Design that Matters I

Lyel Resner
MIT 6.1040
Fall 2023

How this will go

1. Quick-ish introduction
2. Introduction to Responsible Innovation
3. What agency you have in you careers
4. Intro to Social Impact + Practical tools to kickstart your projects (Wednesday)

Lyel Resner

- Visiting Faculty, Head of Public Interest Tech Studio, Cornell Tech
- Cofounder
  - Startups & Society Initiative
  - Responsible Innovation Founders Summit
  - Swayable (YC18)
  - Failed Education Non Profit
- Early Exec Flatiron School
- 8y Adjunct Professor of Social Innovation at NYU
- Recovering Physicist/Trader
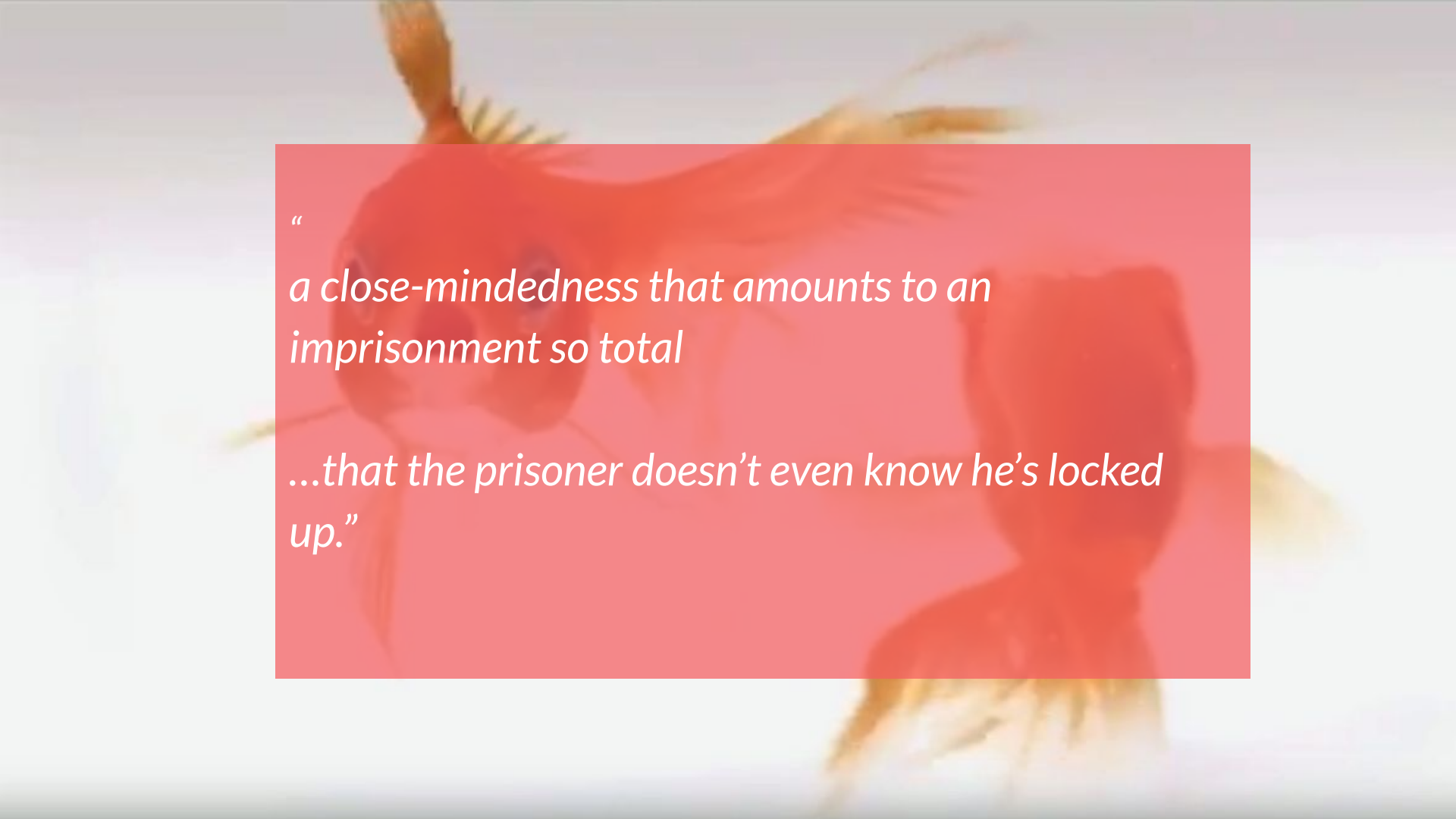- Marginally competent surfer

"

This, I submit, is the freedom of a real education...

You get to consciously decide what has meaning and what doesn't. You get to decide what to worship.

"

a close-mindedness that amounts to an imprisonment so total

...that the prisoner doesn't even know he's locked up."

Prof. Feynman ✓
@ProfFeynman

Direction is more important than speed.

12:18 PM · Aug 24, 2023 · **3.1M** Views

435   ⟲ 13K   ♡ 44K   🔖 1.7K

Fun with Nomenclature

"Values-sensitive Design"
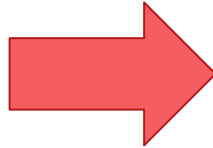
"Public Interest Tech"

"Ethical Tech"

"Civic Tech"

"Responsible Tech"

"Rights-respecting Tech"
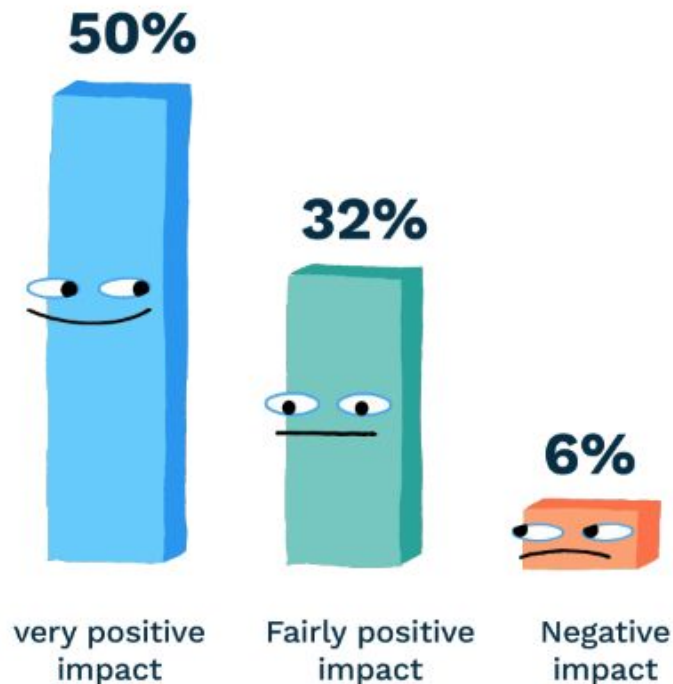
"Humane Tech"

"Tech for Good"

1. **Responsible Innovation (Do no harm)** eg. *enabling violence and extremism, furthering inequities, perpetuating bias, infringing on privacy, exploiting workers, destroying democracy, etc.*

2. **Social Impact (Create positive social change).** Advancing *Human Rights, achieving UN SDGs*
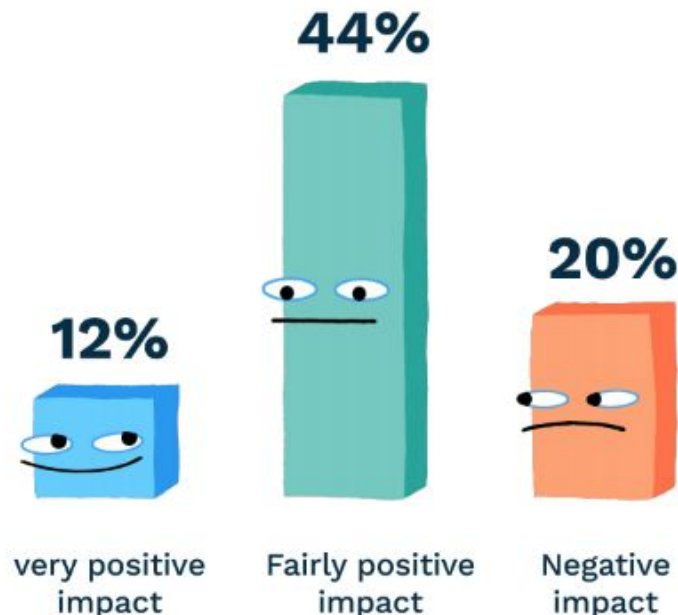
How positively has the internet affected you as an individual?

How positively has the internet affected society?

Opinions on the internet - From our digital attitudes survey

doteveryone

How has the internet affected you as an **individual**

- 50% very positive impact
- 32% Fairly positive impact
- 6% Negative impact

How has the internet affected **society**

- 12% very positive impact
- 44% Fairly positive impact
- 20% Negative impact

Credit: https://doteveryone.org.uk/

"

...will create forgetfulness in learners souls.

Socrates

EDITORS' PICK

Goldman Sachs Predicts 300 Million Jobs Will Be Lost Or Degraded By Artificial Intelligence

Jack Kelly Senior Contributor ⓘ

I write actionable interview, career and salary advice.

Follow

💬 8

Mar 31, 2023, 10:48am EDT

▶ Listen to article 9 minutes ⓘ

"

technology's interaction with the social ecology is such that technical developments frequently have environmental, social, and human consequences that go far beyond the immediate purposes of the technical devices and practices themselves

M. Kranzburg

"

I lay awake at night thinking about all the things we built in the early days and what we could have done to avoid the product being used this way.

https://www.vanityfair.com/news/2017/10/early-facebook-employees-regret-the-monster-they-created. Vanity Fair, Oct. 12, 2017.

Inadvisable
Responsible Tech
Strategy

Discuss:
Can technologists account for
unintended consequences?

VSD
Stakeholders
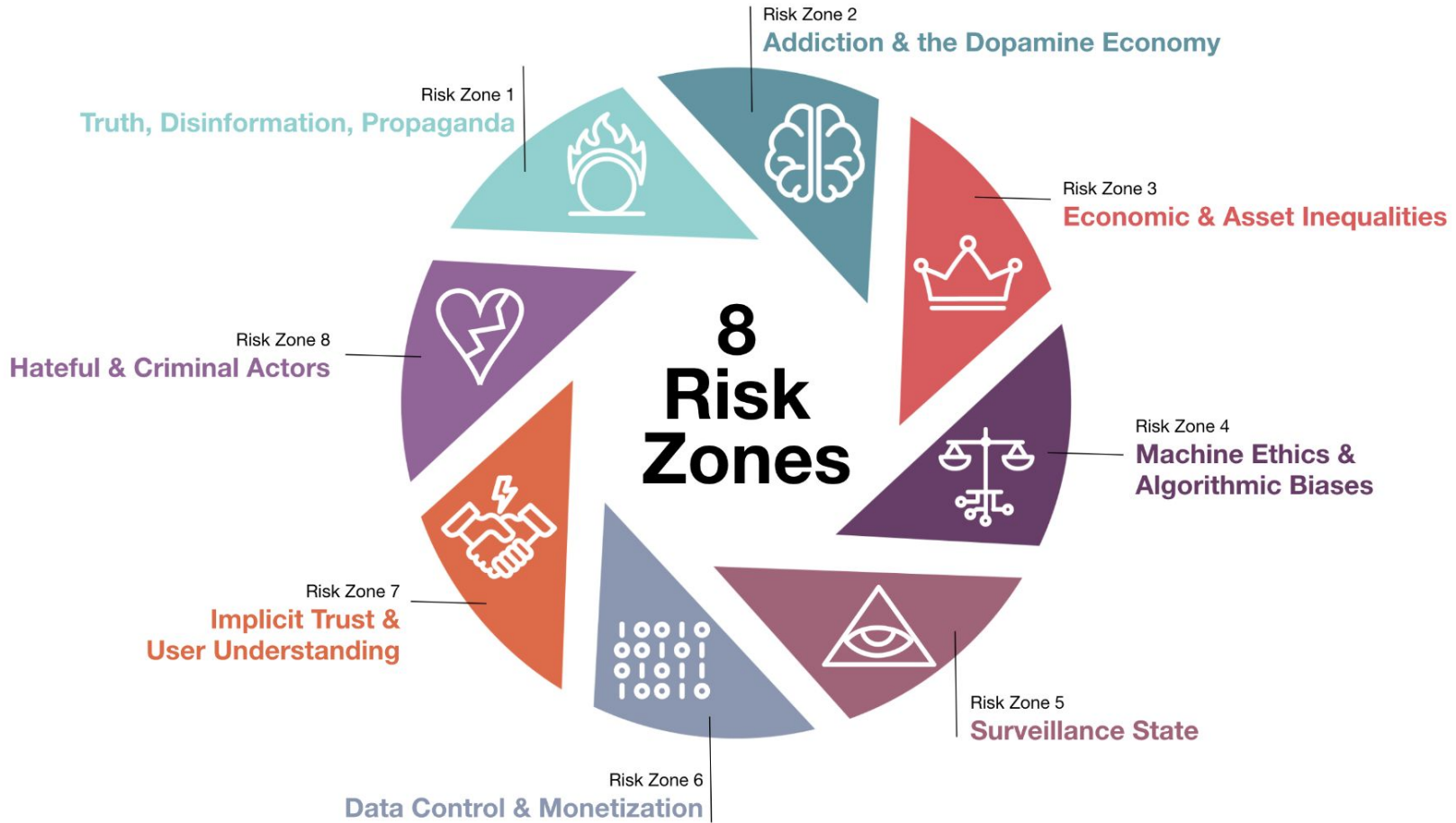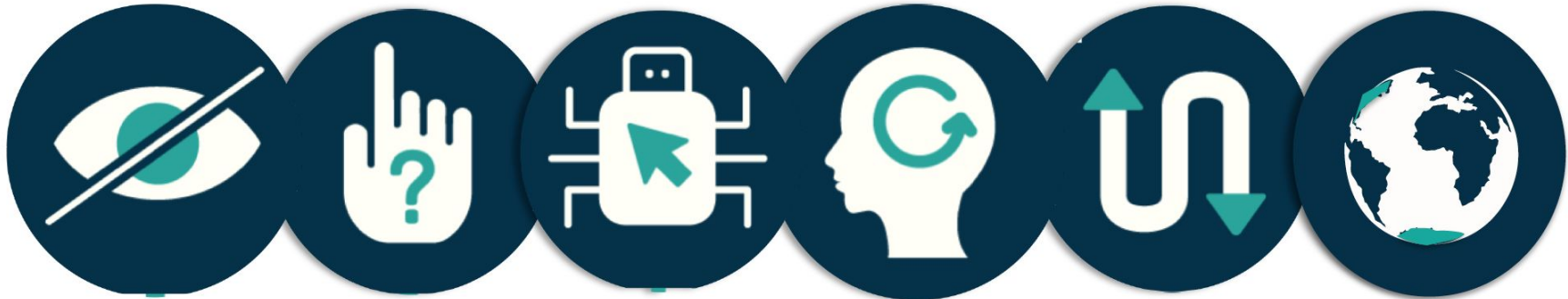Time
Pervasiveness
Values

EDIBLE
SIX PACK RING

"

...the really significant education in thinking that we're supposed to get in a place like this isn't really about the capacity to think, but rather about the choice of WHAT to think about."

8 Risk Zones

Risk Zone 1
Truth, Disinformation, Propaganda

Risk Zone 2
Addiction & the Dopamine Economy

Risk Zone 3
Economic & Asset Inequalities

Risk Zone 4
Machine Ethics & Algorithmic Biases

Risk Zone 5
Surveillance State

Risk Zone 6
Data Control & Monetization

Risk Zone 7
Implicit Trust & User Understanding

Risk Zone 8
Hateful & Criminal Actors

Source: Institute for the Future/Omidiyar, Ethical OS, 2018

6 Categories of Unintended Consequences
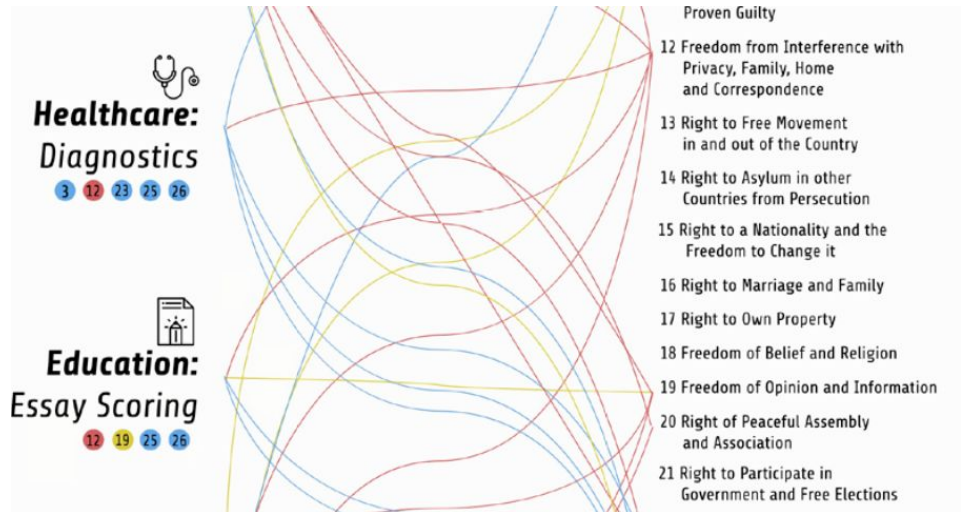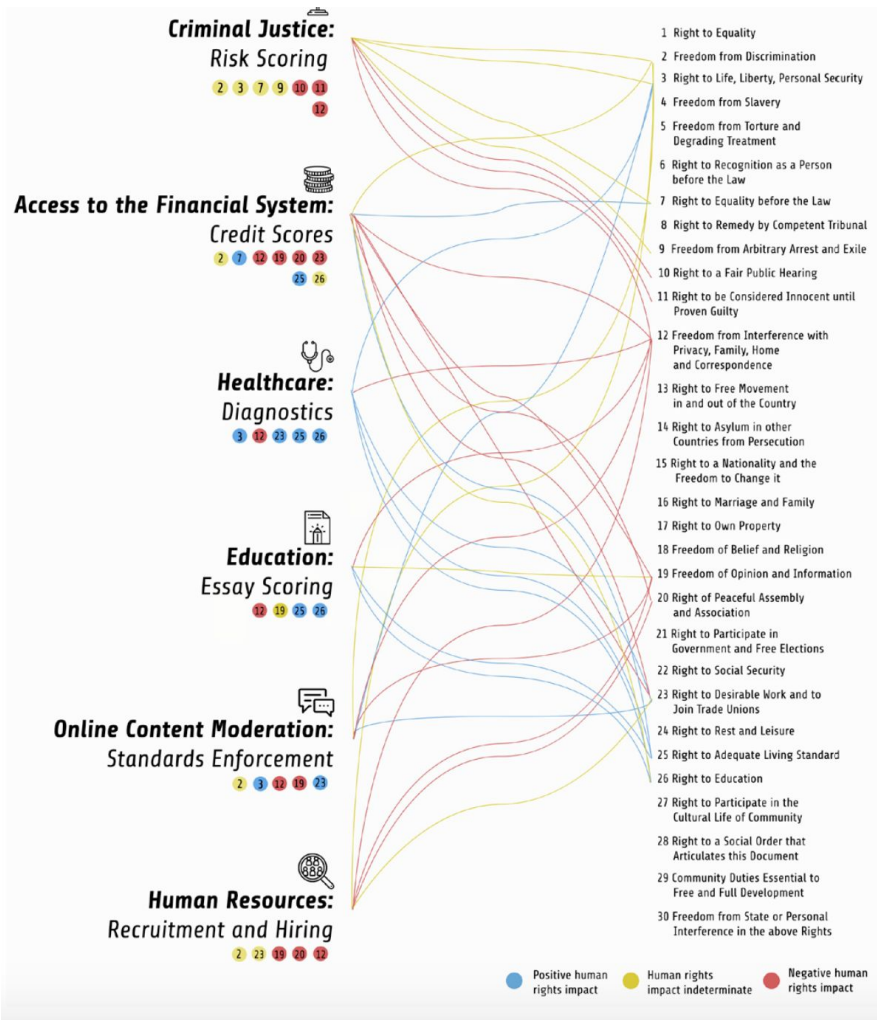

Lack of Understanding of Value Exchanges

Unintended Uses

Weak Reliability, Security, Monitoring & Support

Changes in Norms & Behaviours

Displacement

Planet

Source: Berkman Klein Center, Harvard, April 2015

Data Ethics Canvas

2019-05

ODI

Data sources

Name/describe your project's key data sources, whether you're collecting data yourself or accessing via third parties.

Is any personal data involved, or data that is otherwise sensitive?

Limitations in data sources

Are there limitations that could influence your project's outcomes?

Consider:

> bias in data collection, inclusion/exclusion, analysis, algorithms

> gaps or omissions in data

> provenance and data quality

> other issues affecting decisions, such as team composition

Sharing data with others

Are you going to be sharing data with other organisations? If so, who?

Are you planning to publish any of the data? Under what conditions?

Ethical and legislative context

What existing ethical codes apply to your sector or project? What legislation, policies, or other regulation shape how you use data? What requirements do they introduce?

Consider: the rule of law; human rights; data protection; IP and database rights; anti-discrimination laws; and data sharing, policies, regulation and ethics codes/frameworks specific to sectors (eg health, employment, taxation).

Rights around data sources

Where did you get the data from? Is it produced by an organisation or collected directly from individuals?

Was the data collected for this project or for another purpose? Do you have permission to use this data, or another basis on which you're allowed to use it? What ongoing rights will the data source have?

Your reason for using data

What is your primary purpose for collecting and using data in this project?

What are your main use cases? What is your business model?

Are you making things better for society? How and for whom?

Are you replacing another product or service as a result of this project?

Communicating your purpose

Do people understand your purpose – especially people who the data is about or who are impacted by its use?

How have you been communicating your purpose? Has this communication been clear?

How are you ensuring more vulnerable individuals or groups understand?

Positive effects on people

Which individuals, groups, demographics or organisations will be positively affected by this project? How?

How are you measuring and communicating positive impact? How could you increase it?

Negative effects on people

Who could be negatively affected by this project?

Could the way that data is collected, used or shared cause harm or expose individuals to risk of being re-identified? Could it be used to target, profile or prejudice people, or unfairly restrict access (eg exclusive arrangements)?

How are limitations and risks communicated to people? Consider: people who the data is about, people impacted by its use and organisations using the data.

Minimising negative impact

What steps can you take to minimise harm?

How could you reduce any limitations in your data sources? How are you keeping personal and other sensitive information secure?

How are you measuring, reporting and acting on potential negative impacts of your project? What benefits will these actions bring to your project?

Engaging with people

Openness and transparency

Ongoing implementation

Reviews and iterations

Your actions

03-02-23 | PREMIUM

This startup has raised $600 million to give lower-income Americans better healthcare

Valued at $6 billion, Cityblock Health is improving health outcomes for marginalized communities.

Toyin Ajayi Cofounder and CEO, Cityblock Health [Photo: Emma Trim]

Stakeholders

Employees
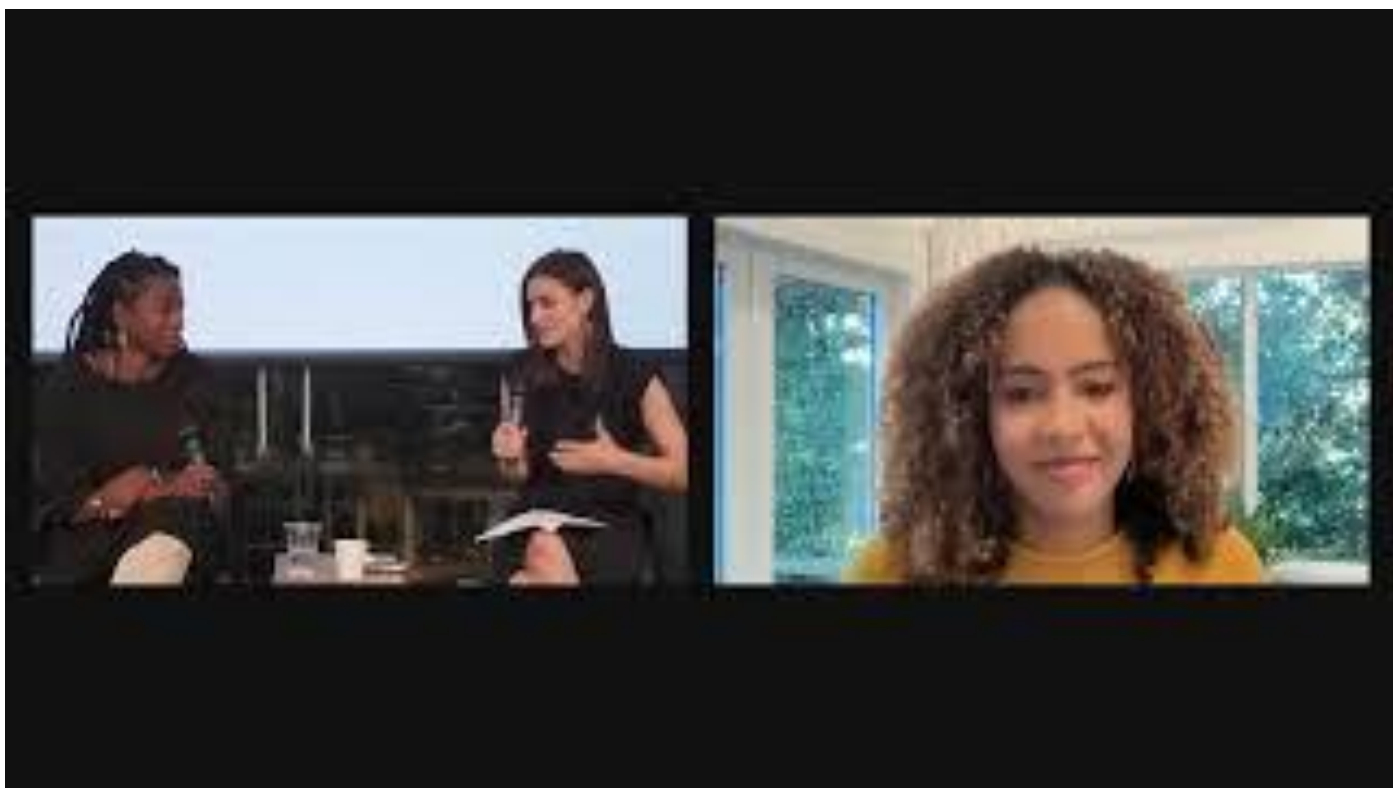Customers
Shareholders
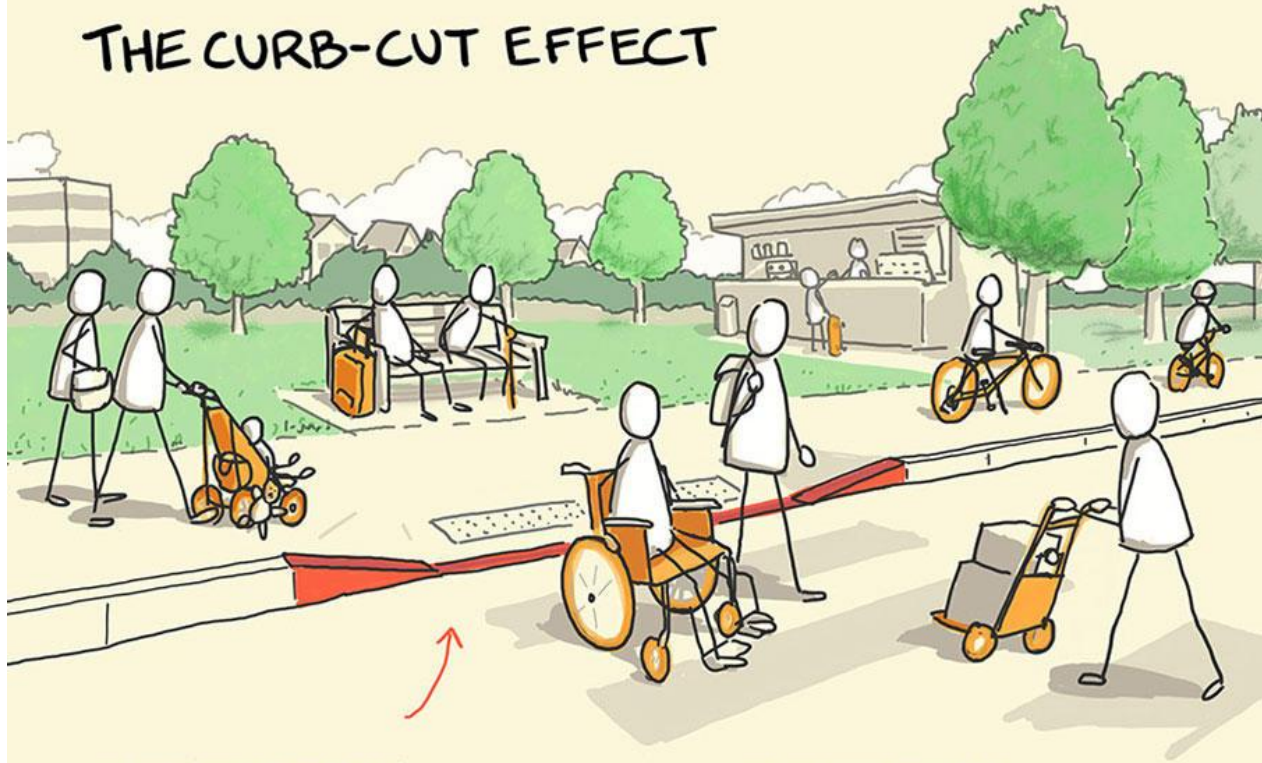Your Community
Government
The Planet
Other???

"

"Entrepreneurs are the designers of companies. Great startup CEOs recognize very early that their job is not to build a product, but to build a company — defined by mission, values, and culture."

- Phin Barnes,

https://www.vanityfair.com/news/2017/10/early-facebook-employees-regret-the-monster-they-created. Vanity Fair, Oct. 12, 2017.

THE CURB-CUT EFFECT

WHEN WE DESIGN
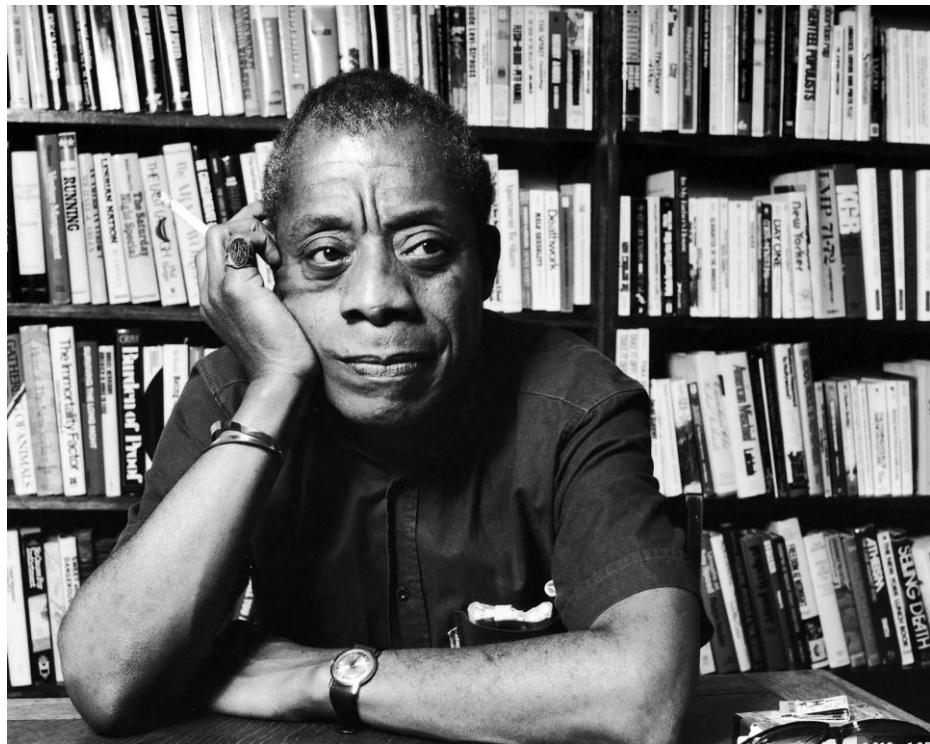FOR DISABILITIES

... WE MAKE THINGS
BETTER FOR EVERYONE

sketchplanations

"What we must understand, is that if I am hungry, you are in danger."

Business Case for Responsible Innovation

Attract and Retain top talent
Generate consumer trust and loyalty
Build social capital

→ **Prevent** disasters that cost time, money, and reputation.

Trend 1: The Talent (YOU) Cares

28% have seen decisions that they felt could have negative consequences for people or society.

63% want more time and resources to think about the impacts of products.

78% would like practical resources to help them

Trend 2: Growing Public Scrutiny

NPR KQED

SIGN IN · NPR SHOP · ♥ DONATE

☰ NEWS ⊕ ✈ ARTS & LIFE ⊕ ♪ MUSIC ⊕ 🎧 SHOWS & PODCASTS ⊕ 🔍 SEARCH

IPG MEDIA LAB

TECHNOLOGY

▶ Tech Industry Confronts A Backlash Against 'Disruptive Innovation'

4:17

How Tech Companie[s]

Trust Test

[Th]e eroding trust in digital platform[s] [a]nd limit access to consumer atten[tion]

Richard Yao [Follow]

Mar 22, 2018 · 7 min read

FAST COMPANY

Rise in consumer 'backlash' against Internet of Things technology

By Jennifer Faull · 09 April 2015 12:36pm

[🐦 Twitter] [in] [✉] [f] [💬] [reddit] [▣]

There has been a 14 per cent rise in the number of consumers pushing back against the growing amount of technology in their lives, according to a recent survey.

Against the backdrop of the Internet of Things (IoT), around half (47 per cent) of UK consumers said they didn't need any more technology in their lives. Six months ago only 33 per cent said the same.

Los Angeles Times

☰ SECTIONS

EDITION: CALIFORNIA | U.S. & WORLD   ENTERTAINMENT   LOCAL   SPORTS   POLITICS   OPINION   PLACE A[D]

f   ✈   ✉

HOME TECH ANALYSIS : BUIL[T] TO CONSUMER BACKLASH?

By TERRY ATKINSON

JUNE 12, 1987

While those attending the recent Consumer Electronics Show in Chicago were singing the praises of all the new equipment on display, consumers may soon be singing "The Replacement Blues" when these products come to stores during the next few months.

One of the stars of the show was Super-VHS, a new format for VCRs that delivers a much sharper picture than currently available VCRs.

06.20.18

Marketers risk a consumer backlash linked to mobile-tech addiction

Amid the attention industry at Cannes Lions, former Google design ethicist Tristan Harris and Hearts & Science CEO Scott Hagedorn delivered a warning.

Subscribe →

Opinion   Sport   Culture   Lifestyle

[Electio]ns 2020 World Environment Soccer US Politics Business Tech Science

The big tech backlash

Tech giants are drawing political fire over fake news and Russian meddling

Trend 3: Growing Regulatory Scrutiny

Regulation & Uber, Airbnb & Nest

Clearview AI Faces Biometric Privacy Claims in Illinois Court

Oct. 26, 2020, 12:15 PM

- Consumers sue over facial recognition tool
- Case differs from others against Clearview

Clearview AI Inc. must face consumer privacy claims over its facial recognition technology in an Illinois state court after a federal judge sent the case there.

Andrea Vittorio
Reporter

Related Articles

REUTERS   World   Business   Markets   B

Forbes

1,268 views | Oct 12, 2020, 01:58pm EDT

Big Regulation Coming For Big Tech

David G.W. Birch Contributor ⓘ

Fintech

Author, advisor and global commentator on digital financial services.

Breaking up Big Tech is a 19th-century competition solution to a 21st century competition problem. There is a better way.

The World Wants More Tech Regulation

A large majority of people see an increased need for more government regulation of big technology companies, a new global survey shows.

By Sintia Radu Staff Writer   Jan. 15, 2020, at 12:01 a.m.

APAC   OCTOBER 11, 2020 / 9:53 PM / UPDATED 16 DAYS AGO

EU planning tougher regulation for 'h tech firms - FT

GLOBAL TRANSLATIONS

U.S. playing catch up in regulating Big Tech

"Europe is in the throes of a major revolution" on digital regulation, says one economist.

Create Incentive Flywheels

→ Getting ahead of these issues is a business imperative

"We're already resource constrained."
"We're still trying to find product market fit."
"We're focussed on making payroll"
"It's too early"
"It's too hard to predict"
"What can we realistically do?"
"We sell X. This doesn't apply to us."
"We'd know if there was an ethical problem."

Business Case for Responsible Tech

Attract and Retain the best talent
Generate user loyalty
Build social capital
Prevent disasters that cost time, money, and reputation.

Have a genuinely positive impact. Build something you're proud of.

Dive deep

Responsible AI
Algorithmic Bias
Content Moderation
Ethical Supply Chains
Data Privacy + Security
...and more

People to follow

— — —

Safiya Noble — Noble —Algorithms of Oppression
Ruha Benjamin —Race on Technology
Kamal Sinclair — Guild of Future Architects
Mimi Onuoha — People's Guide to AI
Ellen Pao —Project Include
Joy Buolamwini —Algorithmic Justice League
Eli Pariser — Civic Signals
Sarah Williams — MIT Civic Data Lab
Kathy Pham —Mozilla, Harvard
Wilneida Negron — Coworker
Rumman Chowdhury - Parity AI
Shoshanna Ziboff —Surveillance Capitalism

Other orgs

— — —

Ford Fdn —Public Interest Tech Initiative
Berkman Klein Center at Harvard
Zebras Unite —alternative exits
Long Term Stock Exchange
BLab
Dev/Color —Supporting black technologists
Code2040 — Building diverse talent pipelines in SV
Responsible Innovation Labs
Startups & Society Initiative
All Tech is Human

Frameworks

Ethical OS
Consequence Scanning
Ethical Data Canvas
Society Centered Design
Design Justice Network
Bcorp

"I was reborn, when I was broken."

Thank you!

Appendix

How can we ensure that technology creates a more just and prosperous future for everyone?