# DESIGN INTECH John Maeda REPORT

KPCB Team // Jackie Xu, Aviv Gilboa, Justin Sayarath With Special Thanks to // Michael Abbott, Juliet de Baubigny, Scott Ryles, Lynne Chou, Christina Lee, Andy Chen, Muzzammil Zaveri, Arielle Zuckerberg Designed By // Luna Chen 陈清源, Danqing Wang 王丹青 // China Design 中国设计

Design Partner | Kleiner Perkins Caufield & Byers March 14, 2016







# 

Design isn't just about beauty; it's about market relevance and meaningful results.
M&A activity continues in the design space, and it's increased.
Increasing the designers needed in the tech industry requires rethinking education.
The adoption of design by public companies is only growing.
Designers bring needed critical thinking/making in the economic case for inclusion.
Work in the research labs from decades ago drives today's startups. Be aware.



of companies believes that customer **experience** will be their primary basis for competition by 2016, versus 36% four years ago."

- Gartner

# **"81**%

of executives surveyed place the personalized customer **experience** in their top three priorities for their organization, with 39% reporting it as her top priority."

- Accenture

# **EXPERIENCE** Matters A Lot, Because We Experience Digital Products A Lot

**66** Ouch!

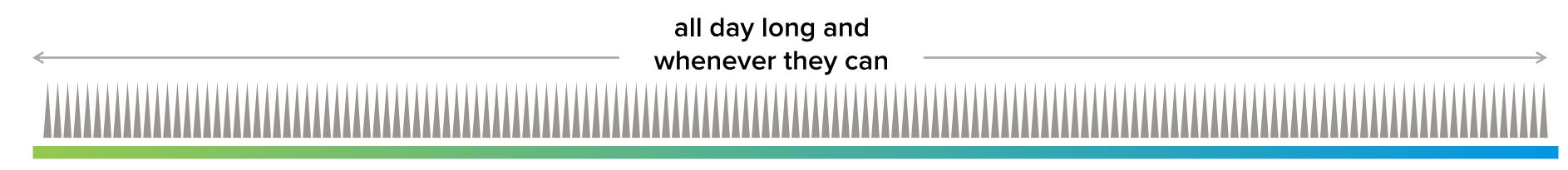
Once in the morning

early desktop users checked their computers



today mobile users check their smartphones





Reports from Gartner, Accenture, Deloitte, Temkin all indicate that *experience* matters. Linda Holliday calls the new kind of design as "multi-dimensional" — it crosses social science, computer science, into something new and necessary.

Source // @kpcb #DesignInTech @Gartner\_inc @AccentureDigi @mitsmr @DeloitteDigital @TemkinGroup

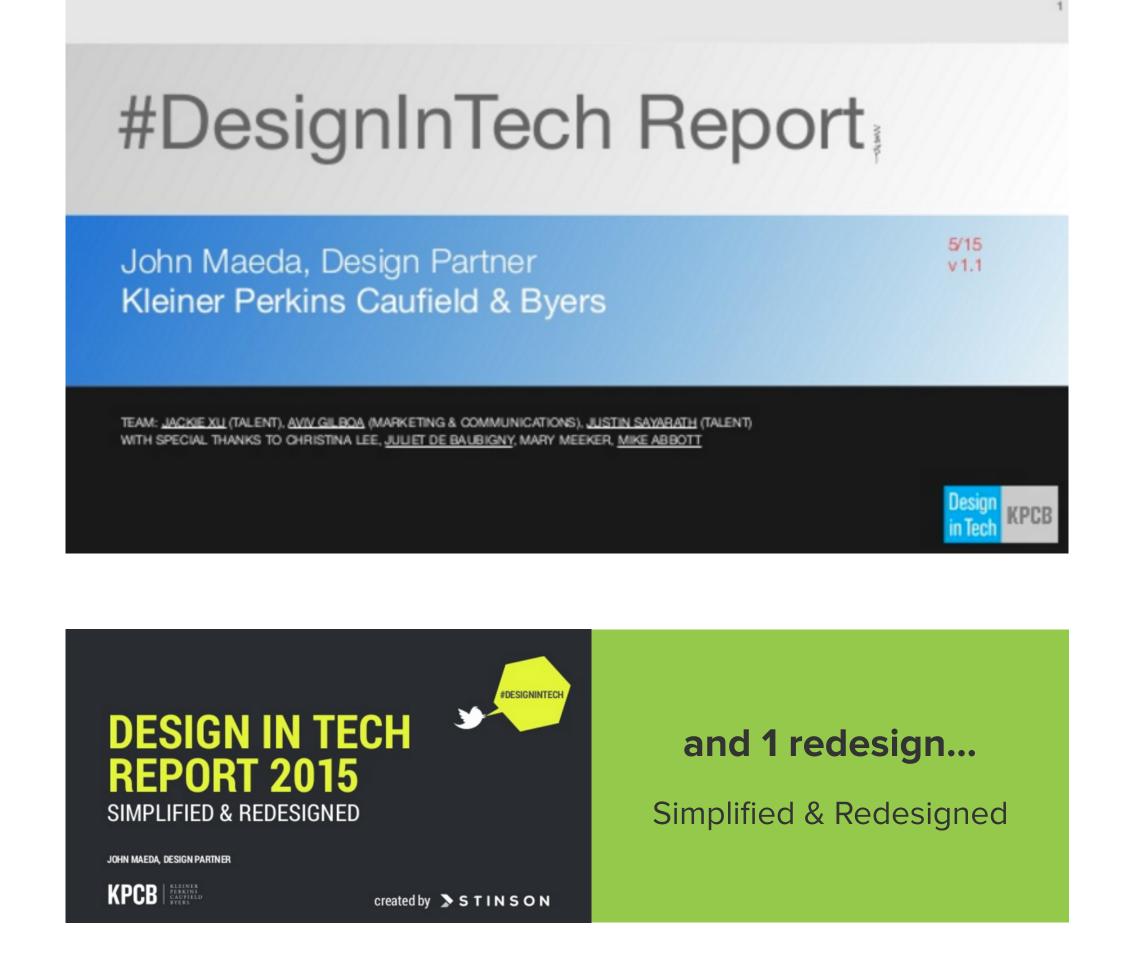
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660000
 of executives surveyed agreed that customer experience and engagement are objectives of their corporation's digital strategy."
 MIT Sloan / Deloitte
 66000
 more likely to buy with a positive emotional experience, 12x more likely to recommend the company, and 5x more likely to forgive a mistake."
 Temkin Group

66 Ouch!

Once in the evening





The inaugural 2015 #DesignInTech Report received way more views than we initially projected at 50K in the first year. We also received a helpful re-design from our new friends in Canada.

Source // @kpcb #DesignInTech @slideshare @stinsondesign slideshare.net/stinsondesign/kpcb-design-in-tech-report-2015-simplified-and-redesigned

# THE 1ST DESIGN INTECH REPORT Beat Expectations, with Room for Improvement

8756 cumulative views across all English, Spanish, Chinese, Japanese editions





## **#DesignInTech** PREDICTIONS From Last Year's Report

M&A activity of designer-led businesses will likely grow.

Older user experiences will improve.

increased access to capital.

Designers will grow as executives.

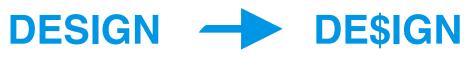
Fortunately, 100% of last year's report's predictions have come true. So that means we need new ones.

Source // @kpcb #DesignInTech @johnmaeda

## **Designer-led startups will have**

### Design in VC is not about *pretty* — it's about relevance. experience

Design's business value will evolve.









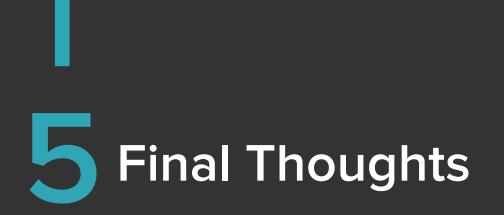


## SECTIONS

## **#DesignInTech By The Numbers**



## $\square$ Design Quality is $\propto$ to Caring



## **Realized Company Trends**





## **#DesignInTech By The Numbers**

- Design firm acquisitions continue: 42 design firms have been acquired since 2004, ~50% of which have been acquired in the last year alone.
- Designer co-founded companies exhibit funding success: 36% of top 25 funded startups are co-founded by designers, up from 20% in 2015.
- Designers in venture capital have increased: More designers entered VC in the last two years than the previous four years combined.





## Timeline of #DesignInTech M&A Activity | Version2.0

#### 2004 – 2012

- FLEXTRONICS +acq. Frog Design 2004
- MONITOR +acq. DOBLIN 2007
- RIM +acq. TAT 2010
- FACEBOOK +acq. Sofa 2011
- GLOBALLOGIC +acq. Method 2011
- ONE KING'S LANE +acq. Helicopter 2011
- GOOGLE +acq. Mike & Maaike 2012
- FACEBOOK +acq. Bolt Peters 2012
- SQUARE +acq. 80/20 2012
- GOOGLE +acq. Cuban Council 2012

#### 2013

- FACEBOOK +acq. Hot Studio 2013
- ACCENTURE +acq. Fjord 2013
- SHOPIFY +acq. Jet Cooper 2013
- DELOITTE +acq. Banyan Branch 2013
- INFOR +acq. Hook & Loop 2013
- GOOGLE +acq. 17FEET 2013
- GOOGLE +acq. Hattery 2013

#### 2014

- OCULUS / FACEBOOK +acq. Carbon Design 2014
- GOOGLE +acq. Gecko Design 2014
- CAPITAL ONE +acq. Adaptive Path 2014
- ACCENTURE +acq. Reactive 2014
- DELOITTE +acq. Flow Interactive 2014
- PWC +acq. Optimal Experience
- KPMG +acq. Cynergy Systems 20
- BCG +acq. S&C 2014

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, Google, and Facebook as the most acquisitive.

Source // @kpcb #DesignInTech @johnmaeda @mbuzzard

	2015		2016
4	<ul> <li>FACEBOOK +acq. Teehan+Lax 2015</li> </ul>	<ul> <li>AIRBNB +acq. lapka 2015</li> </ul>	<ul> <li>PIVOTAL</li> <li>+acq. Slice of Lime 2016</li> </ul>
Ļ	<ul> <li>BBVA +acq. Spring Studio 2015</li> <li>MCKINSEY +acq. Lunar Design 2015</li> </ul>	<ul> <li>COOPER *consolidation +acq. Catalyst 2015</li> <li>SALESFORCE</li> </ul>	<ul> <li>IBM</li> <li>+acq. Resource/Ammirati 2016</li> <li>+acq. ecx.io 2016</li> <li>+acq. Aperto 2016</li> </ul>
	<ul> <li>CAPITAL ONE</li> <li>+acq. Monsoon 2015</li> </ul>	<b>+acq.</b> Akta 2015	KYU COLLECTIVE *minority +min. IDEO 2016
14	<ul> <li>WIPRO +acq. DesignIt 2015</li> </ul>	<ul> <li>ACCENTURE +acq. Chaotic Moon 2015 +acq. PacificLink 2015</li> </ul>	<ul> <li>CAPGEMINI +acq. Fahrenheit 212 2016</li> </ul>
e 2014	<ul> <li>ERNST &amp; YOUNG +acq. Seren 2015</li> </ul>	<ul> <li>FLEX *medical design +acq. Farm Design 2015</li> </ul>	<ul> <li>DELOITTE +acq. Heat 2016</li> </ul>
014	<ul> <li>DELOITTE +acq. Mobiento 2015</li> </ul>		



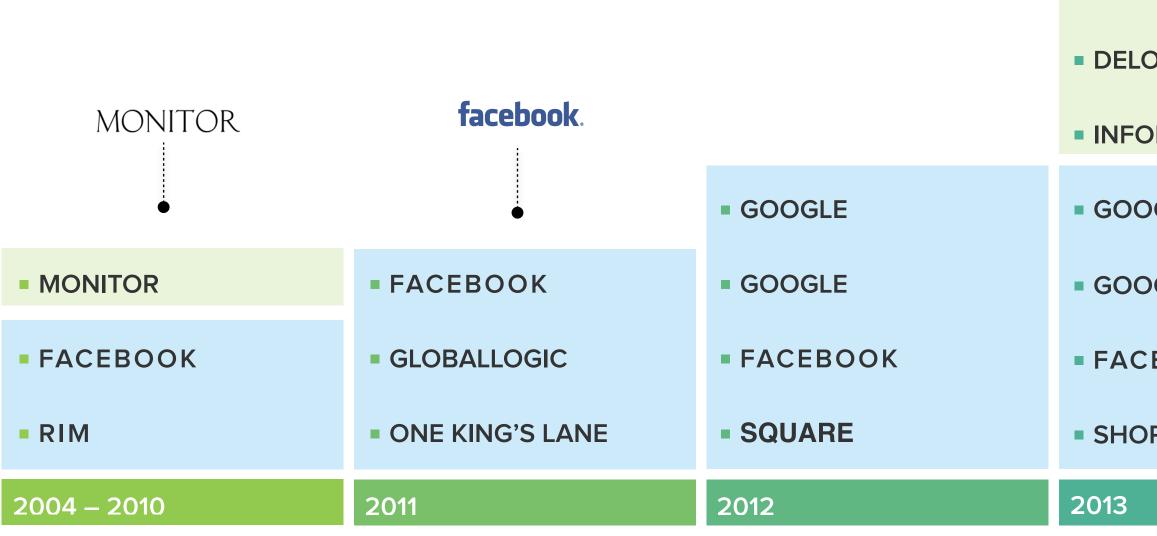


BANKS

SERVICES

TECH

# Timeline of #DesignInTech M&A ACTIVITY



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, Google, and Facebook as the most acquisitive.

Source // @kpcb #DesignInTech @johnmaeda @mbuzzard

		BBVA	McKinsey&Company
		CAPITAL ONE	
		• MCKINSEY	
accenture	Capital One"	ACCENTURE	
accenture	•	ACCENTURE	Delo
•	CAPITAL ONE	ERNST&YOUNG	
ENTURE	PWC	DELOITTE	KYU COLLECTIVE *
OITTE	KPMG	WIPRO	
OR	ACCENTURE	COOPER	DELOITTE
DGLE	DELOITTE	AIRBNB	IBM
DGLE	BCG	SALESFORCE	■ IBM ● I
EBOOK	FACEBOOK	FACEBOOK	IBM
PIFY	GOOGLE	FLEX	PIVOTAL
	2014	2015	2016 1st Quarter



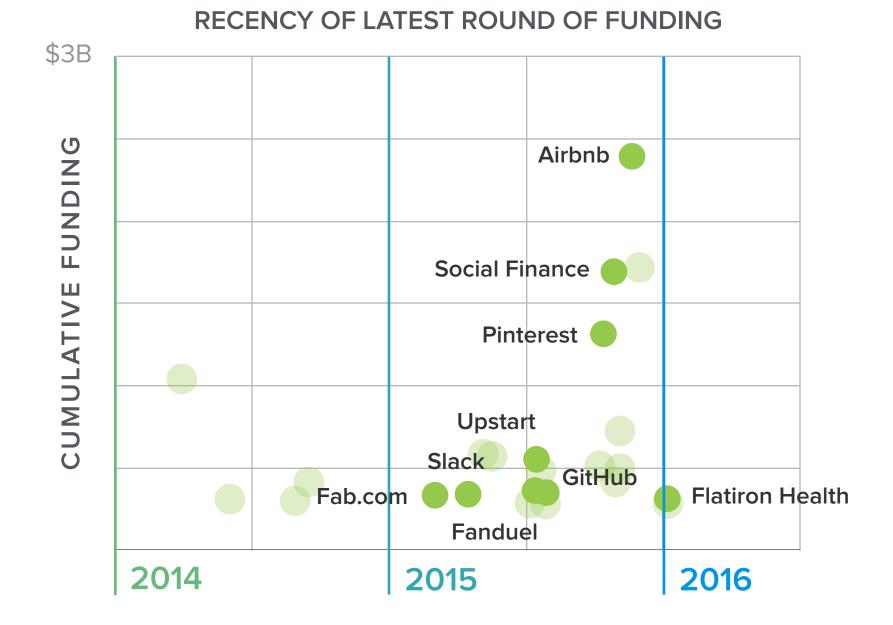




## Successful Startups Co-Founded by Designers Are Not Uncommon



of the 25 startups with a recent fundraise in CB Insight'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."

#### 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

of the so-called global "unicorn" startups across all sectors 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, Sprinklr, 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 CBInsights, "Private VC-Backed Companies with Valuations Over \$1B"







#### **KEY VC CATALYSTS**



**Kleiner Perkins Caufield & Byers** Michael Abbott 2012 created KPCB Design Council



**New Enterprise Associates** Dayna Grayson 2013 created NEA Design Studio



True Ventures Om Malik 2011 created GigaOm Roadmap Conference



**Accel Partners** Vas Natarajan 2014 created Accel Design Conference

Andrew Braccia 2014 created Accel Design Conference



500 Startups Dave McClure early advocate for design in startups



**Bloomberg Beta** James Cham early advocate for design in startups



**Y-Combinator** Paul Graham early advocate for design in startups Jessica Livingston early advocate for design in startups



Khosla Ventures Vinod Khosla early advocate for design in startups

#### Source // @kpcb #DesignInTech @johnmaeda

# Where do Designers Live in the **VENTURE CAPITAL ECOSYSTEM?**

Designers are working at VC firms in a variety of capacities: from operating support roles to investing roles to founding their own venture capital funds. A key factor in their growth has been GPs who understand the need for design.

#### 2009



**Bessemer Ventures** Jason Putorti 1st designer in residence



**Slow Ventures** Dave Morin co-founders of fund

Aaron Sittig

co-founders of fund

### 2010



**Google Ventures** Braden Kowitz 1st design partner



Michael Margolis





**Y-Combinator** Garry Tan 1st YC partner as designer

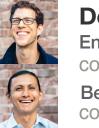




**Google Ventures** John Zeratsky



#### 2012



**Designer Fund** Enrique Allen co-founders of fund Ben Blumenfeld co-founders of fund



**Google Ventures** Jake Knapp

Daniel Burka



Andreessen Horowitz **Elizabeth Weil** co-founders of fund



**Felicis Ventures** Nick Baum



2nd designer in residence



**Y-Combinator** Kevin Hale





S

**KPCB** John Maeda



**Khosla Ventures** pioneering UX leader

**Google Ventures** Tom Hulme first GP in marquee fund





**Bobby Goodlatte** 





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Bruno Bergher

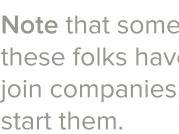








**New Enterprise Associates** Albert Lee







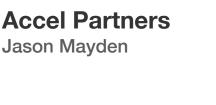
### 2015



**Rivet Ventures Christina Brodbeck** co-founder of fund



Benchmark Scott Belsky

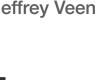


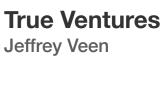
Jake Knapp New book "Sprint" Braden Kowitz

Jason Mayden

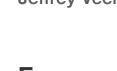














Anshu Agarwal





2016



# **Google Ventures** with John Zeratsky and

## **#DesignInTech by the** NUMBERS

**42** design firms have been acquired since 2004. Roughly half of which have been acquired within the last year.

We're reaching a peak.

**5** in 2015.

Designer co-founded companies are here to stay.

Major corporations are investing in design as a core competency through M&A activity, designer co-founded startups continue to raise billions of dollars in capital, and VCs increasingly see the importance of design.

Source // @kpcb #DesignInTech @johnmaeda

#### **9** of the **25** top VC-funded startups have designer co-founders. Up from

More designers entered VC in the last 2 years than the previous 4 years combined.

There are many at accelerators as well.







## **#DESIGNINTECH PREDICTIONS** Further Out (5 Year Prediction)

The large influx of designers into top services companies through M&A activity will reboot the design industry.

Fueled by greater access to the board room.

We will see more designers becoming investing partners at VC firms, and eventually starting their own funds.

Many designers in tech are active angels.

Since last year's predictions happened too early, we set our sights out much further ...

The general word "design" will come to mean less as we will start to qualify the specific kind of design we mean.

Classical Design vs Design Thinking vs Computational Design







# 2 The New Kind of Designer is TBD

- Currently design education lags the technology industry's needs for dataoriented, coding-enabled graduates with business acumen.
- Many resources are available on the internet to supplement formal education in design. Becoming a skilled self-learner is a critical skill for the new designer.
- Coding and testing are table stakes knowledge for designers today. Designing systems and designing culture are strategic skills for designers.



# **#DesignInTech is Related, Yet RADICALLY DIFFERENT**

## **From Classical Design**

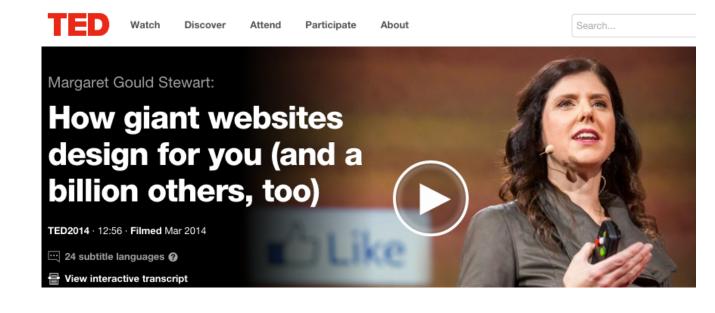
**CLASSICAL DESIGN DISCIPLINES** 



Computational design has been around since the 70s and grew from collaborations between architects and computer graphics folks. In 1996, I founded the MIT Media Lab Aesthetics and Computation Group to further the frontier.

Source // @kpcb #DesignInTech @mags @tedtalks @avivgilboa @johnmaeda @medialab ted.com/talks/margaret\_gould\_stewart\_how\_giant\_websites\_design\_for\_you\_and\_a\_billion\_others\_too?language=en

### LIVING SYSTEMS LIKE FACEBOOK ARE NEVER FINISHED



Design of digital experiences change all the time and live 66 inside your pocket... Design of systems that are so big that their scale can be hard to comprehend."

Margaret Stewart @TED 2014



## Classical Design Principles vs. #DesignInTech Principles

	CLASSICAL DESIGN VS	DESIGN IN TECH
Number of Active Users	Few to Millions	Few to Hundreds of Millions
Time Needed to Deploy Completed Product	Weeks to Months through Distribution Channels	Instantaneously Delivered Over the Net
"Perfection" is Achievable	<b>Yes</b> There's a final state.	<b>No</b> It's always evolving.
Designer's Level of Confidence	Absolute, and Self-Validating	Generally High, but Open to Analyzing Testing/Research

The notion of making something perfect, as classical designers want to achieve, runs counter to how computational systems exist. The instinct and inclination to pursue perfection is a good one, but its definition has had to evolve.

Source // @kpcb #DesignInTech @johnmaeda @avivgilboa <a href="https://www.science.com/design">kpcb.com/design</a>







#### CHALLENGE #1 BUSINESS AND FINANCES AREN'T PRIORITIZED

#### **Current design education biases:**

Which of these attitudes are pillars of your design curriculum?

1. Communicating and/or articulating your design	86%
2. Using empathy to design	66%
3. Rationalizing and/or defending your design	63%
4. Using research and analytics to design	61%
5. Leadership and teamwork	51%
6. Understanding business and finances	21%

via a KPCB study of 329 current and former design students

## Should You Send Your Kid To **DESIGN SCHOOL? YES** – And Encourage Internships

For #DesignInTech to scale today, a fundamental challenge lies in the difference between the kind of talent produced by engineering programs vs design programs. New engineers are ready for tech; new designers are less so.

Source // @kpcb #DesignInTech @jshoee @ellenchisa @kaleighyang @johnmaeda queue.acm.org/detail.cfm?id=2683579 medium.com/the-year-of-the-looking-glass/how-to-work-with-designers-6c975dede146#.2qih40qzq

#### CHALLENGE #2/ RESEARCH AND ANALYTICS NEED PRIORITIZATION

#### Desired biases by past design graduates:

Which of these attitudes do you wish were pillars of your design curriculum?

1. Understanding business and finances	68%
2. Using research and analytics to design	60%
3. Leadership and teamwork	53%
4. Communicating and/or articulating your design	47%
5. Using empathy to design	47%
6. Rationalizing and/or defending your design	38%

via a KPCB study of 329 current and former design students



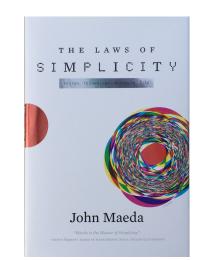
When working on a project in school, the final step was always prototypes, but we didn't have time to test the project before moving on to another one. Once I was in the KPCB fellows program and working at a startup, I saw how the testing phase was invaluable. — Kaleigh Yang / 2015 Design Fellow at Spruce Health

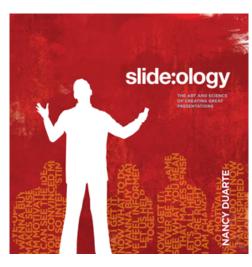




86%

of current design students surveyed said that they learned their digital skills from resources outside their coursework.



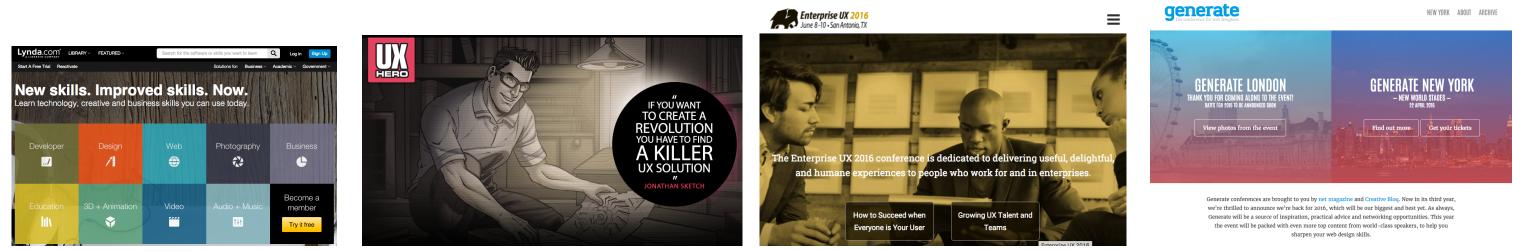




# **How Does One Go About** LEARNING **This New Kind of Design?**

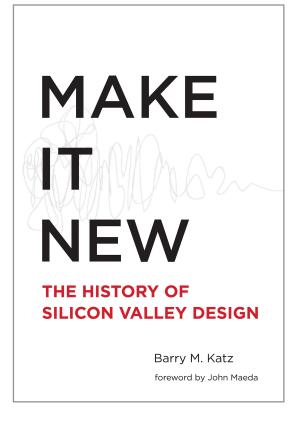






#### From Lynda's complete collection of videos, to O'Reilly books on design, to the incomparable A Book Apart library, to events all around the world, to a comic book, to a full-length documentary film by InVision—there's lots to learn.

Source // @kpcb #DesignInTech @alistapart @nancyduarte @oreillymedia @creativemornings @mgiudice @lyndaweinman @enterpriseux abookapart.com lynda.com creativemornings.com duarte.com generateconf.com www.generateconf.com 2016.enterpriseux.net designdisruptors.com uxherocomics.com



Barry Katz of Stanford and CCA has written a concise history of #DesignInTech

EADERSHIP BY DESIGN



Desic In lec



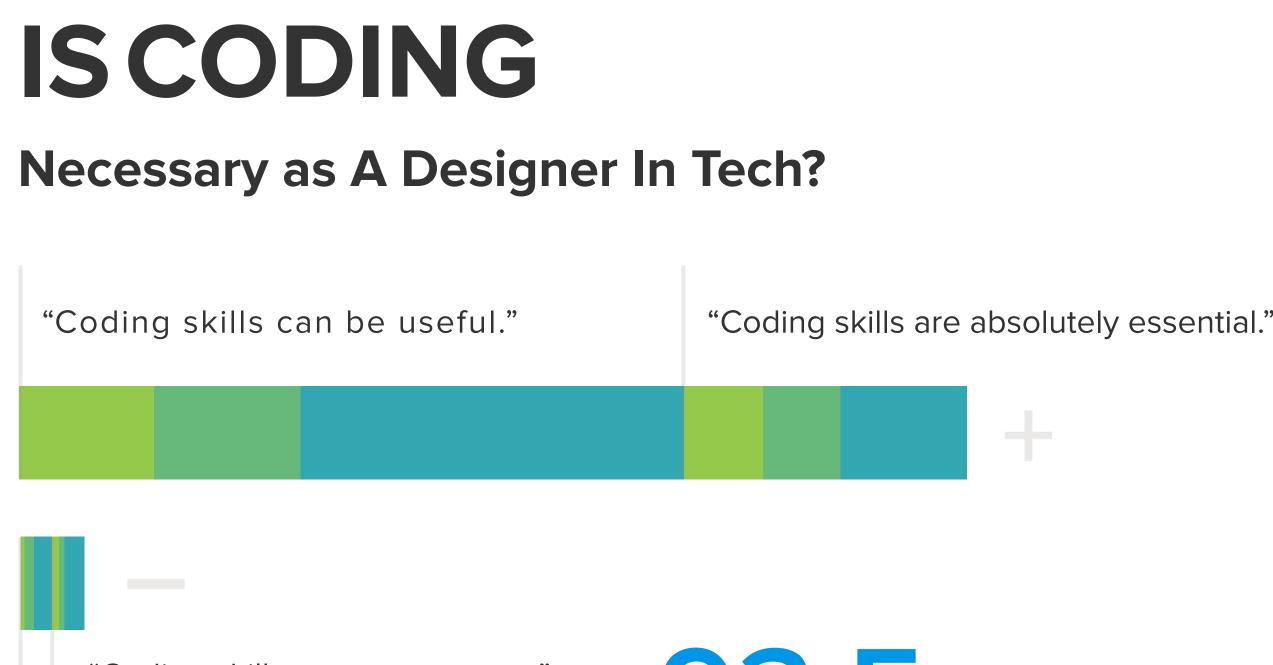












"Coding skills are unnecessary."

"Coding skills aren't important."

Senior

93.5%

of 370 designer respondents were overall in favor of coding

Being literate in code is important, but being an expert is not necessarily in your favor.

Source // @kpcb #DesignInTech @rochelleking @mgiudice @daviddatnguyen @thesash @johnmaeda



"You need to be curious about AND have a basic understanding of the technology that is being used to build your design." - Rochelle King / Spotify



"Skills you need: learn to code, deep knowledge of interaction design, and basics of visual design."

— Maria Giudice / Autodesk



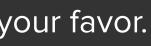
"Learn how to write good code. Don't take just one or two classes, take a lot of classes so that you can think like a programmer."

— David Dat Nguyen / Gusto



"Make sure to learn to code. Design is becoming more and more complex with each technological cycle."

- Sash Catanzarite / Tradesy







#### **GOOGLE SEARCH**

## **Examples of Design Innovations** in Everyday DIGITAL TOOLS

Google Search	ľ'n
	Google Search

Key design concept: Hide complexity behind a simple door.

Longstanding discipline by Google to keep the homepage limited to a single search box has been key to maintaining its simplicity. Once a search term is typed into Google, it gets complex really quickly — but you don't notice it at first.

Analogy: The Motorola Startac phone introduced a clamshell design that hid all the complexity — to be revealed only when used.

#### **SNAPCHAT**

Google n Feeling Lucky





Key design concept: Start with the activity to bias towards.

Most imaging applications asked to turn on the camera, whereas SnapChat began the interaction in live camera mode. The invitation to snap a photo was immediate; and the secretive, self-destruct feature completed the addictive loop.

Analogy: A hammer's handle invites you to grasp it. In the design world thats called an objects 'affordance' — it primes how you might use it.











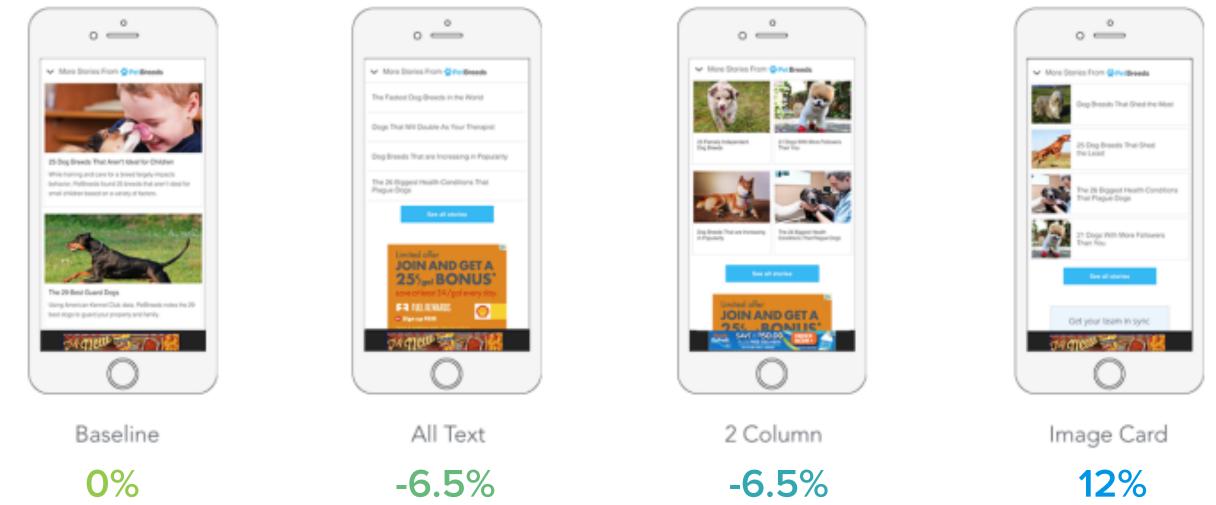
## **Common Q: How Much Difference Can Design Make? It Depends.**

#### MAJOR DESIGN CHANGES WILL USUALLY IMPACT USAGE BEHAVIOR, SOMETIMES DRAMATICALLY

#### G R A P H I Q

Simple Example: Graphiq conducted 3 product design tests for ad placements that led to one clear winner with a 12% increase in user engagement. "We design and manage all user experiences through a heavily tested quantitative and

qualitative validation process." —@graphiq



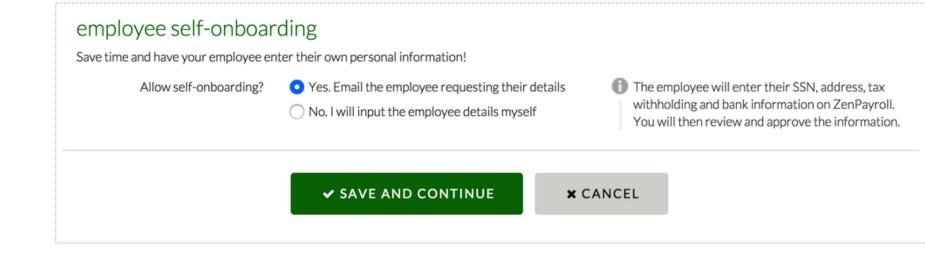
#### Design at the feature level is in isolation, but can be measured. Design at the system level is bolder and holistic, but harder to measure.

Source // @kpcb @graphiq @chadgoldberg1 @thesash @saila51 @moyicat @alexdeanwilson @ibercovich @designerfund @daviddatnguyen

### G GUSTO

**Example:** Gusto designed a more discoverable employee self-onboarding process for businesses which made the employee experience more delightful and increased use of the tool by 10X.

# 1000%







## How Do Bigger Changes Happen With Design? By DESIGNING SYSTEMS.



#### **KPCB Brand Assets**

#### About Kleiner Perkins Caufield & Byers

Kleiner Perkins Caufield & Byers (KPCB) partners with the brightest entrepreneurs to turn disruptive ideas into world-changing businesses. The firm has helped build and accelerate growth at pioneering companies like Amazon, Google, Lending Club, Nest, Twitter, Uber, and Mandiant. KPCB offers entrepreneurs years of operating experience, puts them at the center of an influential network, and accelerates their companies from success to significance.

#### For more information, visit www.kpcb.com and follow us @kpcb



#### **DESIGNING SYSTEMS**

Guidelines enable all kinds of people to create better designs on their own. This kind of "meta design" has been around since the age of corporate identity manuals.

Think of brand manuals and repositories as the most basic instance of this kind of design for repeatability.

#### An official website of the United State

Draft U.S. Web Design Standards

#### Getting started Visual style Grid Buttons Labels Tables Alerts Accordions Form controls Form templates Search bar Side navigation

#### Getting started

The Draft U.S. Web Design Standards are designed to set a new bar for simplicity and consistency across government services, while providing you with plugand-play design and code.

ownload code

Learn more about why designing consistent digital services matters in ou blog post introducing the standards.

#### For developers

#### The UI components are built on a solid HTML foundation, progressive enhanced to provide core experiences across browsers. All users get critical information and experiences. New browsers get the prettiest experiences while older browsers get less pretty, but usable ones. If JavaScript fails, users will still get a robust HTML foundation.

#### CSS architectur 1. The CSS foundation of this site is built with the Sass preprocesso

- language. 2. Uses Bourbon for its simple and lightweight Sass mixin library, and the Neat library for the grid framework. Bourbon and Neat are opensource products from thoughtbot.
- 3. The CSS organization and naming conventions follow 18F's CSS
- Coding Styleguide.
- 4. CSS selectors are **prefixed** with usa (For example: .usa-button 5. Uses a modified BEM approach created by 18F for naming CSS

#### **EXAMPLE: HEALTHCARE.GOV AND USDS WEB DESIGN STANDARDS**

55%

of users completed the sign up process for healthcare.gov 1.0 with 76 pages using these repeatable standards with consistency



of users completed the sign up process for healthcare.gov 1.0 with 16 pages

#### Designing reusable systems is an old technique for achieving scale — it is still effective.

#### Source // @kpcb #DesignInTech @HealthCareGov @android @daviddatnguyen

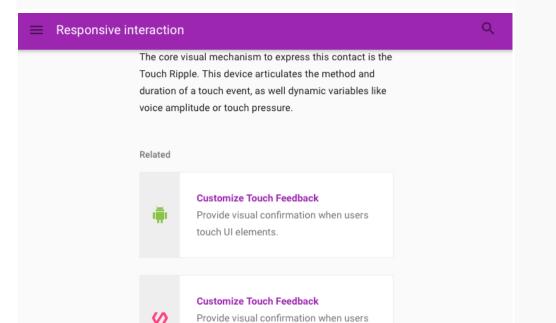
medium.com/@bchesky/dont-fuck-up-the-culture-597cde9ee9d4#.bwdgjrx1s\_forbes.com/sites/ewanspence/2014/11/05/android-material-design-reduce-ui-fragmentation/#28f31e8e4984\_playbook.cio.gov/designstandards/getting-started/\_theatlantic.com/technology/archive/2015/07/the-secret-startup-saved-healthcare-gov-the-worst-website-inamerica/397784 medium.com/@daviddatnguyen/10-lessons-for-building-a-design-team-from-scratch-13c2b9a9d58#.aci9b6398

// Do more with less.

# Introduction

Material design

We challenged ourselves to create a visual language for our users that synthesizes the classic principles of good design with the innovation and possibility of technology and science. This is material design. This spec is a living document that will be updated as we continue to develop the tenets and specifics of material design.



#### **EXAMPLE: ANDROID MATERIAL DESIGN** LANGUAGE

**Unified Look For Apps** Created better consistency

#### **Premium Experience**

Raised to modern standards

#### Made Design A Priority

Design as a conscious act

// Consistency leads to less confusion



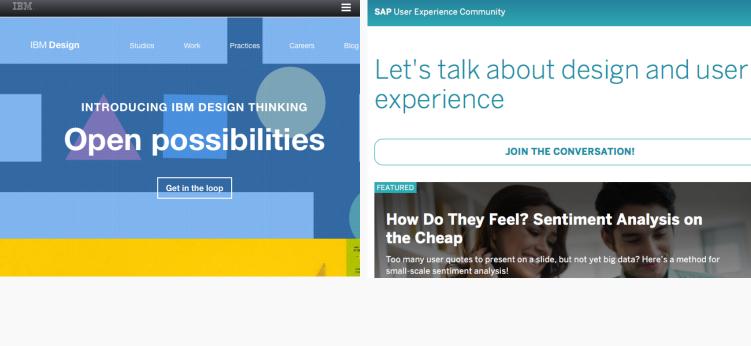


## How Do Bigger Changes Happen With Design? By DESIGNING CULTURE.

#### **DESIGNING CULTURE**

Principles enable a company's culture to understand how design can be used the most effectively, but most importantly, enable them to work from a common playbook.

Brian Chesky's memo to the Airbnb team says it all ...

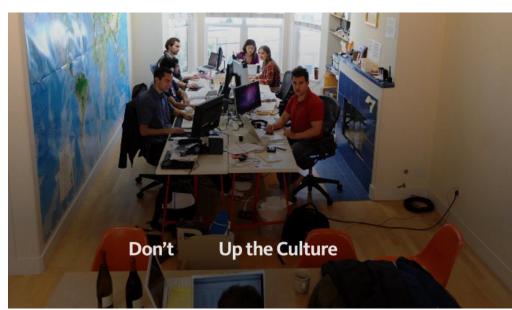


IBM Design thinking at ambitious scale

SAP Longtime leader in design thinking







This photo was taken in the original apartment where Airbnb started.

On Monday, October 21, 2013, I sent this letter to our entire team at Airbnb. I have decided to publish this in the event it is helpful to entrepreneurs building their cultures

Hey team,

Our next team meeting is dedicated to Core Values, which are essential to building our culture. It occurred to me that before this meeting, I should write you a short letter on why culture is so important to Joe, Nate, and me.

After we closed our Series C with Peter Thiel in 2012, we invited him to our office. This was late last year, and we were in the Berlin room showing him various metrics. Midway through the conversation, I asked him what was the single most important piece of advice he had for us.

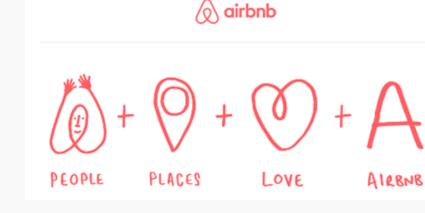
He replied "Don't fuck up the culture"

#### Products are products of a company's culture, and not just some magical switch where "design" gets turned on inside a company. It's a conscious effort on behalf of the CEO and their executive team to make design matter.

Source // @kpcb #DesignInTech @justinsayarath @philgilbertsr @daviddatnguyen building-a-design-team-from-scratch-13c2b9a9d58#.aci9b6398

#### **AIRBNB USES DESIGN TO GROUND ITS CULTURE**

Curtis 1



The Airbnb logo was less used as a traditional corporate symbol, and more as a narrative element to bind their hosts together as a community. They later designed an event series called Airbnb Open that spread their values at scale to their hosts.







#### Space Design as Culture Design

- Conference rooms modeled after Airbnb listings
- Community photo gallery with photos of hosts and guests Architect: @GenslerOnCities



# WILL BUSINESS SCHOOLS **Be The Next Largest Producer of Designers?**

Last year, both *BusinessWeek* and *Harvard* Business Review had cover issues on Design



MAY 2015

SEPTEMBER 2015

**US News & World Report** 

- Stanford Graduate School of
- Harvard Business School 2
- University of Pennsylvania Wharton 3
- University of Chicago Booth 4
- 5 MIT Sloan
- Northwestern University Kellogg 6
- UC Berkeley Haas
- Columbia University 8
- Dartmouth Tuck 9
- University of Virginia Darden

In last year's report, we noted 7 of the top 10 business schools as having Design/Innovation Clubs that are organized by students. This year **100%** of the top business schools have student-led design organization.

Source // @kpcb #DesignInTech @AskWonder @jshoee

2015 Top 10 Business Schools

# 100%

of the top 10 business schools have student-led design/innovation clubs

# 78%

of design, engineering, and product leaders say that at their company, the stakeholder that drives ultimate product decisions is **Product**. In 2nd place was Engineering at 16%.

6-7%

of the 2015 graduating class of Harvard Business School took product management jobs.





# 3

## Public Company Trends

- SAP was one of the earliest stakeholders in the design-thinking world. IBM's new design-thinking efforts are comprehensive and noteworthy.
- Google has risen in its perception for design quality due to a series of actions that have been ongoing over the last decade.
- Fortune 100 companies are elevating design as a priority at the executive level. The many new design-enabled services firms will certainly help too.



## "Good design is good business." Has Been, And Will Continue Evolving

#### Birth of Traditional Design for Large Corporations

Corporate Identity+Image and Product Styling

#### **Birth of Modern Product Design Firms**

From Traditional Design, to Design of Systems+Services

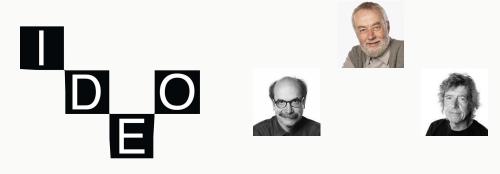
#### 1969

frog



From **1982** Apple's design language begins to form with Hartmut Esslinger's direction.

#### 1991



David Kelley, Bill Moggridge, Mike Nutall join forces and change the course of design by co-founding IDEO.

SAP and P&G were a few of the early executive adopters of "Design Thinking," but looking back in time, CEOs of companies like GM and IBM took strong interest in design as a competitive advantage as far back as the 1950s.

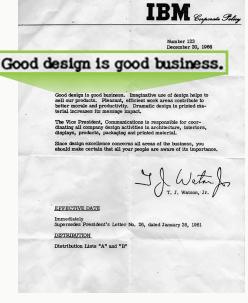
Source // @kpcb @philgilbertsr @ibmdesign @frogdesign @ideo @stanfordschool @harvardbiz @proctorgamble @nytimes @rogerlmartin @business

#### 1950s / GM



GM's CEO makes the first executive position in design with Harley Earl elevated to VP.

1966 / IBM



Memo to IBM employees by CEO TJ Watson Jr. about the emerging importance of design to the company.

#### Birth of "Design Thinking" and Design Strategy

Harnessing the Creative Problem Solving Skills of Designers

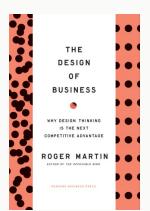
#### 2005



HASSO PLATTNER Institute of Design at Stanford



Hasso Plattner = Co-Founder of SAP



2008 - 2009

**P&G Changes Its Game** By Jeneanne Rae July 28, 2008

Roger L. Martin describes design thinking at the CEO level with P&G's AG Laffley and his book on *The Design of Business*.

"Design Thinking" Mainstreams as Whole Business Strategy Re-contextualizing Design, Making B-Schools into D-Schools







Phil Gilbert leads IBM's \$100M bet to bring design back to IBM.















Tim Brown and Roger L. Martin open the introductory issue for HBR on "The Evolution of Design Thinking."







1 Walmart, 2 Exxon Mobil, 3 Chevron, 4 Berkshire Hathaway, 5 Apple, 6 General Motors, 7 Phillips 66, 8 General Electric, 9 Ford Motor, 10 CVS Health, 11 McKesson, 12 AT&T, 13 Valero Energy, 14 UnitedHealth Group, 15 Verizon, 16 AmerisourceBergen, 17 Fannie Mae, 18 Costco, 19 HP, 20 Kroger, 21 JP Morgan Chase, 22 Express Scripts Holding, 23 Bank of America Corp., 24 IBM, 25 Marathon Petroleum, 26 Cardinal Health, 27 Boeing, 28 Citigroup, 29 Amazon.com, 30 Wells Fargo, 31 Microsoft, 32 Proctor & Gamble, 33 Home Depot, 34 Archer Daniels Midland, 35 Walgreens, 36 Target, 37 Johnson & Johnson, 38 Anthem, 39 MetLife, 40 Alphabet, 41 State Farm Insurance Cos., 42 Freddie Mac, 43 Comcast, 44 PepsiCo, 45 United Technologies, 46 AIG, 47 UPS, 48 Dow Chemical, 49 Aetna, 50 Lowe's, 51 ConocoPhillips, 52 Intel, 53 Energy Transfer Equity, 54 Caterpillar, 55 Prudential Financial, 56 Pfizer, 57 Walt Disney, 58 Humana, 59 Enterprise Products Partners, 60 Cisco Systems, 61 Sysco, 62 Ingram Micro, 63 Coca-Cola, 64 Lockheed Martin, 65 FedEx, 66 Johnson Controls, 67 Plains GP Holdings, 68 World Fuel Services, 69 CHS, 70 American Airlines Group, 71 Merck, 72 Best Buy, 73 Delta Air Lines, 74 Honeywell International, 75 HCA Holdings, 76 Goldman Sachs Group, 77 Tesoro, 78 Liberty Mutual Insurance Group, 79

## Of the 2015 Fortune 100, Over 10% Place Design as an Executive Priority

Warner, 105 Macy's, 110 Nike, 107 Tech Data, 108 Avnet, 109 Northwestern Mutual, 110 McDonald's, 111 Exelon, 112 Travelers Cos, 113 Qualcomm, 114 International Paper, 115 Occidental Petroleum, 116 Duke Energy, 117 Rite Aid, 118 Gilead Sciences, 119 Baker Hughes, 120 Emerson Electric, 121 EMC, 122 USAA, 123 Union Pacific, 124 Northrup Grumman, 125 Alcoa, 126 Capital One Financial, 127 National Oilwell Varco, 128 US Foods, 129 Raytheon, 130 Time Warner Cable, 131 Arrow Electronics, 132 Aflac, 133 Staples, 134 Abbott Laboratories, 135 Community Health Systems, 136 Fluor, 137 Freeport-McMoRan, 138 U.S. Bancorp, 139 Nucor, 140 Kimberly-Clark, 141 Hess, 142 Chesapeake Energy, 143 Xerox, 144 ManpowerGroup, 145 Amgen, 146 AbbVie, 147 Danaher, 148 Whirlpool, 149 PBF Energy, 150 HollyFrontier, 151 Eli Lilly, 152 Devon Energy, 153 Progressive, 154 Cummins, 155 Icahn Enterprises, 156 AutoNation, 110 Kohl's, 158 Paccar, 159 Dollar General, 160 Hartford Financial Services Group, 161 Southwest Airlines, 162 Anadarko Petroleum, 163 Southern, 164 Supervalu, 165 Kraft Foods Group, 166 Goodyear Tire & Rubber, 167 EOG Resources, 168 CenturyLink, 169 Altria Group, 170 Tenet Healthcare, 171 General Mills, 172 eBay, 173 ConAgra Foods, 174 Lear, 175 TRW Automotive Holdings, 176 United States Steel, 177 Penske Automotive Group, 178 AES, 179 Colgate-Palmolive, 180 Global Partners, 181 Thermo Fisher Scientific, 182 PG&E Corp, 183 NextEra Energy, 184 American Electric Power, 185 Baxter International, 186 Centene, 187 Starbucks, 188 Gap, 189 Bank of America New York Mellon Corp., 190 Micron Technology, 191 Jail Circuit, 192 PNC Financial Services Group, 193 Kinder Morgan, 194 Office Depot, 195 Bristol-Myers Squibb, 196 NRG Energy, 197 Monsanto, 198 PPG Industries, 199 Genuine Parts, 200 Omnicom Group

#### But with the many acquisitions of design firms into the client services sector, it's not impossible to imagine that design will enter these organizations now through the board room.

Source // @kpcb #DesignInTech @fortune @johnmaeda @danharrelson dmi.org/?page=designdrivesvalue











# **GOOGLE'S PRODUCTS** Are Perceived as Improving the Most in Design

## "Which of these company's products are in significant need of improvement in design?"



In two separate studies we ran, Apple is always the outlier with regards to strong perception around product design quality. However, when asked which companies are improving in design (vs needs improvement), Google shows up.

Source // @kpcb #DesignInTech @jnd1er @asktog @fastcompany @johnmaeda Data // Percentage of 545 responses to

"Which of these company's products have seen a marked, recent improvement in design?"

Google	64%	
Microsoft	40%	
Ś	33%	
amazon	20%	Top two reasons cited as the best
f	21%	ways to improve the design of a company's products:
SAMSUNG	22%	1. Have a CEO who makes product design a priority.
Lenovo	19%	2. Have an executive team that makes product design a priority.
hp	8%	







## WHY IS GOOGLE **Succeeding at Design?**

LARRY PAGE'S FOCUS ON DESIGN **IS LARGELY CREDITED** 

"Significant investment in design in the last few years. With examples like Material Design and Inbox, they appear to be taking a solid stab at solving old problems with innovative design."

"The shift from design as an afterthought to design as a central driving force has unbelievably fast and seems to have touched just about all of their products."

— via KPCB Design, Product, Engineering Leader Study

#### DESIGN.GOOGLE.COM CELEBRATES ITS DESIGN CULTURE

google.com - Google Design design.google.com/ -Find our material design spec, original articles, and videos. Material Design specs

Follow us on Social

Google Design https://design.google.com/ to design experiences that inspire and enlighten our users.

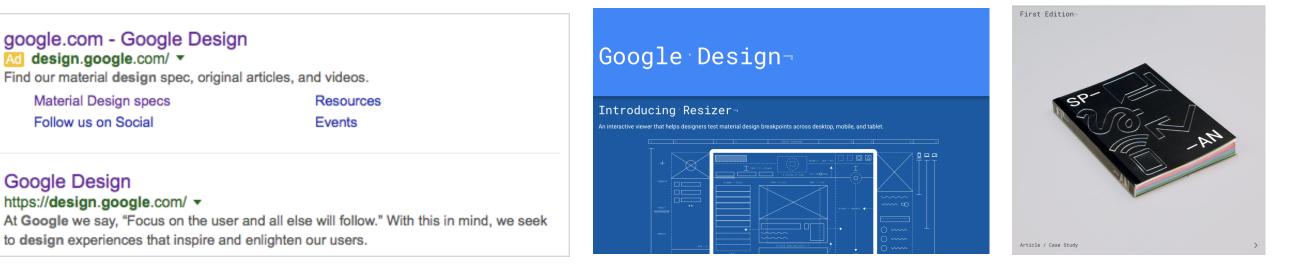
#### **GOOGLE ATAP PROJECT ARA**





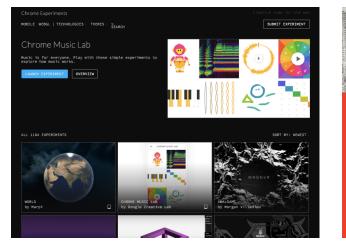
#### When listing Google's efforts in the design arena, the range is impressive: from the Material design language, to the design leadership at Google Ventures, to Google Creative Labs' and Google ATAP' technocreative wizardry.

Source // @kpcb #DesignInTech @googledesign @matiasduarte @gvdesignteam @jakek @gvteam @googleatap @projectara



#### **GOOGLE CREATIVE LABS / CHROME EXPERIMENTS / 30 WEEKS**







#### **GOOGLE VENTURES DESIGN TEAM PIONEERED DESIGN IN VC**

#### MATERIAL DESIGN LANGUAGE'S IMPACT IS HUGE









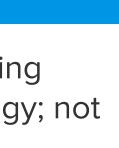


## **Factors that Contribute to Perception of Great Design**

Talent	Willing to Invest	Exec/Board Support	Innovation	Strategic
Known to attract rockstar design talent.	Design is seen as a profit center.	CEO, executive team and board value design.	Design drives innovation.	Design is a central driving force for product strategy an afterthought.
FACEBOOK	APPLE	APPLE	APPLE	
GOOGLE	GOOGLE	GOOGLE	GOOGLE	GOOGLE
	<b>FACEBOOK</b>	FACEBOOK	TESLA	FACEBOOK
	IBM	SQUARE		SQUARE
	NETFLIX			TESLA
	SQUARE			
	TESLA			

We surveyed over 50 design, engineering and product leaders. They were asked to list two public companies that valued design. Other companies that came up include Nike, Virgin, Porsche, Target, Disney. Source // @kpcb #DesignInTech @jshoee







# Design Quality is $\propto$ to Caring

- Thinking critically about design means considering the broader human impact of a product and service that goes beyond profitability.
- The next generations of designers aspire to design a world that reimagines the status quo with empathy for their fellow human beings.
- Instead of seeing diversity as a problem that needs solving, designing for inclusion is both an economic opportunity and cultural responsibility.

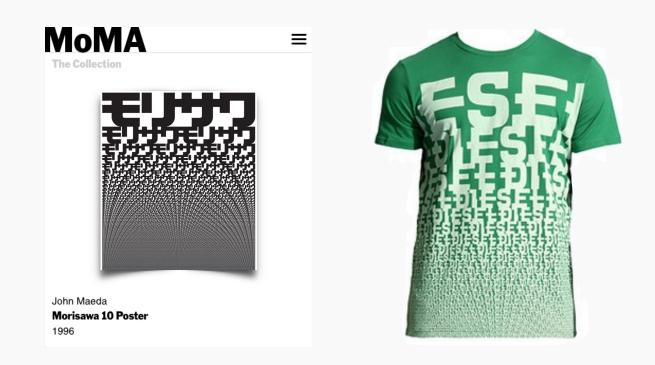


## Imitation is the Sincerest Form of Flattery. But When is Copying Okay?

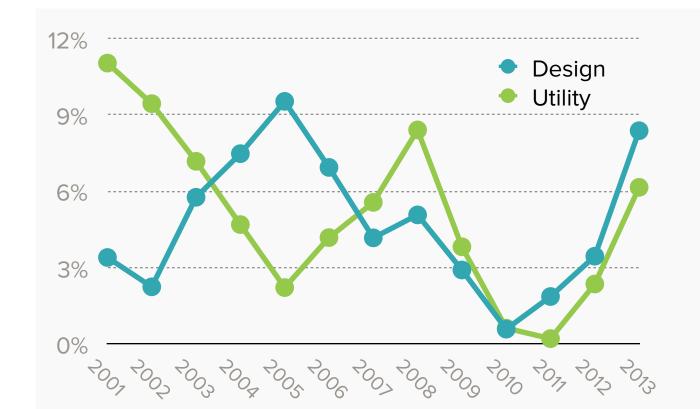


An Innocent Homage to a great artist ... brilliantly becomes "Chess with Mustaches" as a parody art by Scott Kildall and Bryan Cera as available to anyone on Thingiverse to 3D print.

#### CHESS WITH MUSTACHES AND PARODY / KILDALL + CERA



An idea I had twenty years ago has been used twice by Diesel, as in this newer Diesel Thalia Repeat Print Logo T-Shirt via Polyvore



3-year Rolling Average of Percentage of Change in Number of Design Patents vs Utility Patents Filed

Design Patent application files have been increasing faster than utility patent applications. But utility patents generally outnumber design patents by eight times.

#### **DESIGN PATENTS**



#### Artists and designers have a history of copying each other (think evolution and gene mutations), but given the Apple vs Samsung (2012) case, the value of the appearance of a product/service is increasing.

Source // @kpcb #DesignInTech @johnmaeda @kildall @BryanJCera @thefashionlaw @museummodernart @DIESEL @USPTO

shoes/sneakers/lions/configurable-product-z-menshoes-lions-79621.html

**USPTO D746029** 

Hermès Lions sneakers awarded December 29, 2015 via @thefashionlaw

In fashion, design patents have been common. Just take a look at the law case where Louboutin won and you can know the stakes are high.

(12)	Unite	d States Design Paten	(10) Patent No.: US D618,6
(12)	Andre et		(45) Date of Patent: ** *Jun. 29,
		ONIC DEVICE	(56) References Cited
(75)	Inventors:	Bartley K. Andre, Menlo Park, CA (US); Daniel J. Coster, San Francisco,	U.S. PATENT DOCUMENTS
		CA (US); Daniele De Iuliis, San	D289,873 S 5/1987 Gemmell et al.
		Francisco, CA (US); Richard P.	(Continued)
		Howarth, San Francisco, CA (US); Jonathan P. Ive, San Francisco, CA	FOREIGN PATENT DÓCUMENTS
		(US); Steve Jobs, Palo Alto, CA (US);	EM 000569157-0005 5/2006
		Duncan Robert Kerr, San Francisco,	(Continued) OTHER PUBLICATIONS
		CA (US); Shin Nishibori, Portola Valley, CA (US); Matthew Dean Rohrbach,	U.S. Appl. No. 29/282,831, Andre et al., Electronic Device,
		San Francisco, CA (US); Douglas B.	30, 2007.
		Satzger, Menlo Park, CA (US); Calvin	(Continued) Primary Examiner—Cathron C Brooks
		Q. Seid, Palo Alto, CA (US); Christopher J. Stringer, Woodside, CA	Assistant Examiner—Angela J Lee
		(US); Eugene Antony Whang, San	(74) Attorney, Agent, or Firm-Sterne, Kessler, Gold
		Francisco, CA (US); Rico	Fox PLLC
(73)	Assignee:	Zorkendorfer, San Francisco, CA (US) Apple Inc., Cupertino, CA (US)	(57) CLAIM
	Notice:	This patent is subject to a terminal dis-	The ornamental design of an electronic device, as sho
		claimer.	described.
(**)		14 Years	DESCRIPTION FIG. 1 is a front perspective view of an electronic d
	Appl. No.: Filed:	29/328,018 Nov. 18, 2008	accordance with the present invention;
(22)		,	FIG. 2 is a rear perspective view thereof;
	Re	lated U.S. Application Data	FIG. 3 is a front view thereof;
(60)		f application No. 29/282,834, filed on Jul.	FIG. 4 is a rear view thereof;
		now Pat. No. Des. 581,922, which is a con- f application No. 29/270,888, filed on Jan.	FIG. 5 is a top view thereof;
		w Pat. No. Des. 558,758.	FIG. 6 is bottom view thereof;
(51)	LOCOD	14.02	FIG. 7 is a left side view thereof; and,
		14-02 	FIG. 8 is a right side view thereof.
		lassification Search D14/341,	The claimed surface of the electronic device is illustra- the color designation for the color black.
		14/342, 343, 344, 345, 346, 347, 420, 426,	The electronic device is not limited to the scale shown
	D	14/427, 432, 439, 440, 441, 448, 496, 125, 14/137, 129, 130, 138, 250, 389, 147, 218,	As indicated in the title, the article of manufacture to
	D	14/247, 248, 156; D10/65, 104; D13/168;	the ornamental design has been applied is an ele
		D18/6, 7; D21/329, 686; 455/90.3, 556.1,	device, media player (e.g., music, video and/or game media storage device, a personal digital assistant, a c
		55/556.2, 575.1, 575.3, 575.4; 379/433.01, 433.04, 433.06, 433.07; 361/814; 341/22;	nication device (e.g., cellular phone), a novelty item
		345/169, 173; D6/596, 601, 605	
	See applie	cation file for complete search history.	1 Claim, 2 Drawing Sheets

#### SAMSUNG V APPLE PATENT DISPUTE

US Patent D618,677 laid a claim on the famous "rounded corners" matter in a design patent dispute in 2012 between Apple and Samsung, winning Apple a nearly \$1B jury award.



#### darkpattern.org

"A Dark Pattern is an interface that has been carefully crafted to trick users into doing things, such as buying insurance with their purchase or signing up for recurring bills."

## **Ethical Questions Are Embedded in How We Design For**



- Bait and Switch
- Misdirection
- Trick Questions
- Disguised Ads
- Faraway Bill
- Forced Continuity
- Hidden Costs

- Sneak into Basket
- Forced Disclosure
- Friend Spam
- Road Block
- Roach Motel



#### **AWARENESS**

#### **OPINION**

#### CONSIDERATION

#### PREFERENCE

#### PURCHASE

#### The Holy Grail: **Subscription Purchasing**

The 1920s "purchase funnel" model persists with two differences:

- the immediacy with which a purchase can be made from a smartphone
- 2. the ease by which a recurring purchase can be setup as a subscription. There's a line.

<sup>66</sup> It's a little unrealistic to ask designers to not lead with the products and experiences that increase the bottom line and retain attention the best." - Natasha Dow Schull

#### ADDICTION **BY DESIGN** Machine Gambling in Las Vegas



**ADDICTION BY DESIGN** Machine Gambling in Las Vegas

Natasha Dow Schüll Princeton University Press, September 2012 Winner, Sharon Stephens Prize, American Ethnological Association





#### Points and Leveling.

93% of users said they were likely to keep using the app.

#### Spontaneous Rewards.

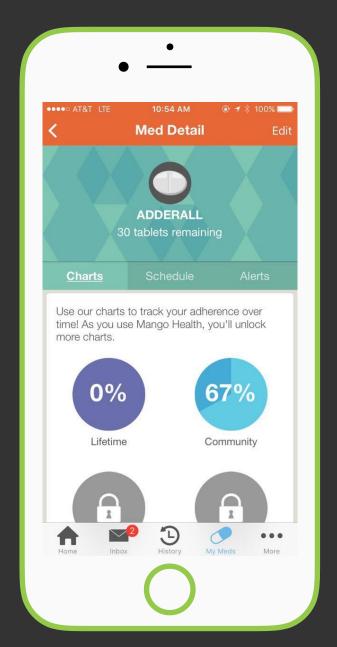
Users rack up points that can unlock the chance to win rewards (i.e. a giftcard from Target).

#### Social Comparison.

84% said they are likely to recommend the app to friends and family.







Mango Health uses gamification techniques to make the routine of taking your medication more fun and interesting, ultimately affecting standard engagement, adherence to drug regimens, and clinical outcomes over time.

Source // @kpcb #DesignInTech @avivgilboa @mangohealth @michelleskimo @joberfest @FastCompany Lynne Chou

## However, in the Health-Tech Arena, Some Addiction Is Good. By Design.

In the U.S., 75% of adults don't take medications as prescribed. The result is a \$300 billion burden on the health care system. Mango Health's app aims to change that."

-Ariel Schwartz @fastcompany



Designer Michelle Kim was the CEO's first hire -another example of the growing importance of #<u>DesignInTech</u>.



10:21 AM - 17 Apr 2015 Amago Health, michelle kim and jason oberfest the transformation of the transformatio

#### "CEO's first hire"

Mango Health's first hire was a designer.





## **Design Is Being** Put to Use In The

# PUBLIC SECTOR



Savings generated by one year of work by the UK's GDS at a cost of £58 million as reported in 2015. That's an impressive ROI of 27.3X. Adding in the two years prior, GDS has achieved a savings of £3.56 billion for the UK government by bringing the science and art of digital service design to the government and citizens.

#### The groundbreaking work of the UK's GDS team and the rescue of healthcare.gov have spurred a movement to build a 21st century digital government in the U.S. This has led to similar efforts in Australia and New Zealand.

Source // @kpcb #DesignInTech @justinsayarath @johnmaeda @benterrett @gdsteam @usds @latimes @18f

"The reason I'm here is to recruit all of you. We can start coming up with new platforms across disciplines and across skill sets to solve

some of the big problems we're facing today." — President Barack Obama / SXSW 2016



## U.S. Web Design Standards Tools for creating beautiful online experiences for the American people

#### 18F, the U.S Federal Govt's Digital Consultancy

Launched draft of U.S. Web Design Standards open source UI components and visual style guides to create consistent and beautiful UX across government websites.



#### USDS, product teams embedded in the Govt

Actively recruiting product designers and engineers to transform the way government works. Teams tackle big problems in healthcare, student loans, veteran affairs, etc.





## **Design's Fundamental Impact Rests In The Ability to ENGENDER TRUST**

#### **BIASING TOWARDS CLEARER CYBERSECURITY REPORTING**



- Security is messy. With design we're able to transform chaos into insight and change outcomes. It's how we change our angle of vision on a vastly complicated problem."
- Oren Falkowitz / Co-Founder & CEO / Area 1 @ KP Security Salon

#### **BIASING TOWARDS THE FIRST IMPRESSION AS WHAT MATTERS**



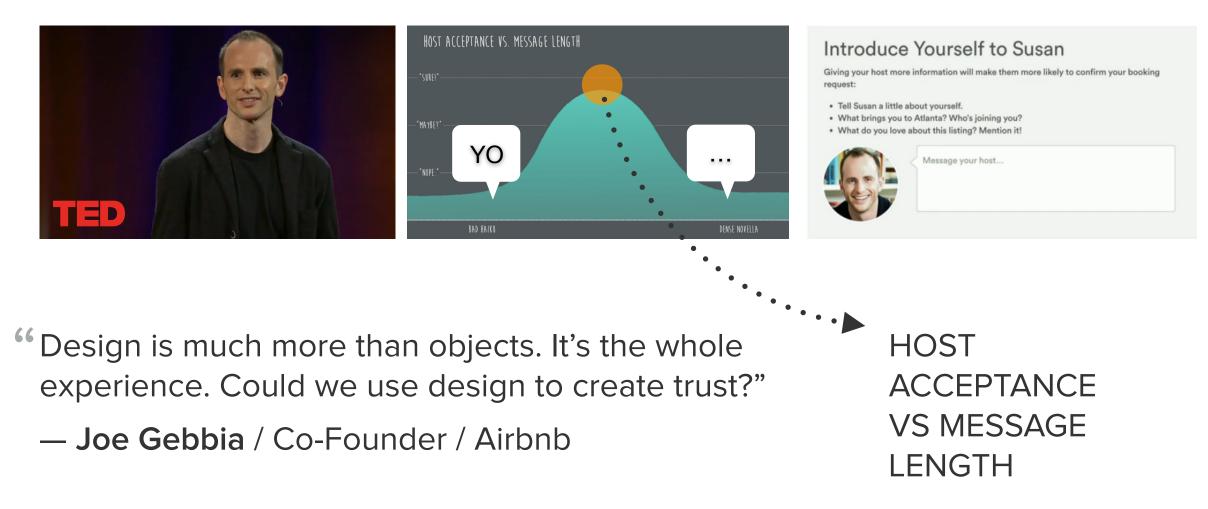
- <sup>66</sup> Alfreds are in your home. So we had to design a brand that you really \*\*\*\*ing trust."
- Marcela Sapone / Co-Founder & CEO / Alfred @ SXSW 2016

#### 5 other design-focused security startups in addition to Area1 include Better Cloud, Ionic Security, ProtectWise, Red Canary, SentinelOne according to security experts.

Source // @kpcb #DesignInTech @airbnb @jgebbia @area1security @orenfalkowitz @helloalfred @MsSapone @patrickmankins @johnmaeda @bjorn fastcodesign.com/3047500/can-we-design-trust-between-humans-and-artificial-intelligence august.com/ google.com/selfdrivingcar/ nest.com/ ted.com/talks/joe\_gebbia\_how\_airbnb\_designs\_for\_trust

- <sup>66</sup> If the purpose of smart systems is to make sophisticated subtle decisions so people don't have to, it is pointless if people can't trust them to do so. This means that crafting the relationship between people and the technology we use becomes as critical as building faster processors."
  - Patrick Mankins / Fast Company

#### **BIASING TOWARDS VALUABLE RATINGS AND REVIEWS**







# **Designers Seek The Truth Through Broadened Discourse**

### EDELMAN TRUST BAROMETER 2015 / 2016

Q353 "From the list below, what do you believe are the top three drivers of change in business and industry?"

1 Technology	<b>70</b> %
2 Business Growth Targets	66%
3 Greed / Money	<b>54</b> %
4 Personal Ambition	35%
5 Improve People's Lives	30%
6 Make the World a Better Place	24%

Q330-331 "For which of the following reasons, if any, has your trust in each institution decreased over the past year?"

1 Fails to contribute to the greater good	50%
2 Lacks economic growth	39%
3 No public service	36%

Q328-329 "For which of the following reasons, if any, has your trust in each institution increased over the past year?

1 Produce economic growth	<b>59</b> %
2 Contributes to the greater good	45%
3 Allows me to be a productive member of	40%
society	

The younger generation tends to brings us back to the sense of hope that we all need for the future, but with a critical eye. And a willingness to do the hard work to make the world a better place by design.

Source // @kpcb @EdelmanPR @soengle @siranachronist @uxdiogenes @nicksantos @kat\_\_ely @designuxui @microsoftdesign @kpcbfellows medium.com/hh-design/introducing-blind-by-design-520d9890809e#.rm3fq83fv kpcbfellows.com/challenges edelman.com/insights/intellectual-property/2015-edelman-trust-barometer/global-results/ did-that-break-accessibility-3bc804ae818d#.yxwmejg6r medium.com/hh-design/the-world-is-designed-for-men-d06640654491#.xfgr8p0vv medium.com/tragic-design/how-bad-ux-killed-jenny-ef915419879e#.kkndtoh7y microsoft.com/en-us/design

### UNCONSCIOUS BIAS ROUNDUP BY STEPHANIE ENGLE AND CHEN YE

Kat Ely Sep 8, 2015 · 10 min read



#### Introducing Blind by Design

Diogenes Brito Oct 20, 2015 · 5 min read

the launch graphics.

lust a Brown Hand

Blind by Design is a series focused on addressing systemic biases within design. Join us.

We're all human. We carry with us contexts-from our childhood, from the people we interact with, and from the scenarios that exist in our day-to-day lives. We rightly celebrate the diversity of these contexts, marveling at our collective differences and our fundamental similarities.

But, our differences can also bias us, causing us to make assumptions, fail to take into account other perspectives, and systemically favor certain choices over others. These biases are particularly felt in a field as subjective, as personal, and as bound to the human condition as desig

On August 25th, Slack unveiled a new way for developers to connect to Slack, the "Add to Slack" button. It was the culmination of a great deal of work from many Slack employees, and just the beginning of what we have in store for Slack in the near future. Today, though, I want to talk about a seemingly small detail that has

been more important to me than I would have expected: the skin color of the hand in

That Break Accessibility Medium Engineering recently had an accessibility fixit. We found some goofy things! The World is Designed for Men But we're trying to do better. We wanted to share some of what we found Jonathan Shariat Oct 9, 2014 · 4 min read Microsoft 🔎 📃 Sign in Microsoft Design Inclusive

Can design be both universal and personal? Inclusive is a short film that explores this question with some of the industry's foremost thought leaders. When interactions with technology are pervasive, designers face new challenges and opportunities in addressing the true breadth of human diversity

ow Bad UX Kille

**Five Goofy Things Medium Did** 

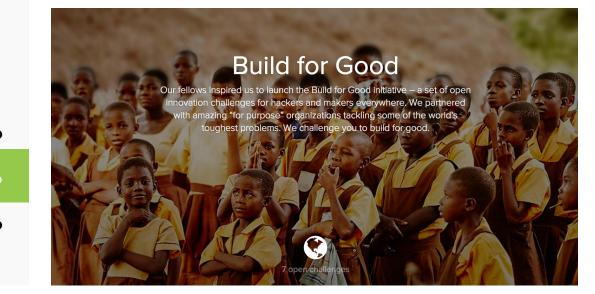
l**ick Santos** un 29. 2015 · 4 min rea

Or why we need more UX d

Slack's people of color group (#earth-tones) was the first to say something.

**earth-tones** Y I can tell you are going to fit right in

### **#BUILDFORGOOD** @KPCBFELLOWS

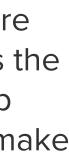


In 2015, the KPCB Fellows Program launched **#BuildforGood** challenges are posed at collegiate hackathons across the country, the hope is to inspire and help promote hacking/building things that make an impact and that matter.





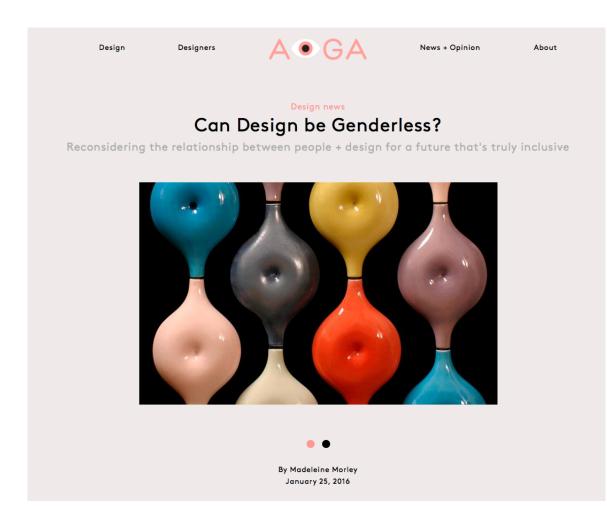






# **Products Designed With More Inclusive Biases Can Be More Profitable**

# **AIGA NEWS**



"Design has to find new ways of enabling individuals to express an increasingly fluid and nuanced multiplicity of gender identities, not just in fashion and graphics, but in objects, spaces, software, and so on."

- @alicerawsthorn

# **TOCA CHARACTERS ARE GENDERLESS**



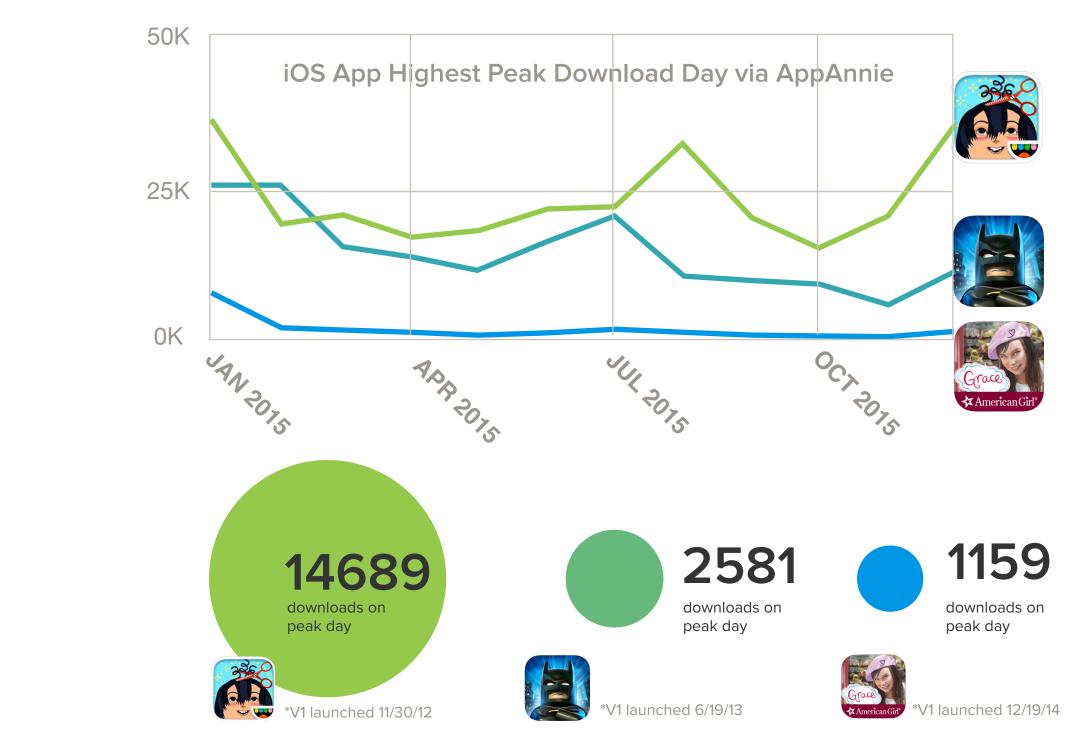


In the kids games category, Toca is the leader with significantly higher revenue within the past year and more than **5**x downloads at peak than traditionally "gendered" games Lego Batman: DC Super Heroes and Sweet Shop by American Girl.

Source // @kpcb #DesignInTech @alicerawsthorn @aigadesign @tocaboca @justinsayarath

# **TOP PERFORMERS IN PAID APPS FOR KIDS**

iOS App Store Revenue per month in USD net of platform commission via AppAnnie





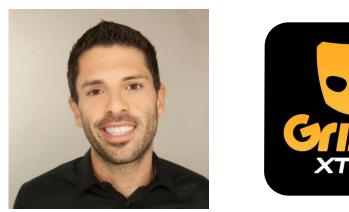
# **An Inclusive** PERSPECTIVE **Enables Reimagining The Startup Ecosystem**

### **GENDERLESS STEM TOYS**



Toolkit for electronic construction that carries no gender biases, as designed by MIT-trained CEO Ayah Bdeir and her LittleBits team. Raised 59 million as of 2016

**GAY SOCIAL NETWORK** 





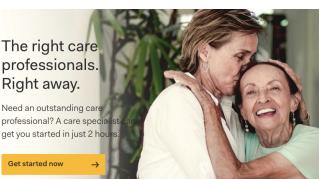
Underserved markets aren't necessarily small markets. Some of the best designers in the world are taking on these challenges. Trust \*can\* exist in a world where money is made and social transformation happens at the same time. It is possible.

Source // @kpcb #DesignInTech @cbinsights @bevel @tristanwalker @littleBits @ayahbdier@grindr @progyny @justinsayarath @johnmaeda 2016/02/09/the-one-video-every-silicon-valley-investor-should-watch/#.VsO7K04CFfQ.facebook google.com/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#g=mitu%20fundraise newsroom.uber.com/us-illinois/uberaccess-expanding-transportation-options

# **ELDERLY CARE**



#### honor



Care service and platform allowing for the elderly community to age gracefully and comfortably in their own homes led by CEO Seth Sternberg.

Raised 20 million as of 2016

# **SKINCARE NEEDS**





Shaving system for people with coarse or curly hair, with recent addition of an electric trimmer with an elegant design, led by CEO Tristan Walker and Walker & Co Team. Raised 33 million as of 2016

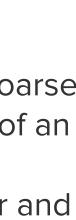
### EGG FREEZING





First company to provide access to high quality fertility doctors, fertility health digital platform and plans for elective egg freezing, IVF treatment and tests led by CEO Gina Bartasi. Raised 34 million as of 2016









# 5 Final Thoughts

- Much of what we see in the #DesignInTe multiple decades.
- What's being built by the startup ecosystem and large corporations today strongly indicates the balance of power has shifted away from academia.
- We must consciously invest in education to develop a more hybrid perspective on creativity in the 21st century: Technology x Business x Design.
- President Obama's signing of ESSA (Every Student Succeeds Act) into law in 2015 is a positive sign: by turning STEM into STEAM (adding Art) in K-12 education as a US priority.

Much of what we see in the #DesignInTech space was born in the research community over





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#### A Brief History of Human Computer Interaction Technology

Brad A. Myers

# If You're Looking For Ideas, Just Look Back A Decade or Four or Five.

Human Computer Interaction Institute School of Computer Science Carnegie Mellon University Pittsburgh, PA 15213-3891

bam@cs.cmu.edu

#### Abstract

This article summarizes the historical development of major advances in humancomputer interaction technology, emphasizing the pivotal role of university research in the advancement of the field.

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A short excerpt from this article appeared as part of "Strategic Directions in Human Computer Interaction," edited by Brad Myers, Jim Hollan, Isabel Cruz, ACM Computing Surveys, 28(4), December 1996

This research was partially sponsored by NCCOSC under Contract No. N66001-94-C-6037, Arpa Order No. B326 and partially by NSF under grant number IRI-9319969. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of NCCOSC or the U.S. Government.

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Source // @kpcb #DesignInTech @carnegiemellon @bradamyers @theatlantic @mit

cs.cmu.edu/~amulet/papers/uihistory.tr.html theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/

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"Consider a future device for individual use, ... a sort of mechanized private file and library ... in which an individual stores all his books, records, and communications, ... consulted with exceeding speed and flexibility."

- Vannervar Bush 1945 @MIT

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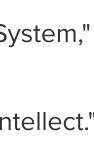
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#### Human

This article summarize computer interaction te the advancement of the

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A short excerpt from a Computer Interaction," Surveys, 28(4), Decemb

# And Look A Bit Harder. You'll Find Some Truly Interesting People Along The Way

If I may add a few of my favorites ...

	Neport Report, Fullion, Full and Forth
This research was partially sponsored by NCC	37. Ross, D. and Rodriguez, J. "Theoretical Foundations for the Computer-Aided Design System," in AFIPS Spring Joint Computer Conference. 1963. 23. pp. 305-322.
Order No. B326 and partially by NSF un conclusions contained in this document are th	(38. Rudisill, M., et al., Human-Computer Interface Design: Success Stories, Emerging Methods, and Real-World Context. 1996, San Francisco:
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### A FEW KEY #DESIGNINTECH PIONEERS



Muriel Cooper MIT Media Lab Visible Language Workshop

# MORE SEMINAL BOOKS/FIGURES WRT #DESIGNINTECH



Nicholas Negroponte The Architecture Machine 1973

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cs.cmu.edu/~amulet/papers/uihistory.tr.html theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/



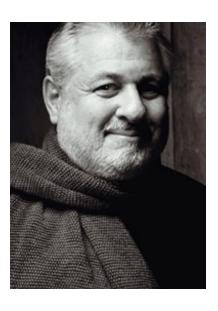
**Red Burns** NYU Tisch School Interactive Telecommunication Program



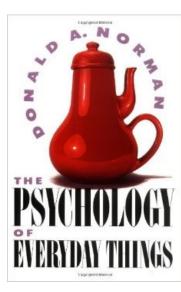
Gillian Crampton-Smith Royal College of Art Computer-Related Design and Ivrea Institute



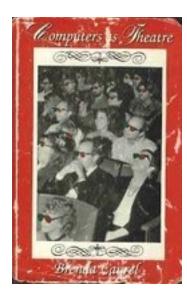
Joy Mountford Apple Human Interface Group Interval, Yahoo!, Akamai



**Richard Saul Wurman** Technology Entertainment Design 1984



**Donald Norman** The Psychology of Everyday Things 1988



Brenda Laurel Computer as Theatre 1991

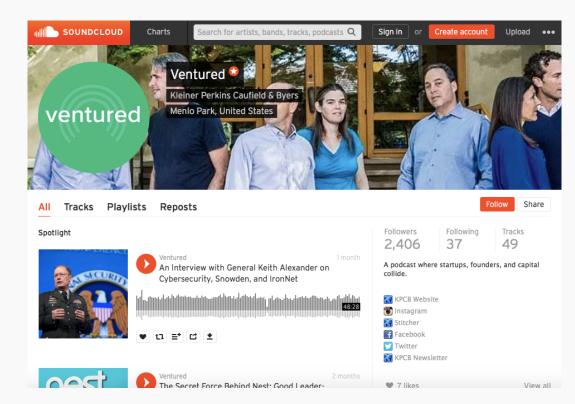


# The Startup Ecosystem Feels A Lot Like The New Graduate School

# **Anthoy Frasier**



# **KPCB** Ventured



# **Founders Collective**



### Buildup.VC

#### **⊗BUILD**UP

**BUILDUP Radio Episode 1 – Characteristics of A** Startup Founder with Tommy Leep of Rothenberg Ventures



# Carpool.VC



S1 E2 - Clark Valberg



# Paul Graham / YC





March 2005

Essays H&P

Books

School

FAQs

RAQs

Quotes

RSS

Twitter

Search

Index

A couple months ago I got an email from a recruiter asking if I was interested in being a "technologist in residence" at a new venture capital fund. I think the idea was to play Karl Rove to the VCs' George Bush.

I considered it for about four seconds. Work for a VC fund? Ick.

One of my most vivid memories from our startup is going to visit Greylock, the famous Boston VCs. They were the most arrogant people I've met in my life. And I've met a lot of arrogant people. [1]

I'm not alone in feeling this way, of course. Even a VC friend of mine dislikes VCs. "Assholes," he says.

# **First Round Capital**



# **Muzzammil Zaveri** + Arielle Zuckerberg



WHY TEXT-BASED INTERFACES? Zero (or minimal) front-end design Consistent/up-to-date experience across all platforms Users don't have to download/install another app Onboarding is easy

# Hallway Chat



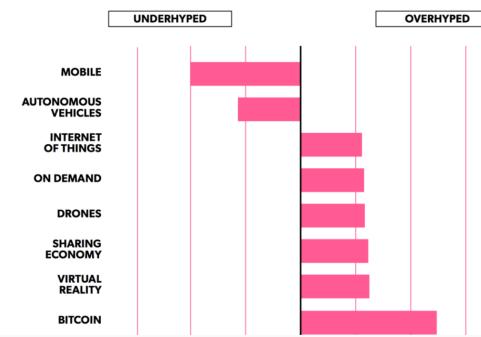
Hallway Chat, Episode 23 with special guest Fred Wilson



Source // @kpcb #DesignInTech All links are inline.









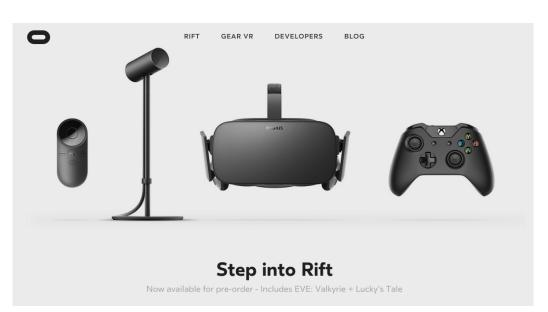


### THE MIT MEDIA LAB BLURRED ART AND TECHNOLOGY

MOBILE	Maggaga
AUTONOMOUS	Message: 6 Date: 11.1.93
VEHICLES	From: Nicholas Negroponte To: WIRED
INTERNET OF THINGS	Subject: Virtual Reality: Oxymoror
ON DEMAND	VR Then and Now
DRONES	Neophytes have a mistaken sense the because the press just learned abo
SHARING ECONOMY	It is not. Almost 25 years ago, Iv
VIRTUAL REALITY	developed, with support from AF surprisingly advanced VR system
BITCOIN	•••

# But Everything We Only Believed Had Happened, Is Finally Happening

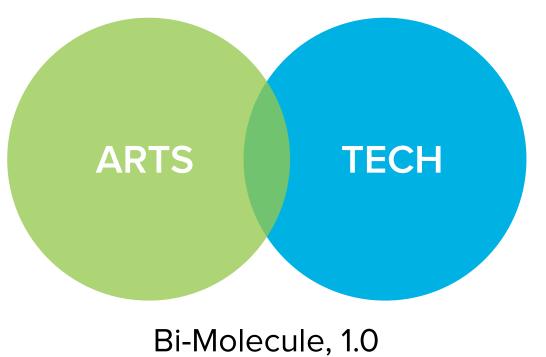
### Oculus



### on or Pleonasm?

hat VR is very new bout it. Ivan Sutherland , the first

# BECAUSE ART IS HOW WE CAN SEE/FEEL THE FUTURE





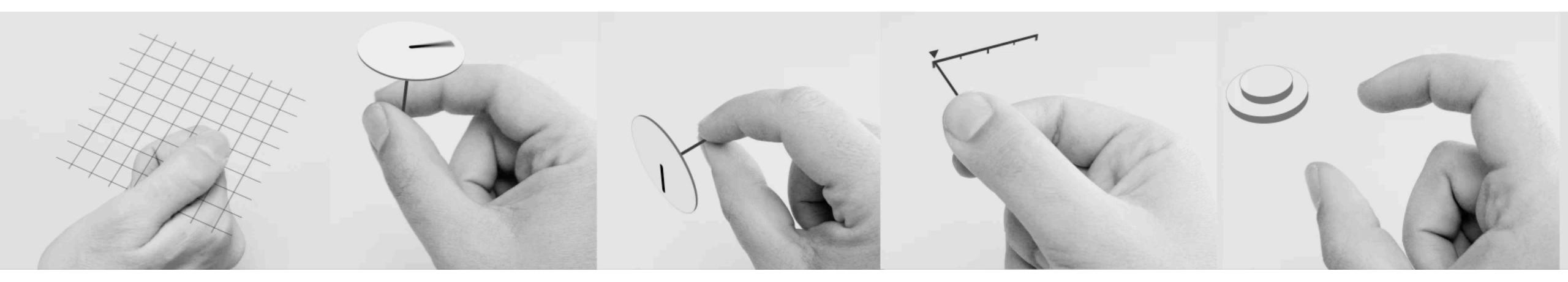


# What To Look Forward To? What Is Coming? Atoms Will Behave Like Bits.

# MIT MEDIA LAB / HIROSHI ISHII / TANGIBLE MEDIA



GOOGLE ATAP / IVAN POUPYREV / PROJECT SOLI: EXPANDING INTERACTION VOLUME



Source // @kpcb #DesignInTech @medialab @mit\_ishii @googleatap

vimeo.com/79179138 web.media.mit.edu/~nicholas/Wired/WIRED1-06.html





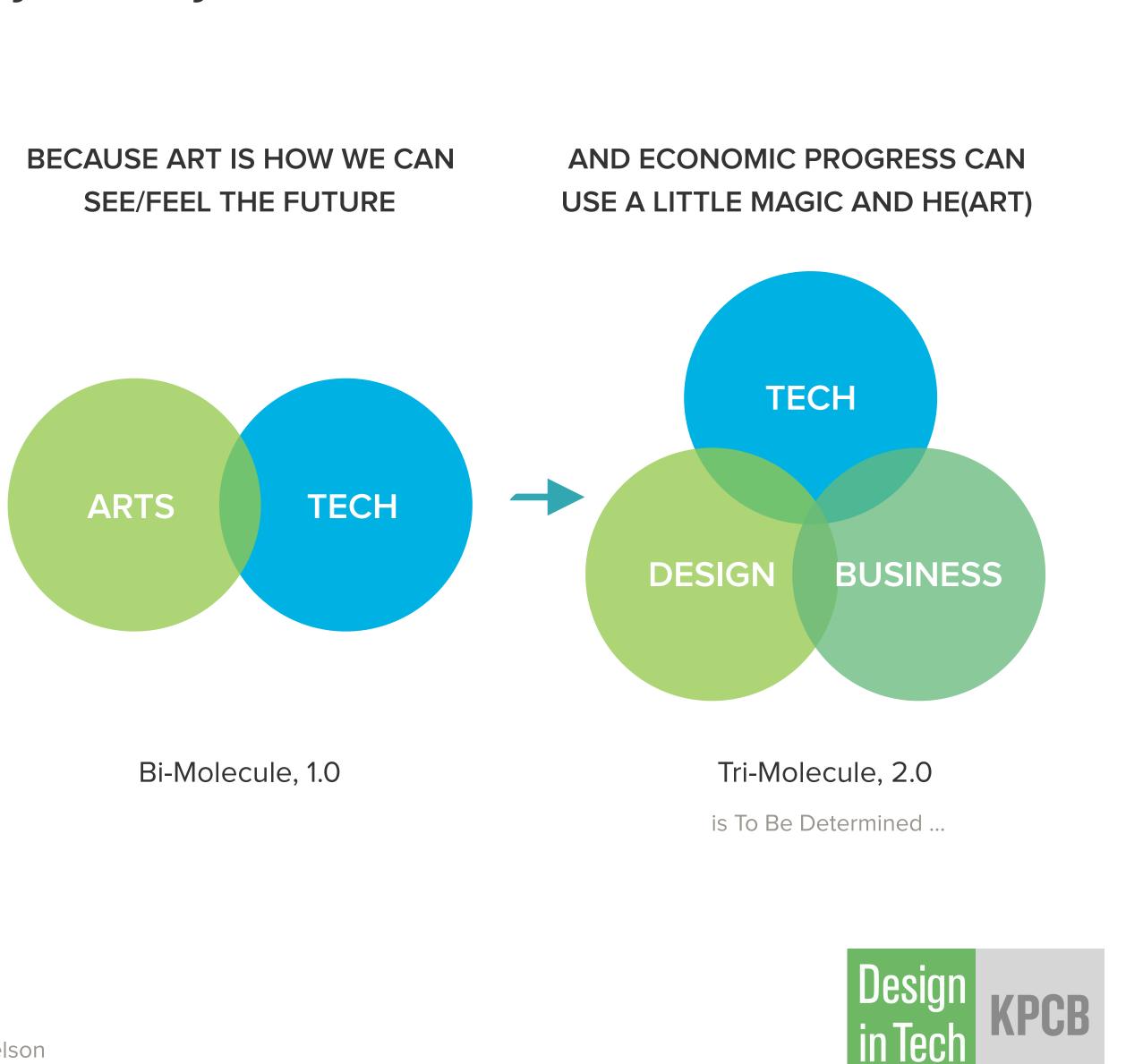
# Technology, Business, Design is About Hybridity = Always New Possibilities

# ON DEC 10, 2015, STEM OFFICIALLY BECOMES STEAM (ADDING ART TO STEM EDUCATION)



"Arts and music education are specified as eligible uses for new, state-administered 'Student Support and Academic Enrichment Grants' including support for the arts in STEM education."

—@naea, December 10, 2015





# There Are Three Kinds of Design At Play. We Need To Be Specific.

# DESIGN CLASSICAL DESIGN

there's a right way to make what is perfect, crafted, and complete

# BUSINESS DESIGN THINKING

because execution has outpaced innovation, and experience matters

**Driver** / the Industrial Revolution, and prior to that at least a few millennia of ferment.

**Driver** / the need to innovate in relation to individual customer needs requires empathy.

The two growing categories of "designers" are those coming from Business and Technology. The three categories above are co-dependent — you must embrace at least two of these categories in order to win in this century.

Source // @kpcb #DesignInTech @johnmaeda

# TECHNOLOGY COMPUTATIONAL DESIGN

designing for billions of people and in realtime, is at (individual) scale and TBD

**Driver** / the impact of Moore's Law, mobile computing, and the latest tech paradigms.



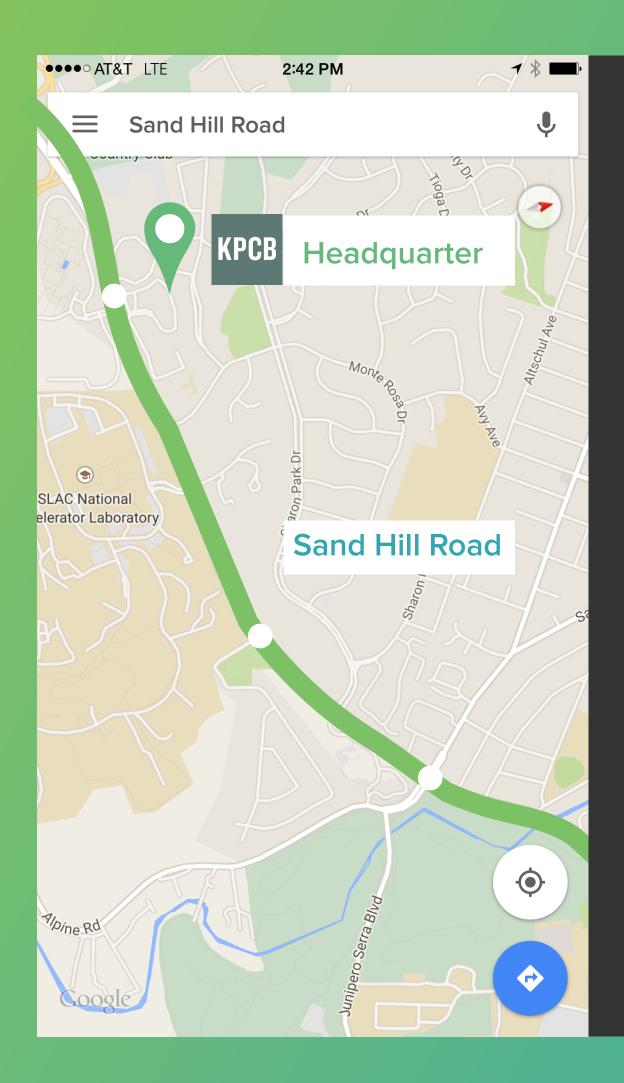
# <sup>66</sup> Engineers are efficient problem solvers. Business people think short term. Designers want things to be elegant and beautiful. All three need to create collaboration and harmony, and honor the value each other brings. There needs to be a new kind of 'multi-dimensional' approach to design that is yet to be invented." -Linda Holliday / @lmholliday

2016 Design, Product and Engineering Leaders Surveyed // Alex Schleifer, Alok Damireddy, Amir Pirnia, Brandon Velestuk, Catherine Courage, Cap Watkins, Ciara Peter, David Nguyen, Ding Zhou, Frank Yoo, Ivan Bercovich, Jackie Goldberg, Jason Fischl, Jennifer Etter, Jesse Harding, Jim Fulker, Joe Xavier, Joey Cordes, Jon Lax, Kara McCain, Josh Abrams, Kurt Varner, Larry Chen, Louise Briguglio, Marcus Hanson, Mark Bauer, Maria Giudice, Matt MacQueen, Megs Fulton, Mike Kruzeniski, Moxie Wanderlust, Paco Vinoly, Raphael Grignani, Randy J. Hunt, Reshma Mehta, Raylene Yung, Rich Gioscia, Rochelle King, Rose Yao, Sash Catanzarite, Tara Larivee, Tim McCoy, Travis Roger, Vaibhav Nivargi, Wes Donohoe.

2016 #DesignInTech Survey Participants (updated March 6, 2016) // Diego Rodriguez, Roman Luba, jonah houston, John Cleere, Alok Jain, Steve Hoyt, Alan Joseph Williams, JB Chaykowsky, Dave Malouf, Reed Reibstein, Brian Fidler, Brandon E.B. Ward, Jill Imani, Keith, Victor Bercaru, Julia Stanescu, Knut Graf, Bryan Ku, Christina Elder, John du Pre Gauntt, Jean-Paul Haire, Larissa Bemis, renée berry, Amanda Noonan, Heather King, 8 Inc., Nick Ellem, Dan Malarkey, Phil Johnston, Dolly Parikh, Jose Coronado, Imanzah Nurhidayat, Lin Wang, Nate Roberts, Justin Meyers, Michael K. Dawson, Chris Chiusano, Sean Warsaw, Tomáš Zeman, Christine Ying, Brian Rs Ward, Kermit Stevenson, Ahmed B. Arshad, Abbas Meerani, Jeffrey Tjendra, Luis M. Rodriguez, Ramin, Martini, Daniel Borg, Bradley Strong, Craig Frazier, Dale Morris, Satvam Kantamneni, Kara Pastour, Bill Bulman, Brandon J. 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