

SMU Future Ready Forum



Innovating Futures Through Human-Centered Design Thinking

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Today

A decorative wavy line in shades of blue, purple, and red spans across the top of the slide, starting from the left edge and ending at the right edge.

- Why innovate?
- Who are the most innovative?
- Why design?
- What is design about?
- Designing the future (a bit)

Why innovate. What strategic problems do you face?



Oil crash:
U.S. companies have
cut over 86,000 jobs

Many industries are/can be disrupted.
What else causes disruption? How?



The New York Times



The old industrial model

- The norm for organizing in business was
 - Physical products
 - Division of labor
 - Mass production
 - Linear model (e.g. R&D to products)
 - Slow changing

Ford “Model T”
production line
(early 1900s)



But things change.

Who are the most innovative firms?



Who are the most innovative firms?



2016's Top 10

- | | |
|--------------|-------------|
| 1. Apple | 6. Netflix |
| 2. Google | 7. Samsung |
| 3. Tesla | 8. Toyota |
| 4. Microsoft | 9. Facebook |
| 5. Amazon | 10. IBM |

New Entrants

Uber at #17
Airbnb at #21
Under Armour at #22
Regeneron at #24
Expedia at #32



UBER



airbnb

SpaceX at #34
Hilton at #37
NTT Docomo at #39
Orange at #44
Bristol-Myers Squibb at #47

How do we innovate today?



How do we innovate today?

- R&D
- Marketing
- C-suite
- Forecasts

Is this good enough?

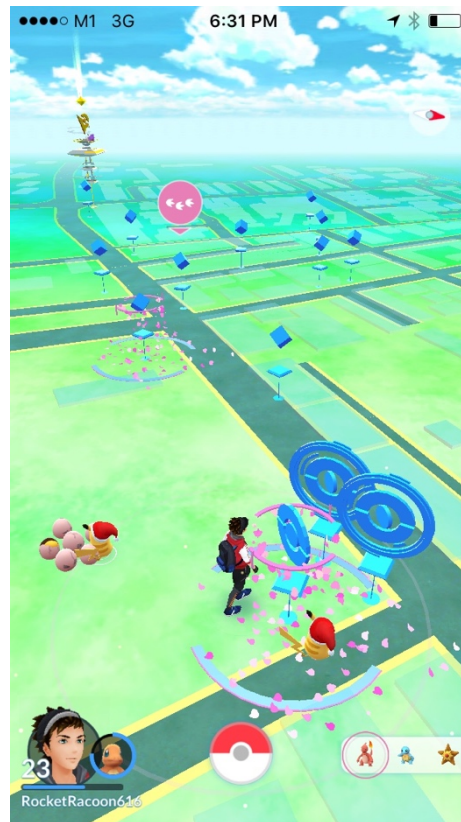


How... iteration, combinative business models

What's really changing in our lives?

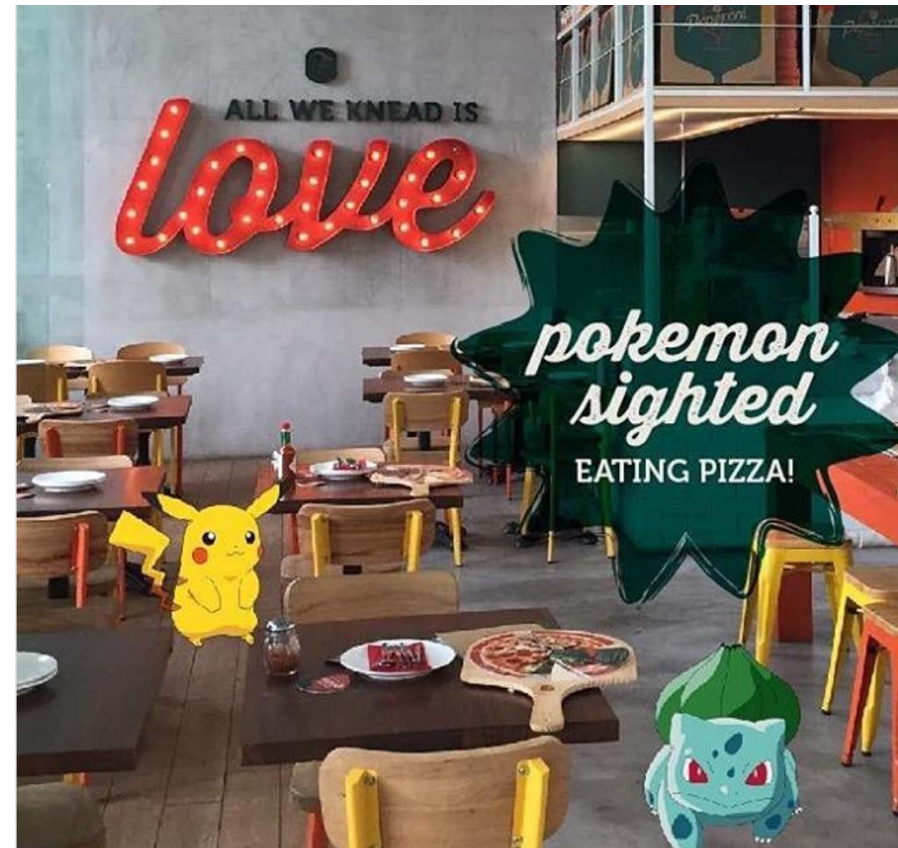


Ingress



Pokemon Go

Restaurant (Peperoni Pizza)



So, we are going *from...*

- Physical products **to** Services, experiences
- Division of labor **to** Ideas
- Mass production **to** Business models, contextual
- Linear model **to** Non-linear, user-centered
- Slow-changing **to** Disruptive



Sewing at night via d.light solar lamp (NYT)

Why design?



- As environment becomes more **uncertain**, need to **innovate**

But

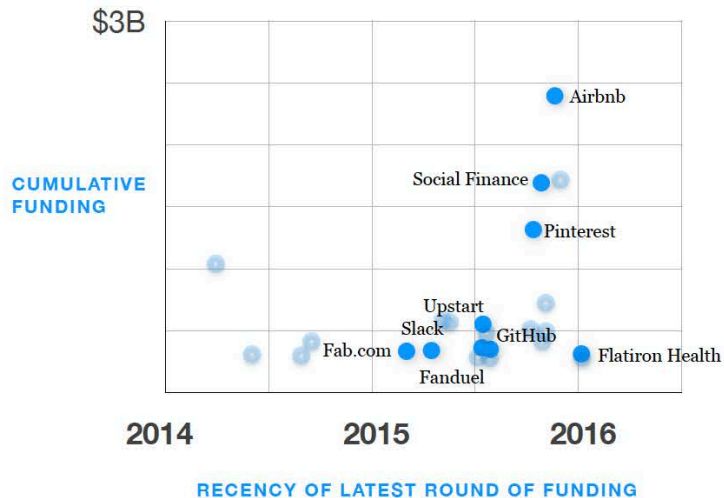
- Innovation lacks a process; **creative** and **human** aspects often downplayed
 - **Design** brings these back
- Design mitigates **risks** by focusing on **users**

Rise of Design? Designers in startups

#DesignInTech Report 2016 ⁸

Successful Startups Co-Founded by Designers Are Not Uncommon

36% of the 25 startups with a recent fundraise in CB Insights's "Internet Sector" category are designer co-founded



via CB Insights, "Since January 1 2013 to February 29, 2016, in the U.S. Internet-Only category top 25 recently funded VC-backed companies."

21% of the so-called global "unicorn" startups across all sectors have co-founders who have embraced design or come from a design, arts, or human-centered background including architecture, design, music, visualization, fine arts, media arts.

23andMe, ActiFio, Adyen, African Internet Group, [AirBnB](#), Aiwujiwu, Anaplan, AppDirect AppDynamics, AppNexus, Apttus, Apus Group, Atlassian, Auto1 Group, [Automattic](#), Avant, [AVAST Software](#), Avito, BeiBei, Beijing LaKala Billing Services, BlaBlaCar, Bloom Energy, [Blue Apron](#), [Buzzfeed](#), [Carbon3D](#), China Rapid Finance, CJ Games, Cloudera, [CloudFlare](#), ContextLogic/Wish, Coupa Software, Coupang, Credit Karma, Dada, Datto, Decolar, Deem, Delivery Hero, Dianping, Didi Kuaidi, DJI Innovations, Docker, DocuSign, Domo Technologies, DraftKings, Dropbox, Ele.me, Eventbrite, Evernote, Fanatics, [FanDuel](#), Fanli, [FarFetch](#), Flipkart, Forescout, Funding Circle, Gilt Groupe, [GitHub](#), Global Fashion Group, GrabTaxi, Greensky, Guahao Technology Co., Gusto, HelloFresh, Home24, [Hootsuite](#), Houzz, Illumio, Infinidat, InMobi, InsideSales.com, [Instacart](#), Intarcia Therapeutics, IronSource, Jasper Technologies, [Jawbone](#), jet.com, Jiuxian, JustFab, [Kabam](#), Kabbage, Kik Interactive, Klarna, Koudai Gouwu, Lazada, Legendary Entertainment, Lookout, Lufax, Lyft, Magic Leap, MarkLogic, Medallia, Meituan, Mercari, MindMaze, Moderna, Mogujie, MongoDB, Mozido, Mu Sigma, MuleSoft, NantHealth, Nextdoor, Nutanix, Okta, Olacabs, One97 Communications, Oscar Health Insurance Co., Palantir Technologies, Panshi, [Pinterest](#), Pluralsight, Powa Technologies, [Prosper Marketplace](#), [Proteus Digital Health](#), Pure Storage, Qualtrics, Quikr, [Razer](#), Rong360, [Shazam](#), SimpliVity, [Skyscanner](#), [Slack Technologies](#), [Snapchat](#), Snapdeal, [Social Finance](#), Souq, SpaceX, Spotify, Sprinkl, [Square](#), Stemcentrx, Stripe, [SurveyMonkey](#), TangoMe, Tanium, [The Honest Company](#), [Theranos](#), Thumbtack, TransferWise, [Trendy Group International](#), Tujia Online Information Technology, TutorGroup, Twilio, Uber, [Udacity](#), Ucar Group, [Uptake](#), VANCL, [Vice Media](#), Vox Media, [Warby Parker](#), [WeWork](#), [Xiaomi](#), Xuanyuxia, Yello Mobile, Zenefits, [Zeta Interactive](#), Zhangyue, ZocDoc, Zomato Media, Zscaler

via CB Insights, "Private VC-Backed Companies with Valuations Over \$1B"

Last year 20% (5 out of 25) of the top venture-backed startups had designer co-founders. We check one year later and that number moves to 36% (9 out of 25).

Source: @kpcb #DesignInTech @justinsayarath @cbinsights

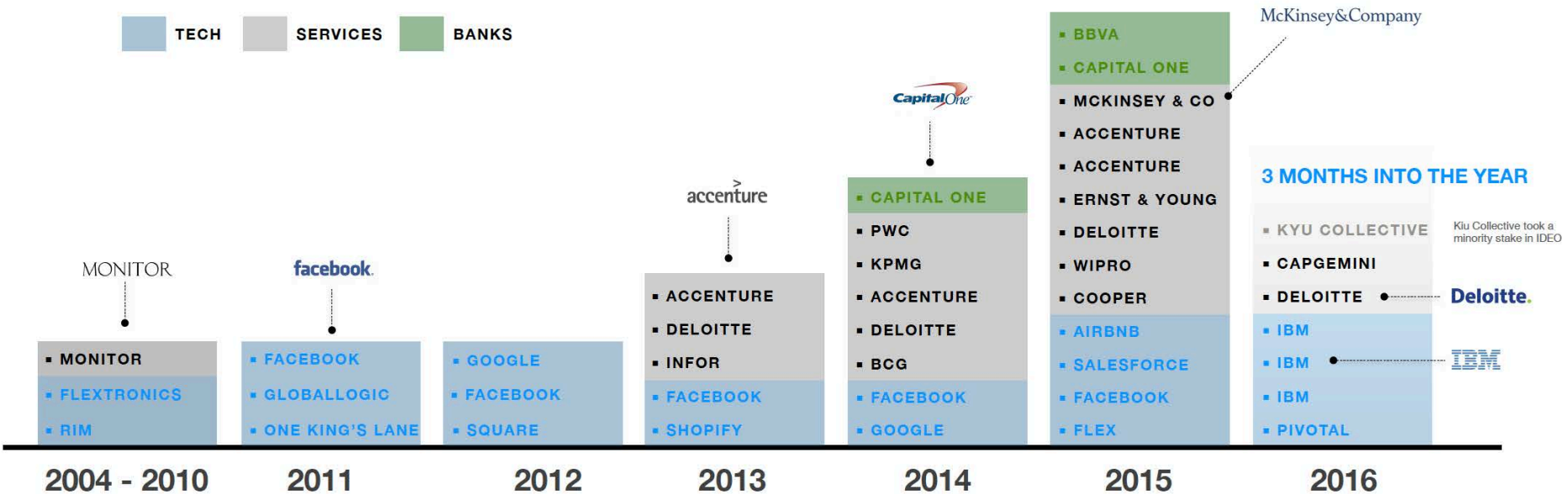
<https://www.cbinsights.com/research-unicorn-companies>

What about the rest?

Acquisitions of design firms

Timeline of #DesignInTech M&A Activity

#DesignInTech Report 2016
 John Maeda, Design Partner
 Kleiner Perkins Caufield & Byers



A total of 42 design firms have been acquired since 2004. ~50% of which have been acquired within the last year with Accenture, Deloitte, IBM and Facebook as the most acquisitive.

Source: @kpcb #DesignInTech @johnmaeda



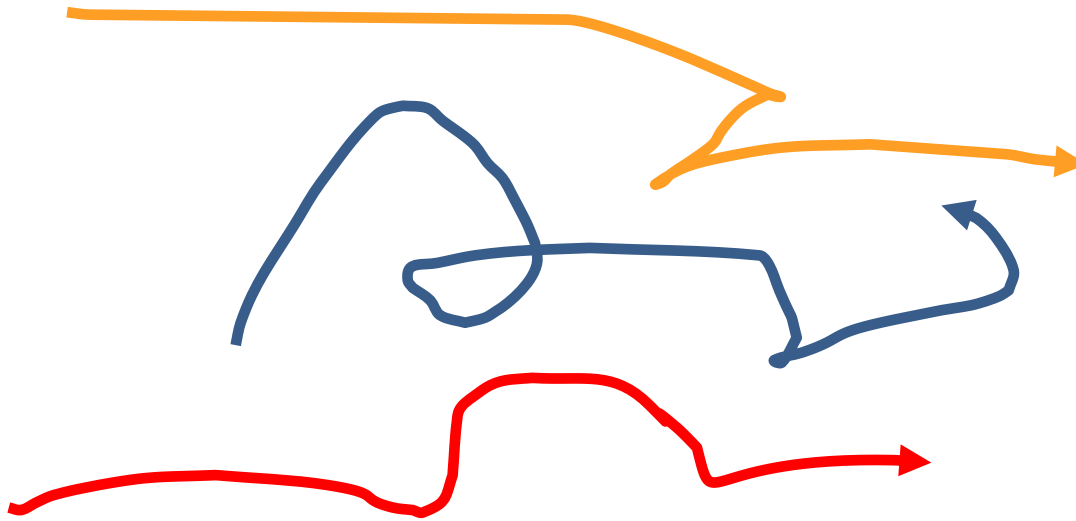
What is design about?



What is design about.

- Are you watching a movie? (limited choices)
- Or planning a tea party? (unlimited possibilities)

A
B
C



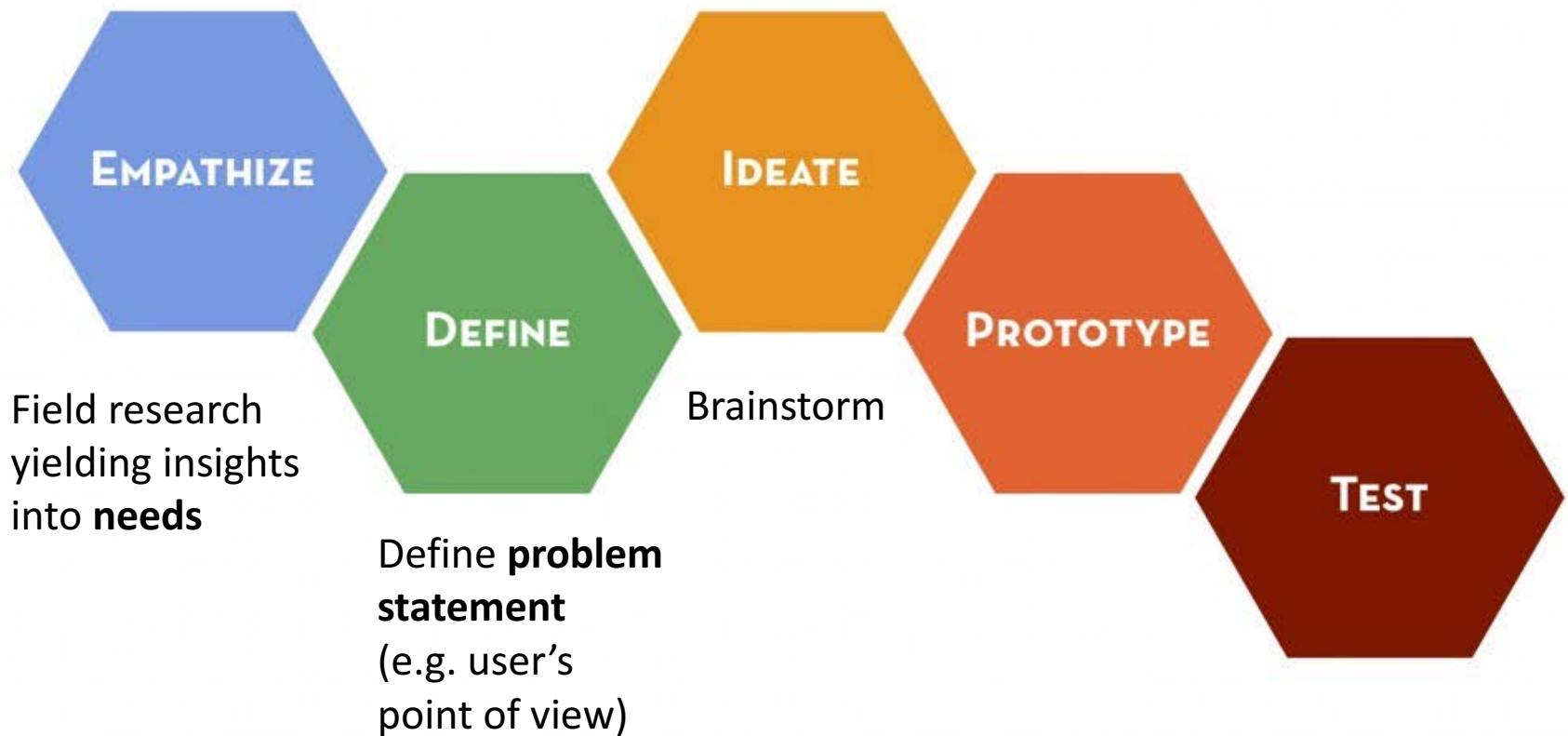
Keeping users at the center

- Helps find the **right problem**



- “Design a better [household cleaning] experience”
 - *Design Continuum*
 - <https://www.youtube.com/watch?v=O80A5vCdjCw>

A mindful iterative process



Try it out



Design challenge: *“...How might we improve health in everyday life?”*

- (1) Think to yourself for one minute, what do I need to do to improve my health, daily? (write it down)

Now, forget what you thought. Do **user research** (3 mins):

- (2) First, pick partners – one is **interviewer**, one is **interviewee** (“user”)

Try it out...



- (3) Interviewer: Ask **open-ended question(s)**. Listen well (1-2 mins)
 - E.g. what does “being healthy” mean to you?
 - Or, what worries you (about health) as you [...]?
- (4) Interviewer: Then follow by probing (3 mins)
 - Asking 5 whys (or “why not”, what, how...)
 - Tell me a story (about health, etc.)
 - Tell me about your average day (and how health relates)

Try it out...



- (5) what is your user trying to do (**goals, meanings**)?
Frame it as a **problem statement** (1 min)
 - He or she is trying to [...] because/but [...]
- (6) Think of one or two solutions and **share it** with your user (2 mins)
 - Draw it if possible
- (7) User: compare this with your own answer to (1)

Continuing on...

'what is design thinking about'...



Being creative



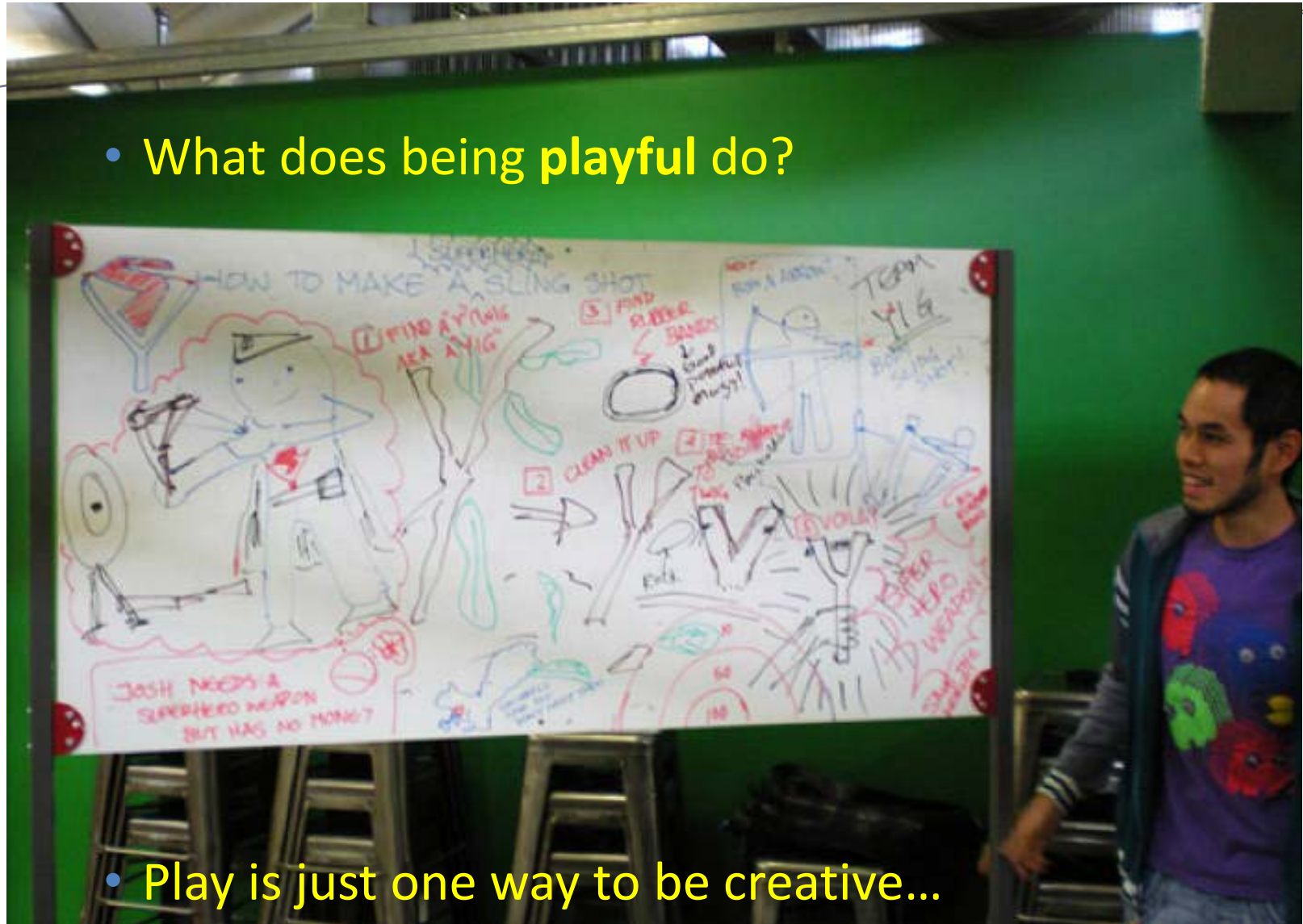
*When I first started working there, I proposed many new ideas to my boss every day. However, my boss always asked if I had the data to prove it would sell, and asked me to think of **product development after analyzing market data**. Data, data, data.*

*So I analyzed the market data before thinking of a product. However, I was unable to think of anything new at that moment. **My ideas were unoriginal**. I wasn't getting any new ideas and **I grew tired of thinking**.*

Shimpei Takahashi, a toy developer, TEDxTokyo

Being creative

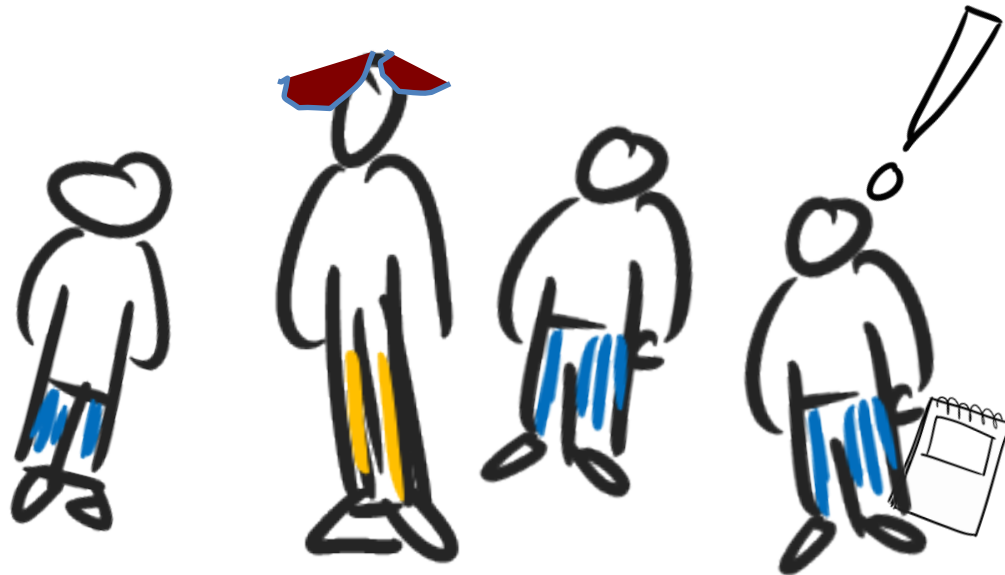
- What does being **playful** do?



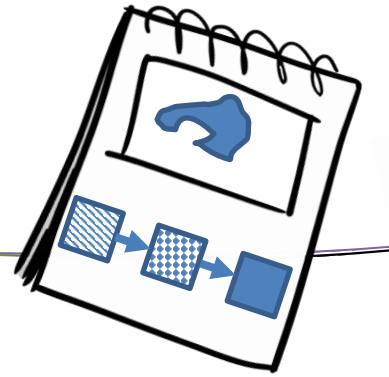
- Play is just one way to be creative...

Collaboration

- **Where do good ideas come from?**
- From cross-functional to cross-disciplinary



Keeping things loose



- e.g. rough prototypes



Keeping things loose: prototyping



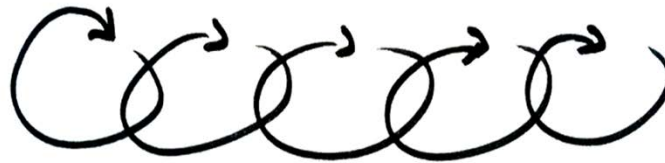
Rough prototype of surgical tool (Source: IDEO)

Attitude

- Open-minded, always learning

$\sqrt{\pi} \cdot \psi = 3.142 \cdot \phi \cdot \Theta$

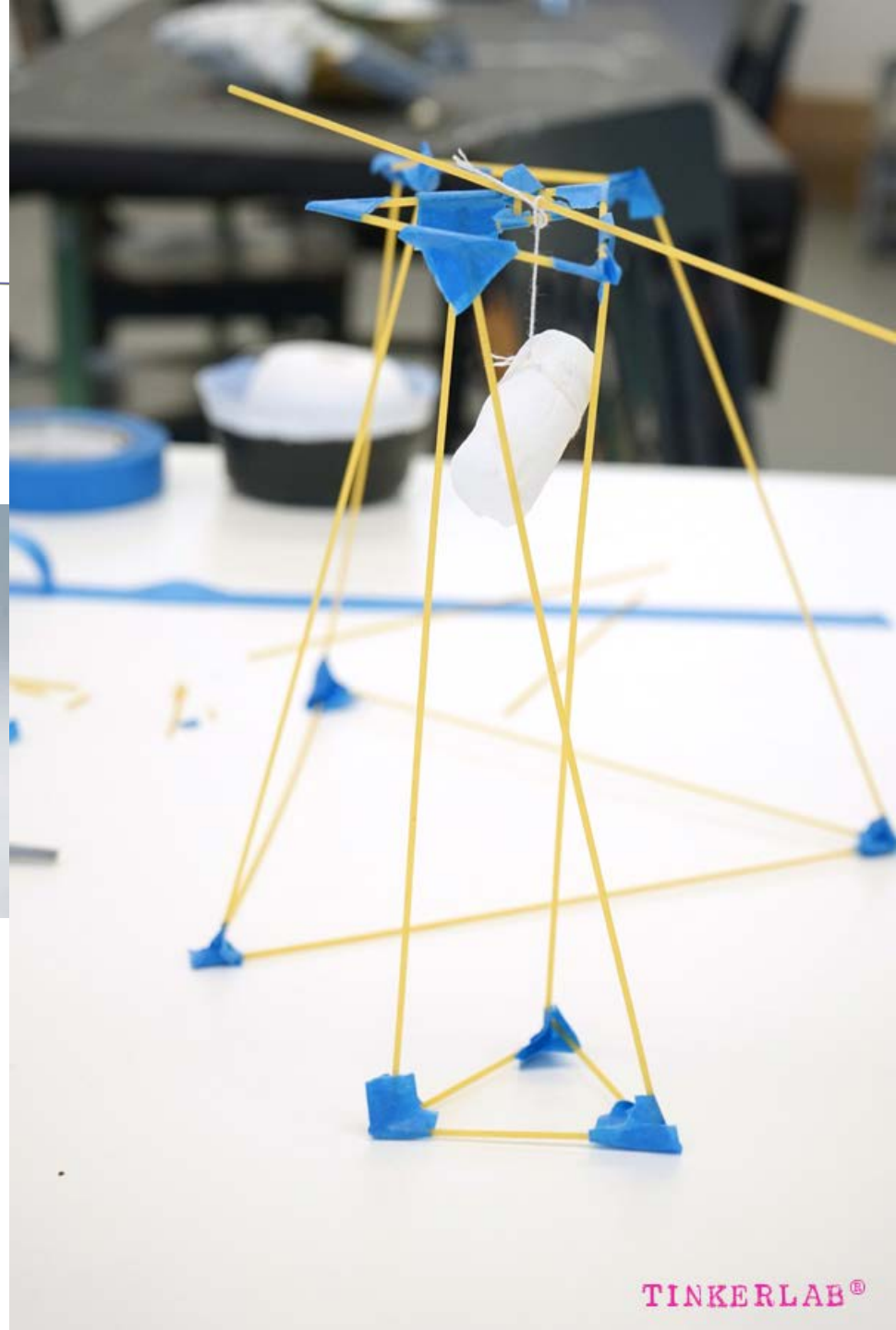
a,b,c,d

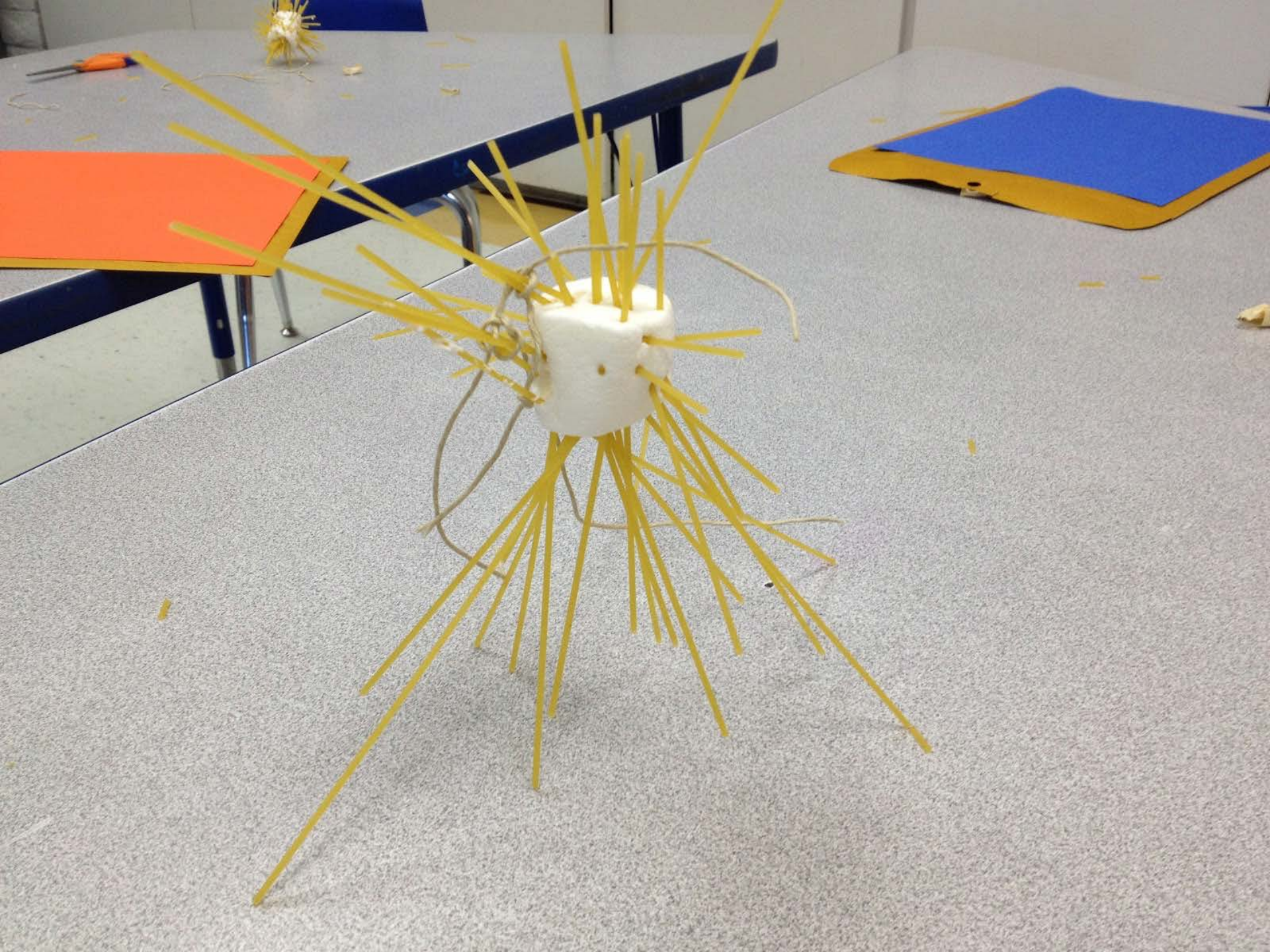


What does creative playful collaboration look like?



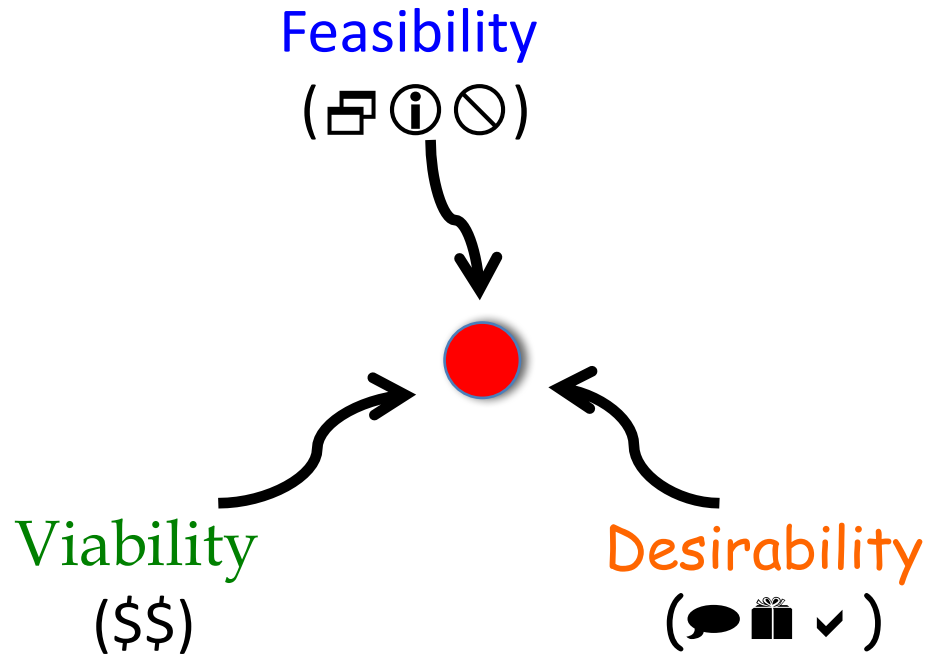
- https://www.ted.com/talks/tom_wujec_build_a_tower



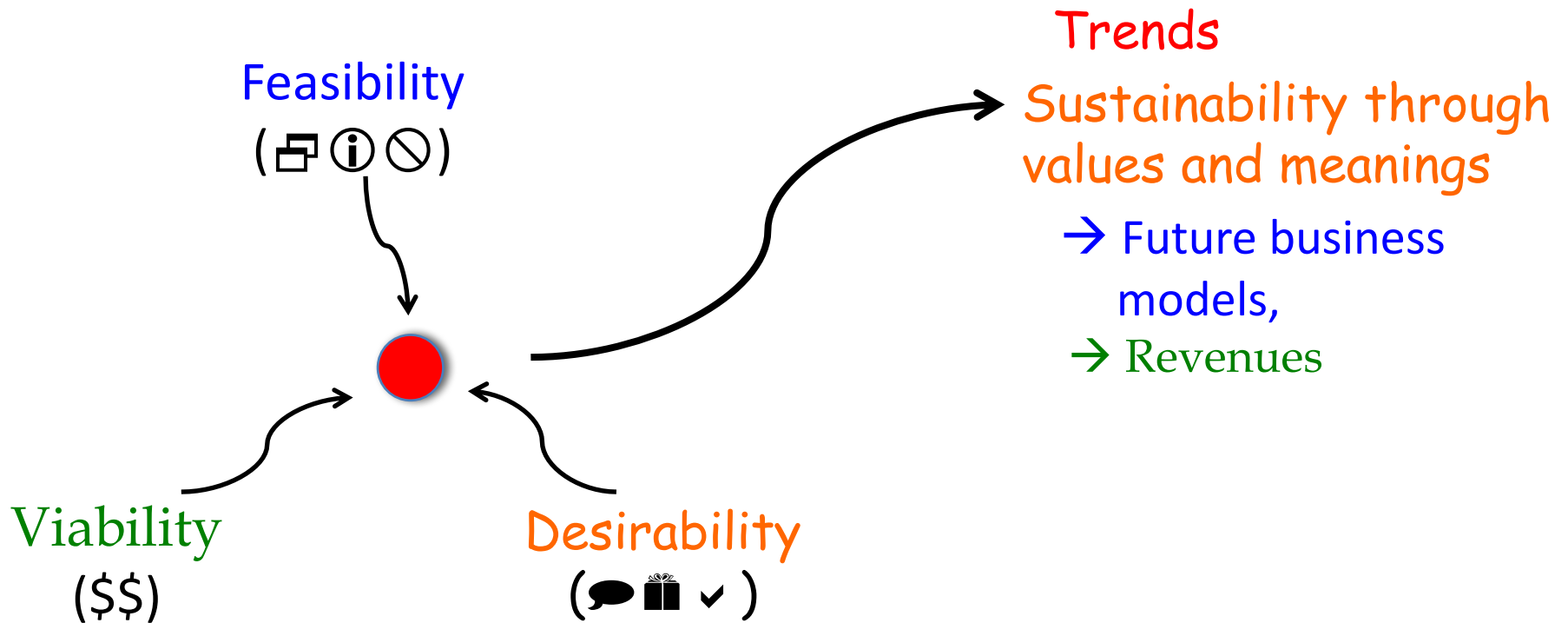


How do we design the future?

- Design is about fulfilling:



How do we design the future?



What is design about?



- A mindful *process*
- Keeping users at the center
- Being creative
- Collaborative (interdisciplinary)
- Keeping things loose (playful, prototyping)
- Attitude
- Mindful process



→ *Human-centered innovation*