

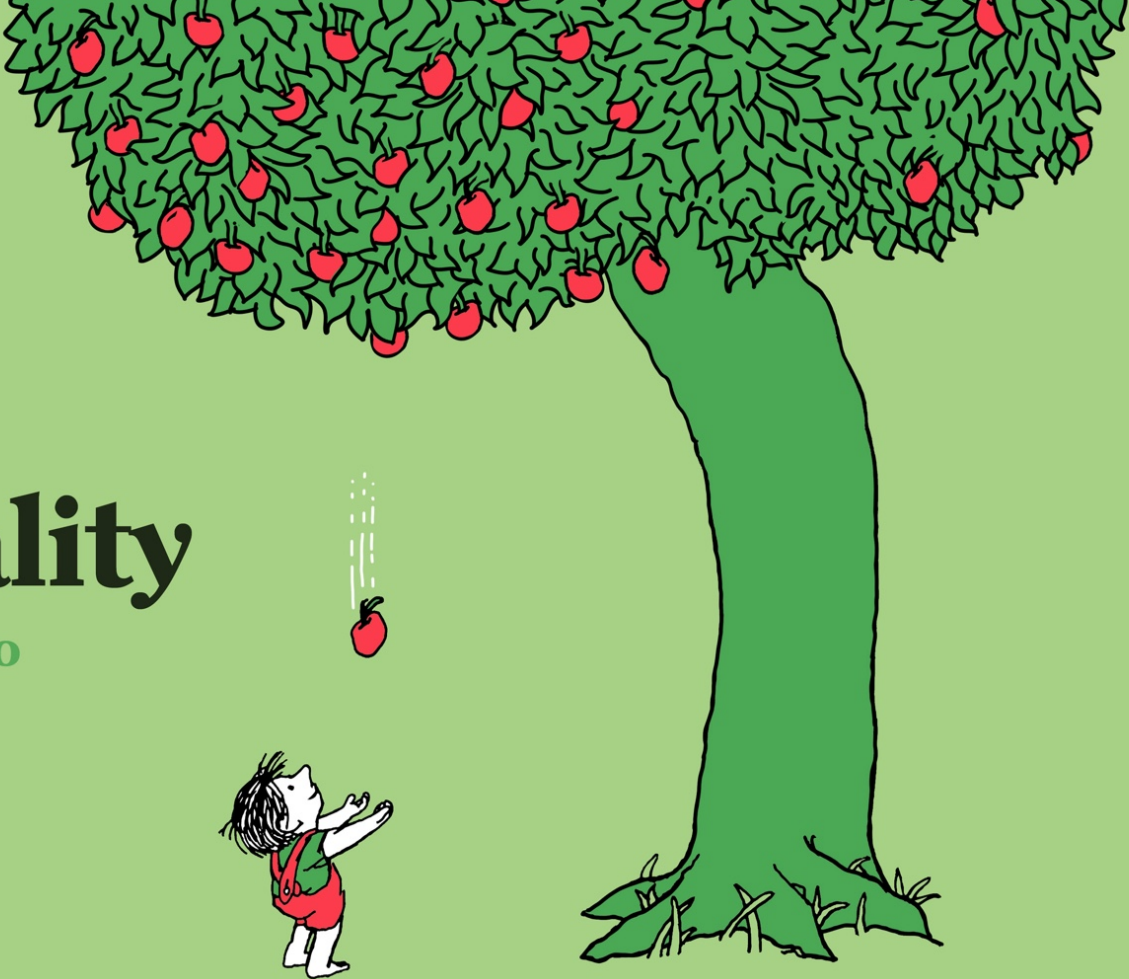
John Maeda



Design in Tech
Report 2019

Inequality

Unequal access to opportunities



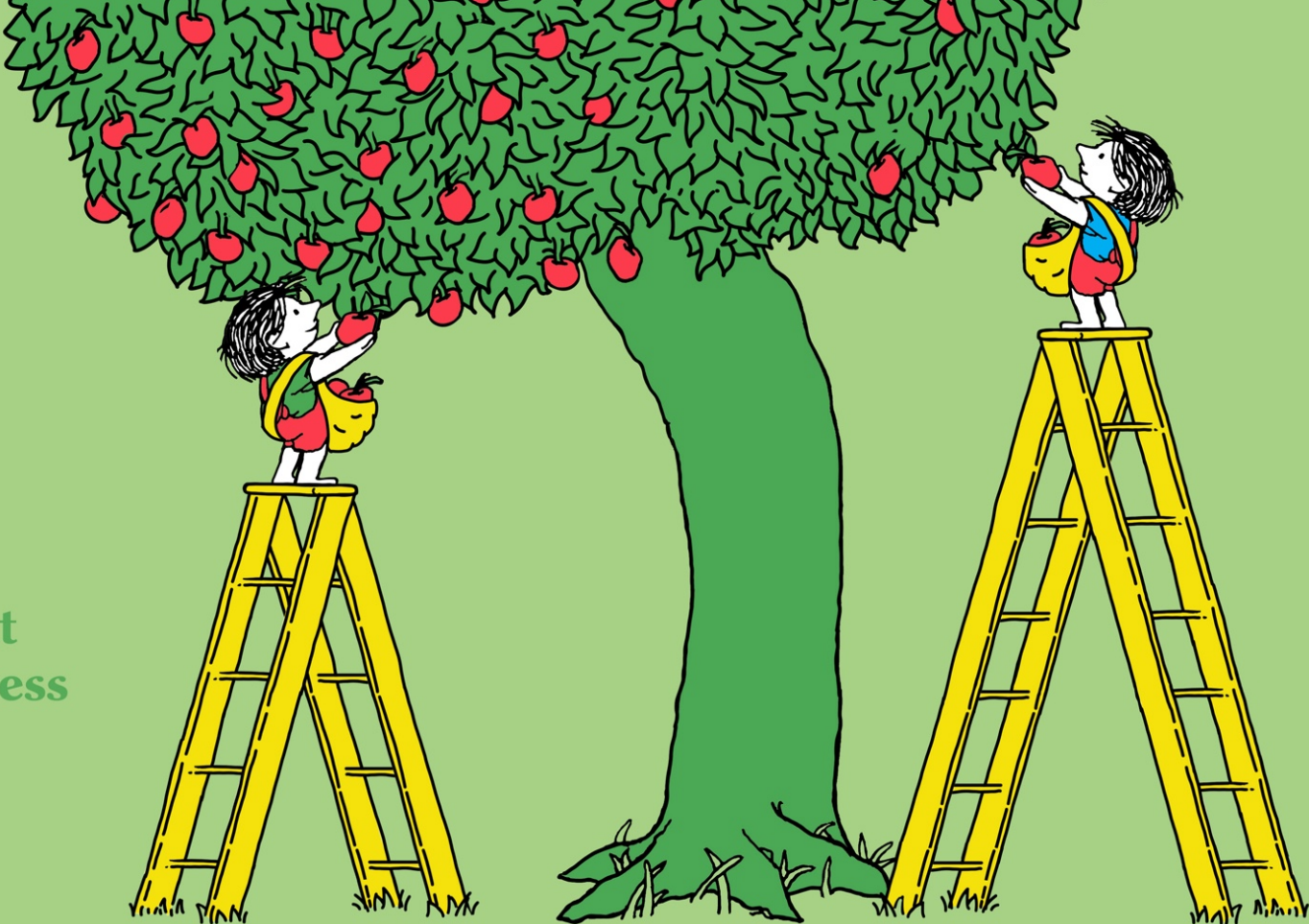
Equality?

Evenly distributed
tools and assistance



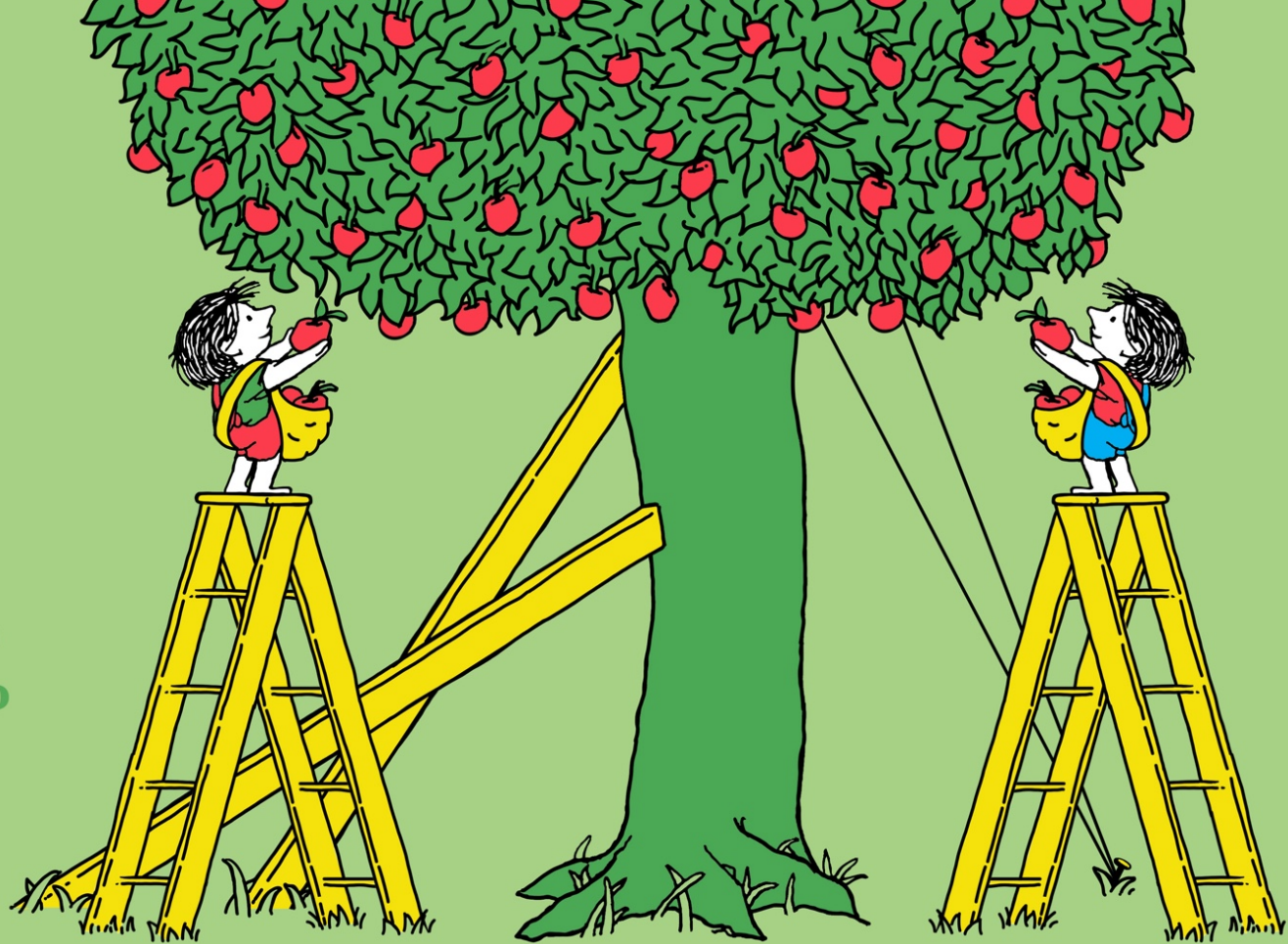
Equity

Custom tools that
identify and address
inequality



Justice



Fixing the system to
offer equal access to
both tools and
opportunities



In case you prefer to have a “lean back” experience ...

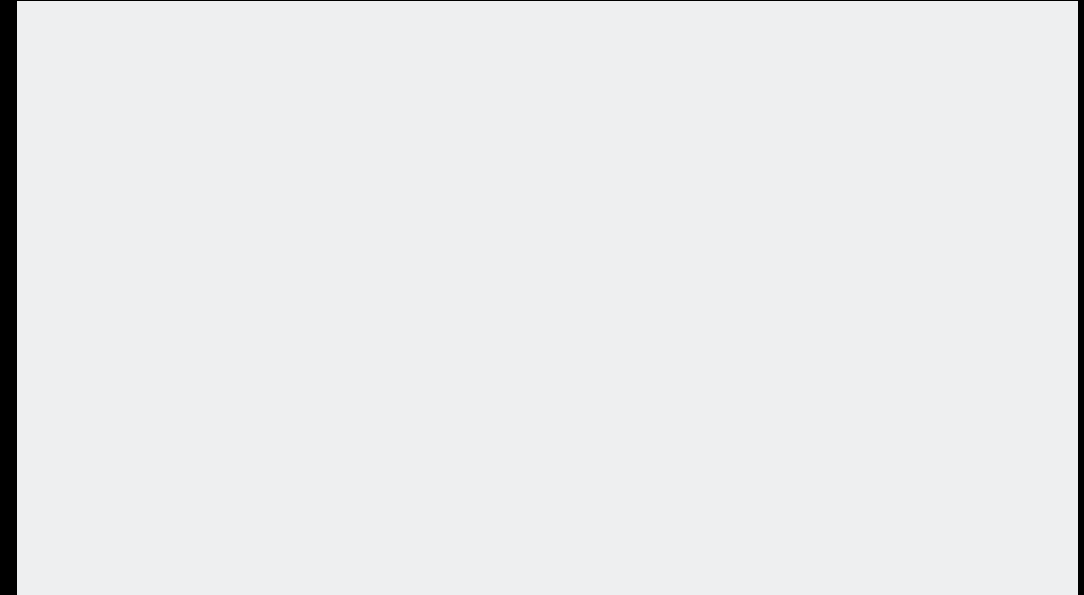
March 9, 2019

Hi there, I plan to have a full version of the report on my [YouTube channel](#) after I recover a bit from pushing the Design in Tech Report 2019 out there. I'll also make an audio version to go onto my [iTunes](#), [Spotify](#), [Google Play](#) podcast channels.

In the meantime, on the right is an abbreviated pre-release video version  that I made for my monthly briefing  subscribers. *Thanks for being curious about the intersection of technology, business, and design!*

Monthly briefing [👉signup here👈](#).

—[@johnmaeda](#)



“Creative people are inherently spatial learners. They understand through objects in their environments. It’s what feeds their spatial memory, their creativity.”

—[WSJ Magazine](#) May 6, 2019

Learn how to speak machine with a *new* little  on computation.

HOW TO SPEAK MACHINE

LAWS OF DESIGN FOR A
COMPUTATIONAL AGE

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COMPUTATIONAL AGE

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COMPUTATIONAL AGE

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Sections Overview

1) TBD = Tech × Business × Design

How do technology, business, and design interrelate in the startup and corporate ecosystems today?

2) About Design-___ Organizations

If design is in flux and it's difficult for designers to understand, is that good for non-designers?

3) Awesome Humans: Yes We Can

How do we move the conversation away from dystopia, and not to utopia, but to being present in the now most constructively?

4) Three Tasty Trend Mixes

What do we sense is happening out there and how is it making us feel good (or bad) and more curious for the future?

5) Yaaaaaaaaawn! Boring AI

When we consider how computation will enable everything and all things with us and without us, what's left?

6) Addressing Imbalance

Once we recognize exclusion from a historical perspective and a technological lens, what can we do about addressing it?

TBD
=
Tech ×
Business ×
Design

Design is now maturing – expect some awkwardness.

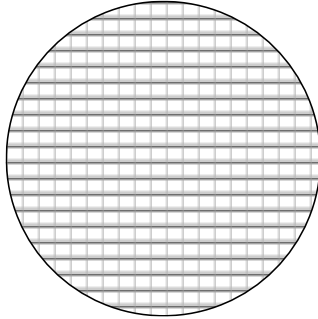
- There are three kinds of design. Classical Design, Design Thinking, and Computational Design.
- In the last 12 months there were 19 acquisitions of creative agencies and companies.
- The value of design is in relation to the other parts of a company's operations.
- Alone and isolated within a company, design is a microworld of aesthetic high-fives.
- Scaling design at the speed of Moore's Law is not possible. Scaling design IS possible at a slower-than-desirable velocity.
- Inclusive design has achieved broad acceptance among designers. For non-designers, inclusive design can be a harder idea to sell.
- There's fear about AI's future impact, but there's creative hope out there too. *Yes we can.*

There are three kinds of design.

01

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

Classical Design

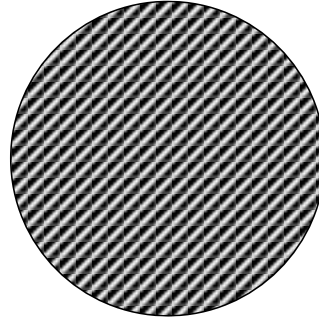


Driver/ the Industrial Revolution, and prior to that at least a few millennia of ferment.

02

Because execution has outpaced innovation, and experience matters.

Design Thinking

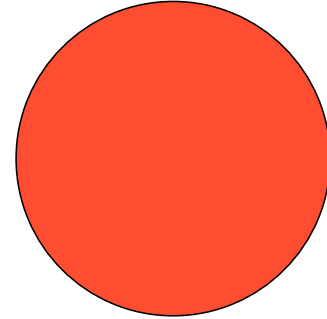


Driver/ the need to innovate in relation to individual customer needs requires empathy.

03

Design for billions of individual people and in real time, is at scale and TBD.

Computational Design



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

What's a "Computational Designer"?

via MIT Press

The Logic of Architecture

“The Logic of Architecture reexamines central issues of design theory in the light of recent advances in artificial intelligence, cognitive science, and the theory of computation.”

—William J. Mitchell, 1990

Understands Computation

Has facility with representational codes and maybe programming codes. Knows what is easy and possible, hard and possible, difficult and impossible for now.

Uses All Three Kinds of Designs

Taps into the rich history of classical design (form *and* content) while leading and teaming inclusively *via design thinking* within their org, or across orgs, for profit or not-for-profit.

Thinks Critically About Technology

Practices being a humanist technologist who asks questions about what's being made, who's making it, and why.

Actively Learning AI And The New

Considers intersectionality as a source of creativity and a driver of change. Embraces new paradigms and learns them deeply. Lives Apollinaire's words from the Bauhaus era, “New (hu)man must have the courage to be new.”

Coming Soon: How To Speak Machine

via Penguin

Computational Design ...

... works in a new Moore's Law-fueled medium that is from an alien universe.

... makes big data. And that makes it need thick data to combat scaled biases.

... creates economic opportunity because it advances a valuable new kind of talent.

... needs to counterbalance itself with an emotional connection (i.e. art).

... is the most valuable kind of design right now in the technology industry.

Inclusive Design ...

... works in an old-fashioned world that's been excluding people for too long.

... fights big data (scaled biases) when making thick data — by going proximate.

... locates imbalances and opportunities to solve problems with those impacted.

... enriches the critical depth of makers, pointing them to meaningful problems.

... is the most important kind of design right now in the technology industry.

Separating misinformation from reality is always everyone's job.

“Misinformation is not like a plumbing problem you fix. It is a social condition, like crime, that you must constantly monitor and adjust to.”

—Tom Rosenstiel, Director of the American Press Institute (2017)

When you started out, the design and tech scene was like ___.

“An adolescent bursting with energy and struggling for orientation. **Strongly separated between designers and techies, it was two scenes.** Undefined, aimless, driven more by tech geeks who knew very little about design. **Insular and dismissive or those not situated in the ivory tower.** Something that was still being defined. It was new and “Web Design” was the hot thing. **Two sides with a big wall inbetween.** Google was getting popular with its simple but easy to use interface. **Either bro-y or condescending.** “Print or Digital?” **Microsoft big software, Apple was barely afloat, and Flash sites were the cutting edge.** Completely focused on mobile devices. **A talented younger sibling that was not respected.** Craft and hype. **Seen as a cure-all.”**

Design in Tech Reports now cover the past five years.

2018

The 2018 Report saw the growth of inclusive design expand from the edges into the center of conversations in the technology industry. Microsoft's pioneering work in inclusive design as led by Kat Holmes started to be picked up by non-designers and business leaders. At the same time, Artificial Intelligence's implications to design became evident with new advancements in machine learning that were both exciting and frightening.

2017

The 2017 Report framed computational design as a key driver of accelerated growth, with inclusive cultures @work as vital for tech businesses hoping to lead in design. We saw the emergence of new tools and creative communities as producing increased value, and inclusive design had just started to arrive in the zeitgeist of the product landscape. Adopting an inclusive design approach expands a tech product's total addressable market. The tipping point for inclusive design begins to tip.

2016

The 2016 Report showed peak growth in interest by venture capital firms in design, and highlight significant growth in the acquisition of design agencies by consulting firms like McKinsey & Co and Accenture. Google emerged as a new leader in design. There are 3 kinds of design: Classical Design, Design Thinking, and Computational Design. The most business value is being driven by the latter two kinds of design.

2015

The 2015 Report explained design's rise in value to tech as due to mobile devices and the mass-consumerization of computing. We moved from "tech-led" to "experience-led" digital products as services on smartphones took over and gave access to everyone. Designing for mobile brought new experience constraints compared with the desktop, and made designers' skills invaluable as the pathway to non-techy consumers.

There were 19 new acquisitions noted in the last 12 months.

100 *100*

Since 2004 over 100 design-related companies have been acquired, with > 60% of them acquired since 2015.

1. **Citizen** acquired by EY
2. **Brandfirst** acquired by Deloitte
3. **Moment** acquired by Verizon
4. **Tonic Design** acquired by Printfly
Tonic is a regional example of the phenomenon played out four years ago in Silicon Valley.
5. **W12** acquired by Tata Consulting
6. **General Assembly** acquired by Adecco
7. **Designation** acquired by WeWork
WeWork acquires a for-profit design education school and Adecco acquires a coding and UX school as unexpected outliers.
8. **Sayspring** acquired by Adobe
9. **Wake** acquired by InVision
10. **FRWD** acquired by Bain & Co
Bain is an example of the private equity space's interest in creative capabilities.
11. **designaffairs** acquired by Accenture
12. **Adaptive Lab** acquired by Capgemini
13. **Universal Design Studio** acquired by AKQA
14. **Map Project Office** acquired by AKQA
15. **CHIEF** acquired by ByteCubed
ByteCubed is an example of a regional IT consulting firm adding to its creative capabilities.
16. **We are Vista** acquired by ICF
17. **Argo Design** acquired by DXC Technology
18. **Kolle Rebbe** acquired by Accenture
19. **Periscope** acquired by Quad/Graphics
Quad/Graphics is an example of a printing company seeking to integrate creative capabilities.

Are there more opportunities for creatives to own their work?

via Marvell

[2016 State Of The Digital Nation](#) is a masterpiece by Jules Ehrhardt that laid out the many disruptions occurring in the creative industry in intensely thoughtful detail. Read the [2018](#) version for the “Empire Strikes Back” effect.

Barter Types of Creative Capital

- Equity
- Equity plus cash (to cover cost)
- Royalties
- Profit Share

Creative Capital's Benefits

- Buyers
 - Hedge risk
 - Faster route to product
 - Faster route to market
 - Tap into outside resources
 - Avoid VC route
 - Stealth
- Sellers
 - Opportunity to capture upside of the value your work creates
 - An emerging industry model for the creative class
 - Diversify revenue model
 - Capture high growth asset opportunity

Firms that engage in creative capital trading are outside the usual venture ecosystem like:

Law/ Cooley, Gunderson, **Marketing and PR/** WEST, Tusk, Derris, Man Made Music, **Branding/** Gin Lane (Pattern Brand), Red Antler, Partners & Spade, **Product/** FKTRY, BASIC, Smart Design, Work&Co, Fuseproject, ustwo, Dynamo Partners, IDEO, Ministry Of Programming, FROG, R/GA, Pivot Ventures, Argo Design, Thinktiv, **Full Stack**, Prehype, Bullish, Prota Ventures, Runyon, Sweet Studio.

Gigantic shifts aside, it's easy to get distracted by our tools ...

“Based on this year’s responses, these represent the most commonly used tools in each category. Sketch is still on top, but digging deeper into the data you’ll find some movement in several of these categories—like Figma climbing within the top 5 in almost every single category.” —[UX Tools 2018](#)

Key takeaways from the survey

“Figma, which was low on the list in 2017, emerges as the most exciting tool of 2019.”

“InVision Studio remains near the top, indicating that many respondents have yet to try it—or are still waiting for future development.”

“Respondents always seem to keep Framer on their bucket list of design tools.“

Relative popularity of tools surveyed

Brainstorming	User Flows	Wireframing	Prototyping	Handoff	Design System	Monitoring	File Management
Pencil, Paper, Whiteboard	Sketch	Sketch	InVision	Zeplin	Sketch	Hotjar	Google Drive

The best tools enable scaling of design, here's my picks.



Figma

Easy collaboration makes Figma a non-brainer.

**Since 2018 raised B/C from KP, Greylock, Index, Sequoia



Framer

It's amazing, and Framer's marketplace is fire.



Whimsical

Wireframes are made super easy with Whimsical.



Amplitude

The product analytics toolkit in Amplitude is wide and deep.



Sketch.Systems

Sketch a complex product behavior in Sketch.systems symbolically.



Adobe XD

The Voice Prototyping module in Adobe XD is a welcome part of a modern toolkit.



Treejack

Information architecture validators like Treejack make me happy.



Vue

Evan You and team have outdone themselves with Vue as a movement.



TensorFlow.js

Using TensorFlow always makes me think, "OMG this is free?"



Siri Shortcut

@lukew's got an interesting point about how Siri Shortcut lets you make working meta-apps.

The design tool with the greatest impact right now? Material.



Material System

“Material Design is a visual language that synthesizes the classic principles of good design with the innovation of technology and science.”

Material Foundation

“Material Design defines the qualities that can be expressed by UI regions, surfaces, and components.”

Material Guidelines

“Usability and platform guidance describe how to make sure your app is usable for all users.”

Advice: Study the funding world closely to get X-ray vision.

Internet Trends 2018 by Mary Meeker 📺

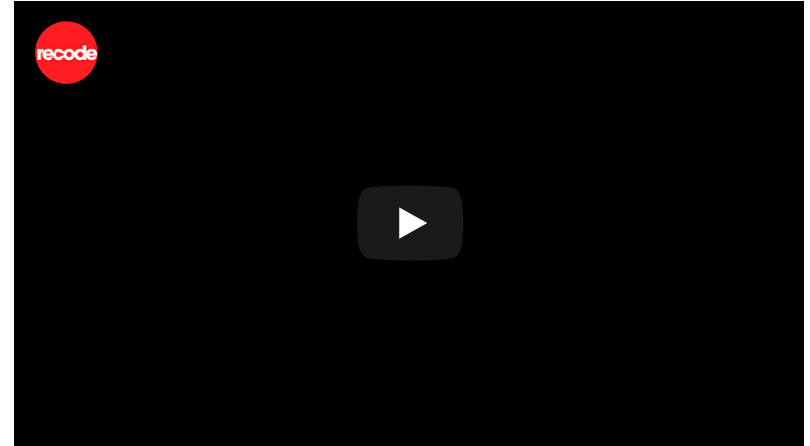
via [TechCrunch](#)

“Internet adoption: As of 2018, half the world population, or about 3.6 billion people, will be on the internet.”

“Mobile usage: While smartphone shipments are flat and internet user growth is slowing, U.S. adults are spending more time online thanks to mobile, clocking 5.9 hours per day in 2017 versus 5.6 hours in 2016.”

“Ecommerce vs Brick & Mortar: Ecommerce growth quickens as now 13% of all retail purchases happen online and parcel shipments are rising swiftly, signaling big opportunities for new shopping apps.”

The End of the Beginning by Benedict Evans 📺



via [BenedictEvans.com](#)

“Close to three quarters of all the adults on earth now have a smartphone, and most of the rest will get one in the next few years.”

“Ecommerce is still only a small fraction of retail spending, and many other areas that will be transformed by software and the internet in the next decade or two have barely been touched. Global retail is perhaps \$25 trillion dollars, after all.”

“We began with models that presumed low internet penetration, low speeds, little consumer readiness and little capital. Now all of those are inverted.”

About Design-___ Organizations

Design confuses both designers and non-designers.

- The value of design is in relation to the other parts of a company's operations.
- Alone and isolated within a company, design is a microworld of aesthetic high-fives.
- The complexity of design interests designers, but the rest of your org doesn't care.
- Design is all too often used as an attractive costume for a so-so idea.
- Programming isn't as important as understanding how computers work.
- We're in a golden age of quant-qual data tools — for those who seek to understand.
- Success is when Design receives the “Best Supporting Actor/Actress” prize.

Is a college degree necessary for a professional designer in tech?

In my year-long survey where 94% of the respondents had a college degree, the majority questioned its value to getting a job in the tech industry (*but it's important to note that they all have one and can more easily say that*).

How many years of experience do you have in design?

Less than three years. / More than three and less than ten. / More than ten. **Majority of respondents were experienced.**

A college degree is necessary to succeed in tech

“Agree” / “Undecided” / “Disagree” **“Disagree” outweighs “Agree” with “Undecided” valence weighted towards “Disagree.”**

Next Step: How to start out as a designer today?

Here are a few career path recommendations for a designer just starting out in the industry today listed in rank order by aggregate respondents.

Agency

“Join a small agency that is about three years old.”

Startup

“I definitely don't recommend agencies. I'd recommend startups or a big company that has a relevant product.”

Big Company

“Join a big company to learn how diverse the discipline is, then specialise and find a meaningful startup.”

Consultancy

“Every 3 to 6 months there's a new project = new problems = many problems over a few years = knowledge on how to solve the next problems that are coming.”

Freelance

“Freelance! Get a taste of what's out there.”

Grad School

“Any one option is a good one, however if design shall have a seat in the C-suite, grad school is not a bad idea”

McKinsey: Design in Business is more than just “a feeling.”

“The four clusters of design actions that showed the most correlation with improved financial performance: measuring and driving design performance with the same rigor as revenues and costs; breaking down internal walls between physical, digital, and service design; making user-centric design everyone’s responsibility; and de-risking development by continually listening, testing, and iterating with end users.” —McKinsey Design Index

How does your organization make design decisions?

“Based on leader opinions.” / “Using semi-subjective metrics.” / “Objectively (using design metrics).” Majority: “Using semi-subjective metrics.” *Close 2nd: Boss said ...*

How brave is your product portfolio?

“We’re bloated and incremental.” / ”We’re improving and killing bad ideas.” / “We make bold products and accept that some may fail.” Majority: “We’re bloated and incremental.”

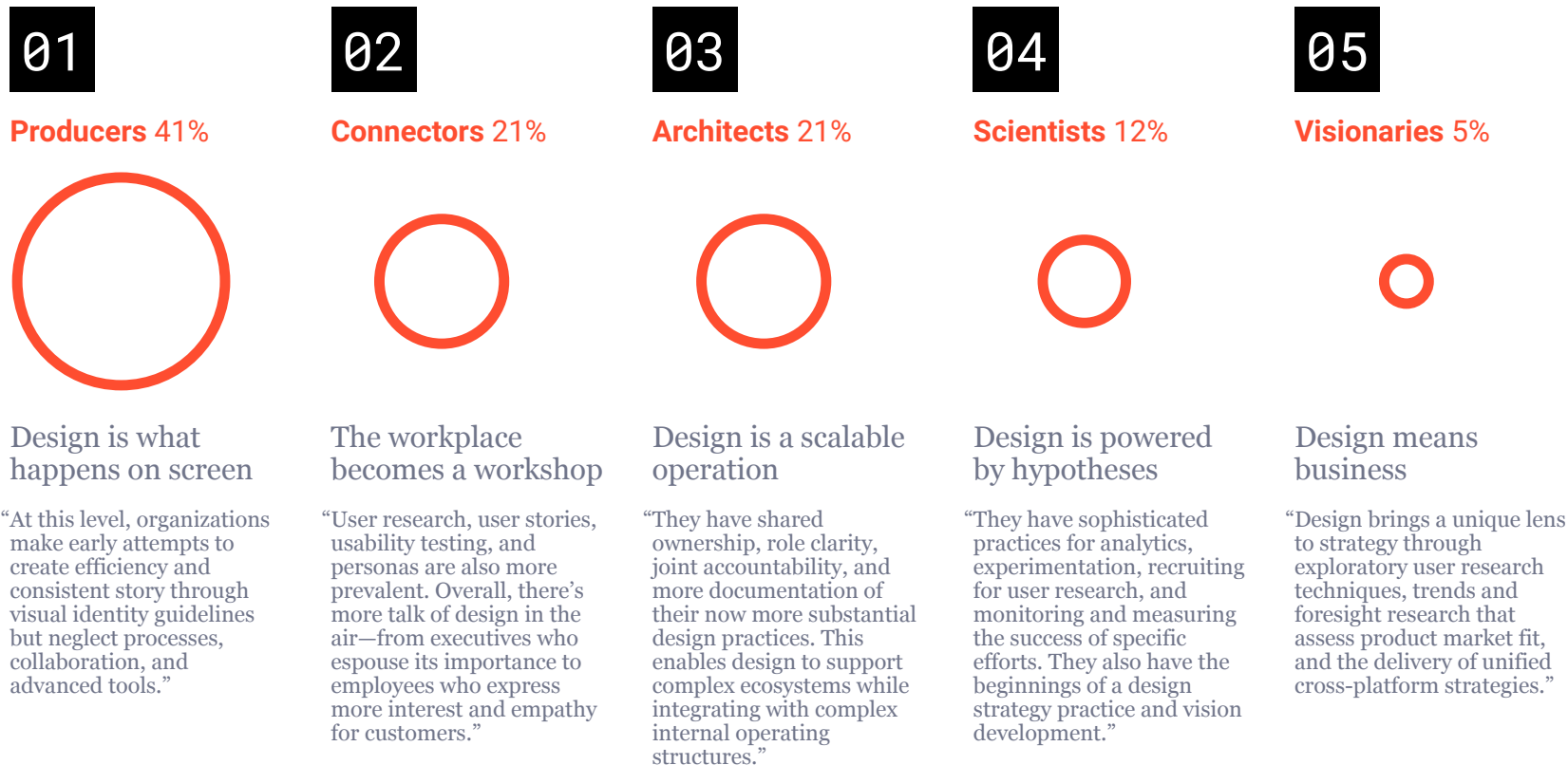
McKinsey: Design is learning, testing, iterating with customers.

“The best results come from constantly blending user research — quantitative (such as conjoint analysis) and qualitative (such as ethnographic interviews). This information should be combined with reports from the market-analytics group on the actions of competitors, patent scans to monitor emerging technologies, business concerns flagged by the finance team, and the like. Without these tensions and interactions, development functions may end up in a vacuum, producing otherwise excellent work that never sees the light of day or delights customers.” —McKinsey Study

When do you undertake user research? “Early qualitative research.” / “Early qualitative and quantitative research.”
/ “Qualitative and quantitative research throughout.”
Majority: Both throughout.

What do you do with research findings? “We report what the customer tells us.” / “We assess what the customers want.” / “We interpret what the customer actually needs.”
Majority: Interpret need.

InVision's "Five Levels of Design Maturity" is a masterpiece.



Does this sound familiar? It's my favorite non-blah-blah-blah POV.

“We embarked upon this year’s report knowing that we must be even more critical of our work, with a deeper awareness of our responsibility as designers and an understanding of our broader impact on society.” —[UX Trends 2019](#)

2019

1. **Everyone is a lead**
2. **Designers are too busy to design**
3. **Design is not saving the world**
4. Designing for less
5. Our obsession with methods
6. Should design tools code?
7. Thinking outside the artboard
8. Embracing the open kitchen
9. Making tech work

Designers generally excel at introverting together.

(👉 This makes them a little different than most devs. And a lot different from business folks.)

“The most successful design leaders are investing in personal growth, helping them scale themselves and their teams. They’re challenging assumptions about how organizations work and creating the way for more healthy, inclusive teams to thrive.” —Mia Blume

“Design Ops has become critical for medium and large product companies. But every kind of organization benefits from a horizontal role, specifically managing tools, workflows, processes, governance, critique and collaboration, end-to-end employee experience, cultural and inspirational activities, and much more. DesignOps is contextual work that improves aesthetic work, with the ultimate goal of making the business more efficient.” —Josh Silverman

Automattic.Design's philosophy is people-centric.

01

Design Culture

You need a CEO who cares about design, and recognizes that good design is good business. It's because the customer wants it. ✓

Resources

- | [NEW The Four Planets](#)
- | [Stanford GSB Case Study](#)
- | [Design in Tech Reports](#)

02

Design Talent

You need a strong designer hiring leader. They will be, "Someone who you wish was designing instead and loves talent, too." ✓

Resources

- | [Brie Anne Demkiw's tips](#)
- | [Automattic.Design blog](#)
- | [Jared Spool's Master Class](#)

03

Design Leaders

You need a primary design lead who cares about leadership and enjoys fostering new leaders. ✓

Resources

- | [Redesigning Leadership](#)
- | [InVision Design Leadership](#)
- | [Within Leadership Retreat](#)
- | [Designer Fund](#)

04

Design Systems

You need a few computational designers who work inclusively. Plus listen to [Nathan Curtis](#). ✓

Our design system offers [kit scope] released as [kit outputs] and documented at [kit doc site] produced by [people] in order to serve [products] products and experiences. † ††

Resources

- | [Awesome Design Systems](#)
- | [Adele | DesignSystems.com](#)
- | [Karl Gerstner](#)

05

Design Ops

You want to product- and project- manage design as a service inside the org. And we've recently hired for Design Ops. ✓

Resources

- | [NEW Design Ops at Automattic](#)
- | [What is Design Ops?](#)
- | [Design Ops Lenses](#)
- | [Holly Burroughs Cole](#)

We keep the “Four Planets” in mind at Automattic. It’s not easy.

Concept by Adam Becker and Brie Anne Demkiw / Images by Marly Gallardo / Text by Ian Stewart

Planet Discovery Where we go to understand product landscapes and find the real problems that need answers. Its pull seems safe, but that’s a mistake. Orbits decay quickly, and it’s easy to use up your fuel crafting solutions. Remember — you’re not actually building anything here. Gather information, then move on before you burn up, leaving nothing behind.

Planet Hypothesis Visit to test at a rapid pace, using the information mined from Discovery as fuel. The more tests the better; speed now makes you more effective on the further-out planets. Prototype, test, and go. Don’t get too attached to any one test or look for any perfect solutions — you’ll miss the launch window for Planet Deliver.

Planet Deliver It’s time to build. This enormous planet offers massive rewards, tempered with massive dangers. As soon as you enter its orbit, the lights start flashing. The smell of ozone hits the air, the walls shake, and the ship feels like it could blow at any time. Here’s where things really start to happen — but beware the seduction of endless discussions and insignificant changes that lead to entropy. Go in with a plan, and get out fast. You can make it.

Planet Listen A secretive, resource-rich planet on the outskirts of this system, only accessible by shippers that made it to Deliver and got out. Circling Planet Listen can feel like inactivity, but the precious fuel mined here will power multiple expeditions — usage is like oxygen for ideas. You may need to warp back to Deliver again and again for the energy to extract it all. It’s worth it.

Advice: Earning “Best Supporting Actor/Actress” is the goal.

“Regina King, Jennifer Connelly, Catherine Zeta-Jones, Mo’Nique, Cate Blanchett, Rachel Weisz, Jennifer Hudson, Tilda Swinton, Penélope Cruz, Renée Zellweger, Melissa Leo, Octavia Spencer, Anne Hathaway, Lupita Nyong’o, Patricia Arquette, Alicia Vikander, Viola Davis, Alison Janney, Benicio del Toro, Jim Broadbent, Chris Cooper, Tim Robbins, Morgan Freeman, George Clooney, Alan Arkin, Javier Bardem, Heath Ledger, Christoph Waltz, Christian Bale, Christopher Plummer, Christoph Waltz, Jared Leto, J.K. Simmons, Mahershala Ali, Sam Rockwell are all Academy Award Winners from 2000 to the present day. But they didn’t win for being the best Leading Actors or Actresses. They won for being voted the best Supporting Actors or Actresses of their respective years.”

Advice: Every Boss of designers should go visit “Planet Listen.”

What would you tell your boss if you could be “radically candid”?

Awesome Humans: Yes We Can

You know ... we humans are pretty darn amazing!

- There's fear about AI's future impact, but there's creative hope too.
- A computational designer thinks critically about technology and its impact on people.
- Design makes what is hard, easier. And makes what is easier, memorable.
- So with all the dystopia and crises right now, I'd like to taste some signal instead of noise.
- I subscribe to Fred Kofman's doctrine of Player versus Victim — so I'm not being a Polyanna.
- And I think I heard somewhere that, "Yes we can!"

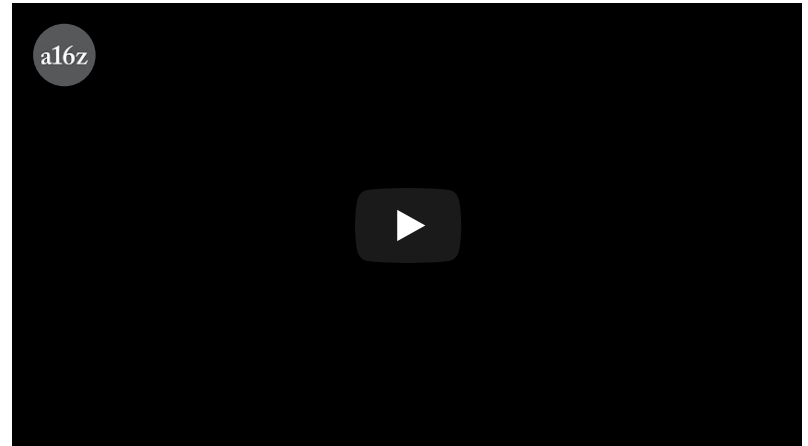
Awesome Humans reshape technology to be more awesome.

01

Xbox Adaptive Controller / Making gaming accessible.
via Microsoft

02

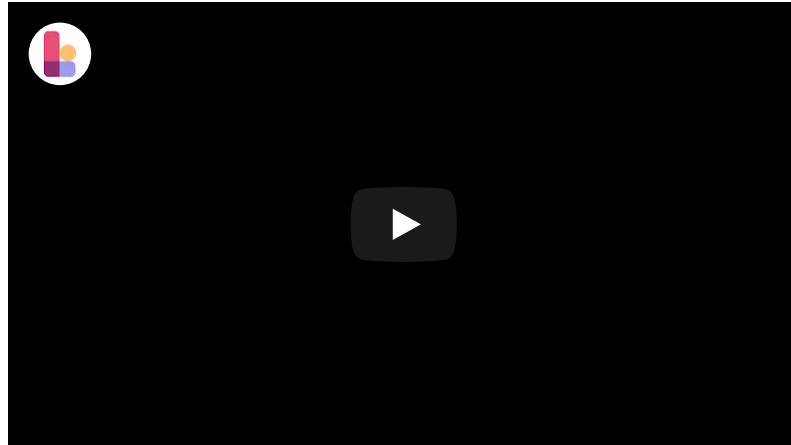
Lyra / Symbol to speech app for children with autism. 



Awesome artists keep the enigma alive.

03

[Zach Lieberman](#) / Hanging method by MuDA. 📺



04

[Project Alias](#) / Open source Google Assistant muzzle.
via Bjørn Karmann

Fighting for awesomeness takes a village.



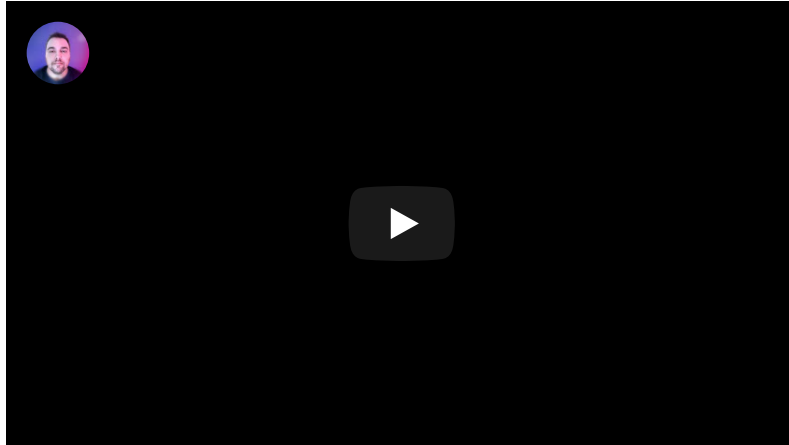
Squadbox / Collaborative anti-harassment tool.
via MIT

via Pew

Awesome humans recast culture with creative courage.

06

[Purl](#) / 8 minutes worth watching. 📺



07

[Canvas](#) / Indie film by Pixar animator Frank Abney III.
via SyFy

Join me in launching Frank Abney's film!

You can still fund Abney's new short film on Kickstarter at the Executive Producer level with me if you hurry!

Systems enable awesome design-doing to happen at scale.

08

[Humaaans](#) / Mix and match illustration library.
via Humaaans.com

05

[Cloudflare Color](#) / Accessibility in-context color tool.



Human Inventiveness (HI) is still fontastic awesomeness.

06

Braille Neue / Hybrid visible/tactile typeface.


07

Sans Forgetica / Unusually memorable letterforms. 📺



There's something about GenZ × Chinese awesomeness.

08

▶  One Trillion To The 10th Power

“Siri: What’s one trillion to the tenth power?”

09

▶  Arm Wrestling Meets Payments System

“I   bet you can’t beat me in arm  wrestling!”

Tech superpowers can be used for awesomeness, too.

10

Bushwick Analytica / Targeted advertising **by** children.

- ▶ No school on Mondays
- ▶ Global warming is no joke
- ▶ Save the animal habitats

“... a series of workshops for Bushwick Public Library that invites local middle schoolers to harness the power of data driven advertising & publish their own targeted campaigns.”
— @tegabrain

via Pew

Three Tasty Trend Mixes

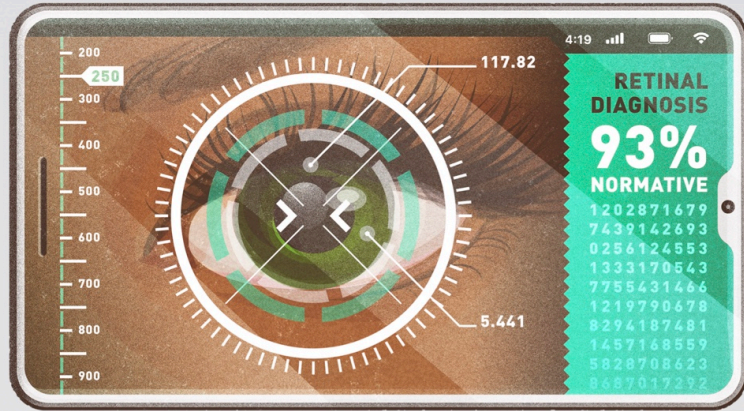
with Guest Appearance by Tony Ruth

A set of three things that stand out for me

1. Critically Making: *Considered construction of products and services for utility or superiority.*
 - 🙌 Useful
 - 😎 Cool
2. Trust Me/Who?: *Cloud-based systems let us live easier by giving up all of our privacy. Huh?*
 - 🛡️ Defense
 - ⚔️ Offense
3. Going Retro: *Some things are always better done the old way when they represent the good way.*
 - 🖐️ Handcraft
 - 🏁 Speedcraft

Useful

Pragmatic Applications



Measurable Results

Cool



Showcasing a requisite tech wow factor

Indulging non-essential needs

Critically Making: 🙌 Useful or 😎 Cool

Tech tends to be much better at getting cool right, instead of getting useful right. Why?



Useful means solving a specific problem or a set of problems, and in tech that's not 100% clear sometimes.

1. Meals-on-demand Munchery
2. Parking-on-demand Luxe
3. Shipping-on-demand Shyp
4. Laundry-on-demand Washio
5. Cleaning-on-demand Homejoy

All of these venture-backed startups have closed.



Cool means having a tech WOW factor, and there are more than a few things that fall under that category.

1. Robots
2. VR
3. Voice
4. AR
5. **AI**

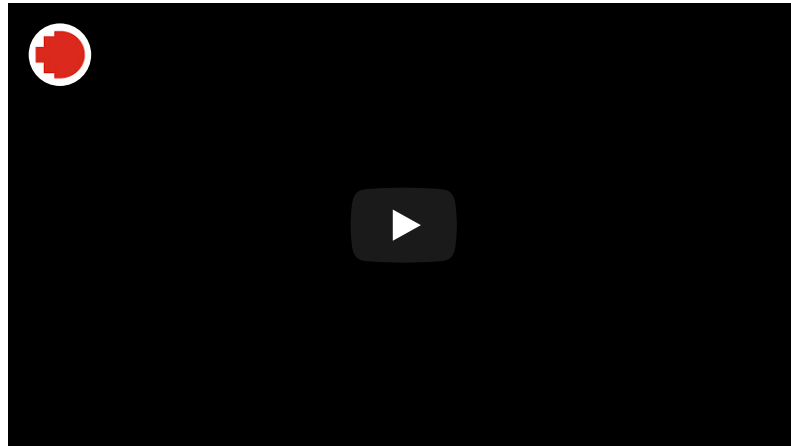
Highlight is covered in our special section “Yaaaaaawn. Boring A.I.” In that section we’ll cover a few interesting 🙌 useful things.

😎 Cool Robots (starting in 1942)

“1) A robot may not injure a human being, or, through inaction, allow a human being to come to harm. 2) A robot must obey the orders given it by human beings except where such orders would conflict with the First Law. 3) A robot must protect its own existence so long as such protection does not conflict with the First or Second Laws.” —Isaac Asimov

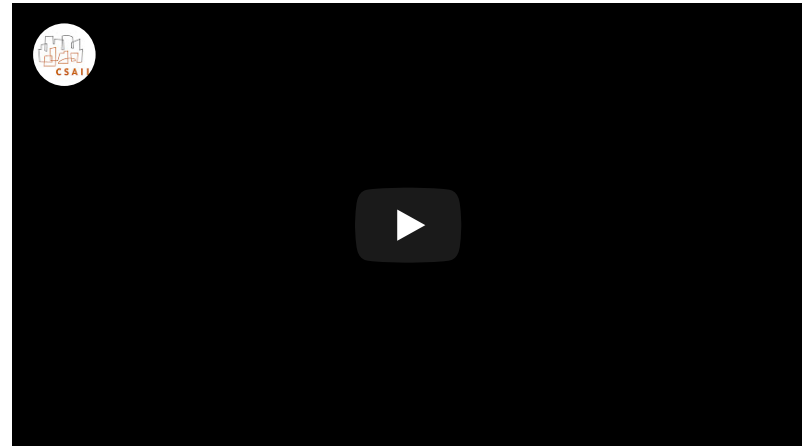
1968

MIT AI Lab / Minsky Tentacle Robot (1968) 🤖



2018

Boston Dynamics / Parkour Atlas 2018 🤖

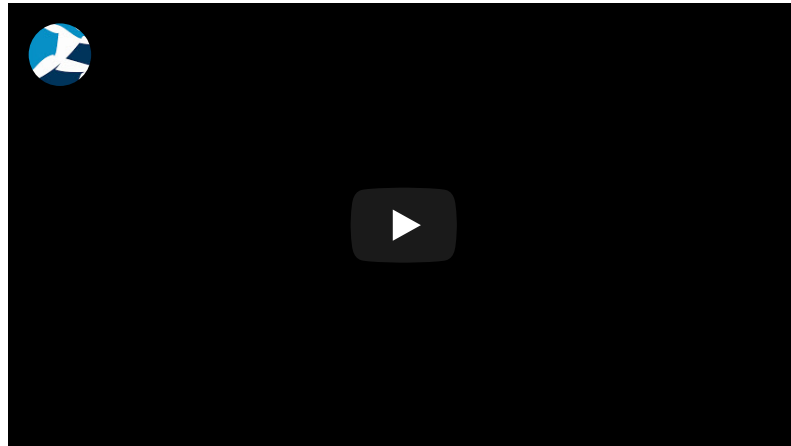


😎 Cool VR *Réalité Virtuelle* (starting in 1938)

“All true alchemists know that the alchemical symbol is a mirage as the theater is a mirage. ... the expression of an identity existing between the world in which the characters, objects, images, and in a general way all that constitutes the virtual reality of the theater develops, and the purely fictitious and illusory world” —Antonin Artaud

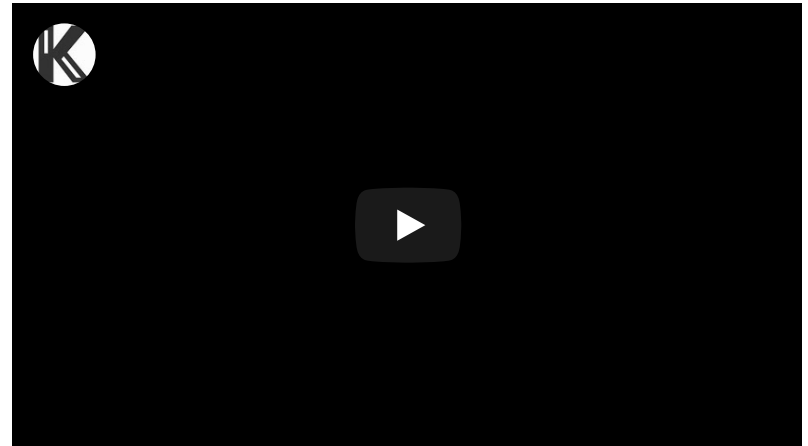
1990

VPL / Jaron Lanier Data Glove and Eye Phone (1990) 🎮



2019

Facebook / Oculus Rift (2019) 🎮

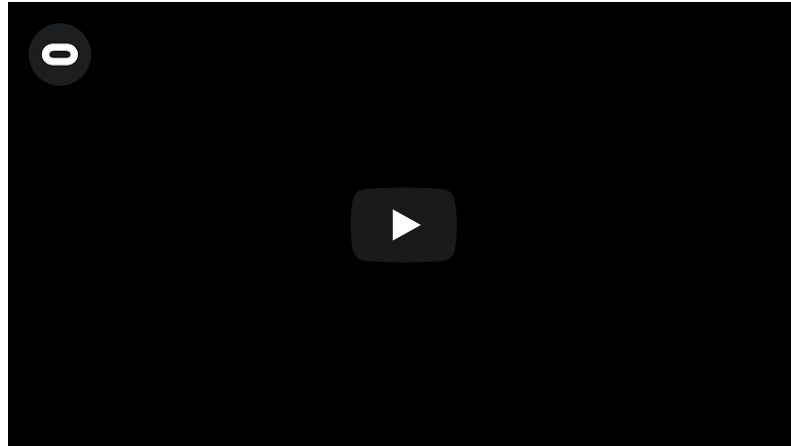


😎 Cool Voice (starting in 1952)

“The student of architecture is an inherently tactile person — accustomed not only to working with their hands but also to physical and graphical manifestations; and they are accustomed to playing with those.” — Nicholas Negroponte

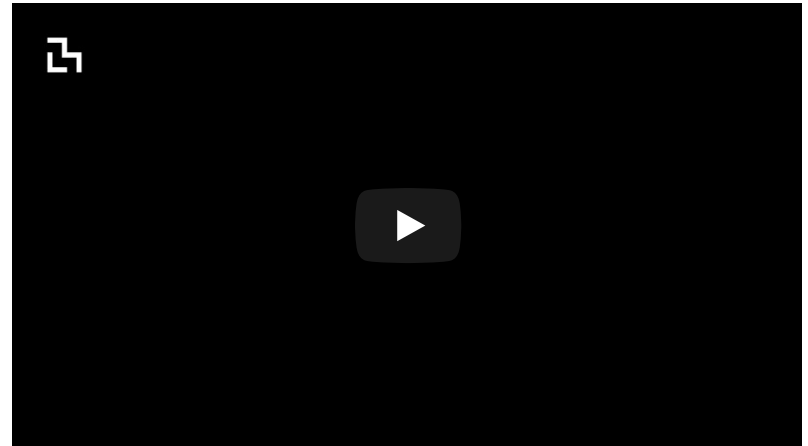
1982

MIT Architecture Machine Group / Put-That-There (1982)



2018

2019 Lexus ES / with Amazon Alexa (2018)

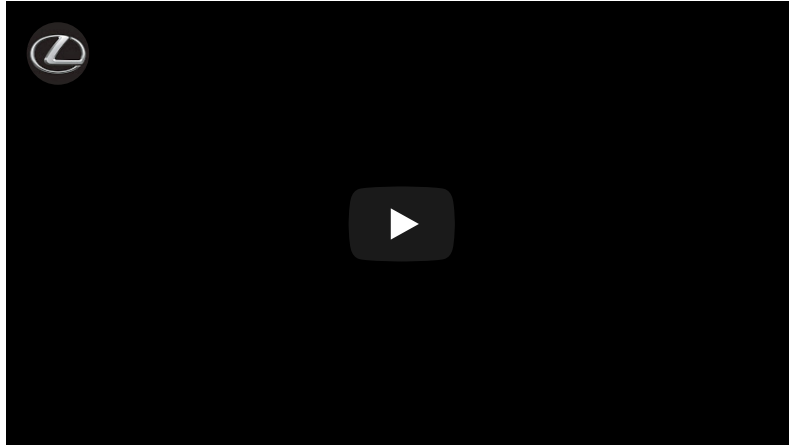


😎 Cool AR (starting in 1985)

“In considering what the ultimate interface should be, I decided to study the people who had the best relationship to their tools: artists and musicians. Interacting with these people exposed me to the Experiments in Art and Technology movement and the early efforts in computer art.” —Myron Krueger

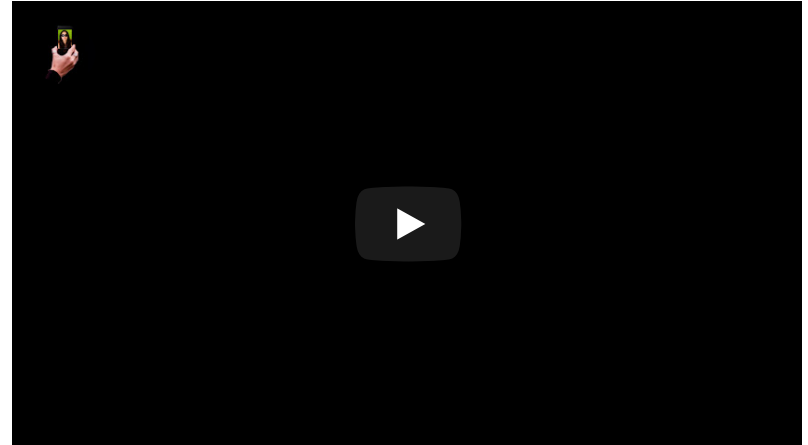
1985

U of Conn / Myron Krueger Videoplace (1985) 📺



2019

Microsoft / Hololens Mixed Reality (2019) 📺



Handcraft

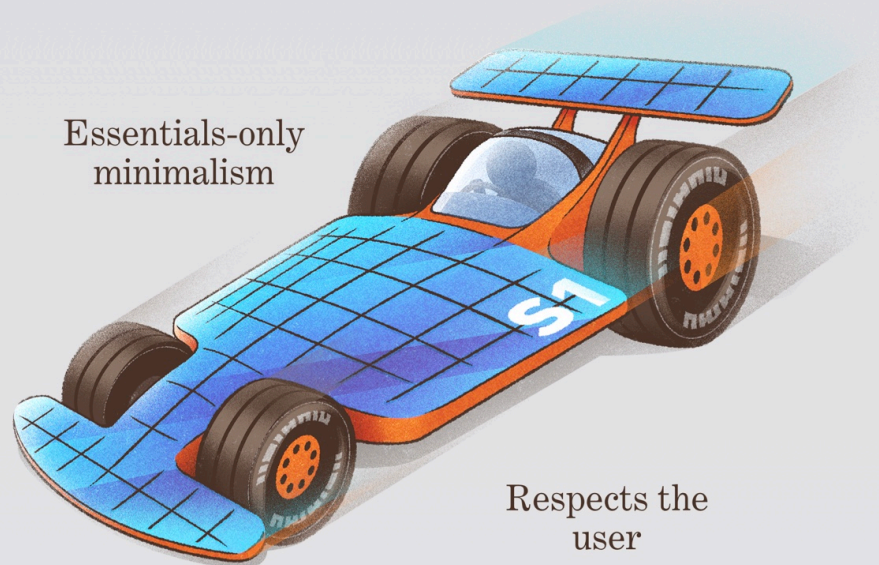
Values-driven programming



Delights the maker

Speedcraft

Essentials-only minimalism



Respects the user

Going Retro: 🖐️ Handcraft and 🏁 Speedcraft

2010

“The software industry is poised to embrace its craft heritage.”

—Me in 2010 for Your Life In 2020 for Forbes

2016

10 Values For Craft Software by Nick Francis

1. Delight in the process
2. Use only the best ingredients
3. Invest in the “unmeasurables”
4. Think of profit as a byproduct
5. Be stubborn about values
6. Have an opinion
7. Delay gratification
8. Choose your customers
9. Make better, not more
10. Grow in a sustainable way

“Since profit is a byproduct of your real mission as a company, grow only as fast as you can maintain the quality and integrity of your product. Growth that strengthens the foundation of the business and forges a path for future sustainability is always a great thing.” —Nick Francis

👉 **Handcraft** and the startup universe can co-exist.

“Instead of freaking out about how ‘small’ Gumroad actually is (like I thought they would), our creators have grown more loyal. It feels like we’re all in this together, trying to do earn a living doing what we love.

Soon, we will also open-source the whole product, WordPress-style. Anyone will be able to deploy their own version of Gumroad, make the changes they want, and sell the content they want, without us being the middle-man.”

—Sahil Lavingia, Founder & CEO Gumroad

Handcraft as humanism, beauty, and respecting the earth.

“The act of repairing becomes a visible and meaningful part of the object, poetically transforming and guiding the piece into new artistic terrain.” —RISD Museum

Luli Heinz via RISD Museum

Handcraft is how we have always re-sparked joy in objects.

“Clay vessels are remarkably durable, yet they are vulnerable to breakage if mishandled or dropped. This distinctive technique was based on the longstanding practice of using plant resin lacquer as an adhesive, but Japanese craftsmen transformed the appearance of the repair by sprinkling the lacquer with powdered gold, thus creating a new component for appreciation. ‘Gold’ lacquer repairs became closely associated with ceramic utensils used for tea (chanoyu).” —Smithsonian (2008)

SI Freer|Sackler 17thc

🏁 SpeedCraft is the baseline for making a service access-able.

2015

“A small but growing number of people, however, are taking ad-blocking a step further and just disabling JavaScript altogether.” —Klint Finley

2018

“Average load time for the top 50 sites was 9.46 seconds with trackers loading, and 2.69 seconds without.”

—Pingdom

“Because of #GDPR, USA Today decided to run a separate version of their website for EU users, which has all the tracking scripts and ads removed. The site seemed very fast, so I did a performance audit. How fast the internet could be without all the junk! 🤪 5.2MB → 500KB.”

—Marcel Freinbichler

🏁 SpeedCraft is an art that can be learned in practice × practice.

GitHub via 37signals

“There is so much to know about making websites fast. But you don’t have to be an expert to care about web performance nor be an expert to start making changes to your websites to make them faster.”

—Chris Coyier on The Low Hanging Fruit of Web Performance

1. Reduce Requests
2. Optimize Assets
3. Make sure you’re gzipping
4. Make sure you’re browser caching
5. Use a CDN
6. Lazy Load and Defer Loading of Things
7. Use responsive images (or at least use reasonable sizes)
8. Mind Your Fonts
9. Good Hosting / HTTP2 / PHP7
10. **Turbolinks** 👉👉👉👉👉

“Turbolinks® makes navigating your web application faster. Get the performance benefits of a single-page application without the added complexity of a client-side JavaScript framework. Use HTML to render your views on the server side and link to pages as usual. When you follow a link, Turbolinks automatically fetches the page, swaps in its , and merges its , all without incurring the cost of a full page load.” —[turbolinks](#)

🚩 SpeedCraft requires a Modernist's sense of *konmari*-ing.

“Across the top ~1 million sites, ~800 origins account for ~65% of all script execution time with the top 100 entities already accounting for ~59%. Third party script execution is the majority chunk of the web today, and it's important to make informed choices.” —[Patrick Hulce](#)

All The Web Filler

GitHub / Patrick Hulce

Prediction: There's more change to come. Forever. Esp in Tech.

“If you don't like change,
you're going to like irrelevance even less.”

—Eric Shinseki

“It's dangerous to believe with absolute certainty that the frameworks and tools we increasingly rely on today—tools like Bootstrap, Bower, and Brunch, Grunt, Gulp, Node, Require, React, and Sass—will be any more relevant in the future than font elements, frames, layout tables, and spacer images are today.”

—Andy Clarke

Reflection: The slow, human way will still persist. If we let it.

The software industry is poised to embrace its craft heritage. By 2020 software will return to a cottage industry, with bespoke applications made by many, rather than today's industrialized, Microsoft-esque mass-production and distribution model. It will be part of a larger world movement to make things by hand, infused with emotion and integrity.

Rather than be content to accept corporate anonymity, we will rediscover the value of authorship. You might say it is a return to learning to trust individuals again, instead of relying on an indirect connection to a product through trust in its brand.

—Me in 2010, on 2020

Defense



Defaulting to presets

Offense



Taking action, opting out

Trust Me: 🙌🙌 Defense or 🛡️🔪 Offense

“Good (electronic) fences make good neighbors.” —Me



No action taken is the default **defense**

1. Default DNS
2. Default Network
3. Default Browser
4. Default Messaging
5. Default Social Media
6. Default Legislation
7. Default Walled Gardens



Taking action requires an **offense** game

1. Use a privacy-oriented DNS like [Cloudflare 1.1.1.1](#).
2. [Setup a VPN](#) so your ISP can't watch you.
3. Surf with [Brave](#) or get [Firefox extensions](#).
4. Send secure messages via [Telegram](#).
5. [Abstain](#) from using social media.
6. For all of its UX challenges, [GDPR](#) is cool.
7. A few options:
 - Use open source systems like [WordPress](#).
 - Be sure that your data has a [degree of mobility](#).
 - [37signals](#) went [FB-free](#) and [Medium-free](#).

The design of “entrusting trust” takes a variety of forms now.

“Data Permissions Catalogue collects different patterns for a range of data sharing activities, from getting consent from users to asking for access to personal data and sharing data with third parties.”

01

Terms and conditions

02

Multi-factor using text message

03

Just-in-time consent

04

Proximity sharing



Offense tactics can turn out to be 🐱 Offensive these days.

via TechCrunch

“Facebook acquired Onavo in 2013 for a reported \$200 million to use its VPN app to gather data about what people were doing on their phones.

But Facebook quietly repurposed Onavo code for use in its Facebook Research app that TechCrunch found was paying users in the U.S. and India ages 13 to 35 up to \$20 in gift cards per month to give it VPN and root network access to spy on all their mobile data.”

—[Josh Constine](#) February 21, 2019

Data privacy expert Dr. Latanya Sweeney long saw it coming.

Harvard Magazine

The Erosion of Privacy and Anonymity and The Need of Transparency of Government Access Requests November 11, 2011 World's Biggest Tech Companies Get Failing Grade On Data-Privacy Rights November 3, 2015 The Cambridge Analytica Scandal, In Three Paragraphs March 20, 2018 Net Neutrality Has Officially Been Repealed. Here's How That Could Affect You. June 11, 2018 TikTok App Hit With Record Fine For Violating Children's Privacy Law February 27, 2019

The Erosion of Privacy In The Internet Era September 9, 2009

“The main reason privacy is a growing problem is that disk storage is so cheap. People can collect data and never throw anything away. Policies on data sharing are not very good, and the result is that data tend to flow around and get linked to other data.”
—Professor Latanya Sweeney

When ethical design is just ... “design” then the world changes.

“It’s not difficult to find examples of companies making questionable product decisions, especially when it comes to your data and privacy. There can be many reasons why the ethical design path is not chosen, but there is one common factor — there are people, such as managers, engineers, and/or designers, behind each choice.” —Holly Habstritt Gaal

Framework By Holly Habstritt Gaal

	Problem	Solution
Clarity Of Control	“You don’t know you’re being tracked until it’s too late.”	“Set clear expectations so you’re always in control of your data.”
Protected Or Not?	“Privacy features can be hard to find.”	“Showcase features that demonstrate our privacy-focused mission.”
Actively Defending You	“Your favorite sites may have poor privacy practices.”	“Block trackers on your behalf, enforcing transparency and honesty from other sites, so you can still visit them with peace of mind.”
Sharing Your Whereabouts	“Your location is personal, but important for getting results.”	“Let you decide how and when to provide your location, then throw it away after use.”
Making Privacy Obvious	“Internet privacy is a complex and overwhelming topic.”	“Make learning easy and accessible.”

Advice: “View Source” always requires Open Source. Support it!

“The word universe derives from the Old French word *univers*, which in turn derives from the Latin word *universum* which means all together, whole, entire, collective, general, literally turned or combined into one.” —[Omeir Fawaz](#)



The most popular open source projects with (*lines of code*):

1. [Mozilla Firefox](#) (36,890,150)
2. [Apache HTTP Server](#) (1,485,841)
3. [MySQL](#) (3,727,649)
4. [Apache Subversion](#) (685,470)
5. [PHP](#) (3,672,605)
6. [Linux Kernel](#) (17,592,787)
7. [Bash](#) (224,324)
8. [Firebug](#) (464,800)
9. [Git](#) (450,340)
10. [Ubuntu](#) (600,461)

What makes open source software more secure?

Answer: It isn't. “Open source software can be audited and fixed when its behaviour or security is in doubt.” But note that there are valid arguments that the software compilers we use could contain code we don't know about. The chips we use and put into a computer **could be problematic** as well.

Open Sourcing “Open Source”

“Between meetings that week, I was still focused on the need for a better name and came up with the term ‘open source software.’ While not ideal, it struck me as good enough. I ran it by at least four others: Eric Drexler, Mark Miller, and Todd Anderson liked it, while a friend in marketing and public relations felt the term ‘open’ had been overused and abused enough. I believed we could do better. He was right in theory; however, I didn't have a better idea, so I thought I would try to go ahead and introduce it. In hindsight, I should have simply proposed it to Eric Raymond, but I didn't know him well at the time, so I took an indirect strategy instead.” —[Christine Peterson](#) on coining the term ‘open source’

Advice: Listen to Chinese Jack – he’s always provocative.

“There is no expert of tomorrow.
Only an expert of yesterday.

Don’t be evil is not enough.
Do good things for the world.”

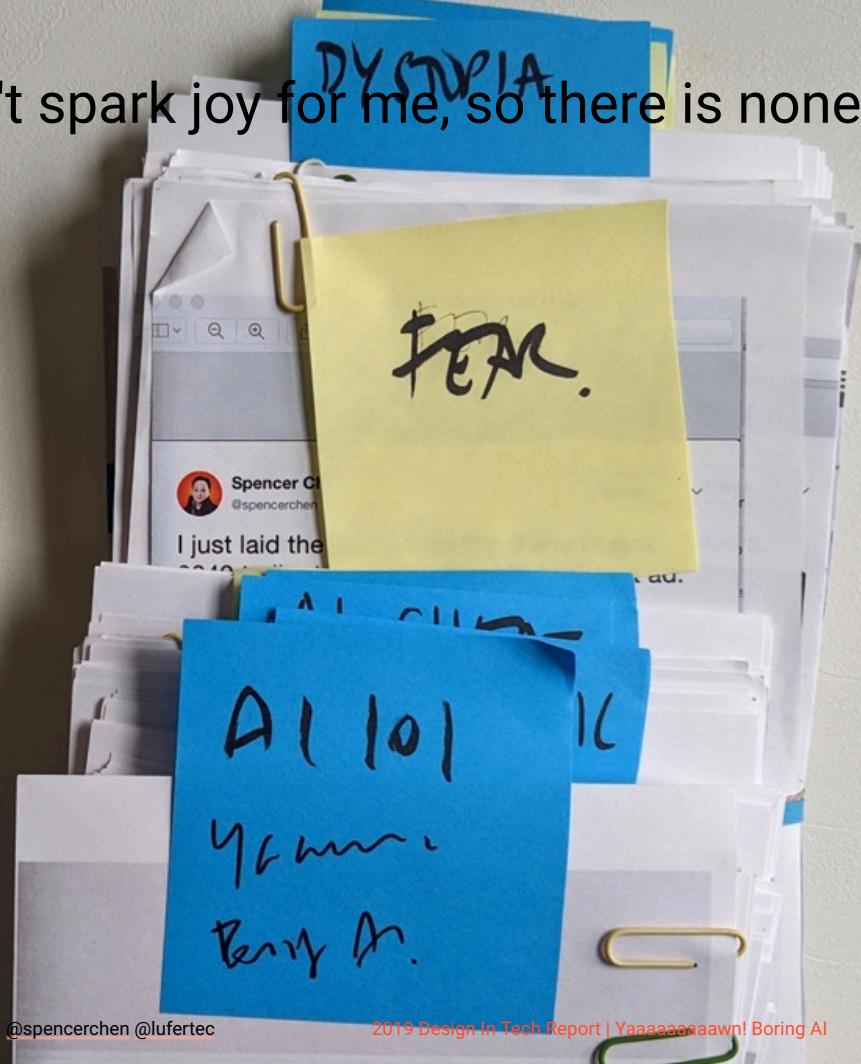
—Jack Ma WEF 2019

Yaaaaaaaawn! Boring AI

AI is an increasingly popular topic — we tend to fear it.

- China is leading in designing experiences at a scale and level of sophistication that astounds.
- Most designers believe that visual designers will start to be replaced by AI in five years.
- There are three kinds of design. Classical Design, Design Thinking, and Computational Design.
- A computational designer understands computation at the level of code and networks.
- A computational designer thinks critically about technology and its impact on people.
- A computational designer leverages AI as one of their tools to co-construct new ideas.

A gigantic AI section didn't spark joy for me, so there is none.



Everything that Dr. Kate Crawford has been saying is timely.

“Many of us now expect our online activities to be recorded and analyzed, but we assume the physical spaces we inhabit are different. The data broker industry doesn’t see it that way. To them, even the act of walking down the street is a legitimate data set to be captured, catalogued and exploited. This slippage between the digital and physical matters not only because of privacy concerns—it also raises serious questions about ethics and power.” —[via SciAm, 2014](#)

“If you’re not thinking about the way systemic bias can be propagated through the criminal justice system or predictive policing, then it’s very likely that, if you’re designing a system based on historical data, you’re going to be perpetuating those biases.

Addressing that is much more than a technical fix. It’s not a question of just tweaking the numbers to try and remove systemic inequalities and biases.” —[via Wired, 2017](#)

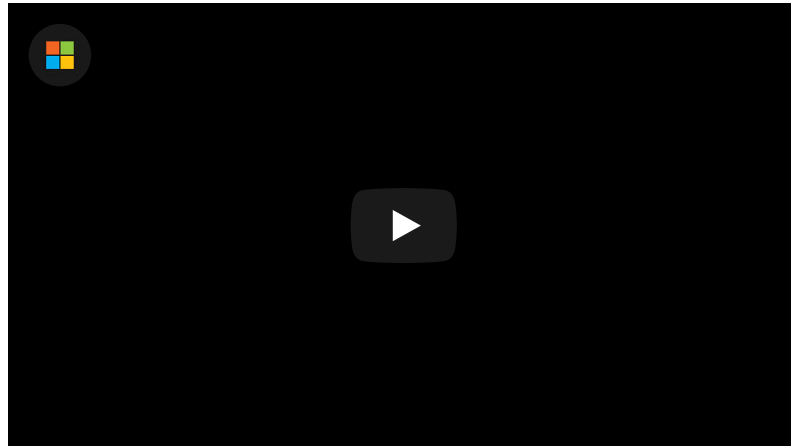
“Rather than assuming Terms of Service are equivalent to informed consent, platforms should offer opt-in settings where users can choose to join experimental panels. If they don’t opt in, they aren’t forced to participate. This could be similar to the array of privacy settings that already exist on these platforms. Platforms could even offer more granular options, to specify what kinds of research a user is prepared to participate in, from design and usability studies through to psychological and behavioral experiments.” —[via The Atlantic, 2014](#)

“There is no quick technical fix to bias. It’s really tempting to want to think that there’s going to be some type of silver-bullet solution that we can just tweak our algorithms or, you know, use different sorts of training data sets, or try to boost signal in particular ways. The problem of this is that it really doesn’t look to the deep social and historical issues that human data is made from.” —[via Microsoft, 2018](#)

AI fears are easy to come by, and countermeasures are underway.

Google I/O 2018 – Duplex Made 😎Cool → 🤖Creepy 📺

“Google’s ‘terrifying’ new artificial intelligence feature has prompted concerns about the takeover of the robots and the abuse of AI. Many commentators have suggested that Duplex is not only strange but entirely unethical, and that it could signal an important moment in the acceptance and use of artificial intelligence.” —[The Independent](#)



Counterfactual Explanations Without Opening the Black Box: Automated Decisions and the GDPR by Sandra Wachter / Brent Mittelstadt / Chris Russell

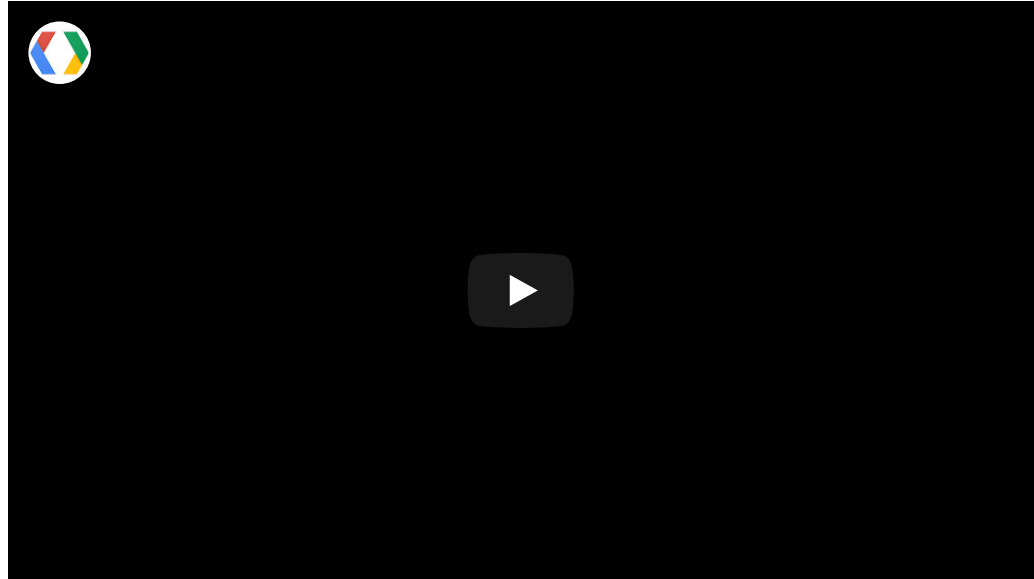
“Explanations of automated decisions need not hinge on the general public understanding how algorithmic systems function. Even though such interpretability is of great importance and should be pursued, explanations can, in principle, be offered without opening the black box. Looking at explanations as a means to help a data subject act rather than merely understand, one could gauge the scope and content of explanations according to the specific goal or action they are intended to support.

Counterfactuals describe a dependency on the external facts that lead to that decision without the need to convey the internal state or logic of an algorithm. As a result, counterfactuals serve as a minimal solution that bypasses the current technical limitations of interpretability, while striking a balance between transparency and the rights and freedoms of others (e.g. privacy, trade secrets).”

David Bowie got computation right on the Internet in the 90s.

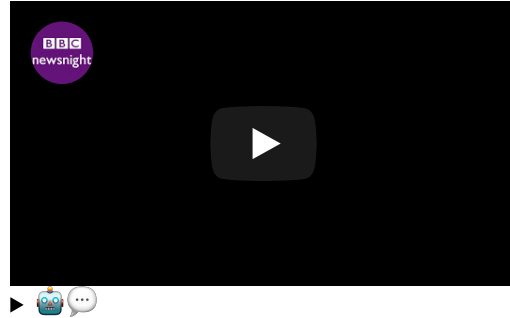
“We’re on the cusp of something exhilarating and terrifying. ... It’s an alien life form that just landed.” —David Bowie 1999 BBC 📺

"Oh yeah, I was actually talking about the context, and the state of content is going to be so different to anything we can envisage at the moment, **where the interplay between the user and the provider will be so in simpatico it's going to – it's going to crush our ideas of what mediums are all about.** But it's happening in every form, it's happening in visual art. The breakthroughs of the early part of the century with people like Duchamp who were so prescient in what they were doing and putting down. **The idea that the piece of work is not finished until the audience comes to it, and add their own interpretation: what the piece of art is about is the gray space in the middle.** That gray space in the middle is what the 21st century is going to be about."



AI can make copycat art. But great artists can't just copycat.

Carl Vondrick (2016) / MIT CSAIL 📺



“I don't think machine learning will lead to the creation of a single industry, but more likely help create many smaller, but highly impactful, subindustries. The people who create these new industries will prob not invent ML algorithms, but will instead use them in creative ways.”
—[@hardmaru](#)

A quick scan on Twitter is a rabbit hole.

- ▶ @quasimondo / Sotheby's Auction
- ▶ @dh7net / Arts Experiments
- ▶ @kikko_fr / Varied Fonts
- ▶ @cogconfluence / Met GAN
- ▶ @carlvondrick / Colorize + Tracking
- ▶ @OpenAI / Text Gen
- ▶ @hardmaru on Damien Henry/ Dance
- ▶ @hardmaru / Reinforced learning
- ▶ @samim / Face editing

We like to question reality a lot online.

[whichfaceisreal.com](https://www.whichfaceisreal.com)
[thispersondoesnotexist.com](https://www.thispersondoesnotexist.com)
[thiscatdoesnotexist.com](https://www.thiscatdoesnotexist.com)
[thisrentaldoesnotexist.com](https://www.thisrentaldoesnotexist.com)
[thiswaifudoesnotexist.com](https://www.thiswaifudoesnotexist.com)
[thiswaifuiseditableinrealtime.com](https://www.thiswaifuiseditableinrealtime.com)
[this3dobjectisnotreal.com](https://www.this3dobjectisnotreal.com)
[thisnewspaperarticleisnotreal.com](https://www.thisnewspaperarticleisnotreal.com)
[thisemojiisnotreal.com](https://www.thisemojiisnotreal.com)
[thiszebraisahorseandviceversa.com](https://www.thiszebraisahorseandviceversa.com)
[thisfakepersonishotornot.com](https://www.thisfakepersonishotornot.com)



AI and humans alike love to debunk each other's fakes.

Human vs AI

[How to recognize fake AI-generated images](#) by Kyle McDonald

1. Straight hair looks like paint
2. Text is indecipherable
3. Background is surreal
4. Asymmetry
5. Weird teeth
6. Messy hair
7. Non-stereotypical gender presentation
8. Semi-regular noise
9. Iridescent color bleed
10. The Missing Earring
11. Painterly rendering

AI vs Human

[Adobe is using machine learning to make it easier to spot Photoshopped images](#) by James Vincent

via Vox

“The new research paper shows how machine learning can be used to identify three common types of image manipulation: splicing, where two parts of different images are combined; cloning, where objects within an image are copy and pasted; and removal, when an object is edited out altogether.”

—[The Verge](#)

AI-powered humans can erase both us and reality to get _____?

AI vs Background

Remove Image Background by remove.bg

remove.bg

AI vs Foreground

Deep Angel is an artificial intelligence that erases objects from photographs. by MIT Media Lab

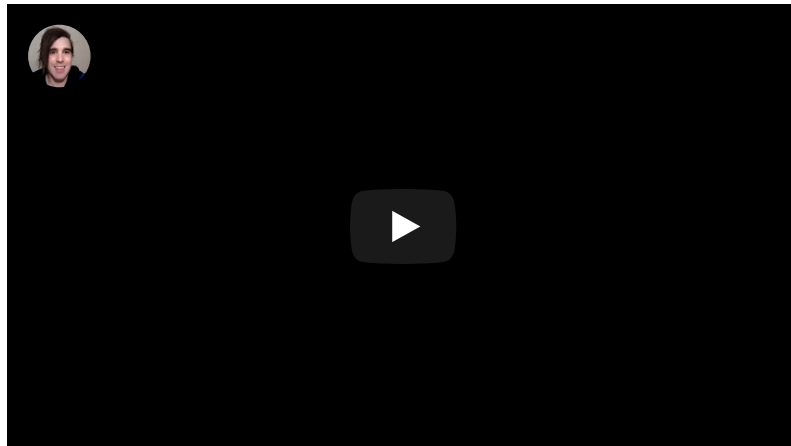
via Digg / Deep Angel / Wikimedia Commons

For all of AI's “ick” we’ll have a few 🎉 “Yay AI!” moments too

🎉 Microsoft Excel will now let you snap a picture of a spreadsheet and import it by Tom Warren




🎉 Making audio more accessible with two new apps by Brian Kemler 📺




“The World Health Organization estimates that by the year 2055, there will be 900 million people with hearing loss. Live Transcribe has the potential to give people who are deaf or hard of hearing greater independence in their everyday interactions. It brought Dimitri closer to his loved ones—he’s now able to easily communicate with his six-year-old twin granddaughters without help from other family members.” —Google

And there will be many more profound instances of 🎉 “Yay AI!”

 AI spots 40,000 prominent scientists overlooked by Wikipedia by James Vincent
via Primer.ai

“Consider Joelle Pineau, the Canadian roboticist bringing scientific rigor to artificial intelligence and who directs Facebook’s new AI Research lab in Montreal. Or Evelyn Wang, the new head of MIT’s revered MechE department whose accomplishments include a device that generates drinkable water from sunlight and desert air. When I wrote this a few days ago, none of them had articles on English Wikipedia, though they should by any measure of notability.” —Primer

 A **simple** algorithm could help clear thousands of cannabis convictions by Jenni Avins
via Mashable

“The things that people write will break your heart: ‘I made a small mistake a long time ago and it’s just haunting me, I need a job to take care of my kids, I need a job to take care of my parents. In a human way, when you see the problem up close it becomes a moral imperative to solve it.’ —Jennifer Pahlka via Mashable

Nicholas Negroponte and team sensed the future, and made it.

“Imagine a machine that can follow your design methodology and at the same time discern and assimilate your conversational idiosyncrasy. The same machine, after observing your behavior, could build a predictive model of your conversational performance. Such a machine could then reinforce the dialogue by using a predictive model to respond to you in a manner that is in rhythm with your personal behavior and conversational idiosyncrasies.” —Nicholas Negroponte, The Architecture Machine (1967)

Advice: Go make **with** computation, and don't freeze. Be curious.

via Alibaba

“It is said that Luban has already achieved the level of an advanced designer. It is able to provide dozens of solutions and design 8,000 different banners every second. All these abilities are attributable to the artificial intelligence technology.” —[Alibaba Cloud](#)

New Automattic Design Experiment

“The value of a computational design system is not to replace designers, but to augment the workflow such that a designer's time is spent reviewing and selecting the best creative, rather than pushing pixels across a screen and cutting banner ads. Moreover, the immediate value lies in **increasing design efficiency and speed** — giving designers more time to focus on refining the system, solving creative problems, and improving the overall brand + **product experience.**” —[Jeff Ong](#)
via Automattic Design

Addressing Imbalance

The best time to get started is right now.

Kat Holmes' [Mismatch](#) framework is a useful framework for addressing the imbalances that have been created by technological advances over the last few decades.

Recognize exclusion.

“Exclusion happens when we solve problems using our own biases. Seek out exclusions as opportunities to create new ideas and inclusive designs.”

Learn from human diversity.

“Human beings are the real experts in adapting to diversity. Inclusive design puts people at the center from the very start of the process, and those fresh, diverse perspectives are the key to true insight.”

Solve for one, extend to many.

“Everyone has abilities, and limits to those abilities. Designing for people with disabilities actually results in designs that benefit people, universally. Constraints are a beautiful thing.”

The Mac was the first attempt to address tech inequality.

“The Macintosh is designed to appeal to an audience of nonprogrammers, including people who have previously feared and distrusted computers.

To achieve this goal, Macintosh applications should be easy to learn and to use. To help people feel more comfortable with the applications, the applications should build on skills that people already have, not force them to learn new ones. The user should feel in control of the computer, not the other way around. This is achieved in applications that embody three qualities: responsiveness, permissiveness, and consistency.” —Inside Macintosh (1985), Human Interface Guidelines

95% of world's computer users are excluded at the highest level.

Nielsen-Norman Group

“The future has arrived — it’s just not evenly distributed yet.” — William Gibson

“Across 33 rich countries, only 5% of the population has high computer-related abilities, and only a third of people can complete medium-complexity tasks. What does this simple fact tell us? You are not the user, unless you’re designing for an elite audience.” —Jakob Nielsen NNG

Related to tech exclusion lies a much deeper kind of exclusion.

Escaping Poverty Requires Almost 20 Years With Nearly Nothing Going Wrong by Gillian White

“(MIT Economics Professor) Temin argues that, following decades of growing inequality, America is now left with what is more or less a two-class system: One small, predominantly white upper class that wields a disproportionate share of money, power, and political influence and a much larger, minority-heavy (but still mostly white) lower class that is all too frequently subject to the first group’s whims.” —The Atlantic

Moving On Up: Teaching With the Data of Economic Mobility by NYT team

“A groundbreaking study of United States census data examined how the economic status of 20 million Americans changed from childhood to adulthood ...”
—NYT

via MIT Press

The Vanishing Middle Class

Even before digital technology, there's been a power imbalance.

1956

“Government surveillance programs, most infamously the FBI’s COINTELPRO, targeted Black Americans fighting against segregation and structural racism in the 1950s and 60s. COINTELPRO, short for Counter Intelligence Program, was started in 1956 by the FBI and continued until 1971. The program was a systemic attempt to infiltrate, spy on, and disrupt activists in the name of “national security.” While it initially focused on the Communist Party, in the 1960s its focus expanded to include a wide swathe of activists, with a strong focus on the Black Panther Party and civil rights leaders such as Dr. Martin Luther King, Jr..” —[EFF](#)

1997

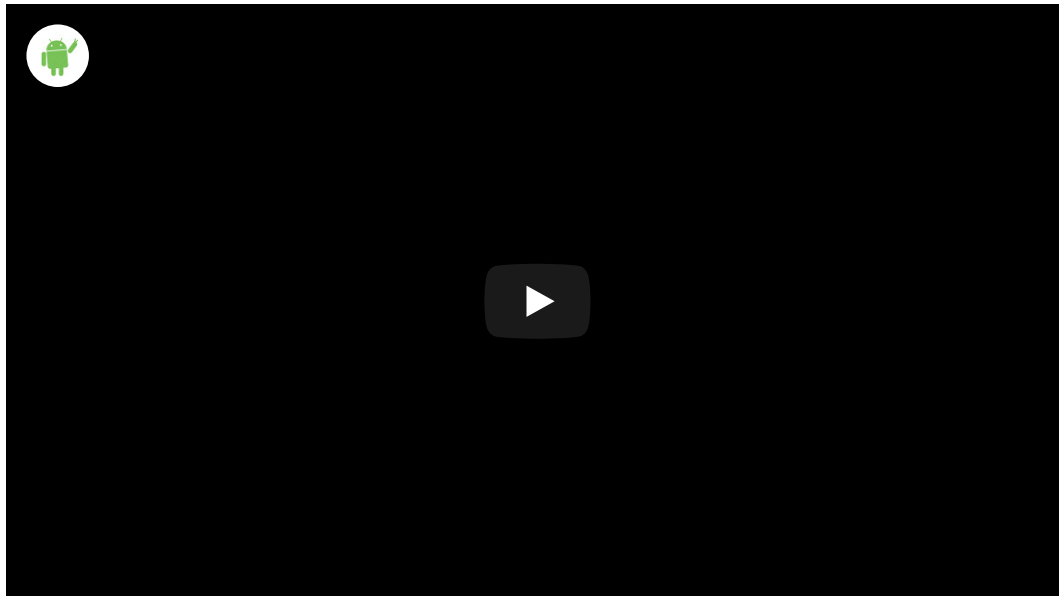
“Birthdate (month, day and year of birth), gender, and 5-digit postal code (ZIP) uniquely identifies most people in the United States. Surprised?” —[Professor Latanya Sweeney](#), Data Privacy Lab

2018

The Internet has become terribly imbalanced. Can **we** fix it?

A meditation on the open web 📺

“What is the world of the open web like, beyond the walls of dominant social media platforms? How do our experiences of the internet differ depending on where we spend our time and share our ideas? Come with us on a journey to explore the landscape of the web and get to know the people and possibilities of open source, the open web, and open opportunities.” —[Alexis Lloyd](#) with animation by [Caresse Haaser](#)



“The technology industry, like all industries, follows cycles, and the pendulum is swinging back to the broad, empowering philosophies that underpinned the early social web. But we’re going to face a big challenge with re-educating a billion people about what the web means.” —[Anil Dash](#)

One solution to imbalance is *unscaling*, or “going proximate.”

“If anthropological interpretation is constructing a reading of what happens, then to divorce it from what happens — from what, in this time or that place, specific people say, what they do, what is done to them, from the whole vast business of the world — is to divorce it from its applications and render it **vacant**. A good interpretation of anything — a poem, a person, a history, a ritual, an institution, a society-takes us into the heart of that of which it is the interpretation. When it does not do that, but leads us instead somewhere else-into an admiration of its own elegance, of its author’s cleverness, or of the beauties of Euclidean order — it may have its intrinsic charms; but it is something else than what the task at hand-figuring out what all that rigamarole with the sheep is about — calls for.” —Clifford Geertz (1973)

Advice: Be curious of all the imbalances that surround ourselves.

Obvious imbalances

One's externally expressed, consciously or not, identity can run counter to a dominant majority. The imbalance is immediately evident.

Non-obvious imbalances

One's non-externally expressed, hidden but felt, identity runs counter to a dominant majority. The imbalance is not immediately evident.

Advice: Innovation is advantaged by proximity to differences.

“Where do new ideas come from? The answer is simple: differences. Creativity comes from unlikely juxtapositions.” —Nicholas Negroponte

“One of the things I have learned about effective decision making is that the best decisions are often made by diverse groups of people. Saying or hearing these words is magic: That’s really interesting. I had never thought of it that way before. Thank you.” —Mary Meeker

“You learn more from people who bring different life experiences to the table.” —Mark Schlissel

ON DIFFERENCES

via HBR

“When members of a team are cut from the same cloth, the average value of their innovations will be relatively high, while the variation around that average is low: That is, you don’t see many failures, but you don’t see many extraordinary breakthroughs either.

As the team members’ fields become less and less similar, however, the average value of the team’s innovations falls while the variation in value around that average increases: You see more failures, but you also see occasional breakthroughs of unusually high value.” —Lee Fleming, HBS (2004)









Advice: Leading inclusively isn't merely about "empowerment."

Reframing how to lead/manage inclusively in 2019+

Don't just say or do:

-  Empower
-  Celebrate

Do say and do:

-  Hire
-  Promote
-  Pay
-  Raise
-  Bonus
-  Fund
-  Invest
-  Enrich

Advice: It's impossible to be an ally to everyone, but you can try.

Equality

When everyone gets the same opportunity, that's considered fair to those who come with an existing (and often unconscious) *unfair advantage*.

Equity

When everyone gets the opportunity to be on a level playing field with their peers, it means that there is an unusual level of fairness to compete.

Good Tech

The late Steve Jobs said:

“I read a study that measured the efficiency of locomotion for various species on the planet. The condor used the least energy to move a kilometer. And, humans came in with a rather unimpressive showing, about a third of the way down the list. It was not too proud a showing for the crown of creation. So, that didn't look so good. But, then somebody at Scientific American had the insight to test the efficiency of locomotion for a man on a bicycle. And, a man on a bicycle, a human on a bicycle, blew the condor away, completely off the top of the charts.

And that's what a computer is to me. What a computer is to me is it's the most remarkable tool that we've ever come up with, and it's the equivalent of a **bicycle for our minds.**”

Good tech makes equity. But it's not. And that's a problem because Tech moves fast. *Really fast.*

Singularity

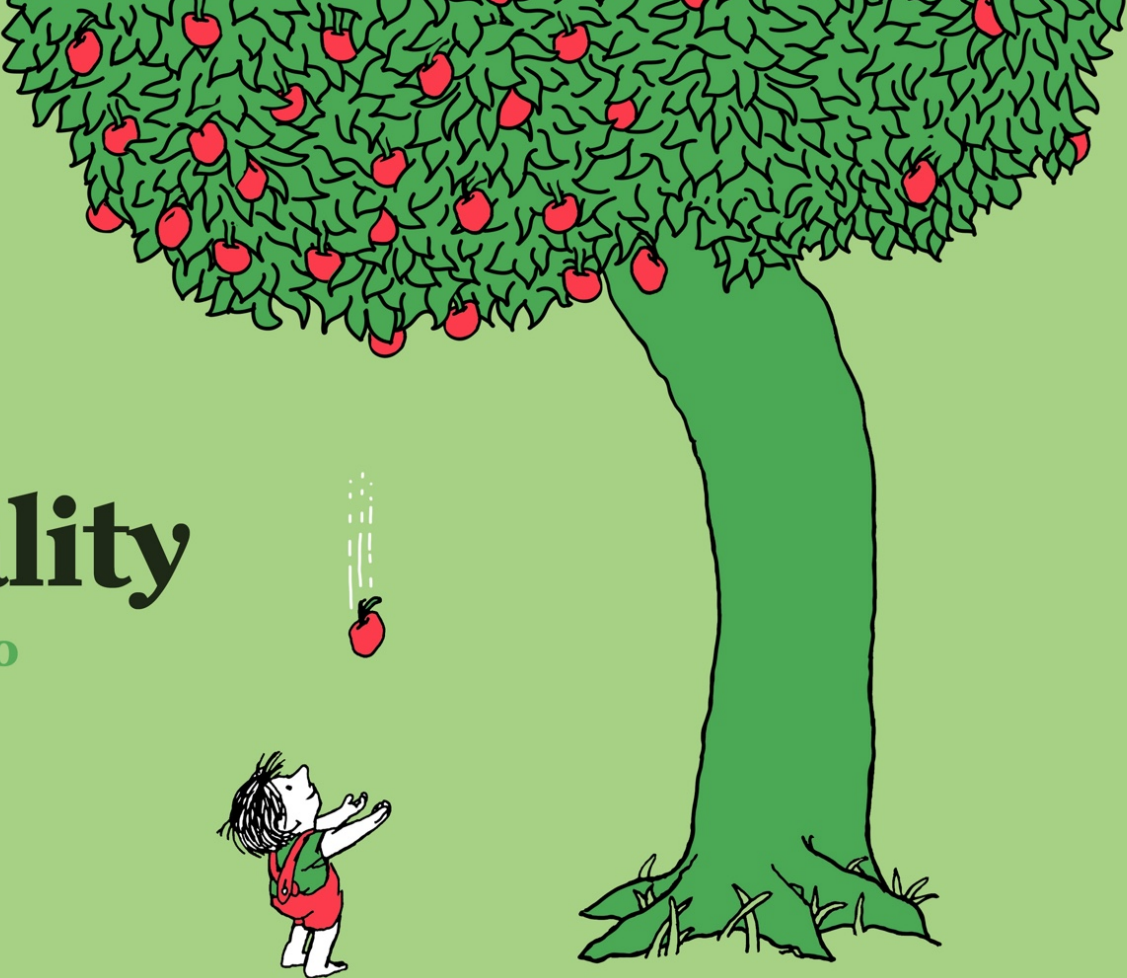
I wonder if the fear of AI by techies is driven by an underlying fear that they themselves can/will be replaced. And if so, that gives me hope. Because self-preservation is a stronger motivation than the desire to make world peace. Time to ally-up!

We're all in this together.



Inequality

Unequal access to
opportunities



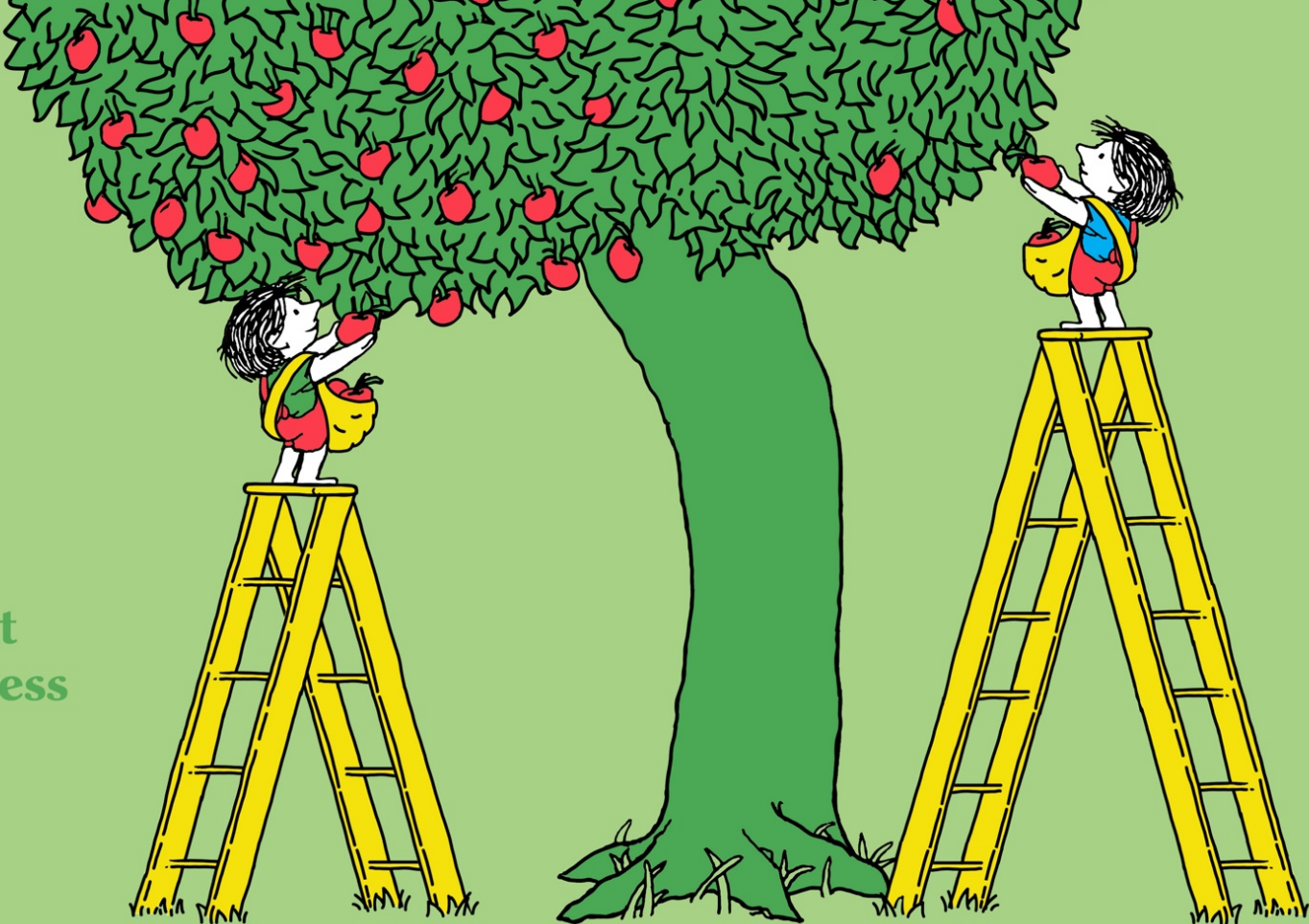
Equality?

Evenly distributed
tools and assistance



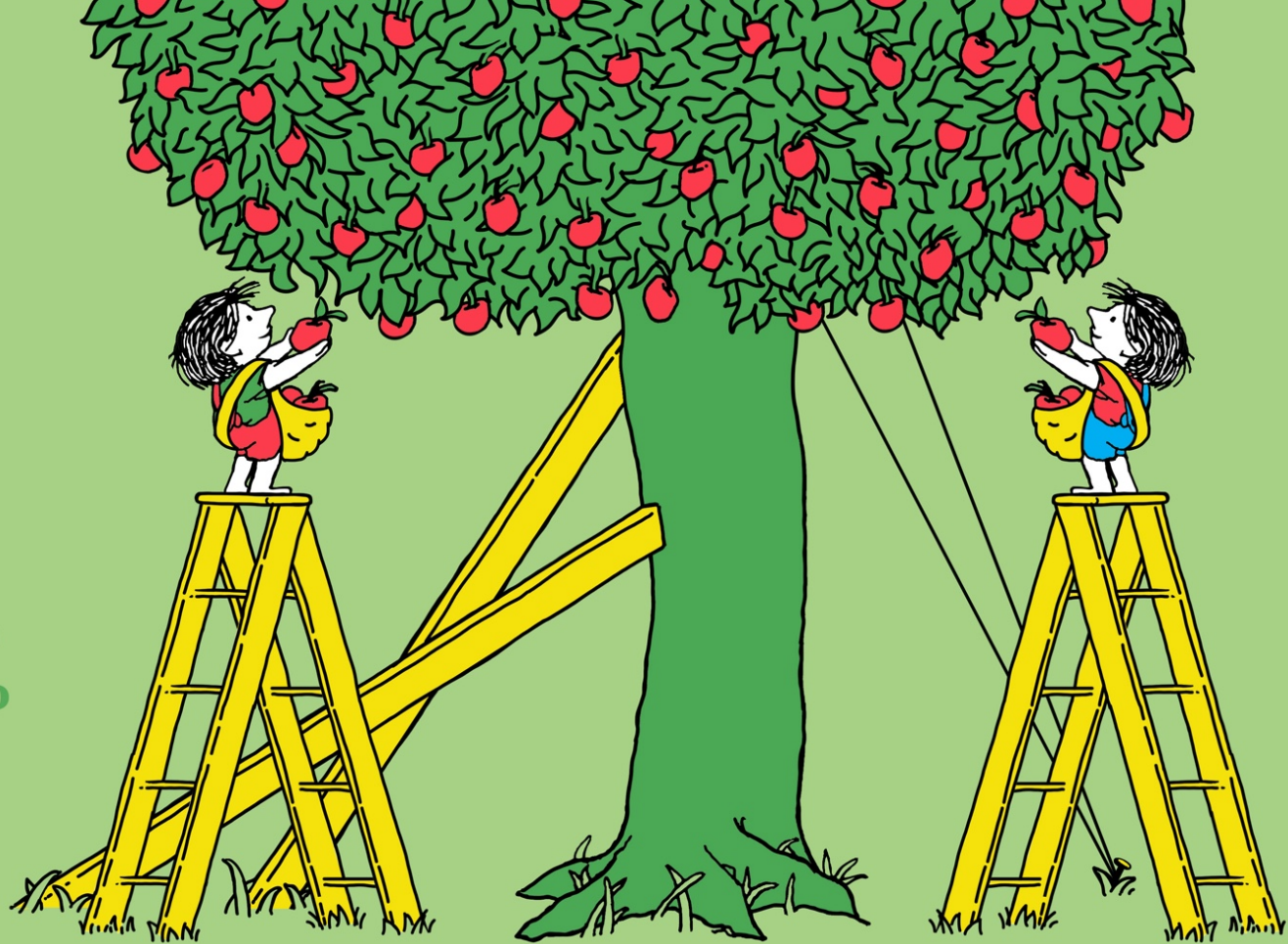
Equity

Custom tools that
identify and address
inequality



Justice

Fixing the system to
offer equal access to
both tools and
opportunities



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