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科技中的设计

#DesignInTech Report

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16

- 设计不止关乎美观，也关乎其市场相关性以及它所产生的有意义的结果
- 并购活动在设计领域持续发生，并呈现上升趋势
- 科技行业对设计师的需求不断增长，促使对设计教育进行新的思考
- 设计在上市公司中被采纳得越来越多，影响力只增不减
- 设计师将所需的批判性思考与创造融合到了经济环境中
- 数十年前的研究型实验室的工作驱动着现在的创业公司，这点值得关注

89%

“89%的企业相信，到2016年客户体验将会成为其核心竞争力，而这一数字在四年前仅为36%。”

— 高德纳咨询 Gartner

81%

“81%接受调查的执行管理者将定制化的客户体验放在组织重要性优先级的前三位，其中39%放在了首位。”

— 埃森哲 Accenture

90%

“90%接受调查的执行管理者一致将客户体验与客户参与度作为公司数字化战略的目标。”

— MIT 斯隆管理学院/德勤 Deloitte

6x

“积极的情感体验可将用户的购买意愿提升6倍，对企业的推荐意愿提升12倍，对失误容忍度提升5倍。”

— Temkin Group 统计公司

体验非常重要，因为我们对数字产品体验很多

早期桌面电脑
用户使用行为



“痛点！”

上午使用一次

“痛点！”

晚上使用一次

当前移动设备
用户使用行为



全天随时使用

来自高德纳咨询、埃森哲、德勤和Temkin Group统计公司的报告均指出体验的重要性。Linda Holiday称这一新型设计为“多维设计”，意在说明设计跨越了社会科学和计算机科学，进入了新的、必要的形态。

资料来源 // @kpcb #DesignInTech @Gartner_inc @AccentureDigi @mitsmr @DeloitteDigital @TemkinGroup

experiencematters.wordpress.com/2016/02/04/15-customer-experience-factoids-from-2015-infographic/ sloanreview.mit.edu/projects/strategy-drives-digital-transformation accenture.com/us-en/_acnmedia/Accenture/Conversion-Assets/Microsites/Documents11/Accenture-Technology-Vision-2015.pdf blogs.gartner.com/jake-sorofman/gartner-surveys-confirm-customer-experience-new-battlefield/ blogs.gartner.com/jake-sorofman/gartner-surveys-confirm-customer-experience-new-battlefield/



2015年首期

科技中的设计

报告成果超越预期， 但仍有可提升空间

87.5万 涵盖英文 / 西班牙 / 中文 / 日文
多个语言版本的累计阅读量



2015年首期 # DesignInTech “科技中的设计”报告一经面世便大大超越了所预期的5万阅读量，并收到来自加拿大朋友（Stinson Design公司）的一版颇有助益的重新设计。

资料来源 // @kpcb #DesignInTech @slideshare @stinsondesign

slideshare.net/stinsondesign/kpcb-design-in-tech-report-2015-simplified-and-redesigned



2015年首期报告预测

科技中的设计

#DesignInTech Predictions From Last Year's Report

以设计师为主导的商业并购活动将很有可能增长

以往较陈旧的用户体验将得到改善



设计师主导的初创公司将更容易接触到资本

设计师将成长为执行管理者



设计在风险投资领域的定位不在于美观，而在于其相关性 **体验**

设计的商业价值将发展深化



设计 DESIGN → DE\$IGN

幸运的是，2015年报告中的预测100%成为现实，所以也意味着需要新的预测。

资料来源 // @kpcb #DesignInTech @johnmaeda

kpcb.com/design



2 The New Kind of Designer is TBD
待定义的新型设计师

4 Design Quality is $\propto$ to Caring
设计品质和关怀度成正相关

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从数据看科技中的设计

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结尾的思考



#DesignInTech By The Numbers 从数据看科技中的设计

- 对设计公司的收购仍在继续：2004年至今，总计有42家设计公司被收购，而其中约50%是在去年一年中完成的
- 由设计师联合创立的公司体现出了融资上的成功：融资额最多的25家初创公司中，有36%由设计师联合创立，比2015年的20%有所提升
- 风险投资机构中的设计师比例上升：过去两年中进入风投领域的设计师比之前四年的总和还要多

科技中的设计并购活动时间线 | 版本2.0

2004 – 2012	2013	2014	2015	2016	
■ 伟创力 FLEXTRONICS +收购 青蛙设计公司 2004 ■ MONITOR +收购 DOBLIN 2007 ■ 黑莓公司 RIM +收购 TAT 2010 ■ 脸书 FACEBOOK +收购 Sofa 2011 ■ GLOBALLOGIC +收购 Method 2011 ■ ONE KING’S LANE +收购 Helicopter 2011 ■ 谷歌 GOOGLE +收购 Mike & Maaike 2012 ■ 脸书 FACEBOOK +收购 Bolt Peters 2012 ■ SQUARE +收购 80/20 2012 ■ 谷歌 GOOGLE +收购 Cuban Council 2012	■ 脸书 FACEBOOK +收购 Hot Studio 2013 ■ 埃森哲 ACCENTURE +收购 Fjord 2013 ■ SHOPIFY +收购 Jet Cooper 2013 ■ 德勤 DELOITTE +收购 Banyan Branch 2013 ■ INFOR +收购 Hook & Loop 2013 ■ 谷歌 GOOGLE +收购 17FEET 2013 ■ 谷歌 GOOGLE +收购 Hattery 2013	■ OCULUS / 脸书 FACEBOOK +收购 Carbon Design 2014 ■ 谷歌 GOOGLE +收购 Gecko Design 2014 ■ CAPITAL ONE +收购 Adaptive Path 2014 ■ 埃森哲 ACCENTURE +收购 Reactive 2014 ■ 德勤 DELOITTE +收购 Flow Interactive 2014 ■ 普华永道 PWC +收购 Optimal Experience 2014 ■ 毕马威 KPMG +收购 Cynergy Systems 2014 ■ 波士顿咨询公司 BCG +收购 S&C 2014	■ 脸书 FACEBOOK +收购 Teehan+Lax 2015 ■ BBVA +收购 Spring Studio 2015 ■ 麦肯锡 MCKINSEY +收购 Lunar Design 2015 ■ CAPITAL ONE +收购 Monsoon 2015 ■ WIPRO +收购 DesignIt 2015 ■ 安永 ERNST & YOUNG +收购 Seren 2015 ■ 德勤 DELOITTE +收购 Mobiento 2015	■ AIRBNB +收购 lapka 2015 ■ COOPER *合并 +收购 Catalyst 2015 ■ SALESFORCE +收购 Akta 2015 ■ 埃森哲 ACCENTURE +收购 Chaotic Moon 2015 +收购 PacificLink 2015 ■ FLEX *医疗设计 +收购 Farm Design 2015	■ PIVOTAL +收购 Slice of Lime 2016 ■ IBM +收购 Resource/Ammirati 2016 +收购 ecx.io 2016 +收购 Aperto 2016 ■ KYU COLLECTIVE *minority +少量入股 IDEO 2016 ■ 凯捷 CAPGEMINI +收购 Fahrenheit 212 2016 ■ 德勤 DELOITTE +收购 Heat 2016

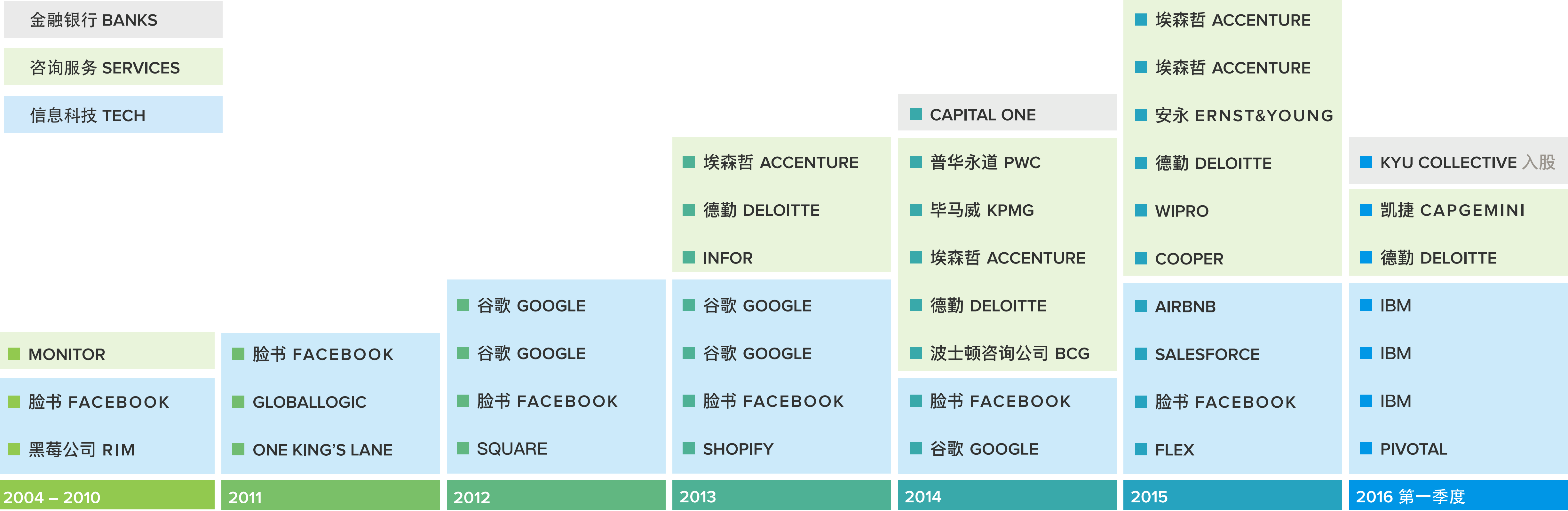
自2004年起，总共有42家设计机构被收购。其中约50%是最近一年被收购活动最频繁的埃森哲（Accenture）、德勤（Deloitte）、IBM和脸书（Facebook）收购。

资料来源 // @kpcb #DesignInTech @johnmaeda @mbuzzard



科技中的设计

并购活动时间线



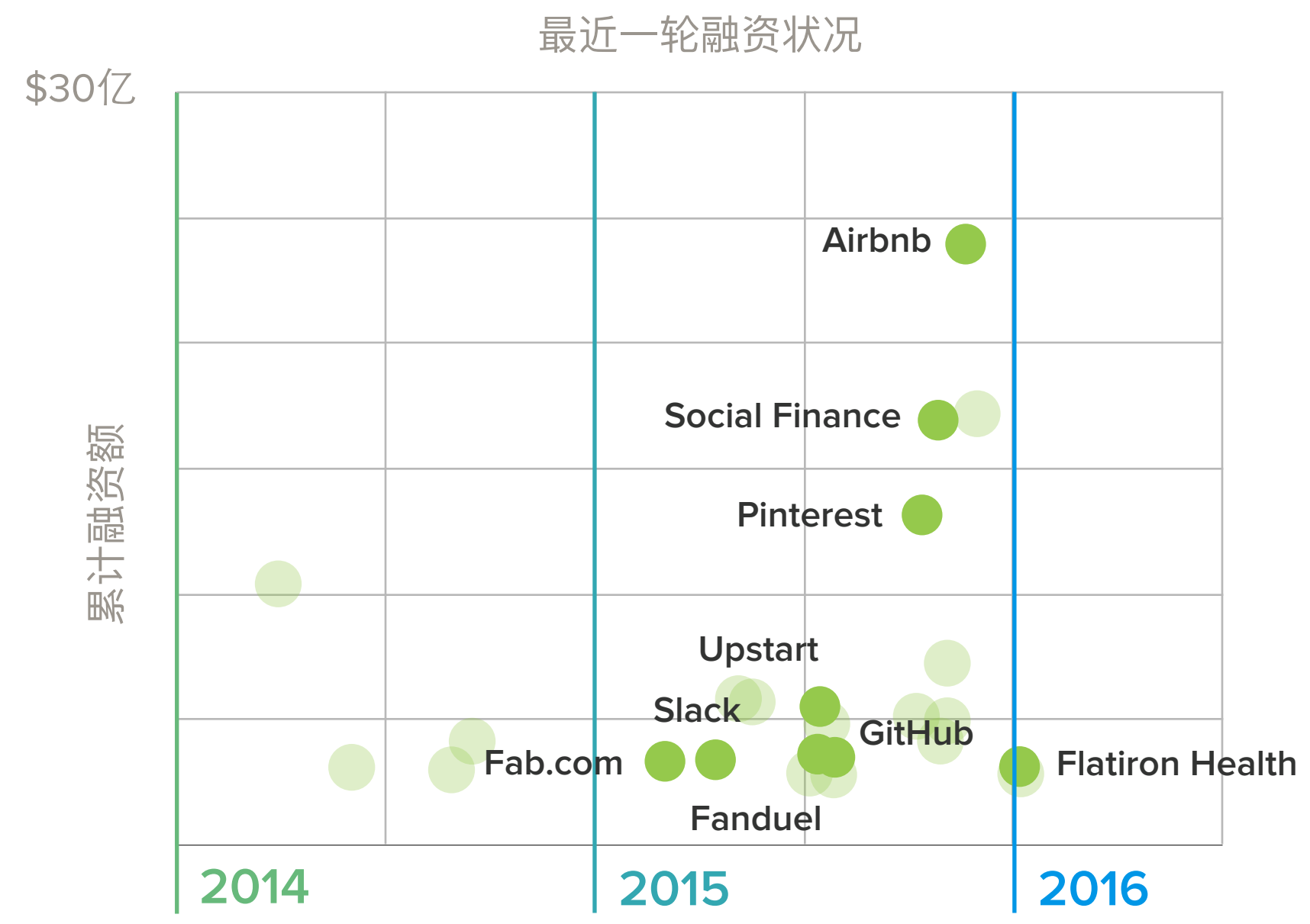
自2004年起，总共有42家设计机构被收购。其中约50%是去年内被收购活动最频繁的埃森哲（Accenture）、德勤（Deloitte）、IBM和脸书（Facebook）收购。

资料来源 // @kpcb #DesignInTech @johnmaeda @mbuzzard



设计师联合创立的初创公司中取得成功的并不少见

36% CB Insight“互联网行业”板块中最近融资成功的25家中初创公司由设计师联合创立。



21% 横跨各个领域的全球“独角兽”初创公司的联合创始人注重设计或具有设计、艺术和其他以人为本相关专业的背景，如建筑、音乐、可视化、美术、媒体艺术。

23andMe, ActiFio, Adyen, African Internet Group, [AirBnB](#), Aiwujiwu, Anaplan, AppDirect AppDynamics, AppNexus, Apttus, Apus Group, Atlassian, Auto1 Group, [Automatic](#), 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

来源美国创业市场数据追踪公司CB Insights，“从2013年1月1日至2016年2月29日，美国互联网类排名前25位由风投支持且于近期融资成功的公司”

来源美国创业市场数据追踪公司CB Insights，“获得风投支持的估值超过10亿美金的私人公司”

上一年由顶级风险投资机构支持的初创公司中，有**20%**（25家中有5家）拥有设计师联合创始人。一年后再调查，这一数字上升至**36%**（25家中有9家）。

资料来源 // @kpcb #DesignInTech @justinsayarath @cbinsights
cbinsights.com/research-unicorn-companies



KEY VC CATALYSTS
推动设计进入风投领域的关键角色



Kleiner Perkins Caufield & Byers
Michael Abbott
2012年 创立KPCB设计委员会



New Enterprise Associates
Dayna Grayson
2013年 创立NEA设计工作室



True Ventures
Om Malik
2011年 创立GigaOm路线图会议



Accel Partners
Vas Natarajan
2014年 创立Accel设计会议



Andrew Braccia
2014年 创立Accel设计会议



500 Startups
Dave McClure
初创公司中设计思维的早期倡导者



Bloomberg Beta
James Cham
初创公司中设计思维的早期倡导者



Y-Combinator
Paul Graham
初创公司中设计思维的早期倡导者



Jessica Livingston
初创公司中设计思维的早期倡导者



Khosla Ventures
Vinod Khosla
初创公司中设计思维的早期倡导者

设计师 在风投生态圈立于何地？

设计师在风险投资机构中的工作能力范围涵盖很广泛：从运营支持的角色到筹集风险基金的投资角色。他们这类角色增长的关键因素是普通合伙人已经意识到了对于设计的需求。

2009



Bessemer Ventures
Jason Putorti
首位入驻设计师



Slow Ventures
Dave Morin
基金联合创始人



Aaron Sittig
基金联合创始人

2010



Google Ventures
Braden Kowitz
首位设计合伙人



Michael Margolis
首位研究者



Y-Combinator
Garry Tan
首位作为YC合伙人的设计师

2011



Google Ventures
John Zeratsky

2012



Designer Fund
Enrique Allen
基金联合创始人



Ben Blumenfeld
基金联合创始人



Google Ventures
Jake Knapp



Daniel Burka



Andreessen Horowitz
Elizabeth Weil
斯坦福d-school讲师



Felicis Ventures
Nick Baum
第二位入驻设计师

2013



Y-Combinator
Kevin Hale

2014



KPCB
John Maeda



Khosla Ventures
Irene Au
用户体验引领者



Google Ventures
Tom Hulme
首位marquee基金普通合伙人



Sequoia Capital
James Buckhouse



Greylock
Bobby Goodlatte



Sutter Hill Ventures
Andrei Herasimchuk



Expa
Bruno Bergher



Kyle Doherty

2015



Rivet Ventures
Christina Brodbeck
基金联合创始人



Accel Partners
Jason Mayden



True Ventures
Jeffrey Veen



Expa
Anshu Agarwal



New Enterprise Associates
Albert Lee

2016



Benchmark
Scott Belsky
普通合伙人



Google Ventures
Jake Knapp新书《Sprint》



合著者
John Zeratsky
Braden Kowitz

说明：其中有些人已经离开这些风投，选择加入公司或创立公司

KPCB 设计委员会成员

小结从 数据 看科技中的设计

#DesignInTech By The Numbers

自2004年至今，共有42家设计公司被收购，约一半的收购发生在去年
我们正在迎来高峰

1

25家获得风投融资额最多的初创公司中，设计师为联合创始人的占了9家，相比上一年的5家有所提升

由设计师联合创立的公司已经站稳了脚跟

2

过去两年中进入风投领域的设计师比之前四年的总和还要多

创业加速器当中也能见到诸多设计师的身影

3

大公司正在通过并购，将设计视为核心竞争力。设计师联合发起的公司继续获得总计数十亿美元的投资，风投正在逐渐看到设计的重要性。

资料来源 // @kpcb #DesignInTech @johnmaeda

kpcb.com/design



科技中的设计之 未来 展望 (5年预测)

#DesignInTech Predictions Further Out (5 Year Prediction)

通过并购活动而涌入顶级服务型公司的设计师们将会重塑设计行业

驱动于有更多机会与董事会管理层进行接触

1

我们将看到更多的设计师成为风险投资机构的投资合伙人，并最终成立自己的基金

很多科技领域的设计师都是活跃的天使投资人

2

随着我们将具体设计细分种类的含义明确，广义“设计”一词的意义将会逐渐淡化

传统设计 VS 设计思维 VS 计算设计

3

上一年的愿景实现得太快，我们将目光投向了更远的地方....

2

The New Kind of Designer is TBD 待定义的新型设计师

- 当前的设计教育滞后于科技界对以数据为导向、有编程能力同时又兼具商业嗅觉的毕业生的需求
- 互联网上丰富的资源为正统的设计教育提供了有益补充，良好的自学能力成为新兴设计师的关键技能
- 编程以及测试能力对于今天的设计师而言是重要筹码，而系统设计与文化设计对设计师而言则是战略性技能

科技中的设计

与传统设计相关，却又有着根本上的差别

像脸书FACEBOOK这样的动态系统的设计不会有完结之时



“数字体验设计每时每刻都在发生变化，且就在你身边进行着...
各种系统的设计是如此的庞大，以至于常常难以理解其规模。”

— 玛格丽特 斯图尔特 Margaret Stewart @TED 2014

传统的设计学科

■ 建筑设计：我们所建的大环境	■ 室内设计：环绕我们的
■ 时尚设计：我们所穿的	■ 景观设计：环绕建筑的
■ 传媒设计：我们所见的	■ 工业设计：我们购买的

计算设计兴起于70年代建筑师与计算机图形学从业者的合作之中。在1996年，我创建了MIT媒体实验室美学与计算小组，以继续这个领域上向前推进。

资料来源 // @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



传统设计学科与科技设计学科的对比

COMPARISON 对比项	CLASSICAL DESIGN 传统设计	VS	DESIGN IN TECH 科技设计
活跃用户数量	几个到上百万		几个到数十亿
部署完整产品所需时间	通过分发渠道 几周到几个月		通过网络 即时传递
是否能达到“完美”	可以 存在最终状态		不能 总是在发展优化
设计者自信程度	绝对自信，自行证实		总体较高，但对分析研究持开放态度

将事情做到完美，正如传统设计者们想要达到的那样，与计算式系统的存在方式背道而驰。追求完美的本能和取向是好的，但是其定义已经需要发展深化。

资料来源 // @kpcb #DesignInTech @johnmaeda @avivgilboa

kpcb.com/design

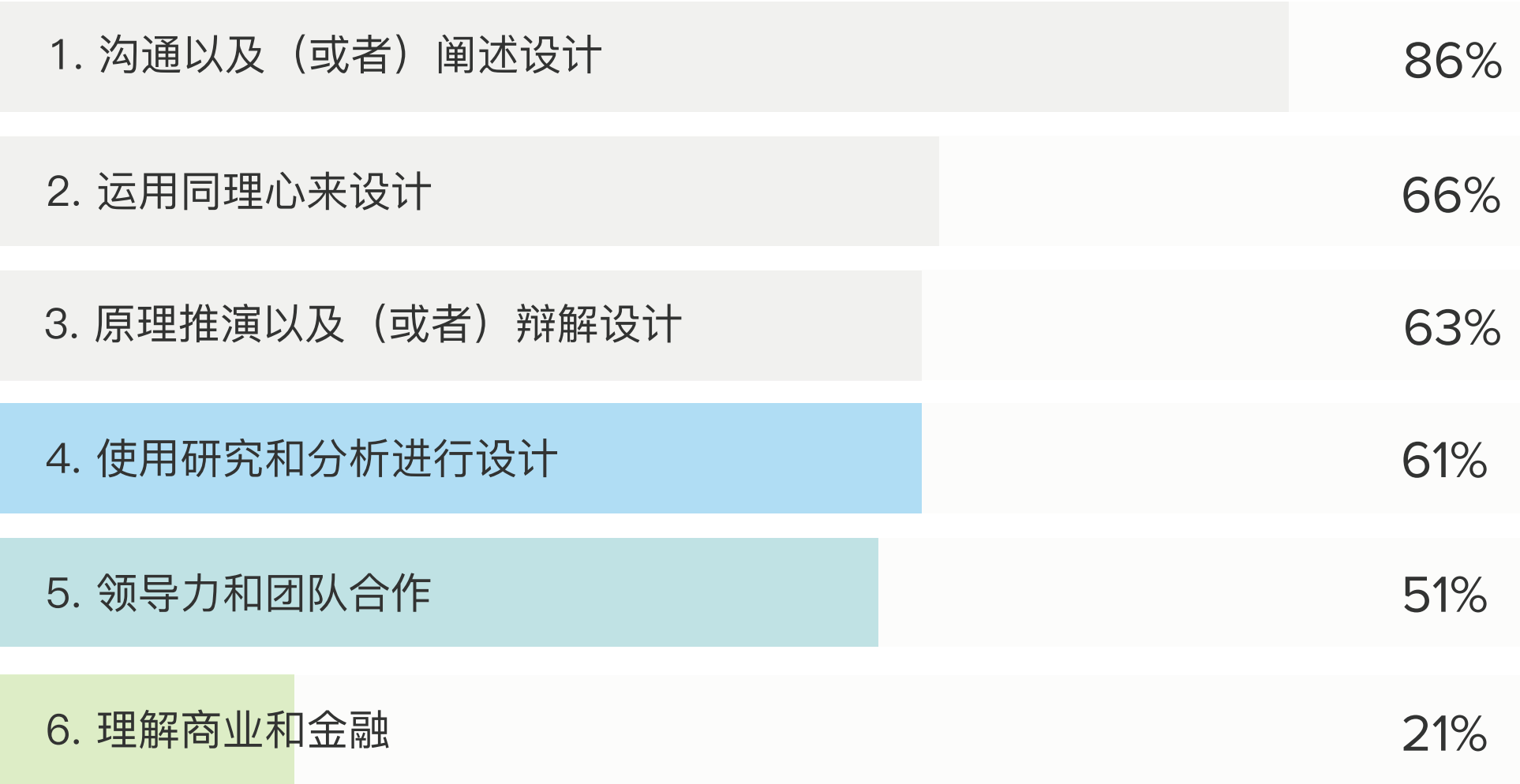
Design
in Tech

KPCB

挑战1 商业和金融并不被设计教育优先覆盖

当前设计教育的偏向：

以下那些角度是你的设计课程当中的核心？

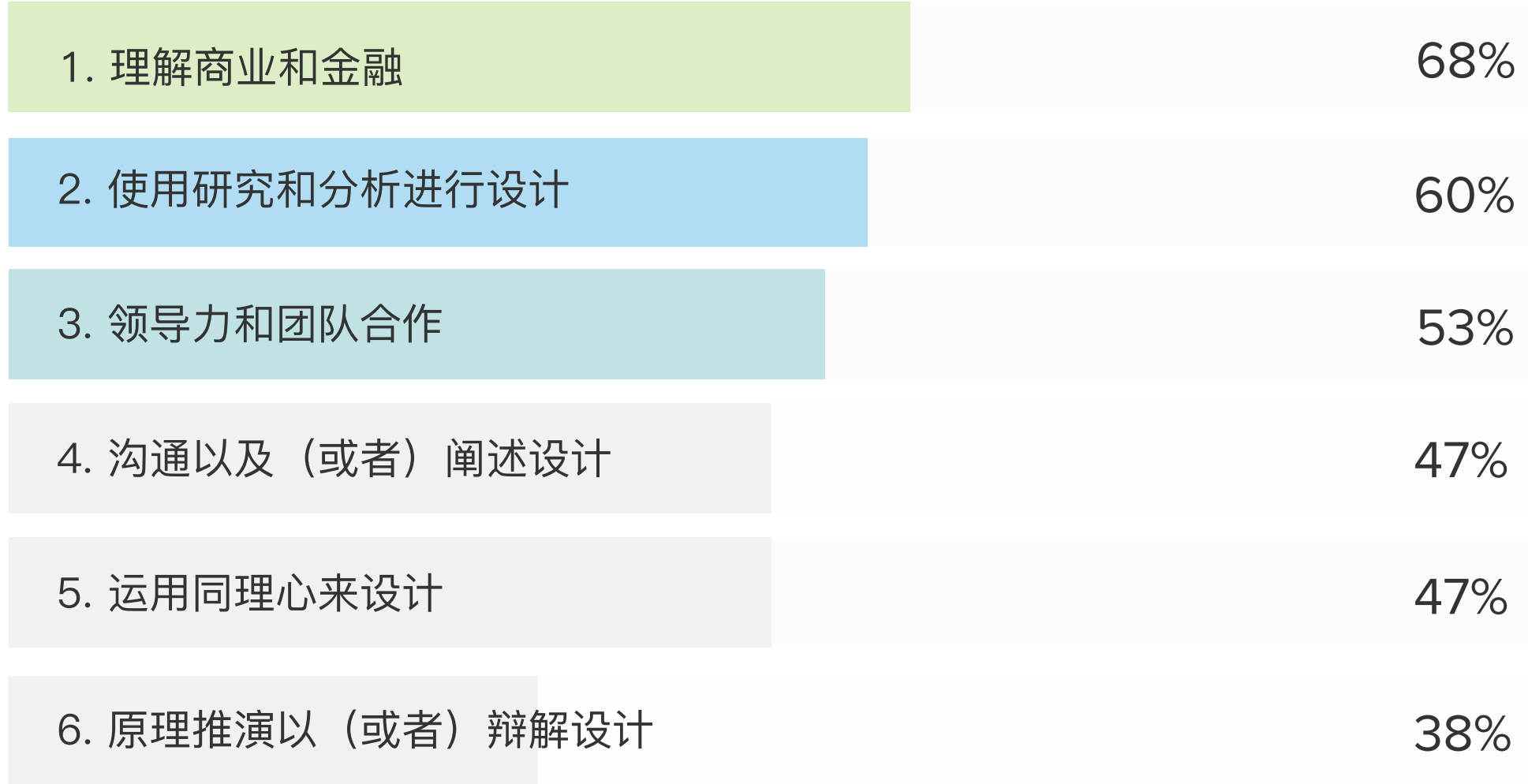


来自KPCB对329位现在/往届设计学生的调研

挑战2 研究和分析需要更高的优先级

设计毕业生期望的课程核心：

以下那些角度是你所期待的设计课程当中的核心？



来自KPCB对329位现在/往届设计学生的调研

你应该把孩子送到设计院校吗？

应该 — 还要鼓励 实习



在学校做项目时，最后的步骤总是在做“原型”，但是我们并没有时间赶在做下一个项目之前去测试当前的项目。直到我在KPCB Fellows学者项目中服务于一个创业团队时，我才意识到测试阶段的宝贵价值。

— Kaleigh Yang / 2015年KPCB设计学者 / 实习于Spruce Health

从科技设计的角度衡量当今，根本性的挑战存在于工程项目与设计项目所教育出的不同人才类型。新兴工程师们已经准备好拥抱技术；而新兴设计师们则较少这样。

资料来源 // @kpcb #DesignInTech @jshoe @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

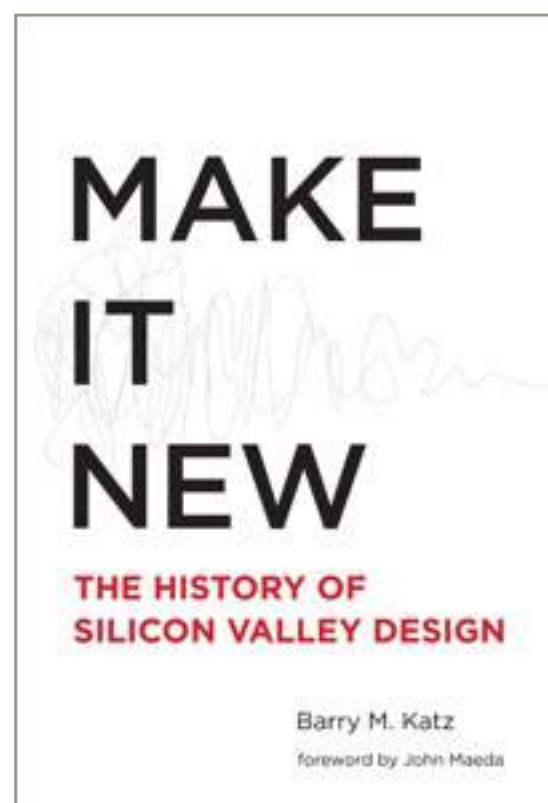


86%

接受调查的设计学生表示
他们通过课业之外的资源
学习到数字化技能。



如何学习这种 新型设计？



斯坦福大学与加州艺术
学院的巴里凯茨（Barry
Katz）完成了一部关于
科技设计的简史。



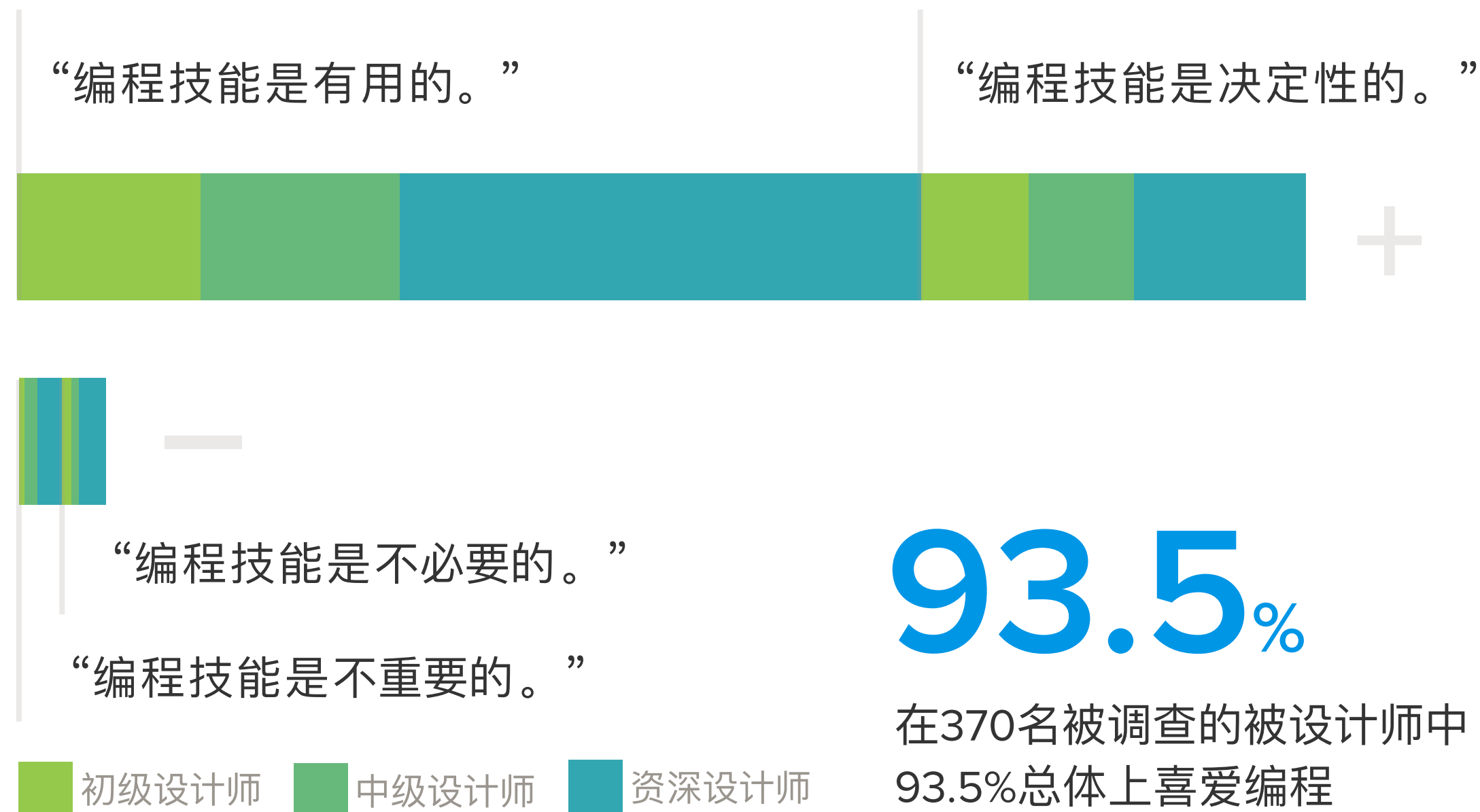
从Lynda完整的视频收藏，到O'Reilly的设计丛书，到无与伦比的A Book Apart图书系列，到整个世界正在举办的活动，再到漫画书，一直到由Invision出品的完整纪录片 — 可供学习内容实在是太多了。

资料来源 // @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



编程 对科技领域的设计师是否有用？



“你需要保持好奇心，同时对用来实现你的设计的技术有基本的了解。”

— Rochelle King / Spotify



“你所需的技能：编程，交互设计的深入理解以及基本的视觉设计。”

— Maria Giudice / Autodesk



“学会写好的代码。不要只上一两堂课，要上许多课，这样你才能像程序员一样思考”

— David Dat Nguyen / Gusto



“一定要学会编程。伴随着每一个技术周期，设计都在变得越来越复杂”

— Sash Catanzarite / Tradesy

读懂代码很重要，但对你来说并不需要成为一名编程专家。

资料来源 // @kpcb #DesignInTech @rochelleking @mgiudice @davidatnguyen @thesash @johnmaeda

Wikipedia: List of Programming Languages eecs.mit.edu/docs/ug/6-3.pdf

日常电子工具中的设计 创新例子

Google Search 谷歌搜索

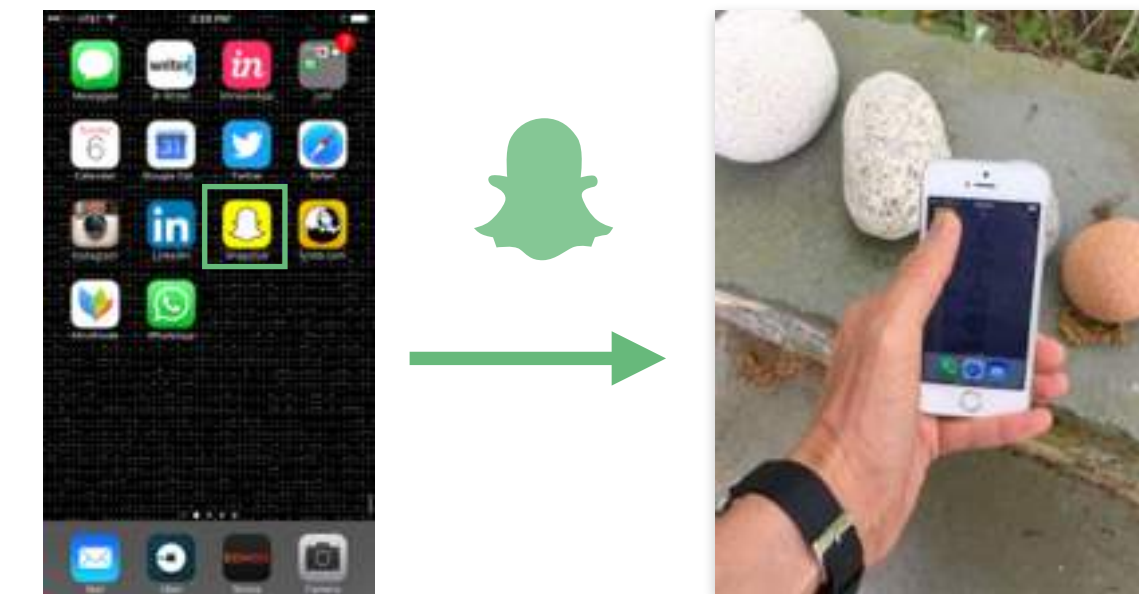


关键设计理念：复杂隐匿于简洁的大门之后

将主页限制在一个搜索框是谷歌为保持其简洁性而长期奉行的准则。一旦搜所词条被键入，复杂的结果就马上呈现出来，但是你最初却无法意识到这些。

类似的应用：Motorola Startac手机引入翻盖设计隐藏了所有的复杂性 — 只需使用时才显现。

Snapchat移动应用



关键设计理念：“来电”源于相同的偏好

大多数图片类应用会请求使用摄像头的权限，而Snapchat却通过实时快照展开互动。拍照邀请是实时和保密的，而阅后即焚的特征更让使用者欲罢不能。

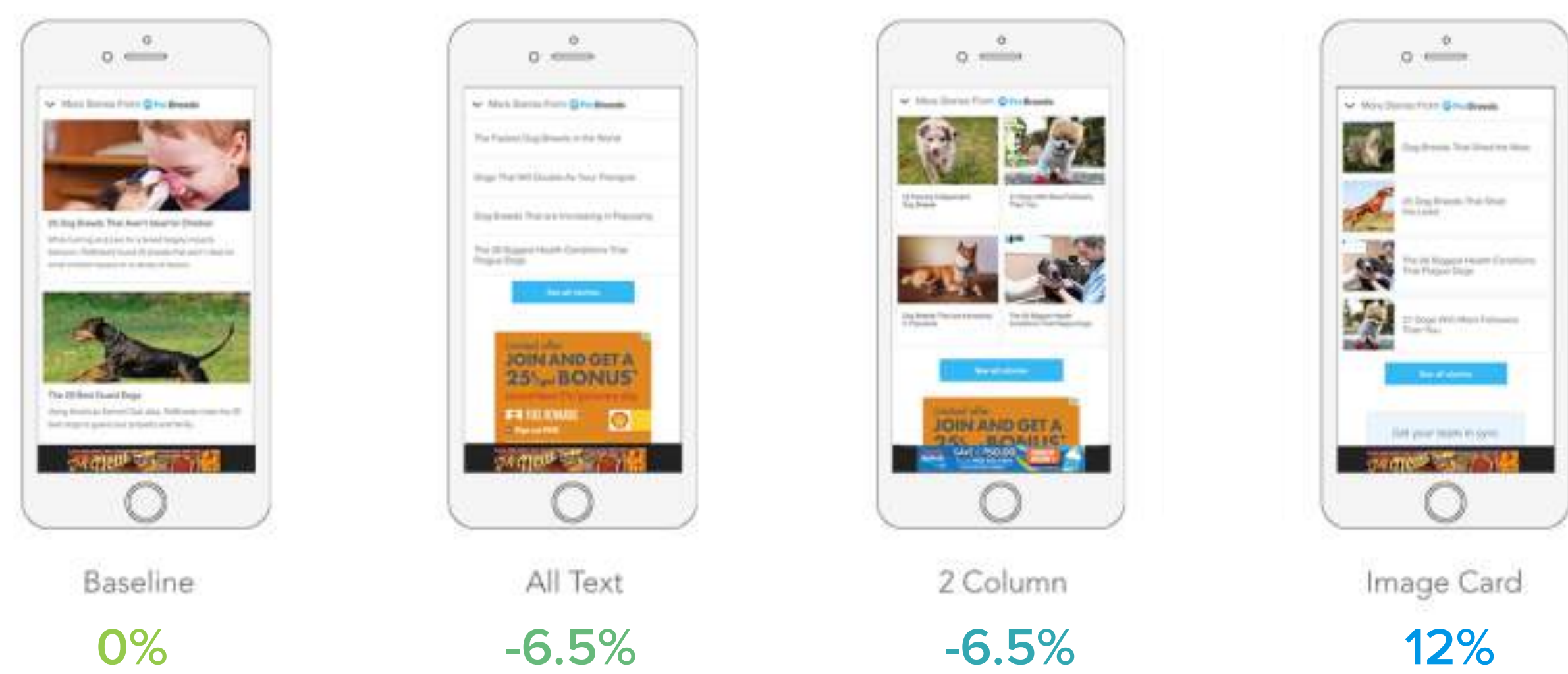
类似的应用：一把锤子的手柄引诱你去抓它。在设计领域这叫物品的“示能性”（affordance）——它暗示你该如何使用它。

常见问题：设计到底有多大影响力？视情况而定

重大设计改变往往能影响使用行为，有时甚至影响极其显著

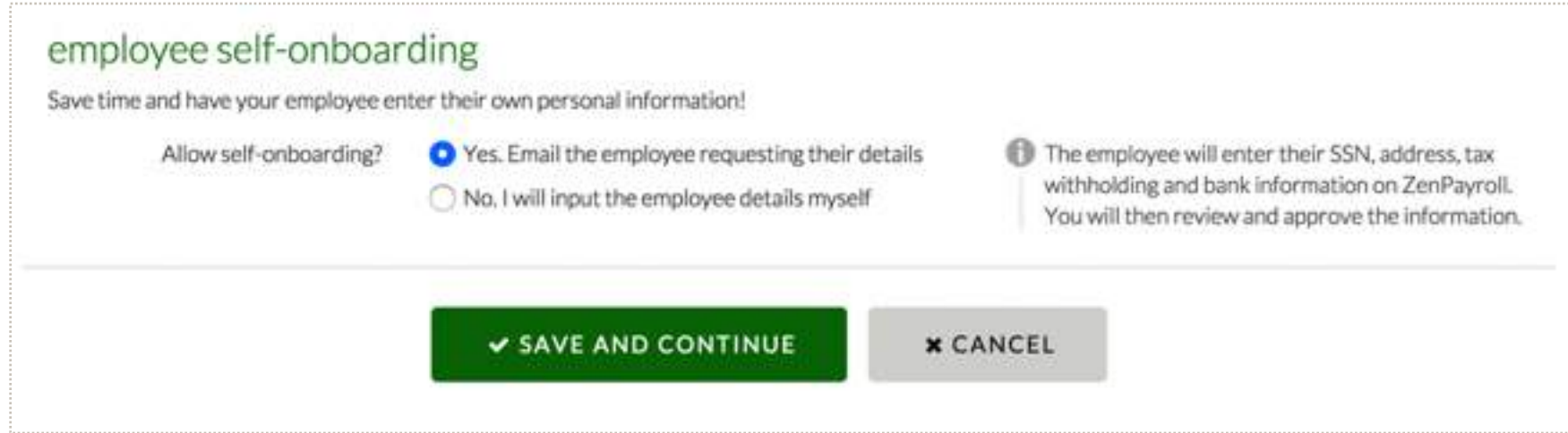


例子：Graphiq对广告位置进行了三次产品设计测试，发现最优位置能将用户参与度提高12%。
“我们通过大量的定量测试和定性验证这个过程来设计和管理整个用户体验。” — @graphiq



例子：Gusto给企业设计了更具探索性的员工入职引导流程，使得员工的使用体验更愉快，这一工具的使用率提高10倍。

1000%



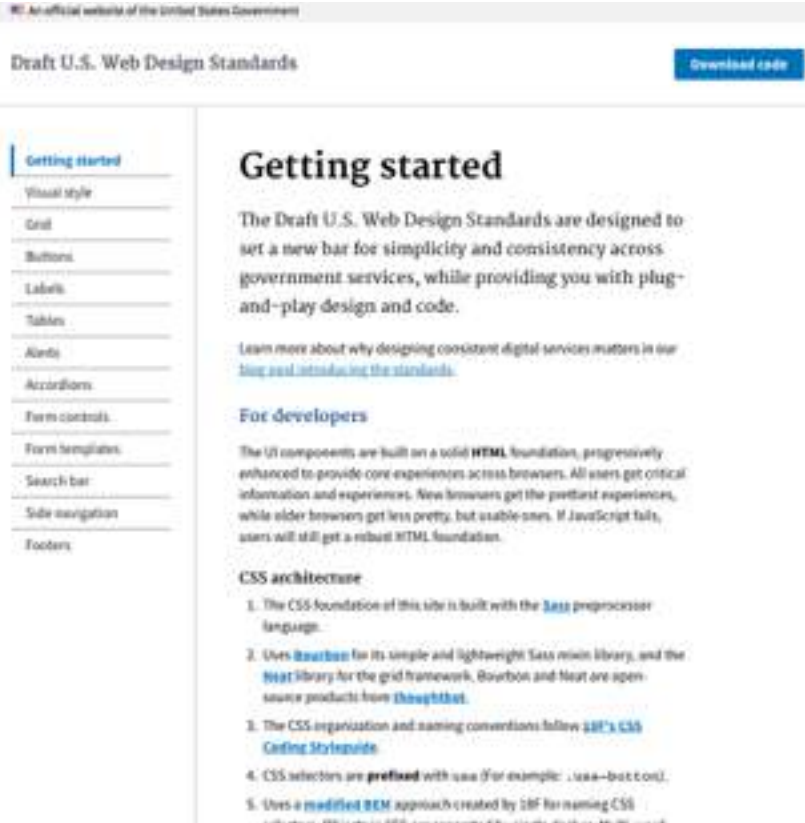
设计在功能层是独立的，但是可量度。设计在系统层面上是更大胆和整体性的，但更难被量度。

如何用设计带来更大的改变？通过 设计体系



设计系统

指导原则的建立能使各类人自行构建更好的设计，这种“元设计（Meta Design）”从企业形象手册的时代就开始有了品牌手册及资源库就是最基本的可重复性设计的范例。

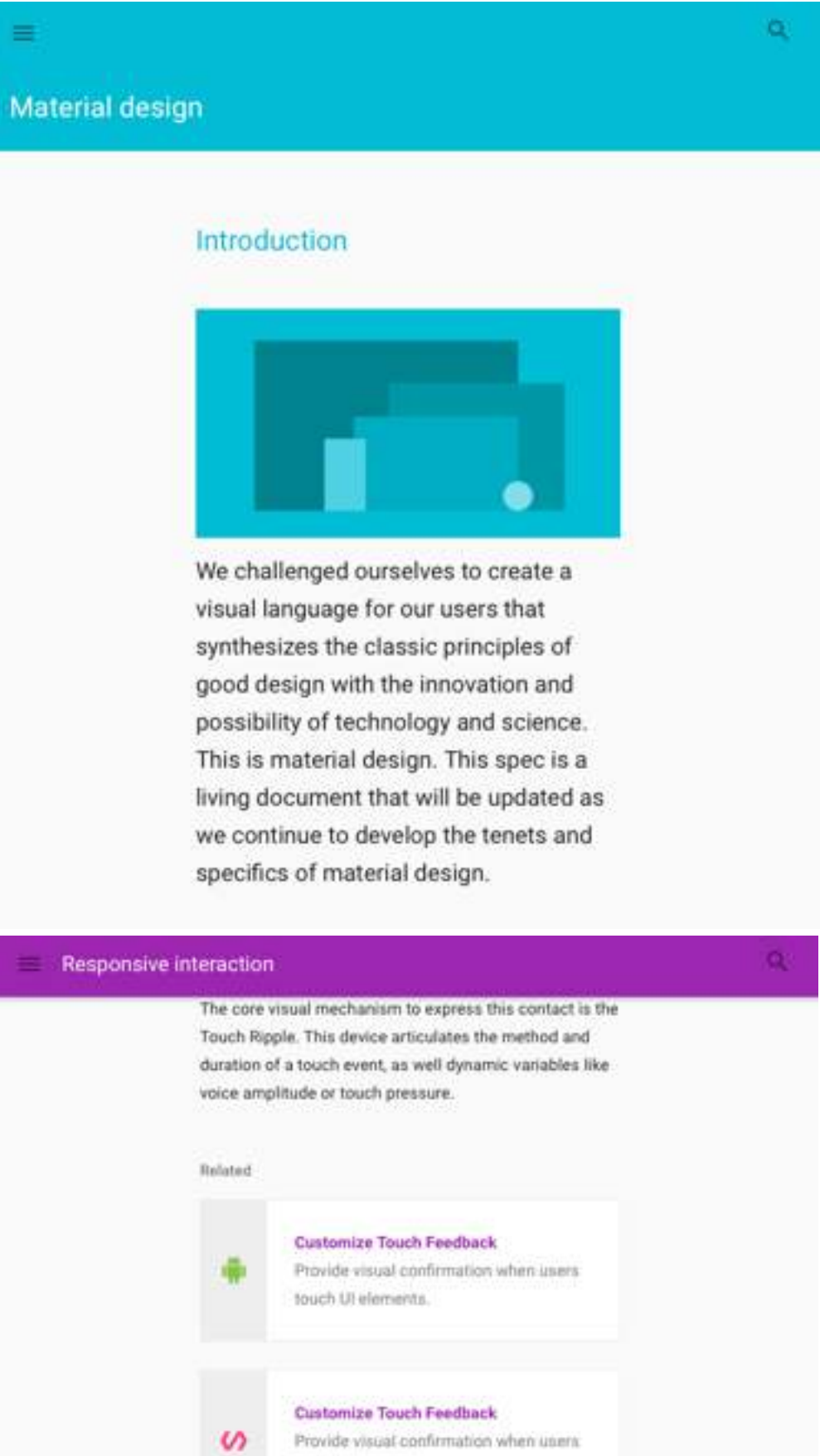


实例：HEALTH.GOV和USDS美国网页设计标准

55% 的用户通过运用一致可重复的标准完成了healthcare.gov 1.0上包含76页内容的注册过程。

85% 的用户完成了healthcare.gov 1.0上包含16页的注册过程。

// 用更少成就更多



实例：Anroid安卓 Material Design 材料设计语言

统一的APP样式
建立更好的一致性

优质体验
提高到现代标准

以设计为先
设计作为一种意识行为

// 一致性可以减少混乱

设计可重复使用的系统是达到规模化的一种传统技巧 — 可它依然有效。

资料来源 // @kpcb #DesignInTech @HealthCareGov @android @davidatnguyen

medium.com/@bchesky/dont-fuck-up-the-culture-597cde9ee9d4#.bwdgjr1s 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-in-america/397784 medium.com/@davidatnguyen/10-lessons-for-building-a-design-team-from-scratch-13c2b9a9d58#.aci9b6398

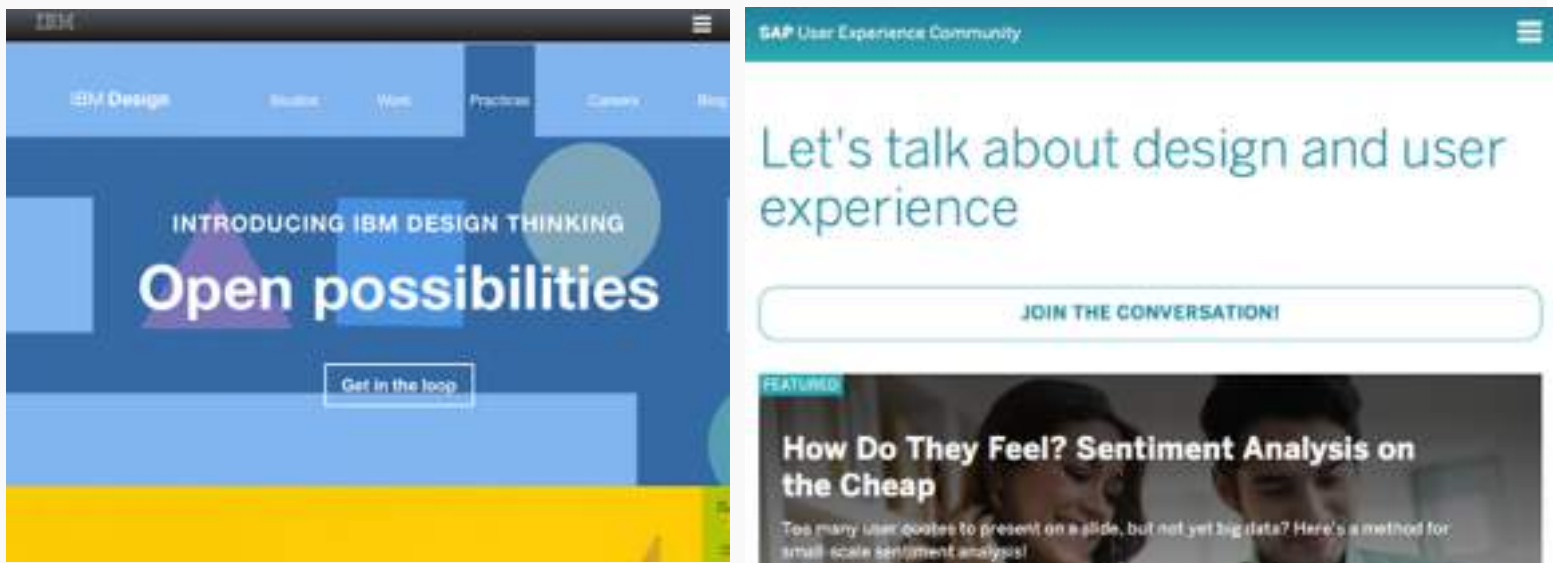


如何让设计带来更大的改变？通过设计文化

设计文化

设计原则的建立能够形成一个公司的文化环境，以理解设计如何能被最有效的运用。更重要的是，能让他们在同一个“剧本”里工作。

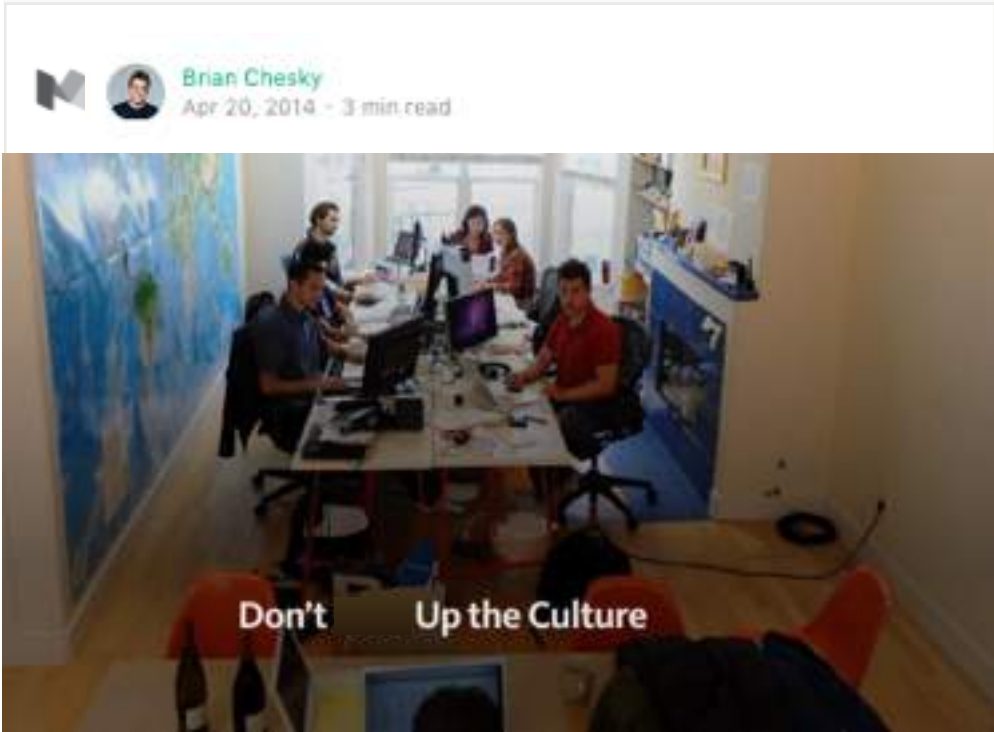
Brian Chesky 给 Airbnb 团队的备忘信就说明了一切.....➡



IBM
雄心壮志大规模拓展设计思维

SAP
设计思维领域的长期领袖

不要搞砸企业文化！



2013年10月21日周一，我给全体Aribnb团队发送了这封信。我决定发布的原因是也许这对企业家们打造企业文化有帮助。

嘿，团队伙伴们：
我们下一个团队会议将关注在核心价值观，这对打造我们企业文化至关重要。会议前我忽然想到，我应该给你们写封信告诉你们为什么文化对我、Joe、Nate那么重要。
2012年我们和Peter Thiel结束了C轮融资后，我们邀请他到了我们的办公室。那是去年年末了，我们在Berlin这间会议室给他看绩效指标。谈话中途，我问他能给我们最重要的一条建议是什么？
他回道：“不要搞砸企业文化。”

Airbnb以设计为公司文化之本



Airbnb公司的标志很少作为传统的公司标识被使用，更多是作为一个叙事性元素以组织房主们形成一个社区。他们随后设计的名为“开放的Airbnb”系列活动也使企业价值观在房主中得以广泛传播。



空间设计亦是文化设计

会议室均仿照Airbnb上真实的房源清单进行设计

照片墙展示着房东和租客们的照片

建筑师：@ GenslerOnCities

产品是公司文化的产物，而不只是公司内部打开一个“设计”的神奇开关后就能出现的。它代表着CEO及所有执行团队有意识地重视设计后的辛苦成果。

资料来源 // @kpcb #DesignInTech @justinsayarath @philgilbertsr @davidatnguyen

medium.com/@bchesky/dont-fuck-up-the-culture-597cde9ee9d4#bwdgjr1s forbes.com/sites/ewanspence/2014/11/05/android-material-design-reduce-ui-fragmentation/#28f31e8e4984 airbnbopen.com/ gensler.com/projects/airbnb blog.airbnb.com/airbnb-open-day-1-welcome-home medium.com/@davidatnguyen/10-lessons-for-building-a-design-team-from-scratch-13c2b9a9d58#aci9b6398

商学院 会是下一个最大的设计师出产地吗？

去年，商业周刊（BusinessWeek）和哈佛商业评论（Harvard BusinessReview）都登过关于设计的封面文章



2015年5月
封面标题：设计问题



2015年9月
封面标题：设计思维的进化

2015年美国新闻与世界报告商学院前十名

- 1 斯坦福商学院
- 2 哈佛商学院
- 3 宾夕法尼亚大学沃顿商学院
- 4 芝加哥大学布斯商学院
- 5 麻省理工学院斯隆商学院
- 6 西北大学凯洛格商学院
- 7 加州大学伯克利分校哈斯商学院
- 8 哥伦比亚大学商学院
- 9 达特茅斯大学塔克商学院
- 10 弗吉尼亚大学达顿商学院

100%

的排名前十的商学院有学生领导的设计/创新社团。

78%

的设计、工程和产品领导者说，在他们公司，驱动最终产品决策的利益相关者首要是产品。其次是工程，占16%。

6-7%

的哈佛商学院2015届毕业生做了产品管理工作。

在去年的报告中，我们指出10个顶级商学院中，有7个拥有设计/创新学生社团。到这一年，100%的顶尖商学院都拥有了学生主导的设计组织。

3

Public Company Trends 上市公司趋势分析

- SAP曾经是设计思维领域最早的利益相关者之一，IBM在设计思维方面的新努力很全面也值得关注
- 谷歌过去十年持续进行的一系列动作使其在设计质量方面的认识度大幅提升
- 财富百强公司（Fortune 100）已经将设计提升到执行管理层这一优先级，众多新型的覆盖设计服务的公司也必将有所助益

“有好的设计就会有好的商机”已成为事实，并将持续发展优化

时间线

为大公司服务的传统型设计的诞生
企业标识 + 图片和产品风格

现代产品设计公司的诞生
从传统型设计到系统 + 服务型设计

“设计思维”及设计策略的诞生
为设计师提供创造性解决问题的技巧

“设计思维”成为整体商业策略的主流
重构设计情景，将商学院B-School
转变成设计学院D-School

1950年代 / 通用电气GM



通用汽车(GM)首席执行官把Harley Earl提拔为副总裁，首次确立了设计职务在公司高层的位置

1966年 / IBM



IBM首席执行官TJ Watson Jr. 在给员工的备忘信中谈到，“设计”对于公司与日俱增的重要性

1969年

frog



从1982年起，在Hartmut Essinger指导下，苹果公司形成自己的设计语言

1991年

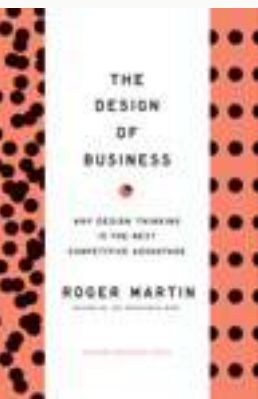


David Kelley、Bill Moggridge、Mike Nutall 联合创立IDEO，改变了设计格局

2005年



Hasso Plattner = SAP联合创始人



2008年 - 2009年



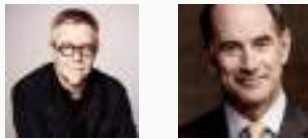
Roger L. Martin在与宝洁公司的AG Laffley的交流以及他的著作《商业设计The Design of Business》中描述了公司最高执行管理层的设计思维

2015年



Phil Gilbert领导了IBM1亿美金豪赌，誓将设计带回IBM

2015年



Tim Brown和Roger L. Martin为哈佛商业评论(HBR)开辟了有关“设计思维的进化”的介绍篇章



SAP和P&G是早期在管理层采纳“设计思维”的少数几个公司之一，但回顾历史，像GM和IBM这些公司的CEO早在1950年代就对将设计作为竞争优势产生了浓厚的兴趣。

资料来源 // @kpcb @philgilbertsr @ibmdesign @frogdesign @ideo @stanfordschool @harvardbiz @proctorgamble @nytimes @rogerlmartin @business

bloomberg.com/news/articles/2008-07-28/p-and-g-changes-its-gamebusinessweek-business-news-stock-market-and-financial-advice -03.ibm.com/ibm/history/ibm100/us/en/icons/gooddesign/



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

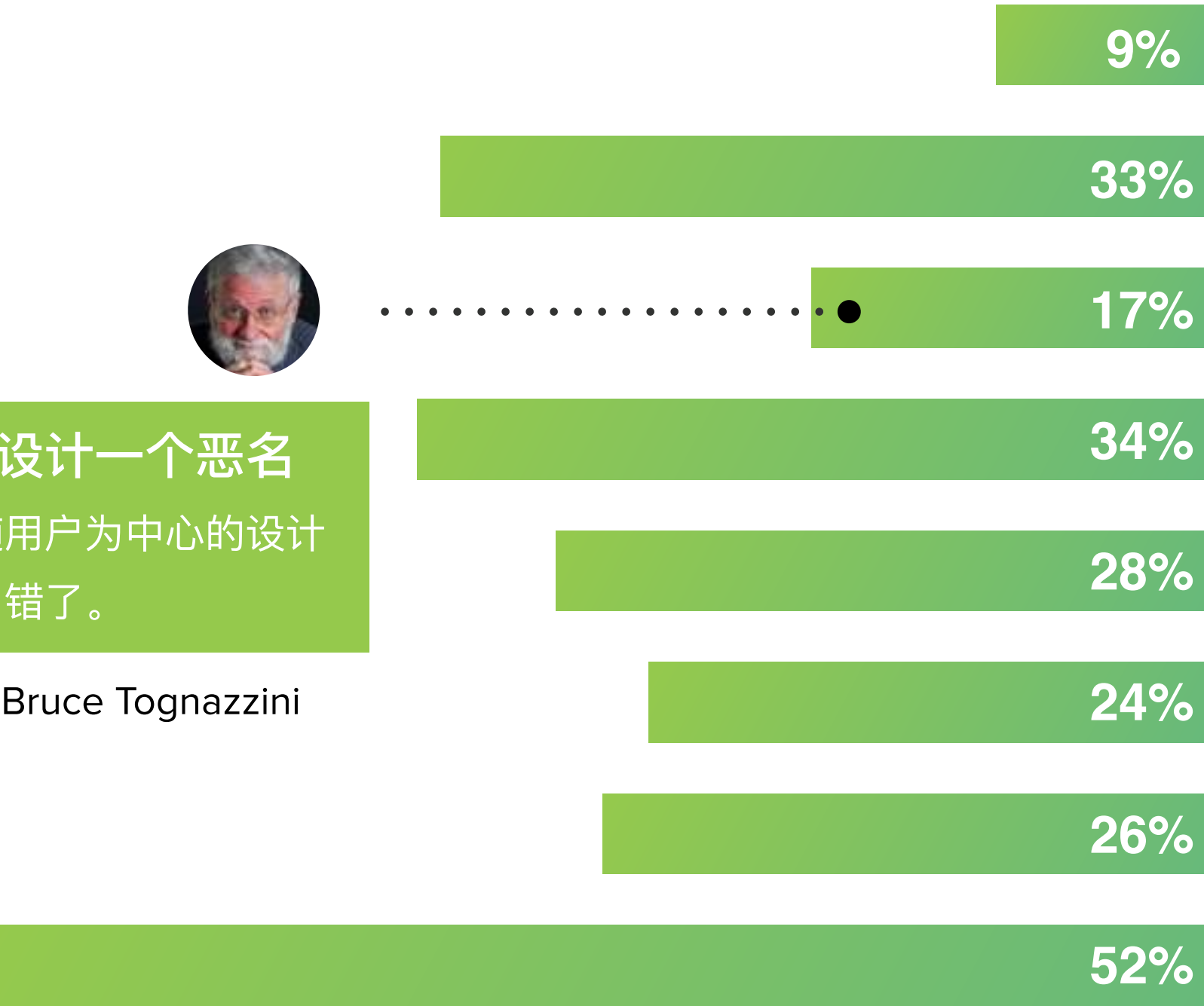
2015年财富百强企业，超过 10% 把设计列为执行管理层优先项

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

但是随着众多设计公司被收购并入客户服务领域，不难想象设计将通过这些组织的董事会进入这些组织。

在设计方面 谷歌 的产品被认为改善最大

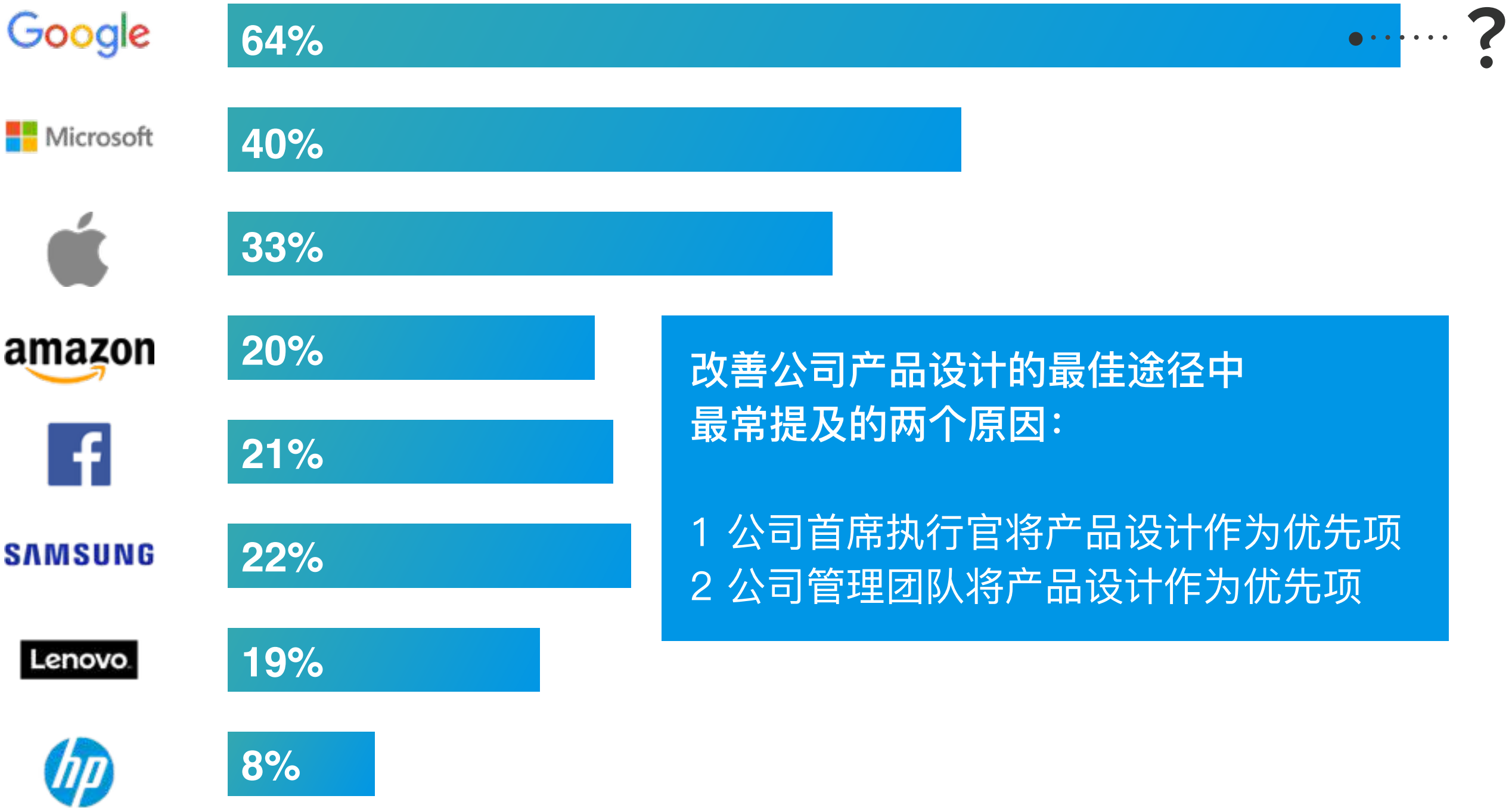
以下公司产品中哪个最需要改善设计？



苹果公司如何给设计一个恶名
多年来苹果一直追随用户为中心的设计原则，然而有些事出错了。

作者 Don Norman & Bruce Tognazzini

以下哪个公司的产品在设计方面最近改善显著？



改善公司产品设计的最佳途径中最常提及的两个原因：

- 1 公司首席执行官将产品设计作为优先项
- 2 公司管理团队将产品设计作为优先项

在我们单独进行的两个研究中，苹果公司在产品设计质量方面给人的深刻印象是异军突起。然而，当问到设计改善（而非需求改善）哪个公司的印象深刻时，谷歌脱颖而出。

资料来源 // @kpcb #DesignInTech @jnd1er @asktog @fastcompany @johnmaeda 数据 // 545个调研反馈的百分比分析

fastcodesign.com/3053406/how-apple-is-giving-design-a-bad-name

为何谷歌的设计

正在走向成功？

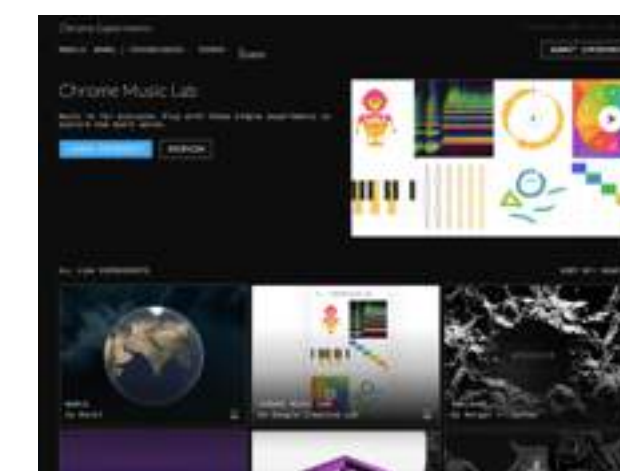
很大程度上归功于Larry Page
把重心放在设计上

design.google.com庆祝公司的设计文化



谷歌ATAP项目ARA项目

谷歌创意实验室 / CHROME实验 / 30WEEKS设计师创业孵化项目



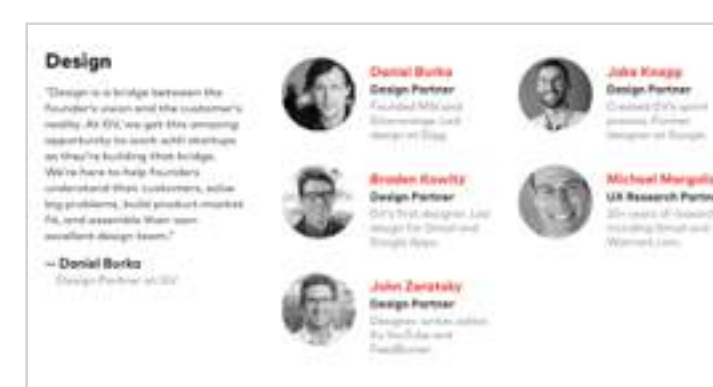
“过去几年在设计上投入巨大。以Material Design和Inbox为例，他们看起来在使用创新设计解决老问题上进行了扎实的工作。”

“从对设计的后知后觉到以设计为中心驱动力的转变快得让人难以置信，而且似乎触及所有产品。”

— KPCB设计、产品、工程领导者研究

谷歌风投的设计团队在风投中引领着设计

材料设计语言MATERIAL DESIGN的影响巨大



当在罗列谷歌在设计领域做出的努力时，其涵盖之广令人印象深刻：从材料设计语言，到Google Venture的设计领导地位，再到Google创意实验室和Google ATAP的科技创意魔法。

资料来源 // @kpcb #DesignInTech @googledesign @matiasduarte @gvdesignteam @jakek @gvteam @googleatap @projectara

google.com/design/spec/material-design/introduction.html design.google.com projectara.com



影响对设计优异程度感知的因素

人才	投资意愿	管理层 / 董事会支持	创新	战略
知道吸引明星设计人才	设计被看作利润中心	首席执行官，管理层团队及董事会认可设计的价值	设计驱动创新	设计是产品战略的中心驱动力；而非后知后觉之事
脸书 FACEBOOK 谷歌 GOOGLE	苹果 APPLE 谷歌 GOOGLE 脸书 FACEBOOK IBM NETFLIX SQUARE 特斯拉 TESLA	苹果 APPLE 谷歌 GOOGLE 脸书 FACEBOOK SQUARE	苹果 APPLE 谷歌 GOOGLE 特斯拉 TESLA	苹果 APPLE 谷歌 GOOGLE 脸书 FACEBOOK SQUARE 特斯拉 TESLA

我们调研了超过50家设计，工程及产品领先公司。他们被要求列出两家认可设计价值的上市公司。其他被提及的公司包括 Nike、Virgin、Porsche、Target、Disney。

资料来源 // @kpcb #DesignInTech @jshoe

4

Design Quality is $\propto$ to Caring 设计品质和关怀度成正相关

- 对设计进行批判性的思考，意味着考虑利益之外产品和服务对于人类更广泛的影响
- 未来几代的设计师立志于运用对全人类同胞的同理心来改变现状、重塑世界
- 与其将多元化视为待以解决的问题，不如为包容多元而设计，这既提供了经济发展的机会，也承载了文化的责任

模仿是最诚挚的恭维，但抄到何时需适可而止？

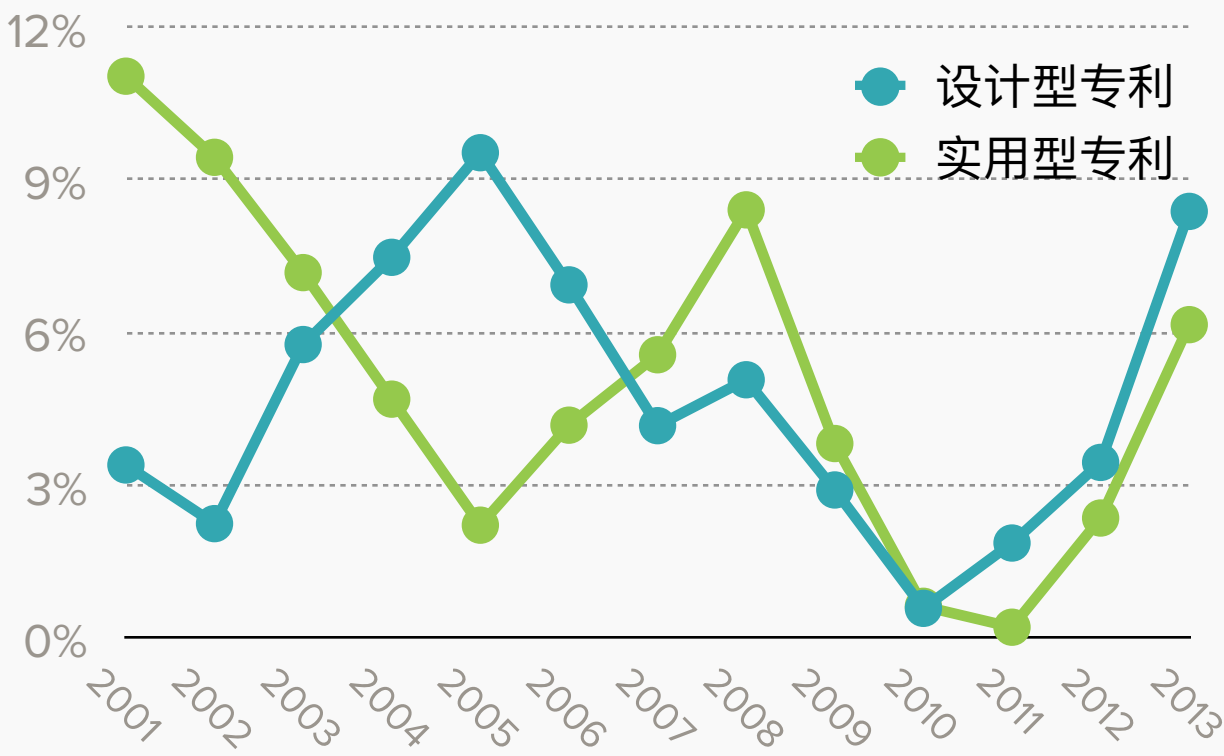


开始只是个向一个伟大艺术家的友好致敬。后来变成由Scott Kildall和Bryan Cerac创作的“带有胡子的国际象棋”这一幽默艺术品，并在Thingiverse上开放给所有人来进行3D打印。

国际象棋上的胡子艺术与拙劣模仿 KILDALL + CERA



一个我20年前的想法已经两次被Diesel在他们最新的Diesel Thalia Logo重复印刷文T-shirt上使用。



设计型与实用型专利的数量三年平均值变化比较图

设计型专利的增长速度远远超过了实用型专利，而实用型专利在数量上仍占上风，是设计型专利的8倍。

设计型专利



USPTO D746029
Hermès Lions运动鞋专利在2015年12月29日被@thefashionlaw时尚法通过

在时尚行业，设计型专利较为普遍。看看Louboutin打赢的官司，你就知道为什么现在的鞋跟都那么高了。



三星和苹果专利纠纷

美国专利局2012年判三星侵犯苹果“圆角”专利D618,677，赔偿1百万美金。

艺术家和设计师都有相互模仿的传统（就像是进化和基因突变的过程）。从Apple和Samsung（2012）的例子看来，一个产品或者服务的外观所产生的价值正在不断提升。

资料来源 // @kpcb #DesignInTech @johnmaeda @kildall @BryanJCera @thefashionlaw @museummodernart @DIESEL @USPTO

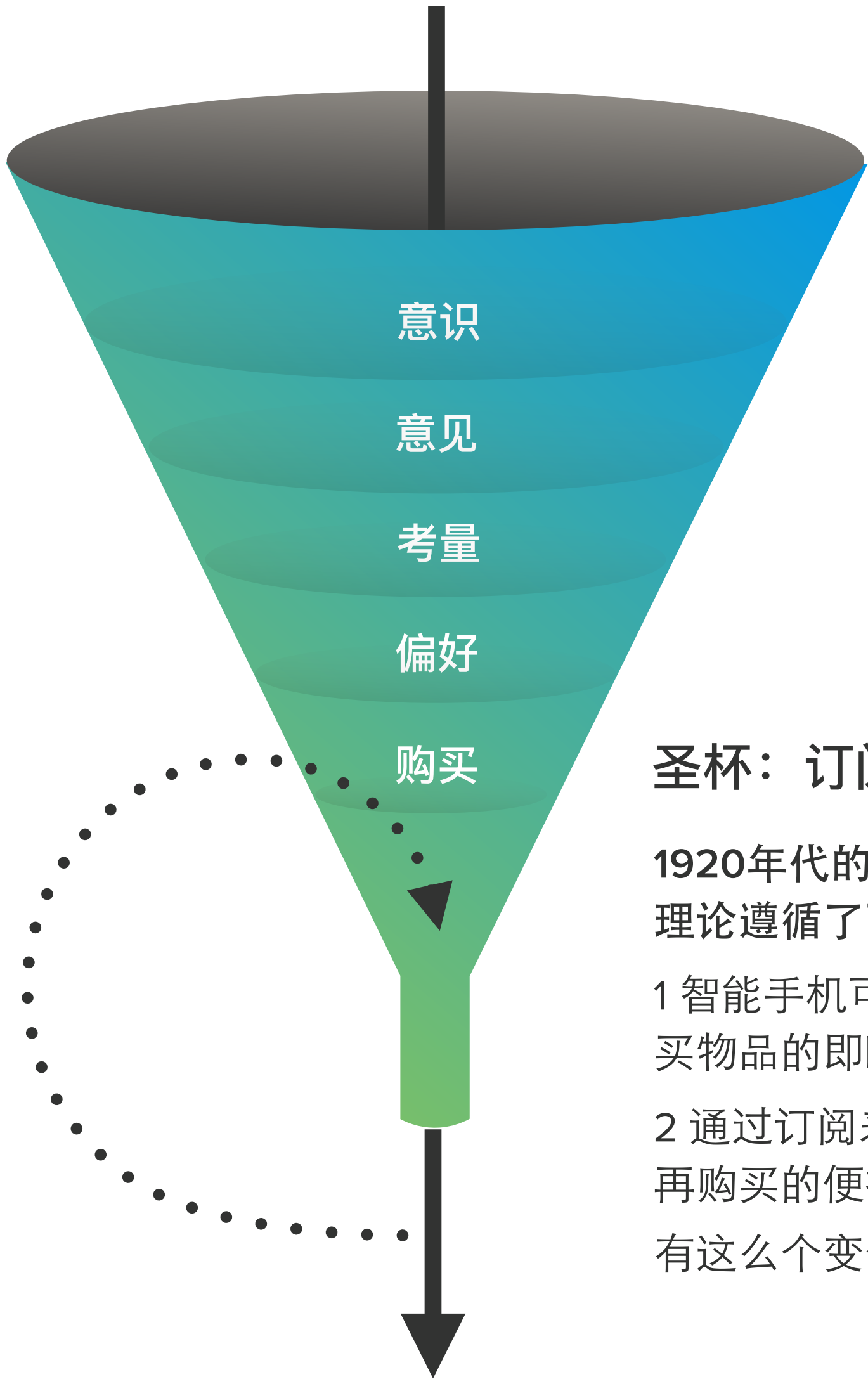
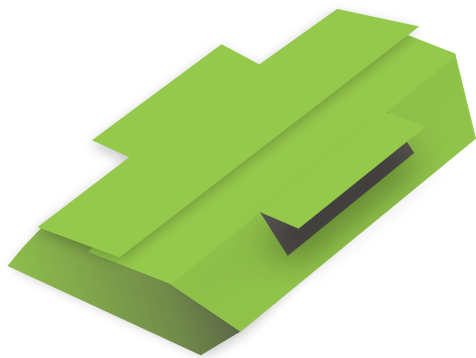
polyvore.com/diesel_thalia_repeat_print_logo/thing?id=1927688 fortune.com/2015/08/19/apple-patents-rounded-corners/ kildall.com/project/chess-with-mustaches/ thefashionlaw.com/home/herms-awarded-design-patent-for-sneakers moma.org/collection/artists/30299 uspto.gov/learning-and-resources/statistics usa.hermes.com/man/shoes/sneakers/lions/configurable-product-z-mensshoes-lions-79621.html

darkpattern.org

“黑暗模式是一种精心打造的用于诱导用户行为的界面，比如诱导购买保险或者订阅循环性的账单。”

成瘾性设计的伦理问题

- 诱导转向
- 转移注意力
- 下套子
- 挂羊头卖狗肉
- 无法感知的账单
- 强制持续使用
- 潜藏成本
- 打包售卖
- 强行获取个人信息
- 通过好友发送垃圾信息
- 路障
- 跳不出的坑
- ...



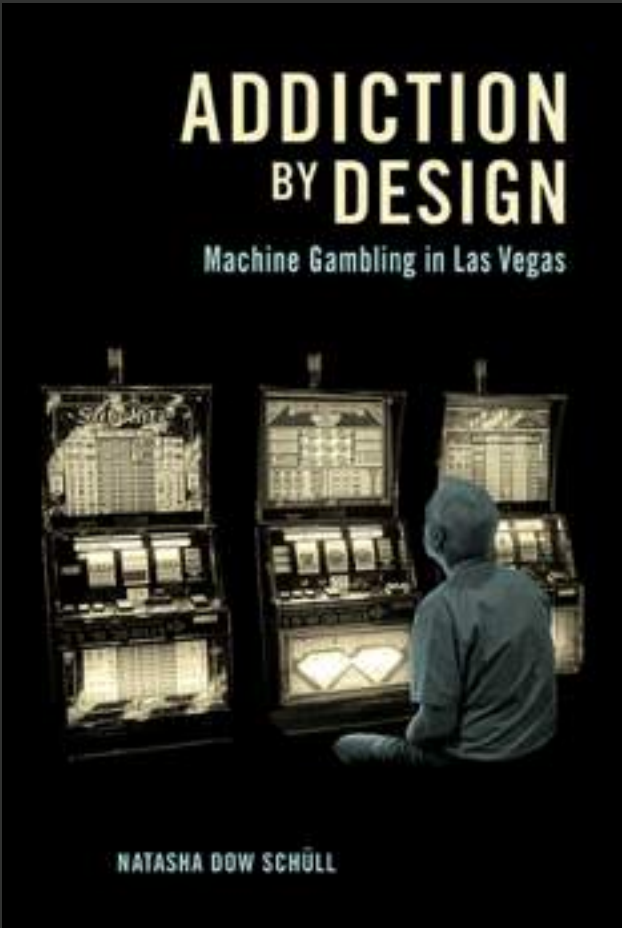
圣杯：订阅式购买过程

1920年代的“购买漏斗”理论遵循了两大差异：

- 1 智能手机可以直接购买物品的即时性
 - 2 通过订阅来实现循环再购买的便捷性
- 有这么个变化分界线。

“若要设计师不导向这样的产品和体验是不现实的：既要提高底线，又最大程度上吸引注意力。”

– Natasha Dow Schüll



ADDICTION BY DESIGN

设计成瘾

Machine Gambling 拉斯维加斯

Natasha Dow Schüll

普林斯顿大学出版社 / 2012年9月

资料来源 // @kpcb #DesignInTech @johnmaeda @harrybr @marcmiquel @jeremy74 @joffley

ethnographymatters.net/blog/2015/02/09/the-addiction-algorithm/ marketing-made-simple.com/articles/purchase-funnel.htm <http://darkpatterns.org/>

分数和评级

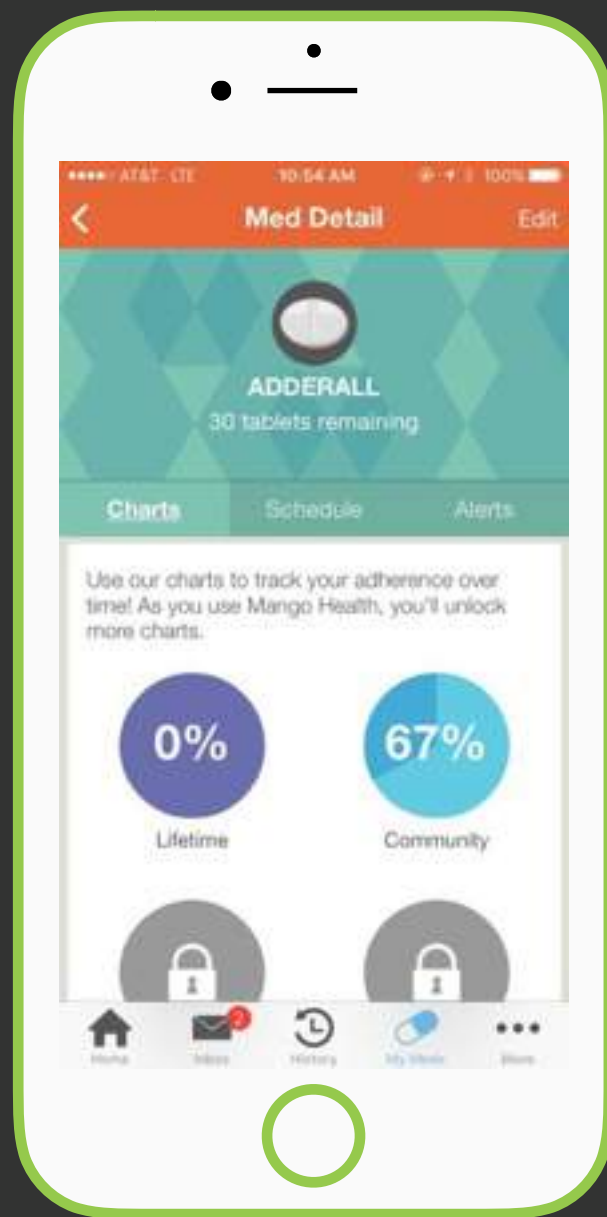
93%的用户表明他们愿意继续使用此app

自发性的奖励

用户可以获取积分来得到兑换奖励的机会（比如美国超市Target的礼金券）

社交化比较

84%的用户会把这个应用推荐给朋友和家人



芒果健康运用了游戏化设计让原本枯燥的吃药体验变得有趣，最终来影响用户标准化、遵循医嘱的用药行为和通过一段时间达到药效。

资料来源 // @kpcb #DesignInTech @avivgilboa @mangohealth @michelleskimo @joberfest @FastCompany Lynne Chou

fastcoexist.com/1681727/mango-healths-quest-to-turn-taking-your-pills-into-a-game/1 twitter.com/johnmaeda/status/589071088832749568

健康科技领域

适度的成瘾性设计是有益的

“在美国，75%的成年人不按照配方吃药。其结果导致的是健康医疗系统3000亿美金的负担。芒果健康 (Mango Health) 试图解决这个问题。”

— Ariel Schwartz @快公司

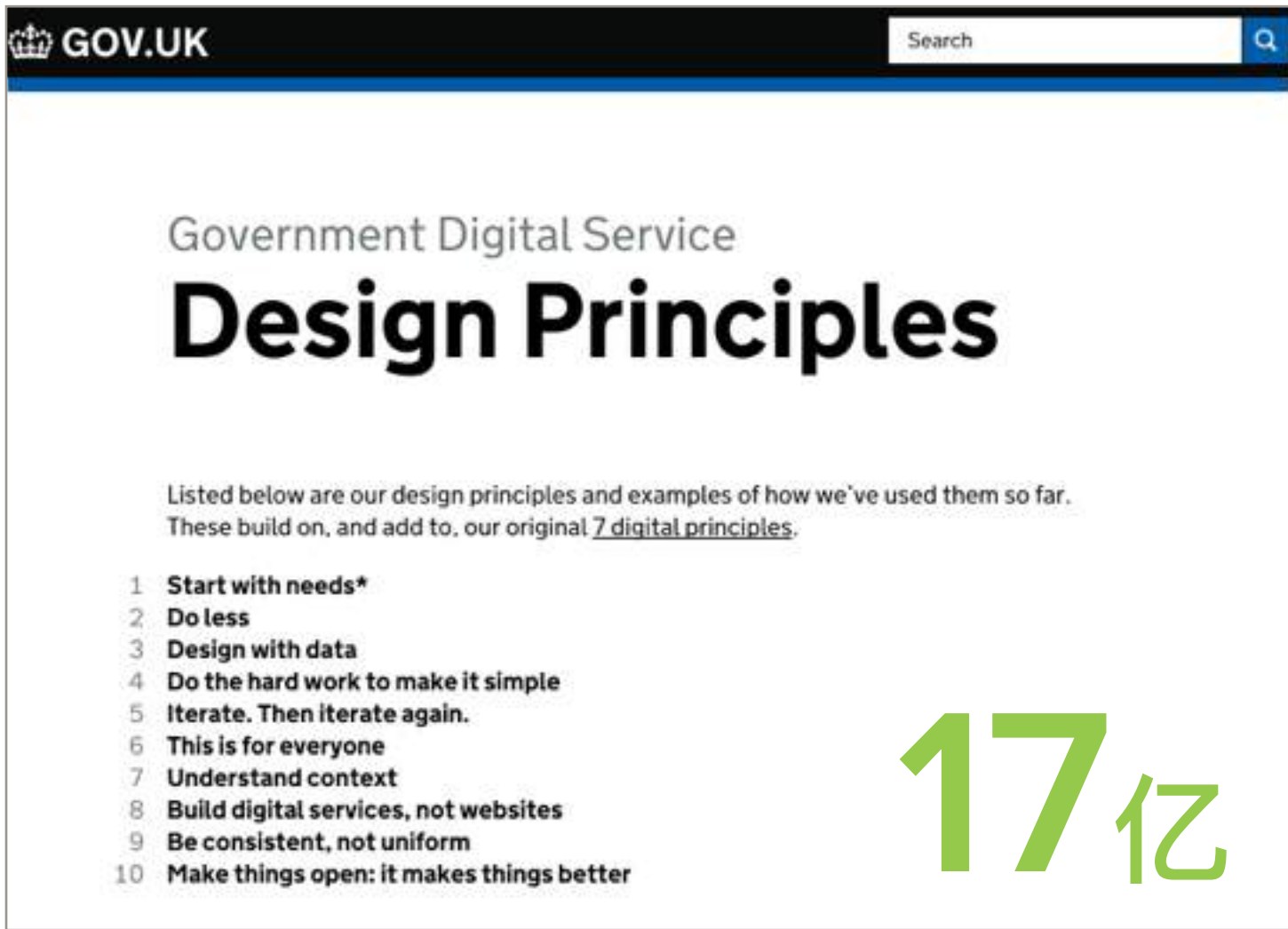


前田约翰 John Maeda

设计师Michelle Kim是公司CEO聘用的**第一个雇员**。又一个体现科技中的设计很重要的例子#DesignInTech

设计正运用于此

公共
领域



英国政府的数字部门花费5800万英镑，节省了17亿英镑的开支，回报率高达27.3倍。加上前两年的数据，英国数字部门通过带给政府和市民的数字化服务设计，已为政府节约35.6亿英镑。

“我今天来这里是为了号召所有人。我们可以开始搭建跨界平台，联合各界好手，解决现今我们面临的大问题。”
— 美国总统奥巴马 SXSW 2016



18F是美国联邦政府的数字设计咨询机构

发布了美国网页设计标准 一整一套开源的用户界面元素和视觉风格指南，以构建政府多个网站统一而美观的用户体验。



USDS是美国政府内部的产品团队

积极招募设计师和工程师来帮助改变政府的工作方式。团队着手解决的包括医疗、学生贷款、退休军人等重大问题。

英国数字服务部门GDS和healthcare.gov的创新催生了美国建立21世纪数字化政府的运动，也同时影响到了澳大利亚和新西兰做出类似努力。

资料来源 // @kpcb #DesignInTech @justinsayarath @johnmaeda @benterrett @gdsteam @usds @latimes @18f

gds.blog.gov.uk/2015/10/23/how-digital-and-technology-transformation-saved-1-7bn-last-year/ gds.blog.gov.uk/about/ whitehouse.gov/digital/united-states-digital-service latimes.com/entertainment/envelope/cotown/la-et-mn-obama-pushes-for-tech-at-sxsw-20160311-story.html 18f.gsa.gov/ whitehouse.gov/digital/united-states-digital-service



构建信任 是设计的影响力之本

对更清晰的网络安全报告的信任倾向



“安全本身是非常混乱的。但设计能将混乱变成有力的洞察和改变结果。这也是我们在大量的复杂问题上如何转变视角的。”

— Oren Falkowitz / Area 1创始人及CEO
@ KPCB安全沙龙

对第一印象的信任倾向



“Alfred智能家居产品已经进入你家，所以我们要必须建立起一个人们真正信任的品牌。”

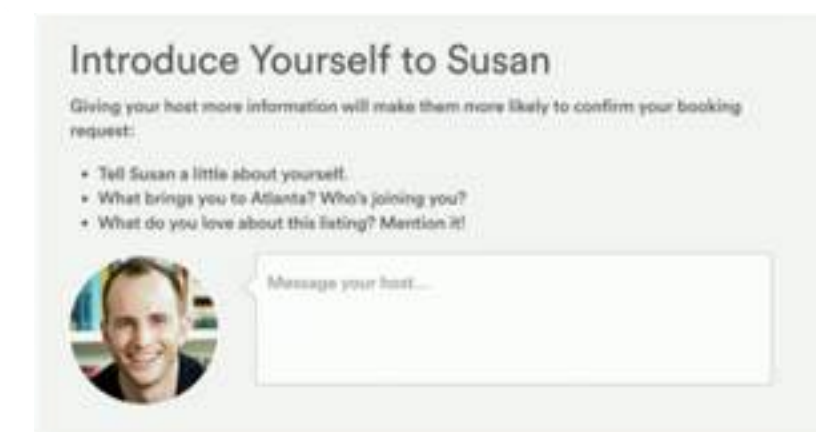
— Marcela Sapone / Alfred创始人及CEO
@ SXSW西南偏南音乐节

“建立智能系统是为了帮助人们做那些不必要的细微复杂的决策，如果人们不能信任智能系统的决策，那这将毫无意义。这意味着，建立人与我们使用的科技之间的关系变得与建造更快的处理器一样至关重要。”

— Patrick Mankins / 快公司



对他人评论及反馈的信任倾向



“设计远远超过设计对象本身。设计是完整的体验。是否可以使用设计来建立信任关系呢？”

— Joe Gebbia / Airbnb创始人

入住接受率与信息长度的相关值

安全领域专家提到了另外五个关注设计的安全领域初创企业：Better Cloud、Ionic Security、ProtectWise、Red Canary和SentinelOne。

资料来源 // @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

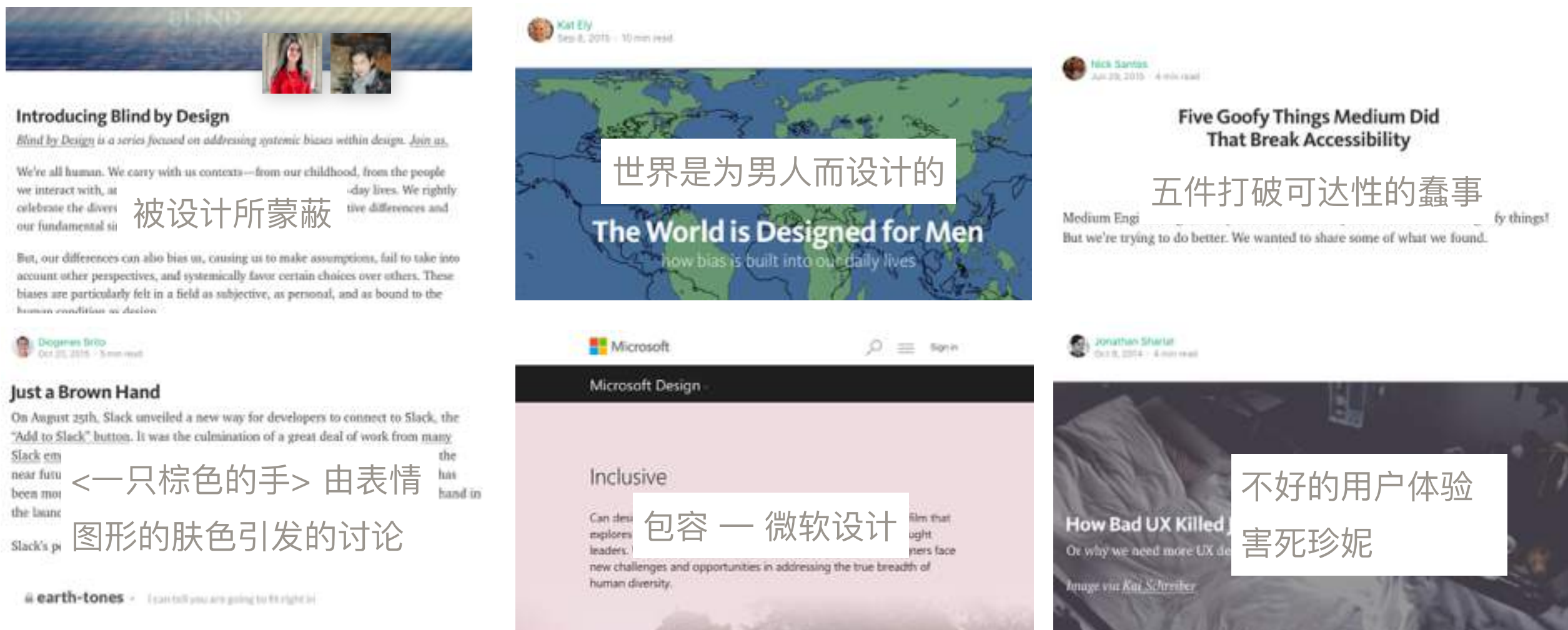


设计师通过拓宽论述的层面来寻求真理

Edelman爱德曼信任指标2015/2016

Q353 在以下的选项中，你认为推动商业和产业进步的前三项是什么？		Q330–331 在以下选项中，你认为什么让你降低了对某个机构的信任？	
1 科技	70%	1 没有为社会公益做出更多的贡献	50%
2 商业增长目标	66%	2 缺少经济增长	39%
3 金钱欲望	54%	3 没有提供公共服务	36%
4 个人雄心	35%	Q328–329 在以下选项中，你认为什么让你提高了对某个机构的信任？	
5 改善人们的生活	30%	1 产生了经济增长	59%
6 让世界更美好	24%	2 为社会公益做出了更多的贡献	45%
		3 让我成为了社会中贡献多产的一员	40%

潜意识偏见的相关摘录 — 收集者Stephanie Engle & Chen Ye



“为公益而建”黑客马拉松 / KPCB Fellows 学者项目



2015年，KPCB Fellows学者项目启动了 #BuildforGood “为公益而建”的大学黑客马拉松项目，希望以此鼓舞和帮助推动那些能产生社会影响力的事情的创建。

青年一代趋向于带回给我们那种对未来所需的希冀感，但也带着他们批判性的视角。同时，他们也愿意做艰苦工作并通过设计让世界变得更美好。

资料来源 // @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/ edelman.com/insights/intellectual-property/2016-edelman-trust-barometer/global-results/ medium.com/medium-eng/five-goofy-things-medium-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#kknctoh7y microsoft.com/en-us/design



包容性意识强的产品设计能产生更高的利润

AIGA美国平面设计职业协会新闻



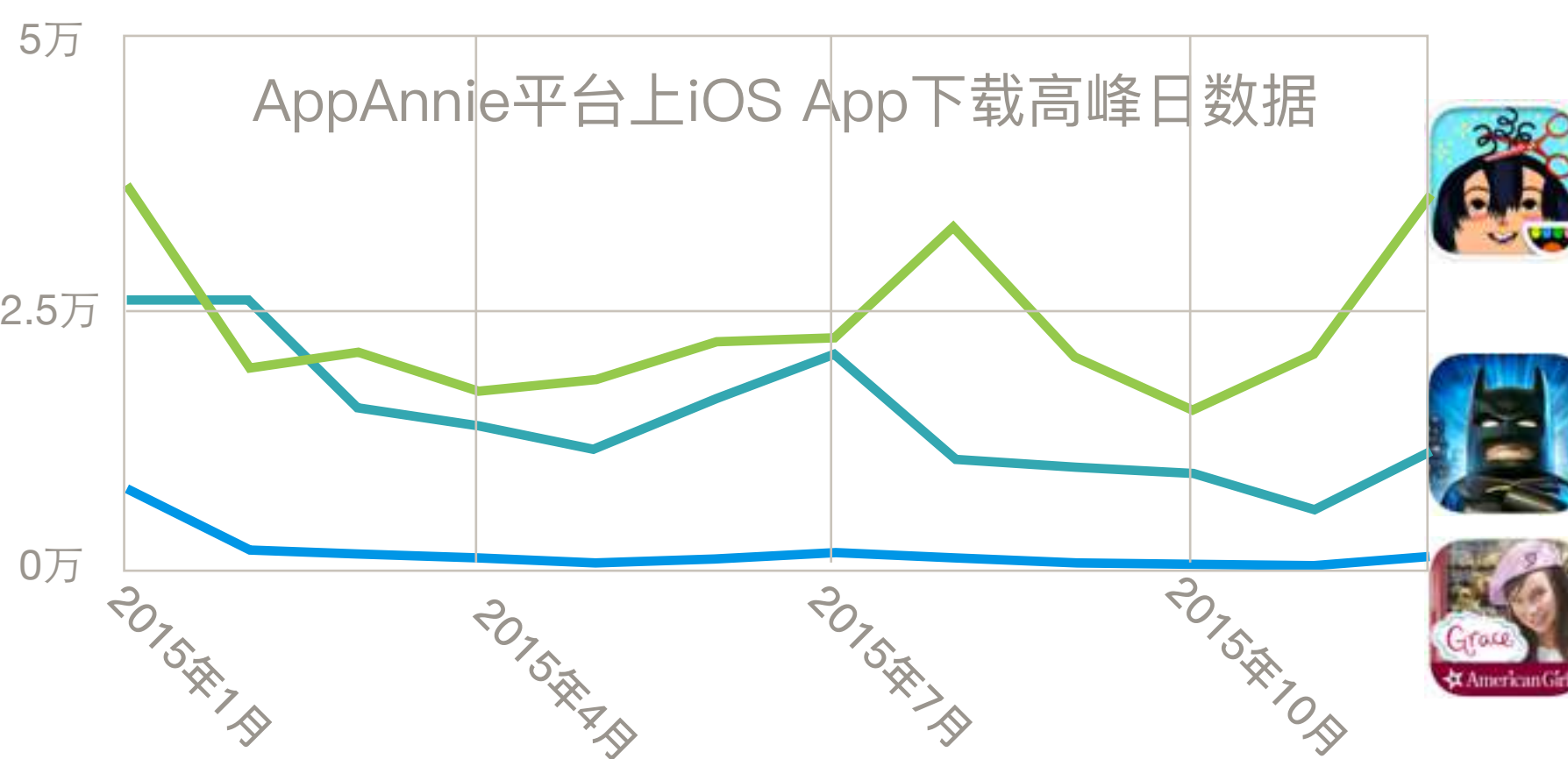
“随着性别的多样化日趋细致和灵动，设计需要发掘新的方式来让个体呈现这些，不光是在时装和平面领域，还在产品、空间、软件等领域。”
— @alicerawsthron

无性别倾向的Toca玩偶



在儿童App下载量中的领跑者

AppAnnie平台上iOS 应用商店每月平台净佣金收入（美元）



在儿童玩具品类中，Toca是收入上显著的领跑者。其无性别倾向的玩偶去年一年的下载量最高时达到传统有性别倾向游戏“Lego 蝙蝠侠：DC超级英雄”和“美国女孩的甜心商店”的5倍。

资料来源 // @kpcb #DesignInTech @alicerawsthron @aigadesign @tocaboca @justinsayarath
eyeondesign.aiga.org/can-design-be-genderless/ tocaboca.com/app/toca-hair-salon-2/



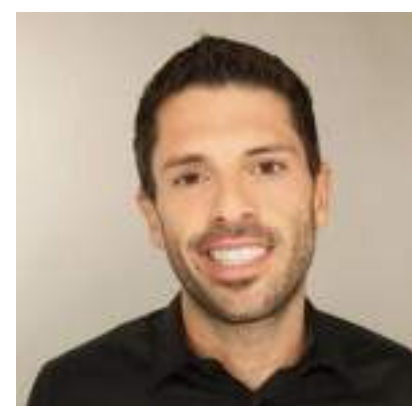
以 **包容** 的视角来重新想象初创公司生态圈

无性别偏好的STEM玩具



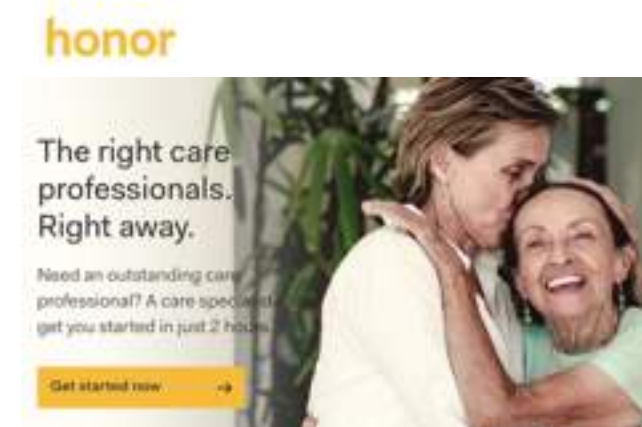
GIZMOS, 由MIT毕业生Ayah Bdeir和她的LittleBits团队打造的一套无性别偏见的电子元件工具包
2016年筹到5900万资金

男士同性社交网络



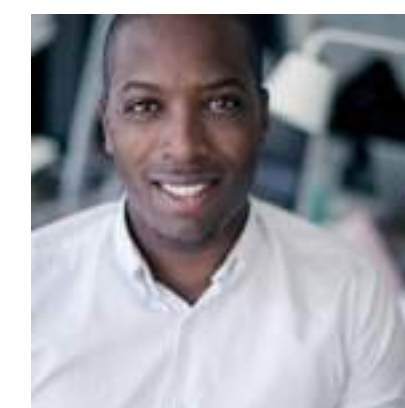
Grindr, Joel Simkhai
全球最大的男士同性社交软件，连接“看不见”的男性同性群体
当下最受欢迎的收费社交软件之一
Kunlun在2016年用9300万美金买下其60%股份

老年关怀



Honor, CEO Seth Sternberg
为老年人建立社区并提供上门的晚年关怀服务
在2016年筹到2000万资金

美容美发



Bevel, CEO Tristan Walker
为卷发或粗糙发质人群设计的优雅的电子剃发系统
在2016年筹到3300万资金

冻卵服务



Progyny, CEO Gina Bartasi
首家健康电子平台致力于对接高质量的优生服务医师、健康数字平台及规划冻卵和试管受精及测试服务
在2016年筹到3400万资金

服务匮乏的市场并不一定是小市场，一些全球最优秀的设计师正在接受这样的挑战。信任是*能*建立在同时实现营利和社会影响力的世界的。

资料来源 // @kpcb #DesignInTech @cbinsights @bevel @tristanwalker @littleBits @ayahbdier@grindr @progyny @justinsayarath @johnmaeda

techcrunch.com/2014/10/02/glow-gets-17-million-in-series-b-funding-from-formation-8-founders-fund-and-andreesen-horowitz/ fortune.com/2015/08/05/uber-of-fertility/ usatoday.com/story/tech/2015/09/28/tristan-walker-bevel-funding-target-stores-magic-johnson-andre-iguodala-walker-company-brands/72838894/ bothsidesofthetable.com/2016/02/09/the-one-video-every-silicon-valley-investor-should-watch/#VsO7K04CFfQ.facebook google.com/webhp?sourceid=chrome-instant&ion=1&espy=2&ie=UTF-8#q=mitu%20fundraise newsroom.uber.com/us-illinois/uberaccess-expanding-transportation-options/

5

Final Thoughts 结尾的思考

- 大量在科技中的设计这一领域所见的内容建立在研究社区数十年的成果之上
- 初创公司生态圈和大型企业现今所建立的一切表明影响力天平已经从学术界转移走了
- 我们必须有意识地加大教育的投入，以发展二十一世纪更加复合的创新观：科技 x 商业 x 设计
- 美国总统奥巴马在2015年将ESSA（每个学生都成功法案 Every Student Succeeds Act）纳入法律是一个积极信号：此举将艺术学科并入K-12基础教育STEM学科，新STEAM将代替STEM成为美国教育发展重心

人机交互技术简史

Brad A. Myers

A Brief History of Human Computer Interaction Technology

Brad A. Myers

December, 1996
CMU-CS-96-163
CMU-HCII-96-103

如果你需要点子，那就回顾十年前甚至四、五十年前的内容吧

Abstract

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

Copyright © 1996 — Carnegie Mellon University

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

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1996年 / 人机交互研究所 / 计算机科学学院 / 卡耐基梅隆大学
匹兹堡，宾夕法尼亚州 15213–3891

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“想象有这么一台未来的个人专用设备……一种机械化的私人文档和图书馆……人们可以将所有的图书、记录和交流存入其中……拥有超群的速度和灵活性。”

— 范内瓦·布什 (Vannervar Bush) 1945 @MIT

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A Brief History of Human Computer Interaction

Brad A. Myers

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This article summarizes the historical computer interaction technology, emphasizes the advancement of the field.

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初创公司的生态圈越来越像新形态的研究生院

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KPCB Ventured



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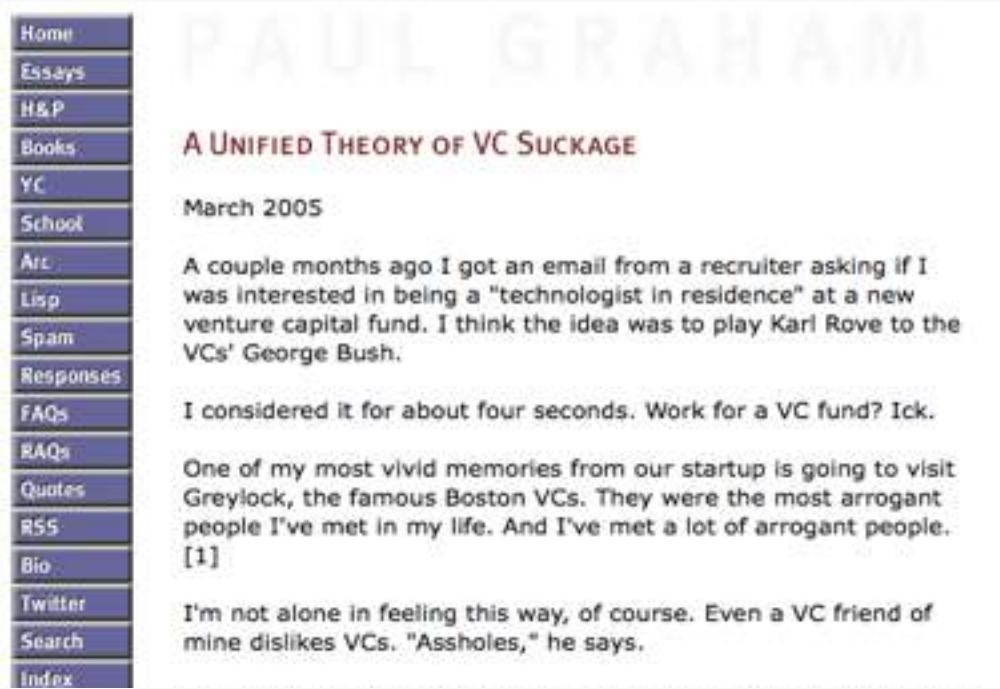
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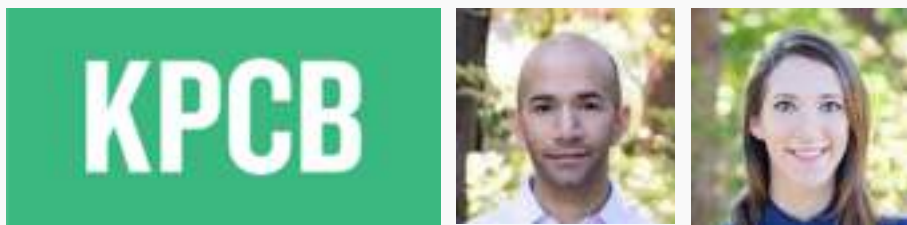
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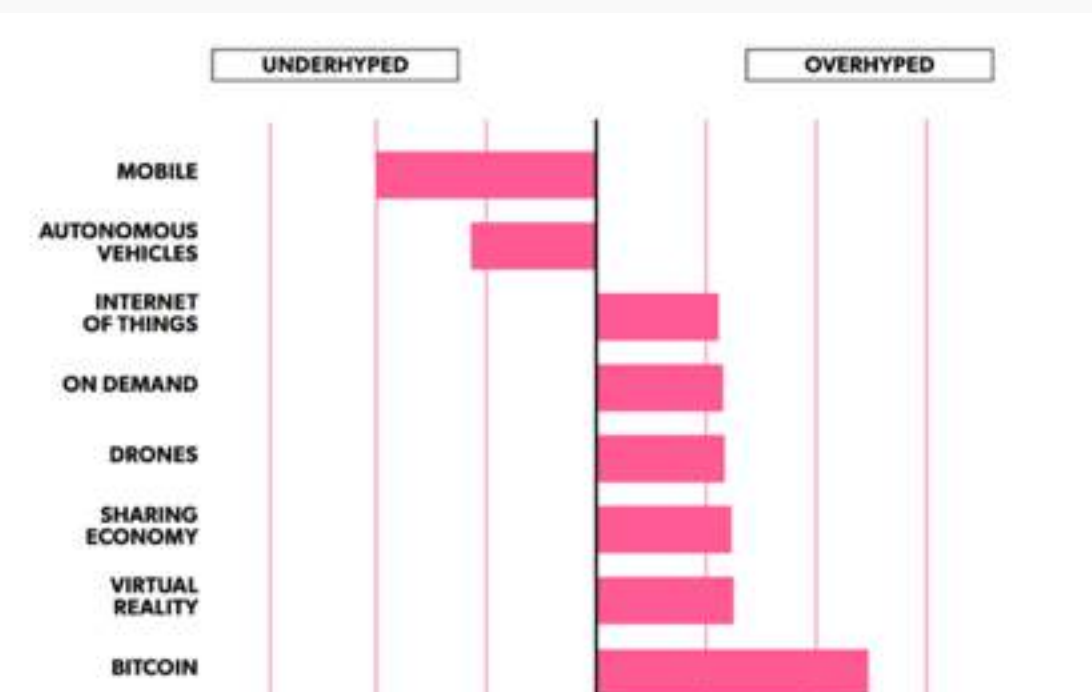
为什么要用基于问题的界面？

- 零（或是最少量）的前端设计
- 跨平台的一致 / 即时更新的体验
- 用户不需要下载 / 安装另一个应用
- 用户引导（Onboarding）很容易

Hallway Chat



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来源链接已添加至标题



25年前

23年前

然而我们仅认为已经发生过的所有事情，现在也终于在发生着了

MIT Media Lab 麻省理工学院媒体实验室模糊了艺术与科技的界限

移动互联

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无人机

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比特币

Message: 6
Date: 11.1.93
From: Nicholas Negroponte
To: WIRED
Subject: Virtual Reality: Oxymoron or Pleonasm?

VR Then and Now

Neophytes have a mistaken sense that VR is very new because the press just learned about it.

It is not. Almost 25 years ago, Ivan Sutherland developed, with support from ARPA, the first surprisingly advanced VR system.

...

1993年11月1日尼葛洛庞帝的邮件

主题：虚拟现实：矛盾概念还是冗余叠词？

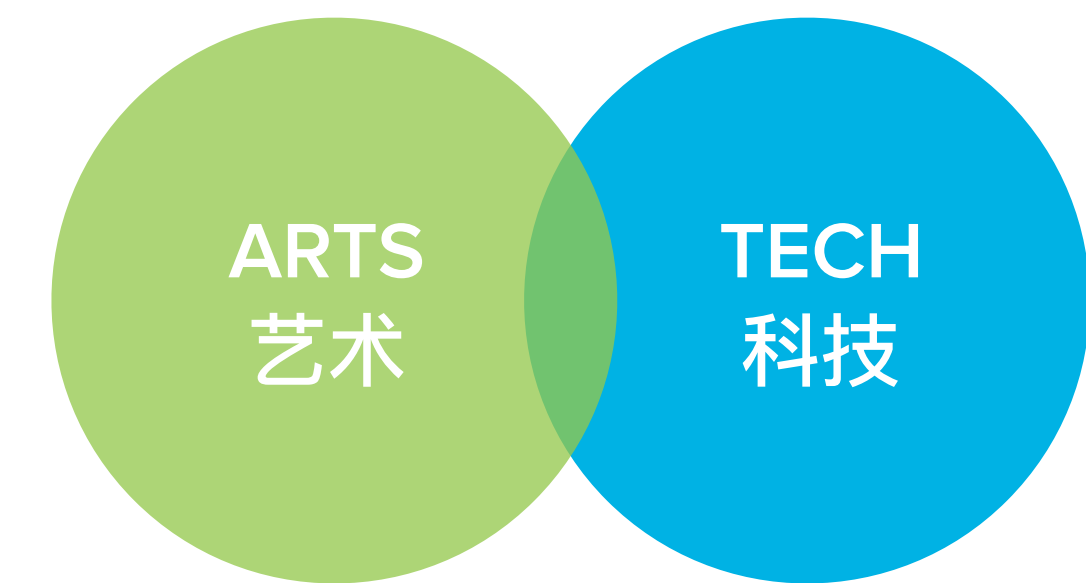
VR 的过去和现在

Neophytes将VR误认为是新东西，仅仅因为媒体才刚刚了解这一领域。其实不然。将近25年前，Ivan Sutherland就在ARPA的支持下开发了第一个极为先进的VR系统.....

Oculus



因为艺术就是关于我们如何观看和感知未来



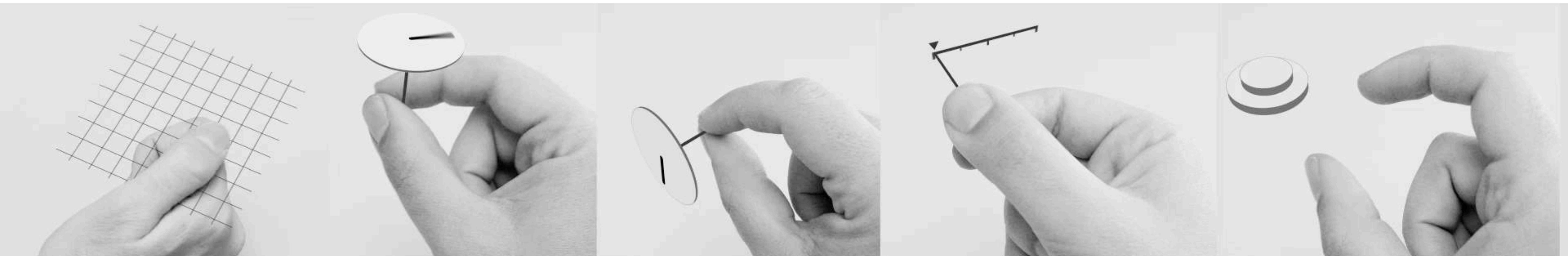
双分子1.0

我们该期待什么？ 什么即将到来？ 原子将会像像素一样运作

MIT Media Lab 麻省理工学院媒体实验室 / Hiroshi Ishii 石井裕教授 / Tangible Media 有形媒体技术组



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资料来源 // @kpcb #DesignInTech @medialab @mit_ishii @googleatp

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

科技 / 商业 / 设计在于融合 = 总有新的可能

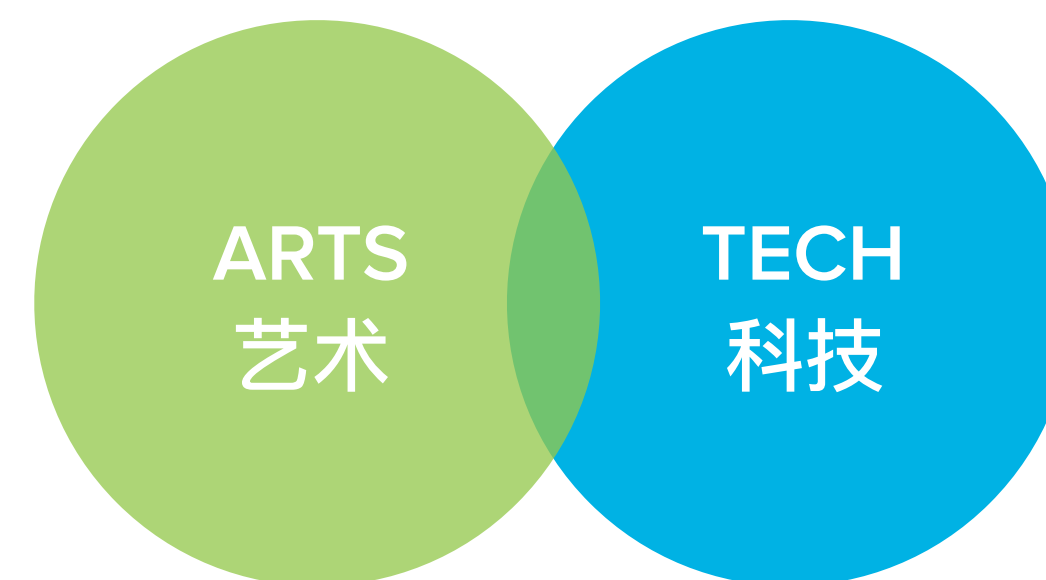
2015年12月10日，STEM正式成为STEAM（艺术被纳入STEM教育体系）



“艺术和音乐教育被纳入新的国家管理的‘学生支持和学术富集基金’资助对象，包括支持将艺术学科纳入STEM教育。”

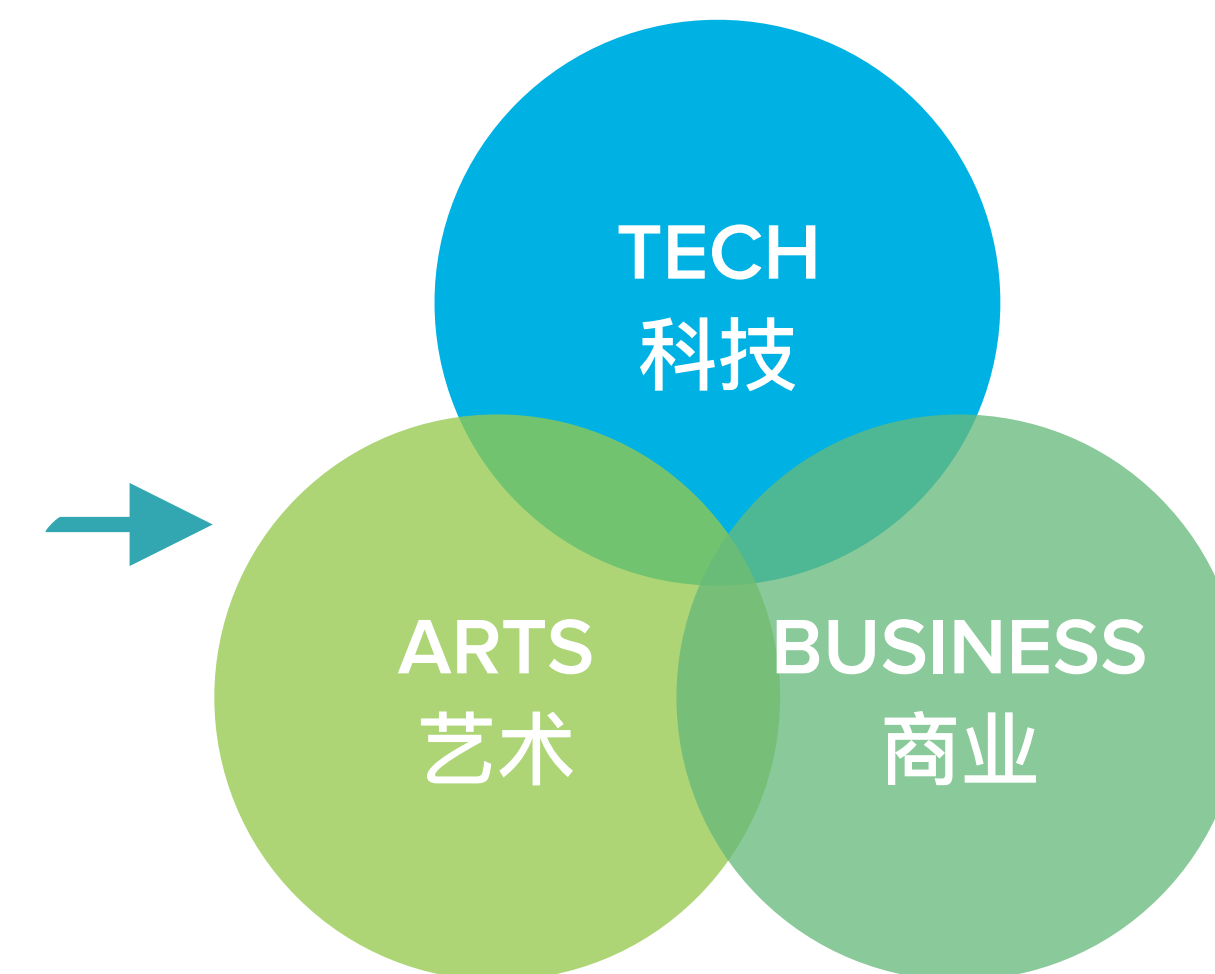
— @naea 2015年12月10日

因为艺术就是关于我们如何
观看和感知未来



双分子1.0

经济的进步也可以运用一些
小的魔法和艺术之心



三分子2.0

有待确定...

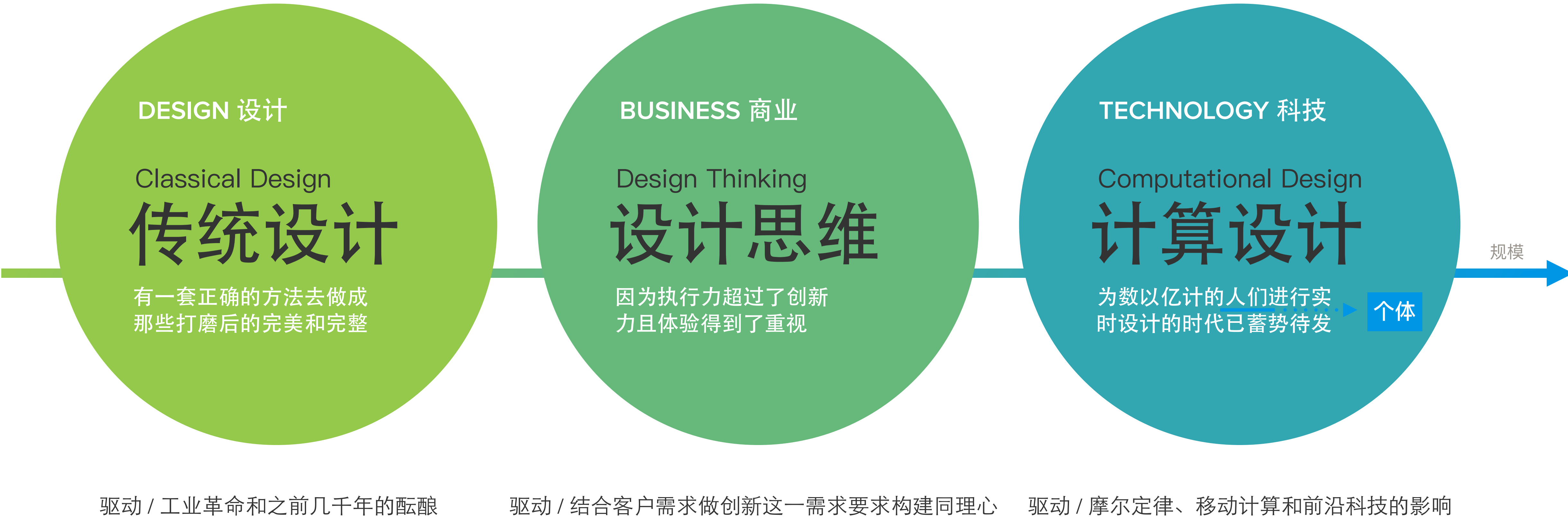
注：美国STEM教育体系指科学Science、技术Technology、工程Engineering、数学Mathematics领域的合称，STEAM是指体系中加入了艺术Art这一领域。

资料来源 // @kpcb #DesignInTech @americans4thearts @naea @johnmaeda @sunilmahotra @danharrelson

ed.gov/essa?src=rn



现行的设计有三种，我们需要具体来看



来自商业和科技两大领域的设计师群体正在逐渐壮大。上述三个领域是相互依存的 — 你若想在本世纪成功，至少需要准备好迎接其中两个领域的挑战。

资料来源 // @kpcb #DesignInTech @johnmaeda
kpcb.com/design



工程师是高效的问题解决者，商业人士擅于思考短期回报，而设计师渴望事物的优雅和美观。这三者应该共同协作和共创和谐，并认可彼此所带来的价值。所以需要一种新型的“多维”方法来设计未来将被创造的事物。



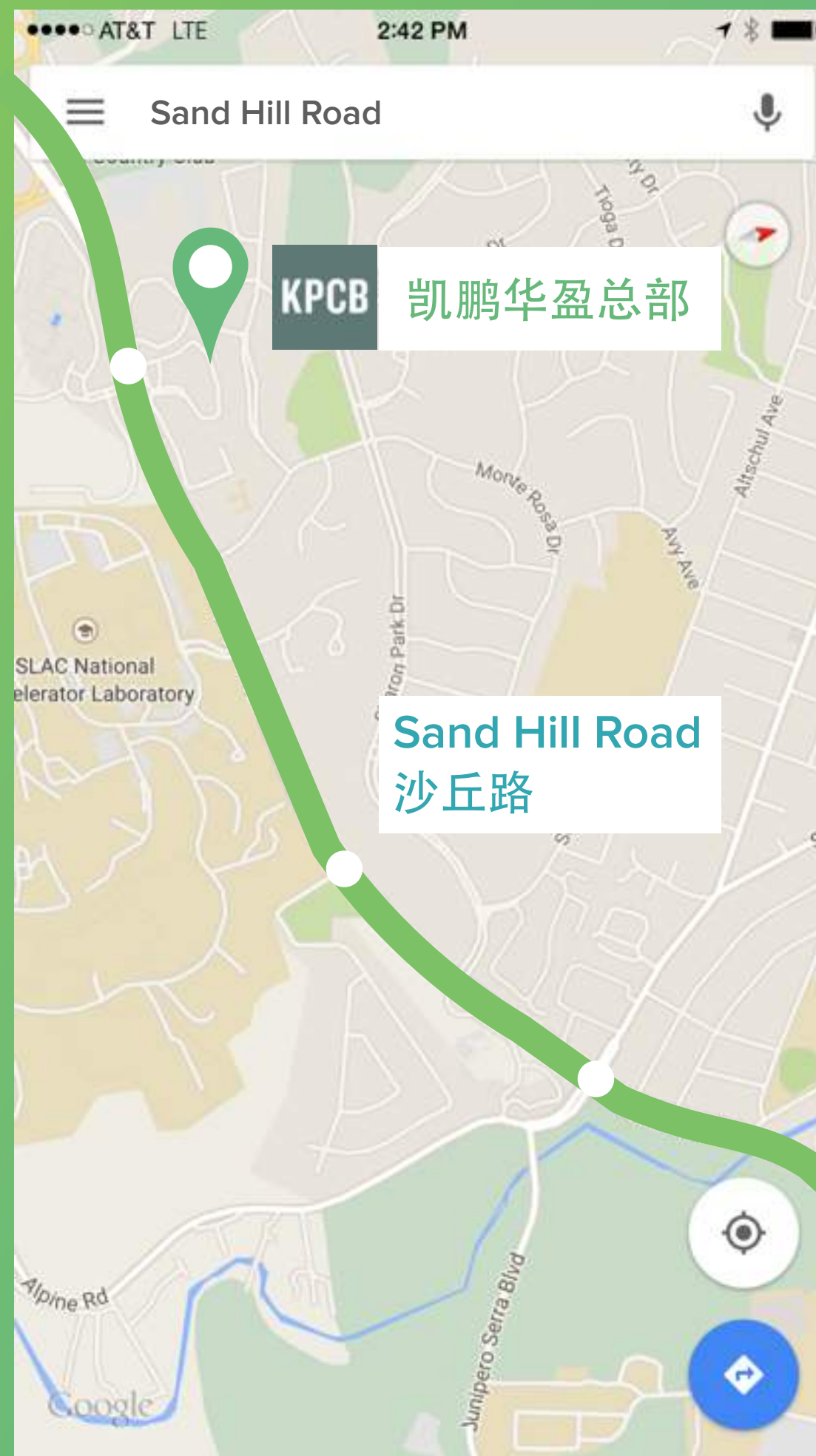
— Linda Holliday (@Imholliday)

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