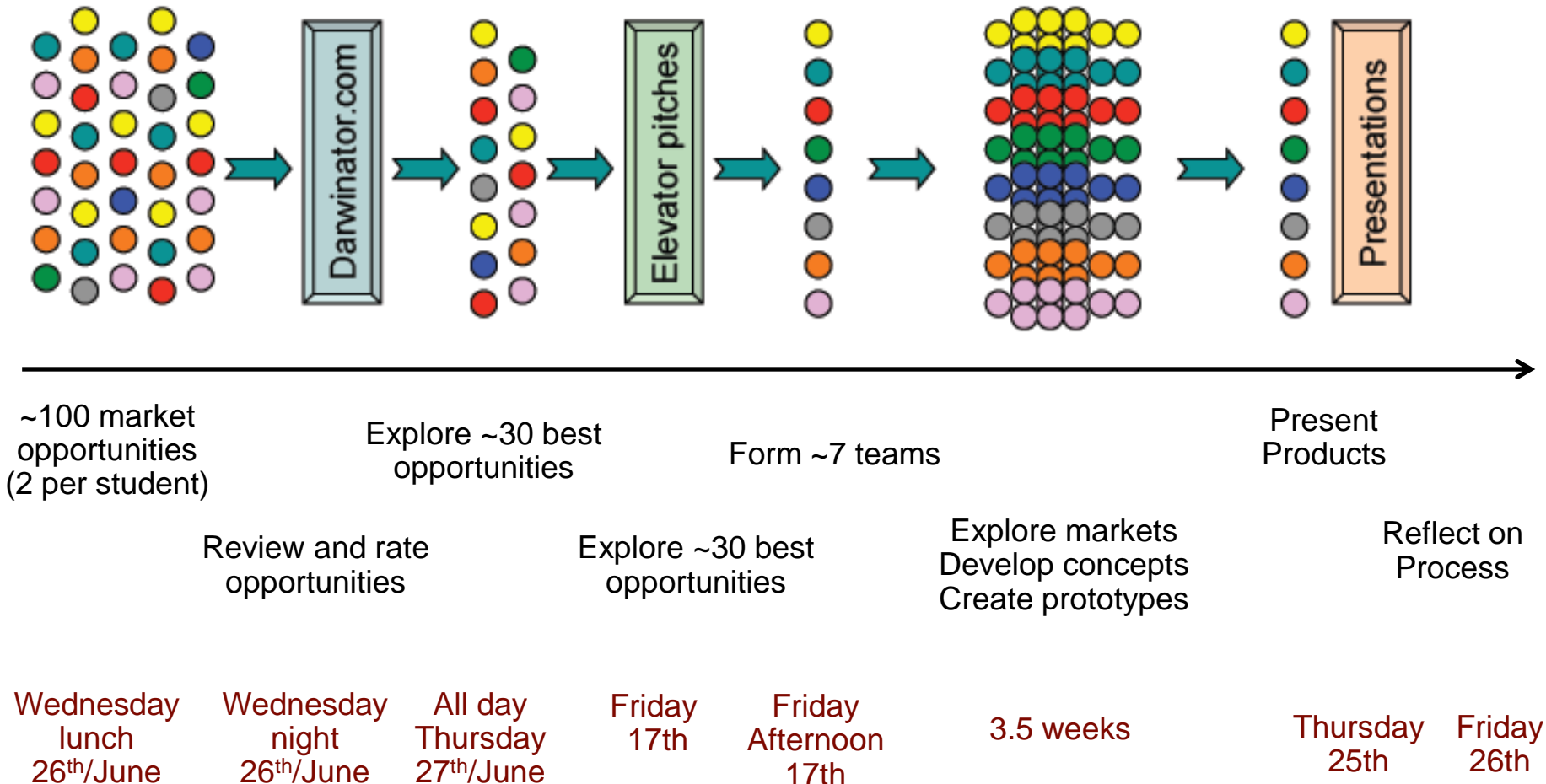
What is an ideas tournament?

Method for generate new and innovative ideas. Proven to be more effective than standard brainstorming. See text Innovation Tournaments (Harvard Press) by professors at both Wharton School of Business and MIT

① Our PDD Process: Double Down-select and Develop

~100 market opportunities (2 per student)		Explore ~30 best opportunities		Form ~7 teams		Present Products
	Review and rate opportunities		Explore ~30 best opportunities		Explore markets Develop concepts Create prototypes	Reflect on Process
Wednesday lunch 26th/June	Wednesday night 26th/June	All day Thursday 27th/June	Friday 17th	Friday Afternoon 17th	3.5 weeks	Thursday 25th / Friday 26th

4

By now you should have been emailed a link to Darwinator – please log-in

Go to the website and click Login in the top right hand corner

ASHESI

4. Fill out your info and click here.

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5. Click on the Tournament

Your Tournaments

ASHESI GHANA 2013 - OPPORTUNITY TOURNAMENT 2013

Submit and evaluate new product opportunities. Top ideas will be explored in class.

Current phase: *Submission*

This is your tournament, so you can Edit or Delete it.

6. Use this tab to submit opportunities.

MyDarwin	Intro	Submit	Discuss	Evaluate	Report

Tournament: Ashesi2013

ASHESI GHANA 2013 - OPPORTUNITY TOURNAMENT 2013

Tournament Summary

Submit and evaluate new product opportunities. Top ideas will be explored in class.

Tournament Description

Submit two project opportunities for new products -- consisting of a brief, descriptive project title (2-4 words) and a short description of the market opportunity by 5pm on Wednesday 26-Jun. Your description should include the following: description of the market need, shortcomings of existing competitive products, and definition of the target market and perhaps its size. Starting on Thursday, you should then review and rate a minimum of 30 of the project opportunities posted by your peers, by 9am on Thursday 27-Jun. Top opportunities will be explored by small groups during the day on Thursday. Groups will present their research on Friday. The most promising opportunities will be selected for AITI project teams to develop.

Participation Parameters

Current Status

Submitting

Submissions:
- min 2, max unlimited

Discussion:
- View discussions one-by-one

Evaluation:
- min 30, max unlimited
- View evaluations one-by-one

The main page has some general information about the ideas tournament

Intellectual Property policy

Note: All project ideas and discussions are to be considered open opportunities for the class. We have no non-disclosure agreements in

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7. Click create a new submission

| MyDarwin | | Intro | Submit | Discuss | Evaluate | Report |

Tournament: **ASHESI GHANA 2013 - OPPORTUNITY TOURNAMENT 2013** (Code: Ashesi2013)

Create a new submission

Your Existing Submissions

You have no existing submissions for this tournament.

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New Submission

8. Type in the info describing your idea.

Title *

Home water monitoring

Description *

While many companies are rushing to develop devices to monitor home energy consumption, there is still not a convenient way for people to monitor and understand the amount of water they use. It is estimated that most people use between 80 and 100 gallons of water per day, with much of that wasted during tooth brushing and showering.

Currently, the only way to know your water consumption is to use your main house water meter, which shows only aggregate usage (and is often located in an inconvenient location) and provides no information to people in apartment complexes with shared water mains. The target market for a home water monitor that is similar to home energy monitor would be all U.S. households with an income of over $75,000 (about 30,000,000 households).

Adding Attachments

Use the following buttons to create new attachments for this submission.

[Add an image] ← **9. If you want to provide an image to help explain your thoughts click here.**

☐ Add another submission after this one

[Add this submission]

Ideas are anonyms. Whilst everyone will be able to see all the ideas – no one (including me) will not be able to tell who wrote each idea. Silly ideas are welcome!

| MyDarwin | | Intro | Submit | Discuss | Evaluate | Report |

New image

Choose File   no file selected   Upload   11. Then click here.

Description [   ]

☐ Display on the submission page?

Save

10. Click here and select the image file (jpeg will work).

| MyDarwin | | Intro | Submit | Discuss | Evaluate | Report |

New image

📄 PROP5_1.jpg Remove   12. Put in a description for the image.

Description [Water Tracking Integration   ]

☑ Display on the submission page?   13. Click so that image is displayed.

Save   14. SAVE IT!!!

Title *

Home water monitoring

Description *

with much of that wasted during tooth brushing and showering.

Currently, the only way to know your water consumption is to use your main house water meter, which shows only aggregate usage (and is often located in an inconvenient location) and provides no information to people in apartment complexes with shared water mains. The target market for a home water monitor that is similar to home energy monitor would be all U.S. households with an income of over $75,000 (about 30,000,000 households)

Logo

Choose file | no file selected   Upload   ⟵ 15. Disregard (not required).

Adding Attachments

Use the following buttons to create new attachments for this submission.

Add an image

Image 1

Image Title/Description

Water Meter

PROP5.jpg Remove

☑ Display on the overview page for this submission

Image 2

Image Title/Description

Water Tracking Integration

PROP5_1.jpg Remove

16. When all good you can now save your submission.

☑ Display on the overview page for this submission

Save this submission

ASHESI

MyDarwin		Intro	Submit	Discuss	Evaluate	Report

Tournament: AITI/ASHESI GHANA 2013 - OPPORTUNITY TOURNAMENT 2013

You have already contributed the maximum allowed submissions for this tournament

Your Existing Submissions

Name	Submitted		
Window AC Improvement	2013-01-29 21:33:37	edit	delete
Home water monitoring	2013-01-29 13:45:07	edit	delete

17. Once you have completed the assignment you should have 2 ideas. You have until 11 AM on Wed to revise your work.

Virtual Baby&Kid Sitter

Illustrative
Example

Date submitted: 2013-01-29 00:39:20
Author: ecorona
Description

In the busy world we live it is hard to keep an eye on your children all the time. Wouldn't it be great if a device could tell me if they are coming close to an area I know is a NO-NO? Think about the Rumba virtual walls but for kids: if a kid goes near them the person(s) in charge receive an alert informing them that their kid's curiosity might be too much to handle. And the system doesn't have to be limited to small children. What about teenagers!!! What if a parent could have a means of being alerted if their kids are approaching an area, leaving school when they are not supposed to, and potentially up to no good. According to a quick search online, preventable injuries are the number one killer of children ages 14 and under in the U.S. Each year one out of every four children is hurt seriously enough to require medical attention. These injuries cost society $175 billion annually. Ninety percent of these injuries could be prevented if families took the simple steps necessary to protect their children. One last thought: couldn't a similar system be utilized to keep sex offenders away from children and teenagers? If such devices had cross-talk capability wouldn't it possible for the device to issue an alarm if a close encounter were to happen?

ROOMBA+CHILD_CONTROL+LOCATION INFO
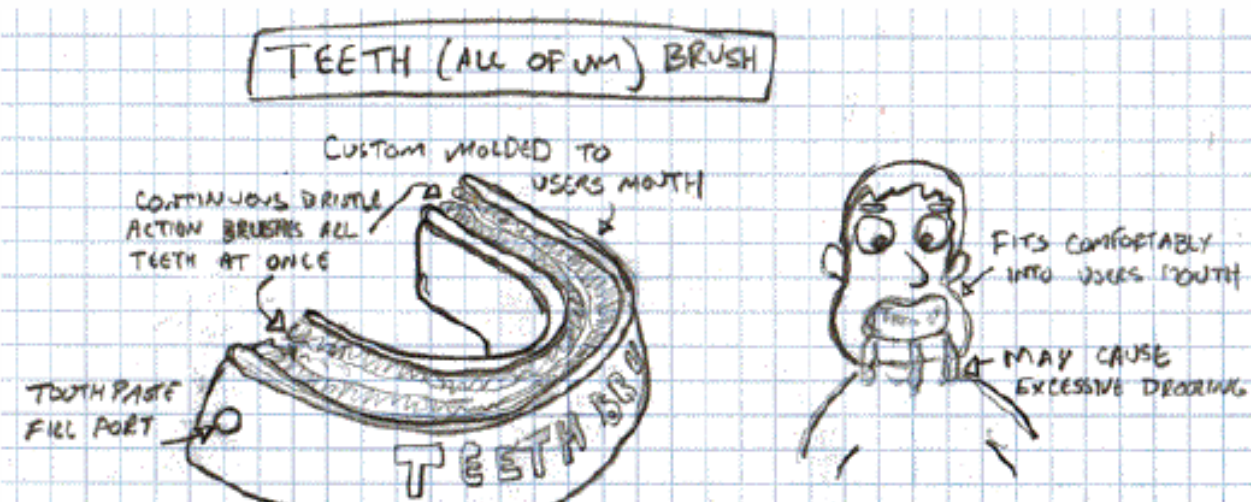
Hand-Free Toothbrush

Date submitted: 2013-01-29 13:18:55
Author: You
Description

How about taking battery powered toothbrushes to the next level? Market size is significant as everybody "should" brush their teeth 3 times a day. If anything, battery powered brushes - some worth upwards of $120 - have proven that there is an appetite for such products.

Cool Toothbrush

TEETH (ALL OF UM) BRUSH

CUSTOM MOLDED TO USERS MOUTH

CONTINUOUS BRISTLE ACTION BRUSHES ALL TEETH AT ONCE

TOOTH PASTE FILL PORT

FITS COMFORTABLY INTO USERS MOUTH

MAY CAUSE EXCESSIVE DROOLING

Later this week we will evaluate projects

While many companies are rushing to develop devices to monitor home energy consumption, there is still not a convenient way for people to monitor and understand the amount of water they use. It is estimated that most people use between 80 and 100 gallons of water per day, with much of that wasted during tooth brushing and showering. Currently, the only way to know your water consumption is to use your main house water meter, which shows only aggregate usage (and is often located in an inconvenient location) and provides no information to people in apartment complexes with shared water mains. The target market for a home water monitor that is similar to home energy monitor would be all U.S. households with an income of over $75,000 (about 30,000,000 households).

Date submitted: 2013-01-29 13:45:07

Water Meter

Register

Magnetic Field

Water Meter

Water Tracking Integration

ORION

20. Evaluate Idea

How would you rate this proposal?

*

○ terrible idea ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ great idea

Add extra comments here

Save this evaluation   ← 21. Save your evaluation.

Class 3 – Systematic Methods in Design Thinking

Summer 2013

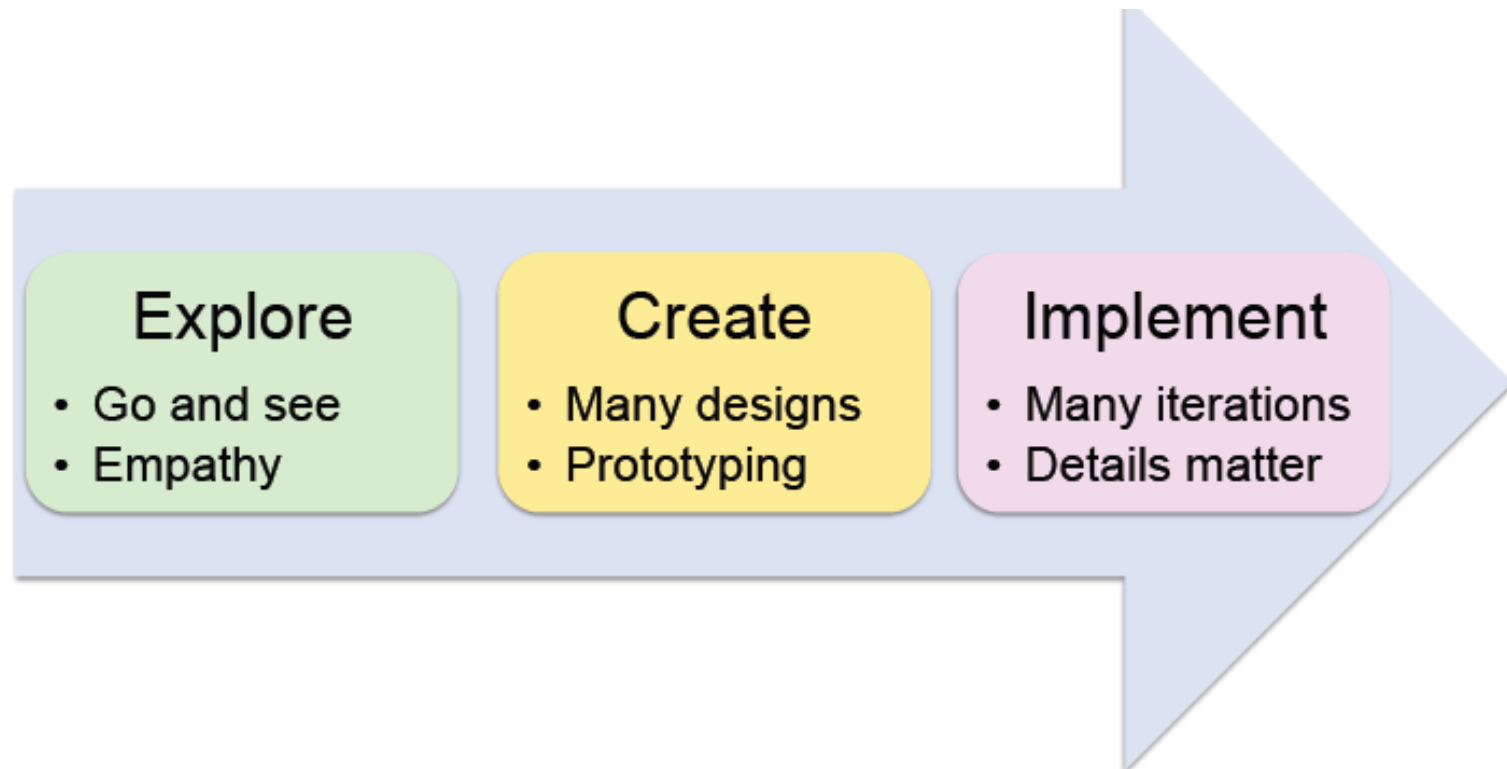Accelerating Information Technology Innovation

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Today's Agenda

- **Define *Design Thinking* skills**

- **Video: *The Deep Dive***

- **Discussion: Systematic innovation at IDEO**

- **Darwinator evaluation assignment**

- **Idea Inspiration Session**

Critical Skills of Design Thinking

Explore
- Go and see
- Empathy

Create
- Many designs
- Prototyping

Implement
- Many iterations
- Details matter

Reference: Tim Brown, "Design Thinking", *Harvard Business Review*, June 2008.

About IDEO

WHAT WE DO

- IDEO is an award-winning global design firm that takes a human-centered, design-based approach to helping organizations in the public and private sectors innovate and grow.

- We identify new ways to serve and support people by uncovering latent needs, behaviors, and desires.

- We envision new companies and brands, and we design the products, services, spaces, and interactive experiences that bring them to life.

- We help organizations build creative culture and the internal systems required to sustain innovation and launch new ventures.

David Kelley, Founder

OUR APPROACH: DESIGN THINKING

- Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.
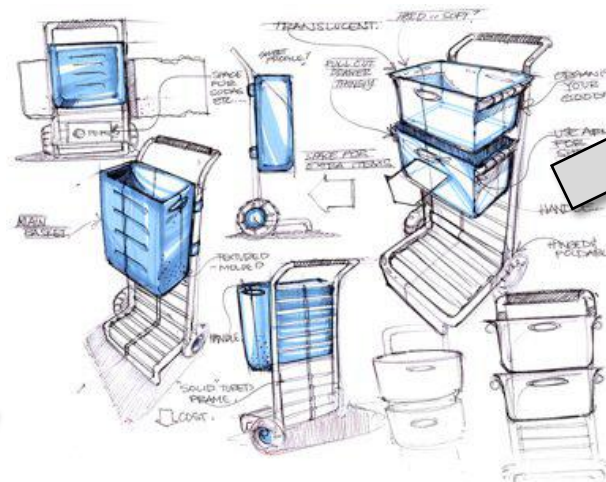
Tim Brown, CEO

http://www.ideo.com/about

"The Deep Dive" video by *ABC Nightline*

IDEO's Challenge

- Redesign a grocery shopping cart

- One week demonstration project

Your Challenge

- Process?

- Organization?

- Culture?

Play IDEO shopping cart design thinking Video

ABC Nightline - IDEO Shopping Cart

http://youtu.be/M66ZU2PCIcM

How does IDEO explore and create?

	Process	Organization	Culture
Explore			
Create			

IDEO's System of Innovation

- **Process**
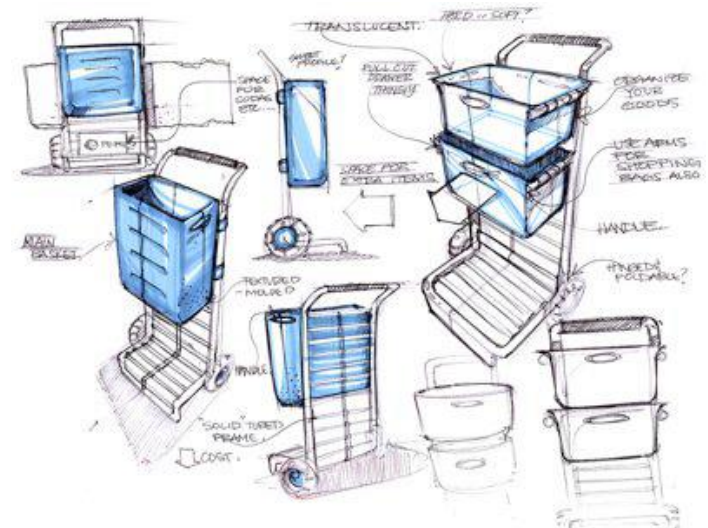 - **Research → Explore → Refine**
  - **Connect with customers and products**
  - **Explore many possible (?) solutions**
    - » *7 rules of brainstorming*
  - **Build many focused models**
    - » *rough, rapid, and right*
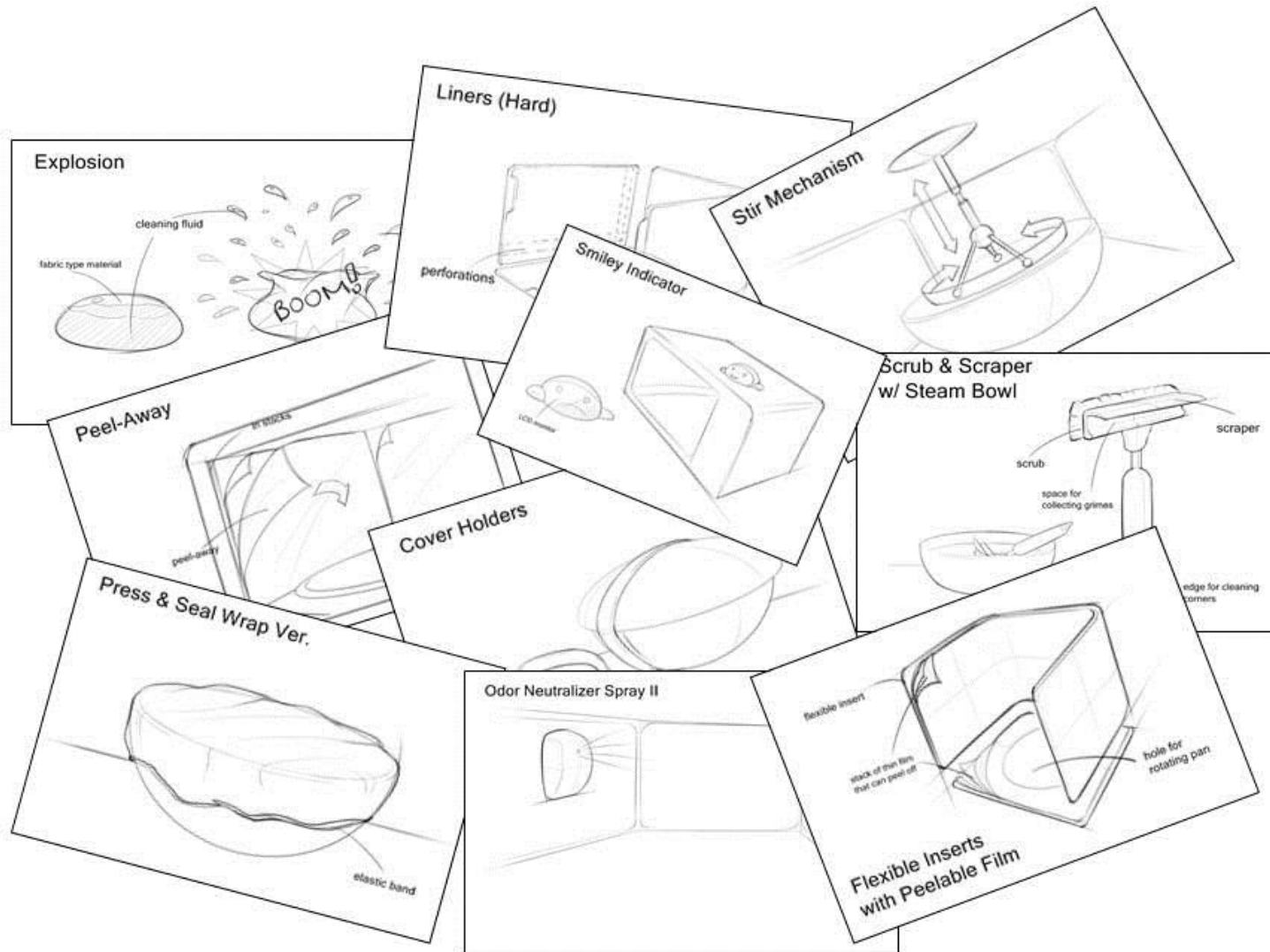 - **Time to explore *versus* time to focus**
- **Organization**
  - **Small studios (40-50 people)**
  - **Multi-functional range of skills**
  - **Team leaders guide the process**
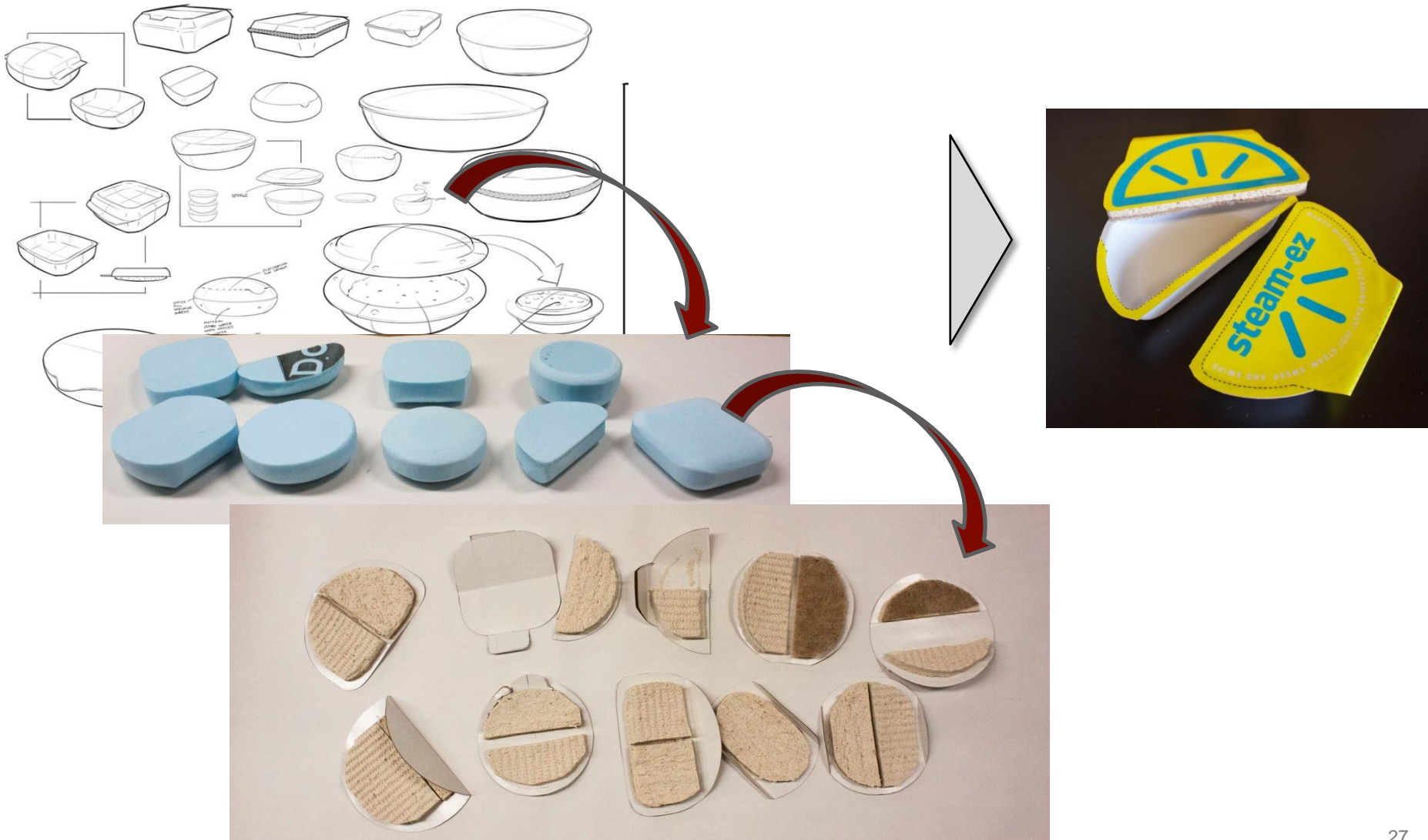- **Culture**
  - **Playful, open, creative**
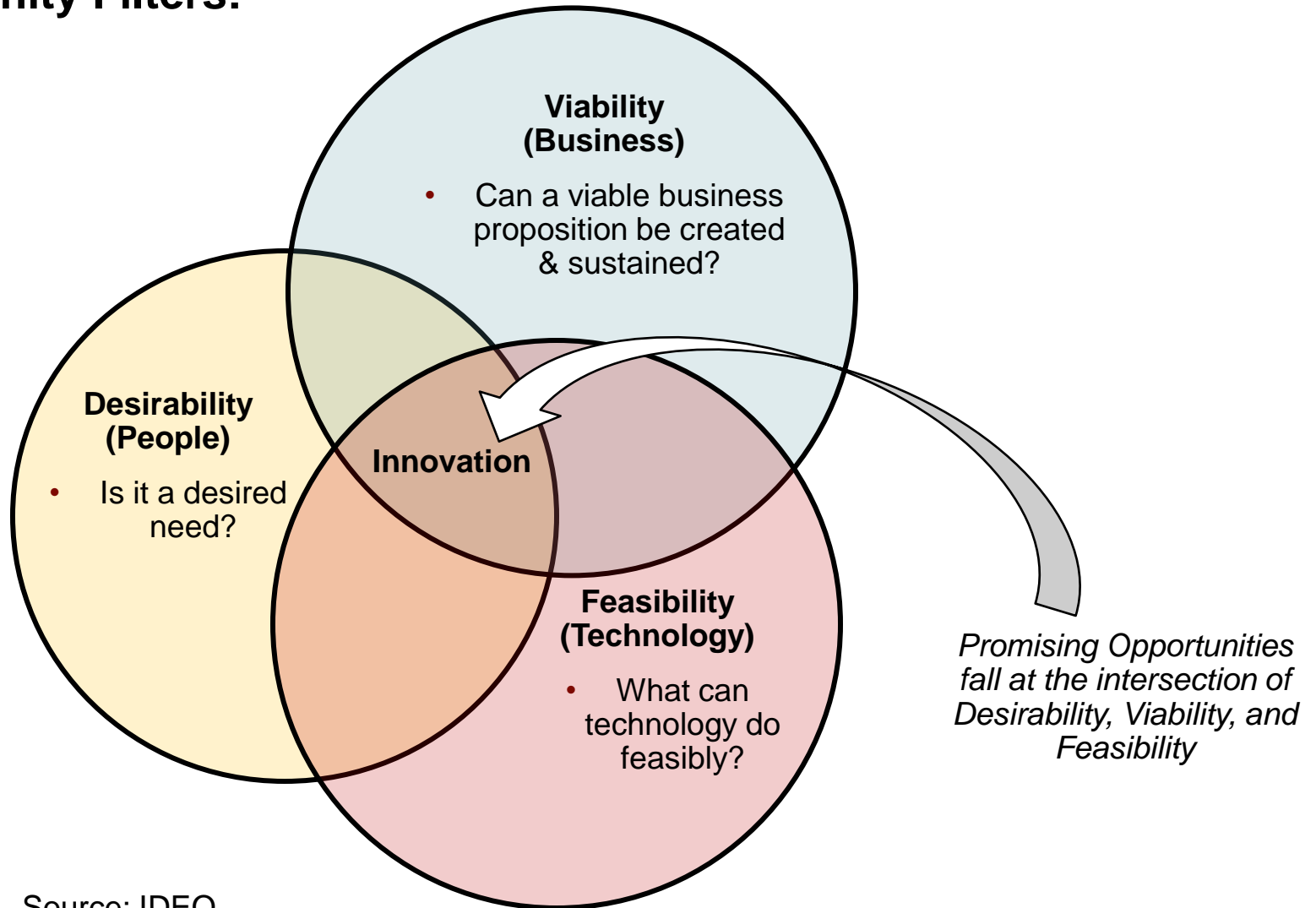   - » *We are different!*

Example: Many Initial Concepts

Example: Many Design Iterations

Design Thinking Opportunity Filters:

Viability (Business)
- Can a viable business proposition be created & sustained?

Desirability (People)
- Is it a desired need?

Innovation

Feasibility (Technology)
- What can technology do feasibly?

Promising Opportunities fall at the intersection of Desirability, Viability, and Feasibility

Source: IDEO

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IDEO Design Thinking Process

① Discovery	② Interpretation	③ Ideation	④ Experimentation	⑤ Evolution
I have a challenge. How do I approach it?	**I learned something.** How do I interpret it?	**I see an opportunity** What do I create?	**I have an Idea.** How do I build it?	**I tried something new.** How do I evolve it?

Number of possibilities
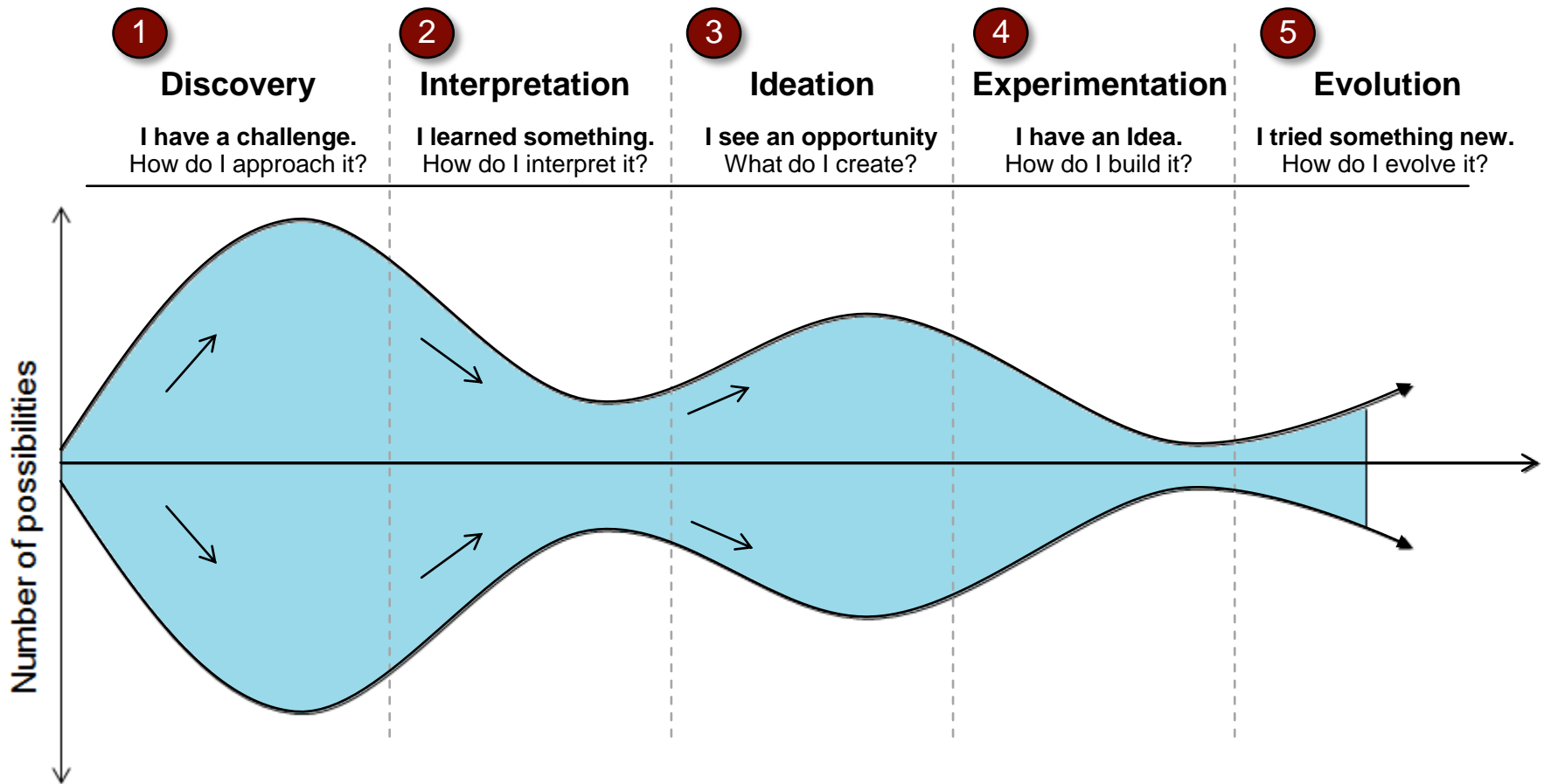
Source: IDEO

More References
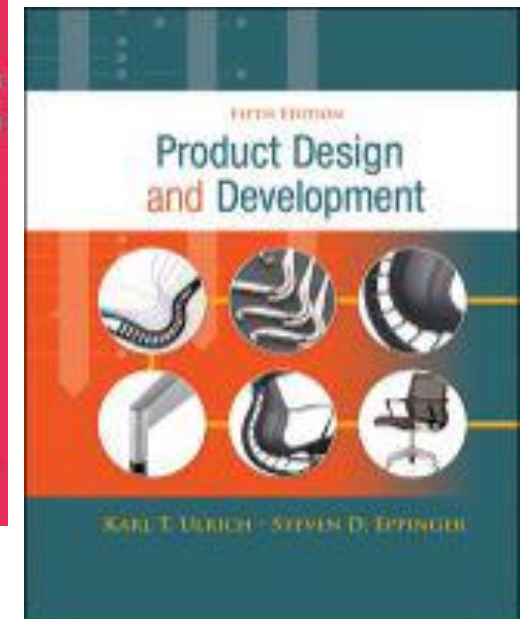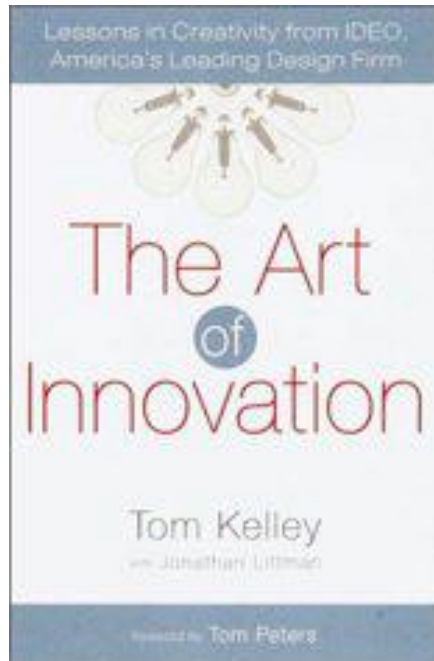
Opportunity Inspiration

Summer 2013

Accelerating Information Technology Innovation

ASHESI

Characteristics of an Opportunity

- ■ Timely

- ■ Solvable

- ■ Important

- ■ Profitable

- ■ In context

Some areas to investigate:

Healthcare	Travel	Banking/Finance/Trading	Information/ Directory
Education & Language	Social (Messaging/Photosharing)	Entertainment (Music/Video)	Fitness
eCommerce	Sports	Games	Program Management
Job Placement/ Freelance	Ticket Sales	Agriculture	Storage/Cloud

Some times just looking at random images can inspire new ideas for new products/apps

Play the next following slides as a slide show

5 seconds per picture

ASHESI

ASHESI

ASHESI