



/* Alexander Steinhart
ThoughtWorks

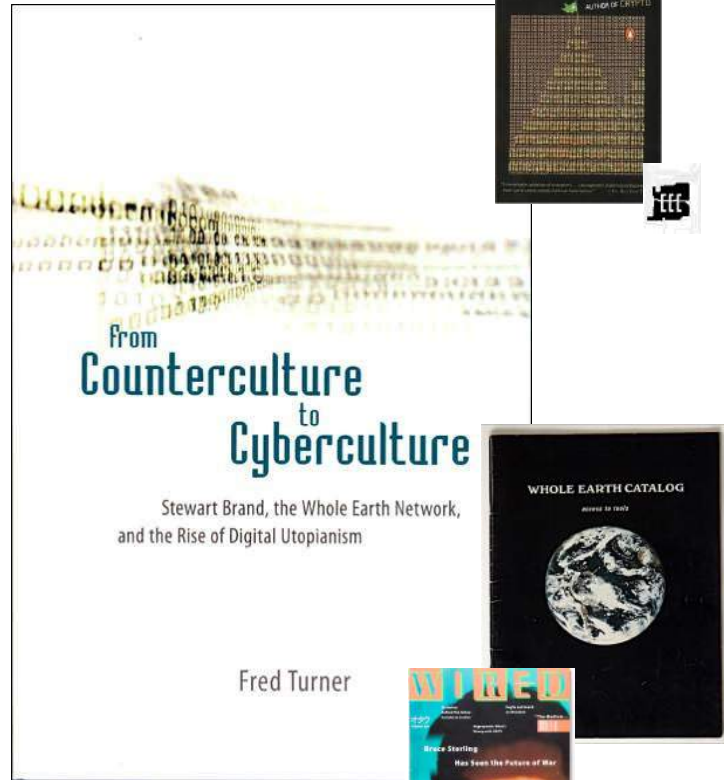
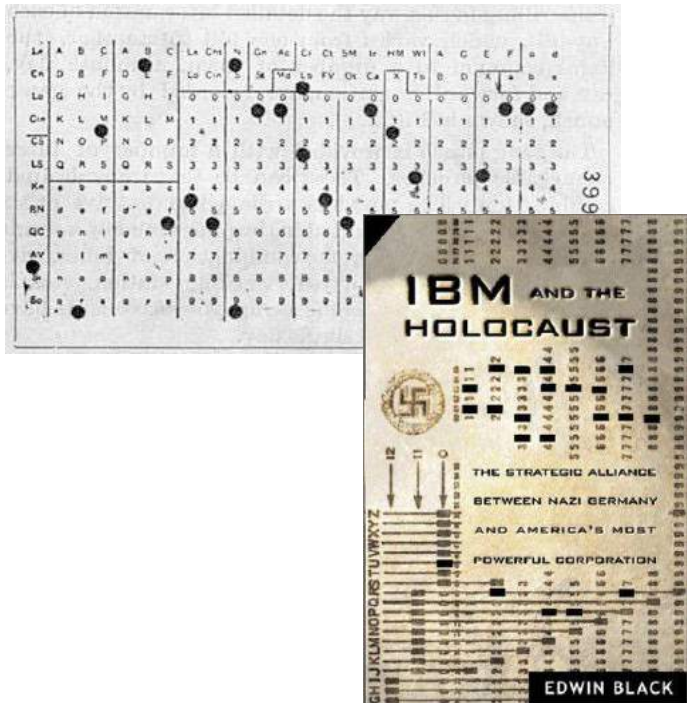
Ethical Tech

A Psychologist's View

THE DIGITAL REVOLUTION

Alexander Steinhart / @quanders
Ethical Tech - A Psychologist's Perspective

A bumpy start...



Productivity

Accuracy

Satisfaction

Desire

**THE BENEFITS
ARE OBVIOUS NOW**

Speed

Pleasure

Efficiency

Performance

WE ARE ALL CONNECTED




Ø2h 51min per day,
every 7-15 min

94% of the 12-19 old have an smartphone that can connect to the internet
Source: KIM & JIM-Studies, 2015
Cross Platform Future in Focus Report, ComScore, 2017

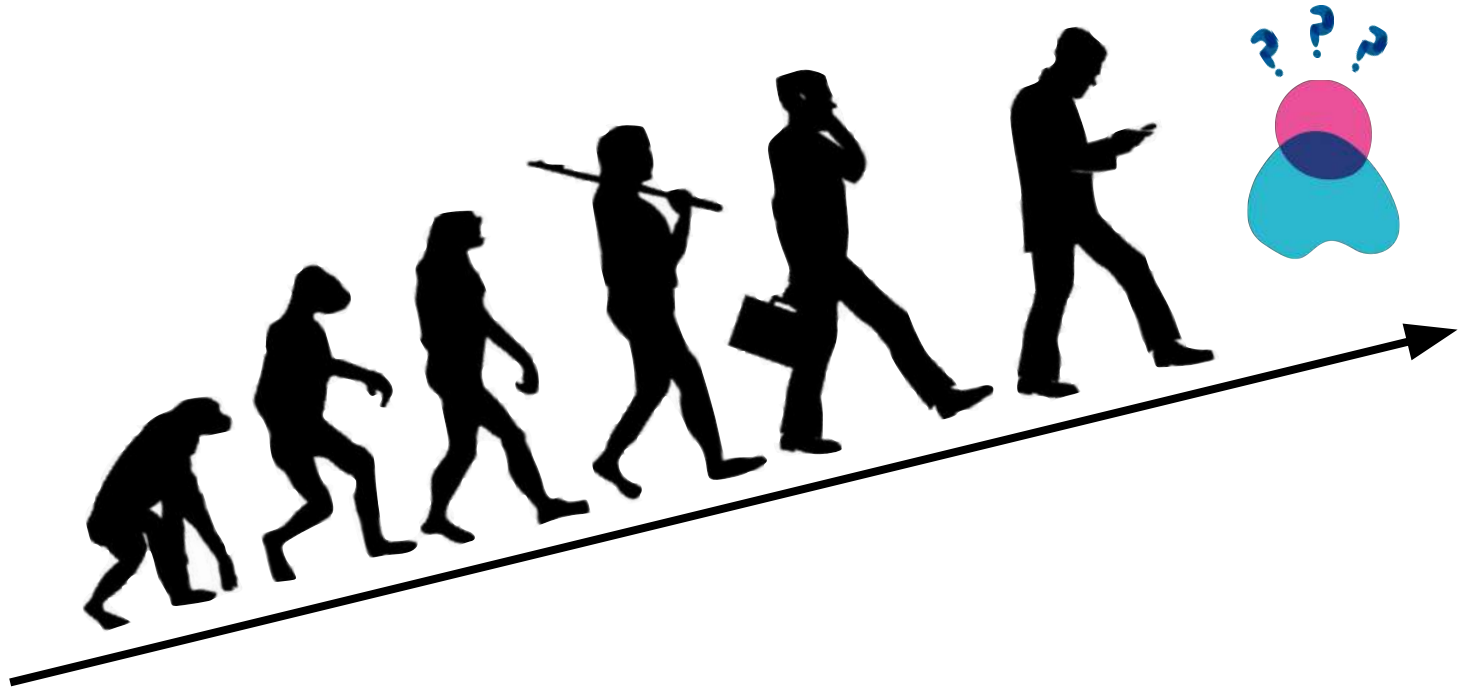
**WE ALL WANT TO UNPLUG,
BUT CANNOT.**

We all want to unplug. But cannot.

- 
- A photograph showing a person's hand holding a smartphone in the foreground. In the background, a laptop is open on a wooden desk, and a white mug is partially visible. The scene is softly lit, suggesting an indoor office or home workspace.
- 48% of the teens name distraction through their phone as risk (2nd Privacy: 43%)
 - 55% of the teens and 66% of the adults are sometimes annoyed by their smartphone
 - 86% of Americans say they have difficulty unplugging from at least one device

JIM-Studie, 2015; The Harris Poll, 2016; LfM/Knop et. al, 2016

Where does this lead to?



Picture Source: unknown

Information Scarcity

Information Abundance + Attention Economy

Phase 1: Access

Democracy, Efficiency

Phase 2: Control & Balance

What? When? How? Why?

Phase 1: Access

~~Democracy, Efficiency~~

*Failed? Online hate,
fake-news and fascist
movements on the rise...*

*Failed? VW Emission
Scandal...*

Phase 2: Control & Balance

*Mainly still about
more access + consumption,
persuasion & engagement!*

*What? When? How? Why?
UX → Additive Interfaces :-/*

IT'S NOT THE FIRST REVOLUTION

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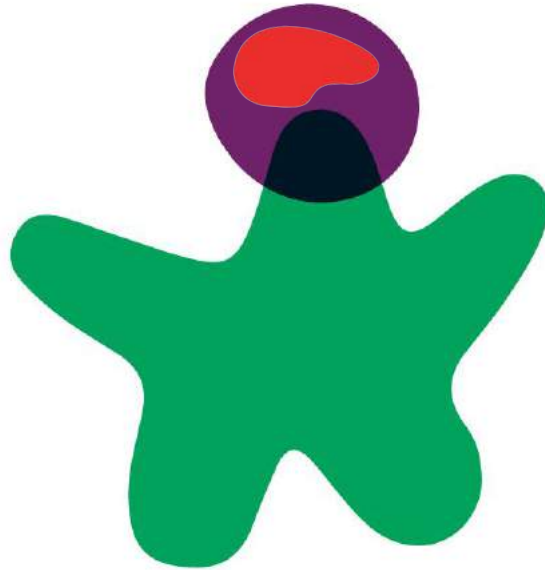
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Washington Square Park, Joe Mabel CC BY-SA 3.0

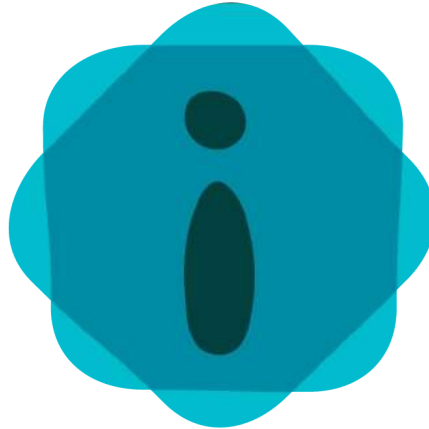
WHY IS THE DIGITAL FOR US A SPECIAL CHALLENGE?

Because we're human



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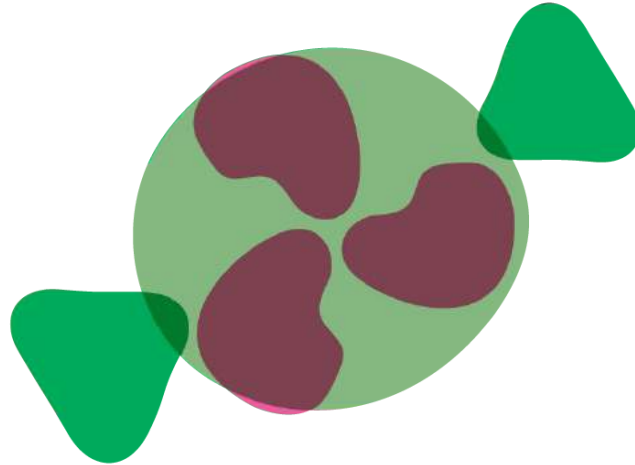
We love new information



We're social



We don't have much self-control



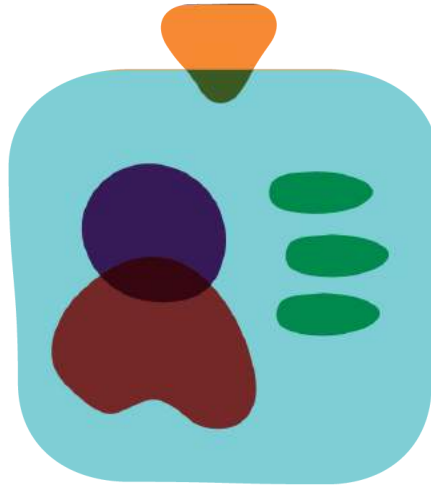
Mischel, Ebbesen, & Zeiss, 1972;
Mischel & Metzner, 1962

Effortless access - *Self-control cost us energy the we lack elsewhere*



Baumeister, Bratslavsky, Muraven, & Tice, 1998;
Overview: <http://www.psych-it.com.au/Psychlopedia/article.asp?id=61>

We create identities & enhance



We develop (strong) habits



... especially when conditioned with a variable-ratio schedule.

How often leads your notification to a jackpot?

Overview: https://en.wikipedia.org/wiki/Reinforcement#Intermittent_reinforcements

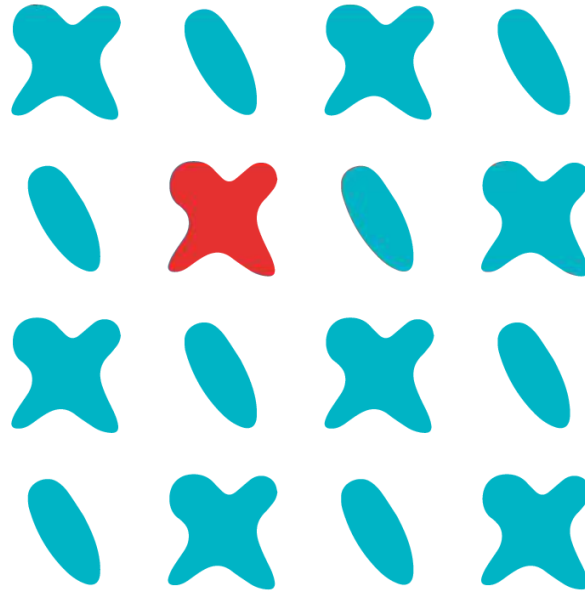
Outdated behaviorist paradigm



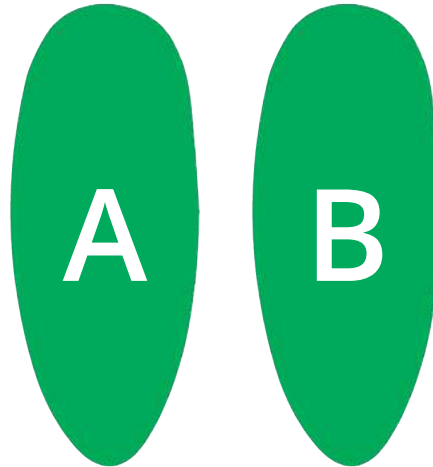
CC BY Curimedia | PHOTOGRAPHY

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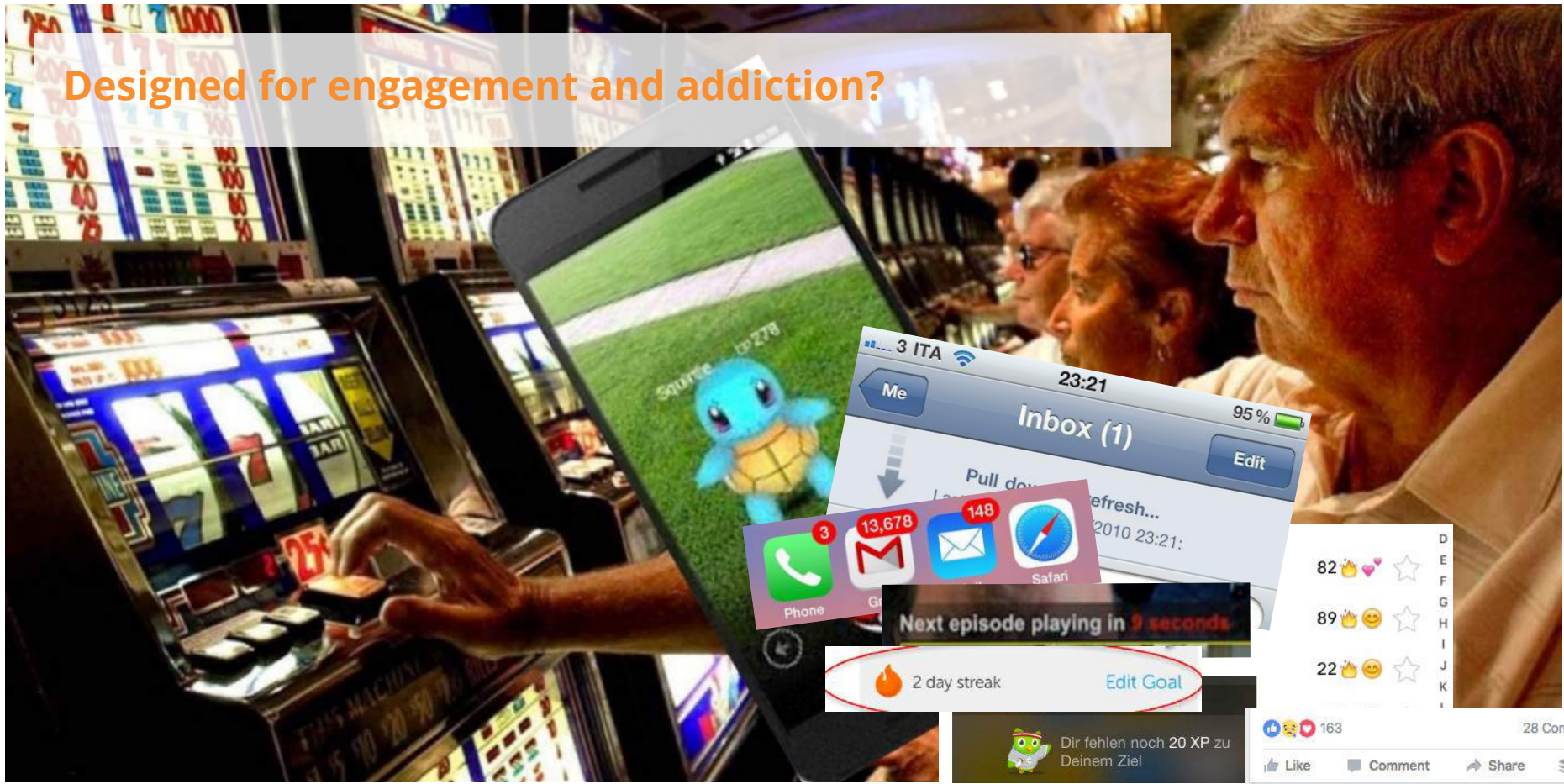
KPIs on engagement, active users and screen time



Designed for engagement



Designed for engagement and addiction?

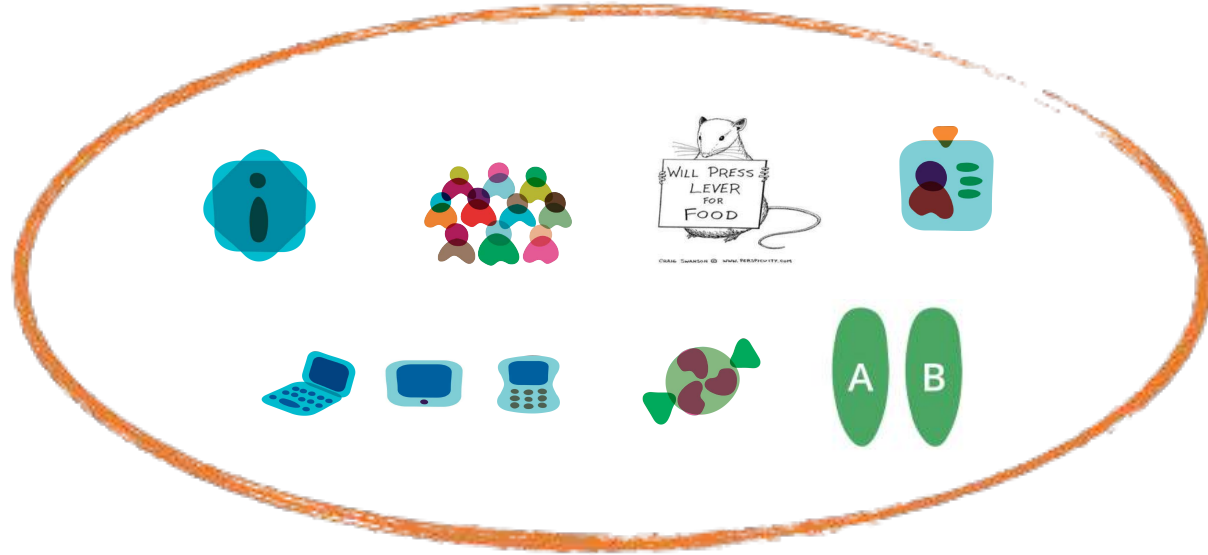


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Algorithms that magnify



Current tech is a very addictive mix - *an unprecedented challenge*





**WE HUMANS HAVE
MORE NEEDS**

<ALL SENSES>

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<PRIVACY>

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<SOLITUDE>

Conley, D. (2012); Akrivou, K., Bourantas, D., Mo, S., & Papalois, E. (2011)

<BOREDOM>

Conley, D. (2012); Akrivou, K., Bourantas, D., Mo, S., & Papalois, E. (2011)

<CONVERSATION>

Sherry Turkle, 2011 & 2015

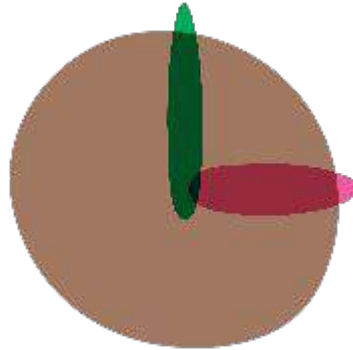
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<FOCUS / ATTENTION>

König, Kleinmann, & Höhmann, 2013; Pashler, 1994; Thornton, Faires, Robbins, & Rollins, 2014

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One of many consequences...



23 min 15 sec lost each time
we're distracted + spillover effects

Marks, 2008

<UNPLUG, TO RECOVER>

Meijman & Mulder, 1998; Fritz, C. & Sonnentag, S., 2006

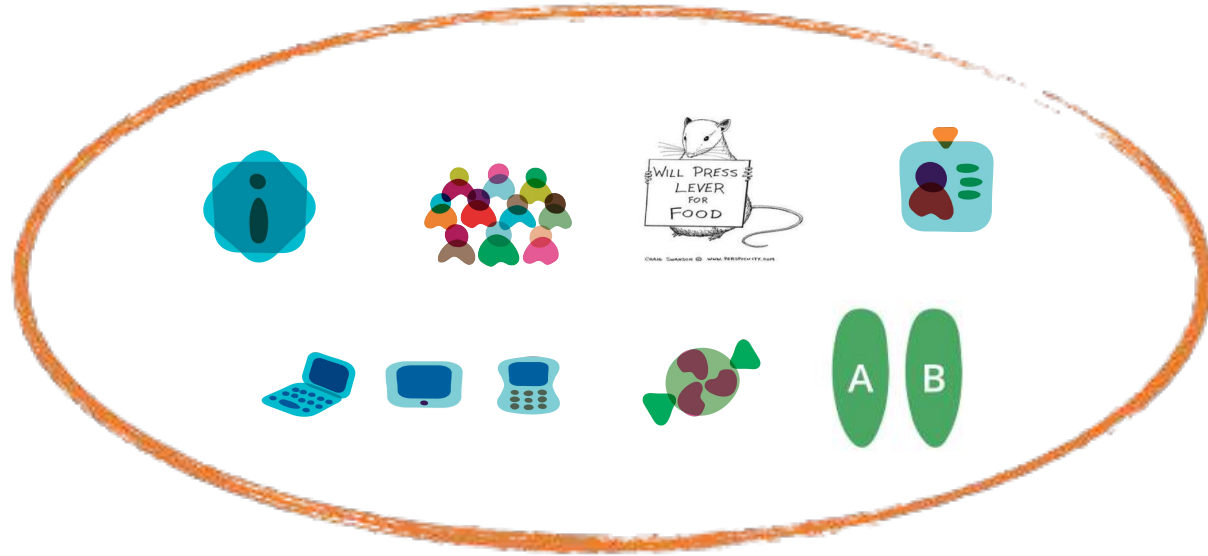
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<AUTONOMY / FREE WILL>

cf. Foucault + Feminist & Post-Colonial perspectives

<OWN VALUES>

Current tech is a very addictive mix - *an unprecedented challenge*

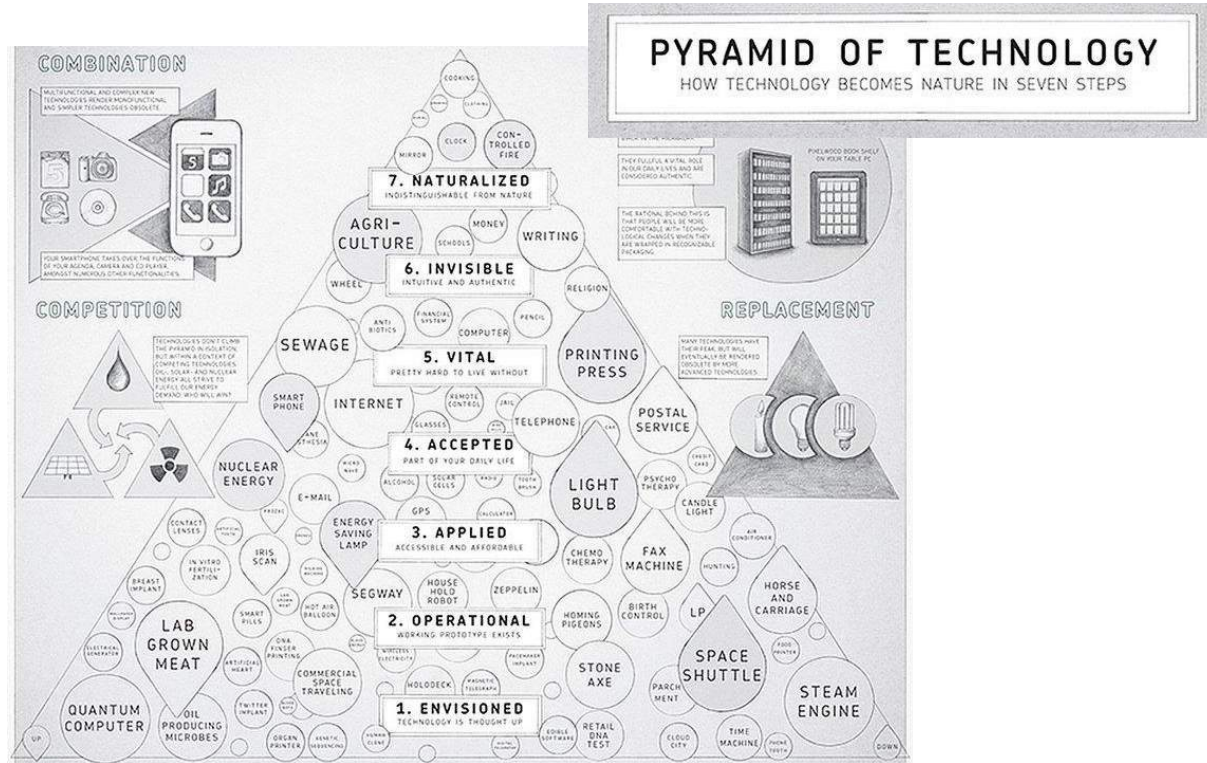




HOW WILL THE FUTURE LOOK LIKE?



We'll naturalize digital technology more and more ...



Koert van Mensvoort / nextnature.net

Exponential growth is very hard to grasp...



Internet of Things



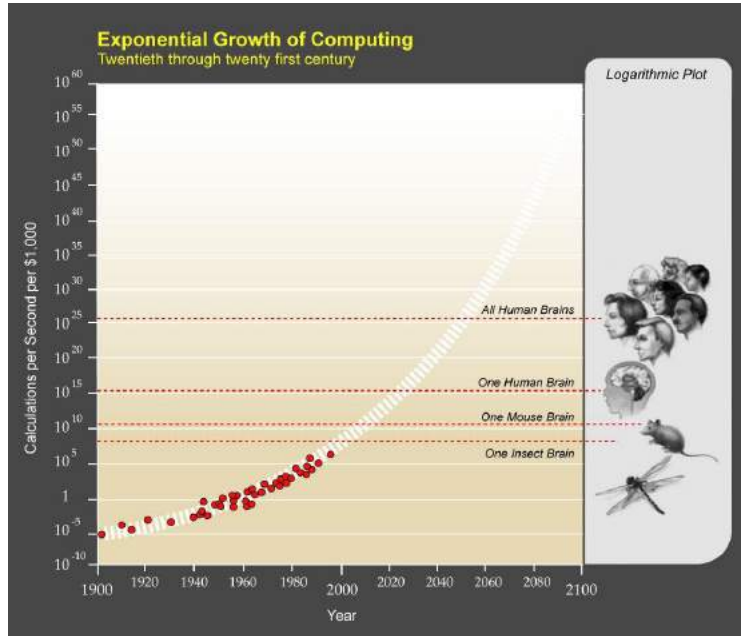
Robots



Image: Robot & Frank, Samuel Goldwyn Films

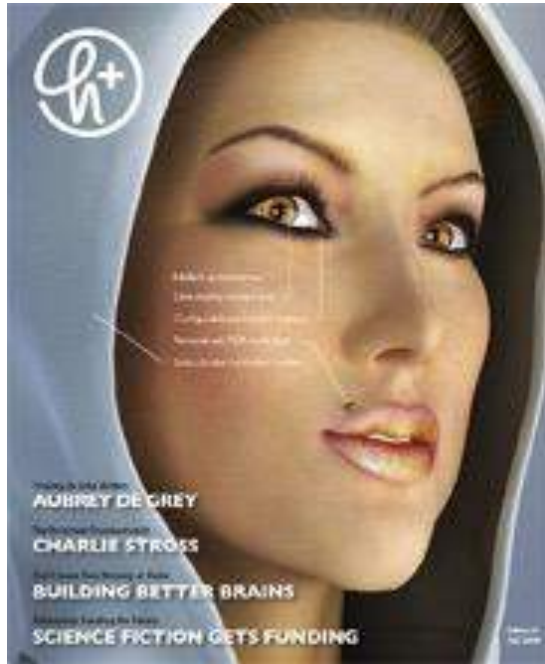
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Artificial Intelligence / Singularity



Raymond Kurzweil, Photo by Michael Lutch. Courtesy of Kurzweil Technologies, Inc.; CC BY 1.0

Cyborgs & Transhumanism



Neil Harbisson, cyborg activist and president of the Cyborg Foundation; October 2012; CC BY 2.0 H+ Magazine

Virtual Reality / Mixed Reality



Magic Leap; Forbes

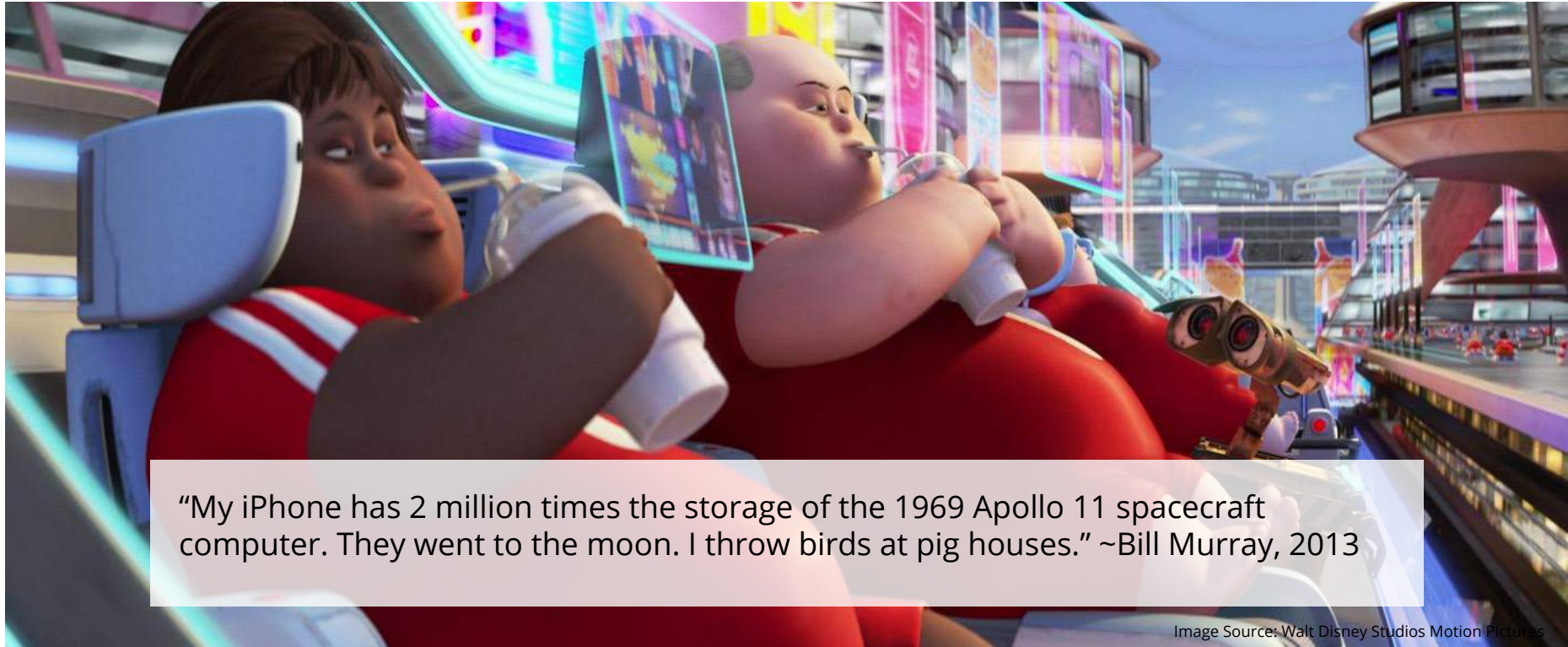
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**WE WILL USE THIS TECHNOLOGY -
IT'S THE NEW CRYSTAL METH**

A sunset over the ocean with a rocky island silhouette. The sky is filled with vibrant orange, yellow, and blue hues, reflecting on the water. The text "A BRIGHT FUTURE?" is overlaid in the center in a bold, cyan font.

A BRIGHT FUTURE?

A Bright Future?



“My iPhone has 2 million times the storage of the 1969 Apollo 11 spacecraft computer. They went to the moon. I throw birds at pig houses.” ~Bill Murray, 2013

Image Source: Walt Disney Studios Motion Pictures

Inequality



Skill-Biased Technical Change, Capital-biased Technical Change, Superstar-biased Technical Change

Automation Bias



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Automation Bias



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A photograph of a sun setting or rising behind trees, with a field of grass in the foreground. The text "WE NEED MORE." is overlaid in the center.

WE NEED MORE.

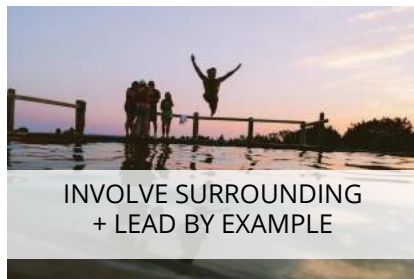
**IT'S NOT YOUR FAULT THAT
TECHNOLOGY IS DISTRACTING,
BUT IT'S YOUR RESPONSIBILITY TO
CHANGE SOMETHING**

STRATEGY #1:

PEOPLE WHO SHARE A HEALTHY & BALANCED DIGITAL LIFESTYLE



Personal Strategies



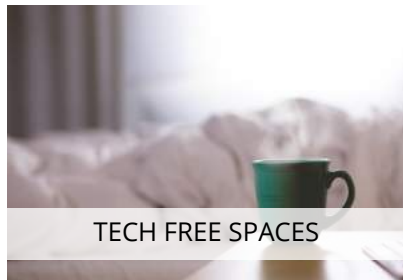
INVOLVE SURROUNDING
+ LEAD BY EXAMPLE



OWN REFLECTION
+ MINDFULNESS



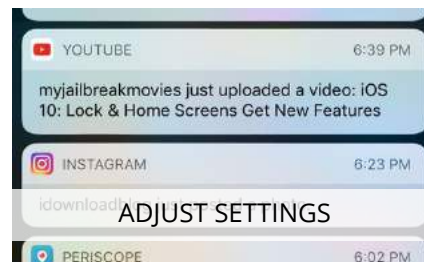
REDUCE DISTRACTIONS



TECH FREE SPACES



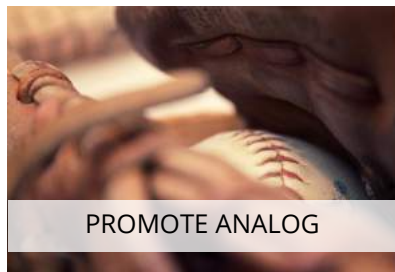
PROMOTE FACE-TO-FACE



ADJUST SETTINGS



USE SERVICES INTENTIONALLY



PROMOTE ANALOG



USE TECH THAT SUPPORTS TECH USE



TECH FREE TIME



USE ANALOG ALTERNATIVES

STRATEGY #2:

'NEW' DESIGN & TECH PARADIGMS

Free & Open-Source Software

„ ... source code made available with a license in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose ...“



Free & Open-Source Software



Firefox



Apache



Repositories with the most forks

	jtleek/datasharing	38,020
	octocat/Spoon-Knife	28,738
	rdpeng/ProgrammingAssignment2	27,499
	twbs/bootstrap	15,669
	tensorflow/tensorflow	14,070
	rdpeng/ExData_Plotting1	12,458
	udacity/frontend-nanodegree-resume	11,553



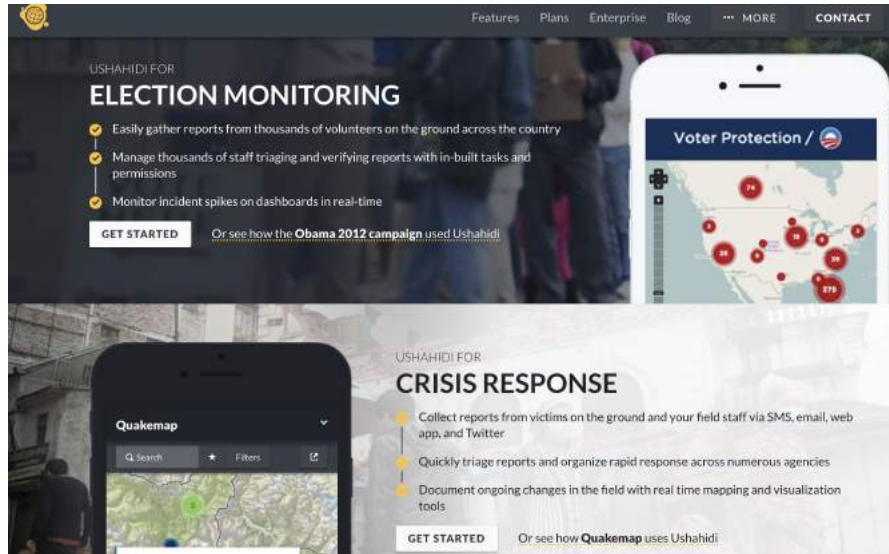
Liberation Technology - “Liberationtech”



„[...] seeks to understand how information technology can be used to improve governance, empower the poor, defend human rights, promote economic development, and pursue a variety of other social goods.“

*“... **any form of** information and communication technology (ICT) that can **expand political, social, and economic freedom.**” Larry Diamond*

Liberation Technology - “Liberationtech”



Ushahidi FOR
ELECTION MONITORING

- Easily gather reports from thousands of volunteers on the ground across the country
- Manage thousands of staff triaging and verifying reports with in-built tasks and permissions
- Monitor incident spikes on dashboards in real-time

GET STARTED Or see how the [Obama 2012 campaign](#) used Ushahidi

Ushahidi FOR
CRISIS RESPONSE

- Collect reports from victims on the ground and your field staff via SMS, email, web app, and Twitter
- Quickly triage reports and organize rapid response across numerous agencies
- Document ongoing changes in the field with real time mapping and visualization tools

GET STARTED Or see how [Quakemap](#) uses Ushahidi



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Announcements

- Jul 30 [Tor security advisory](#) traffic confirmati
- Jul 28 [How to report bu](#)
- Jul 26 [Transparency, C](#) 2013 Financials.
- Jul 21 [On the recent Bi](#) [cancellation](#).

Anonymity Online

Protect your privacy. Defend yourself against network surveillance and traffic analysis.

Download Tor

- Tor prevents people from learning your location or browsing habits.
- Tor is for web browsers, instant messaging clients, and more.
- Tor is free and open source for Windows, Mac, Linux/Unix, and Android

What is Tor?

Tor is free software and an open network that helps you defend against traffic analysis, a form of network surveillance that threatens personal freedom and privacy, confidential business activities and relationships, and state security.

Why Anonymity Matters

Tor protects you by bouncing your communications around a distributed network of relays run by volunteers all around the world: it prevents somebody watching your Internet connection from learning what sites you visit.

Asilomar AI Principles



ASILOMAR AI PRINCIPLES

These principles were developed in conjunction with the 2017 Asilomar conference (videos [here](#)), through the process described [here](#).



Xxx

Positive Computing/Design

POSITIVE COMPUTING

Technology for Wellbeing
and Human Potential

Framework for Research and Practice

Operationalizing wellbeing research for technology design

	Factor	Literature & Theory	Strategies	Methods & Measures
Self (Intrapersonal)	Positive Emotions Motivation & Engagement	<ul style="list-style-type: none"> • Hedonic Psychology (Schmeckel) • Subjective Well-Being (Diener) • Spilling & Broadening Effect (Fredrickson) • Self-determination Theory (Ryan & Deci) • Flow Theory (Csikszentmihalyi) 	<ul style="list-style-type: none"> • Learning • Positive nurturing • Reframing • Compassion meditation • Intrinsic and extrinsic rewards 	PANAS scales, General wellbeing measures such as SWB, SWLS and Cat. scales. The Motivation and Engagement Scale, Self-Regulation Questionnaires



*„Positive Computing is the design and development of technology to **support psychological well-being and human potential.**“*

Rafael A. Calvo, Dorian Peters

*„**Positive design** initiatives deliberately intend to **increase people’s subjective well-being** and, hence, increase an **enduring appreciation of their lives.**“*

Pieter M. A. Desmet and Anna E. Pohlmeier

Alexander Steinhart / @quanders

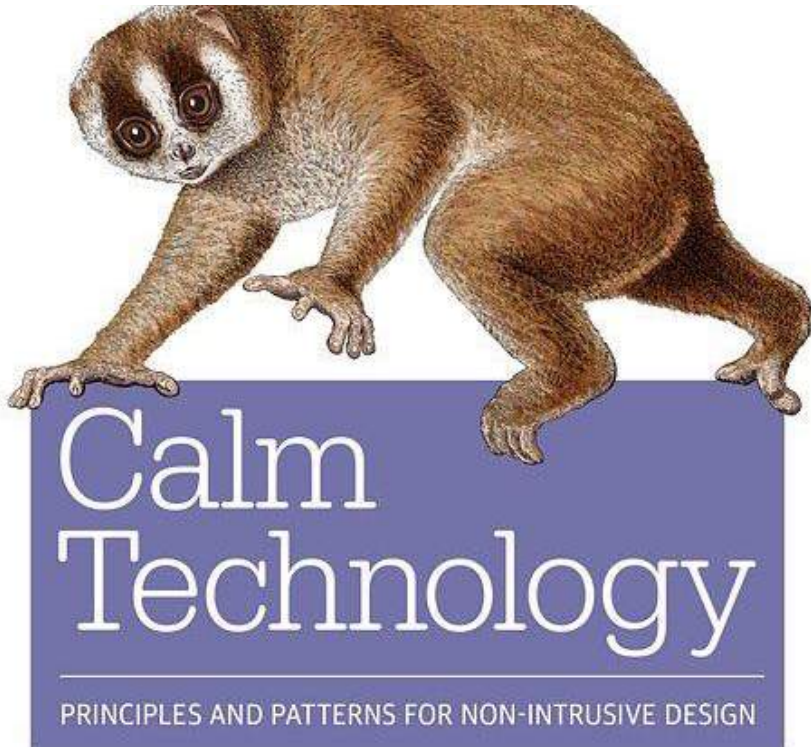
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Positive Computing/Design



Note: Educating risk saviness still trumps nudging.

Calm Technology/Computing



*Technology should be designed to be **a tool and operate in the background** without taking a toll on people's attention. Technology should require the smallest amount of our attention, it should inform, and should be designed for people first.*

Mark Weiser, John Seeley Brown



***Technology shouldn't require all of our attention**, just some of it, and only when necessary.*

Amber Case

Calm Technology/Computing



Alexander Steinhart / @quanders
Ethical Tech - A Psychologist's Perspective

Design for Time Well Spent (Center for Humane Technology)



Technology that cares about helping us spend our time, and our lives, well – not seducing us into the most screen time, always-on interruptions or distractions.

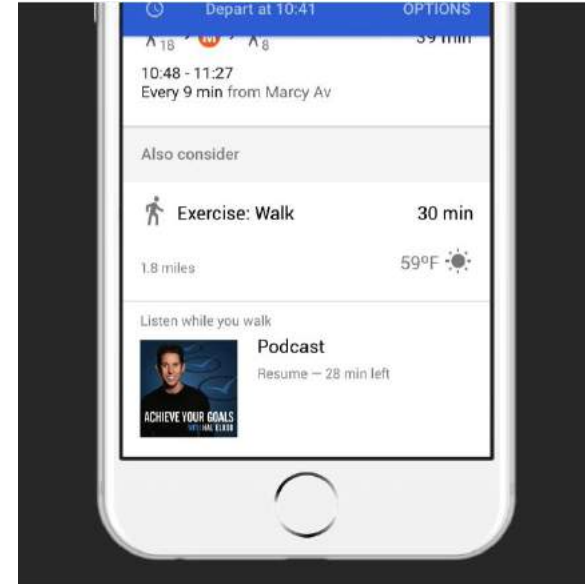
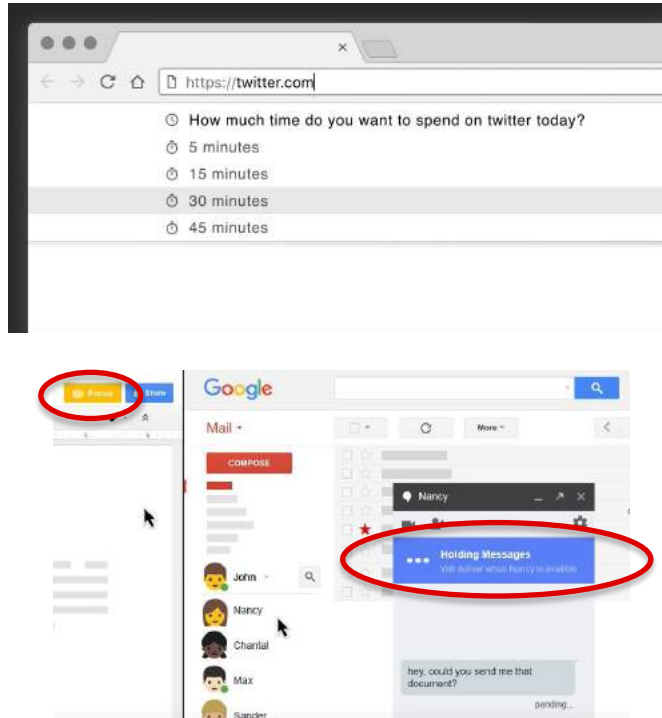
Tristan Harris

WHAT'S THE DIFFERENCE?

What makes a product designed for Time Well Spent versus Time Spent? Here are several distinctions.

	TODAY	WITH TIME WELL SPENT
DESIGN GOAL	We design to keep users active and hooked, while helping them <i>complete tasks</i> .	We design to help users <i>live their life</i> and spend time well, while gaining their loyalty and business.

Design for Time Well Spent (Center for Humane Technology)

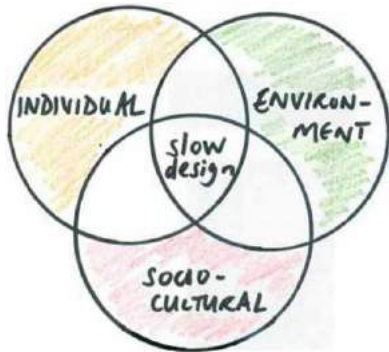


Harris (2016)

Slow Design / Slow Media



*Slow Design is a branch of the Slow Movement, which began with the concept of Slow Food, a term coined in contrast to fast food. As with every branch of the Slow Movement, the **overarching goal of Slow Design is to promote well being for individuals, society, and the natural environment.***



Postdigital



James Bridle



Simon Denny



Trevor Paglen



!MEDIENGRUPPE BITNIK

Alexander Steinhart / @quanders

*Postdigital is a term in the discourse of digital artistic practice. This term points significantly to our rapidly changed and changing relationships with digital technologies and art forms. It points to **an attitude that is more concerned with being human, than with being digital.***

Ian Andrews, Kim Cascone

Postdigital



James Bridle



IMEDIENGRUPPE BITNIK



Trevor Paglen

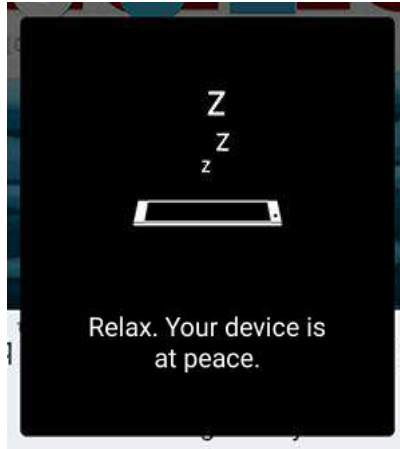
Post-Tech



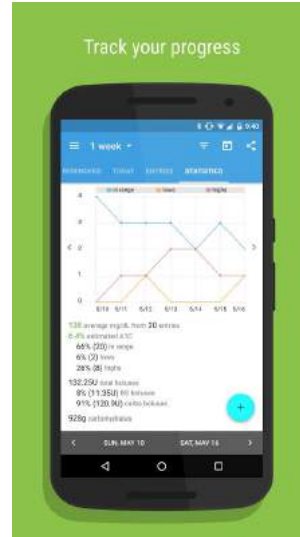
*Post-tech (or post-technology, post-digital-technology) describes technology that has as **centre the human and supports directly our focus and intend, well-being and independence (from technology) instead of exploiting us**, increasing mere efficacy and time spent with digital devices and technology only.*

Alexander Steinhart/OFFTIME

Post-Tech



+ enables you to be completely without tech



+ make it an invisible habit to take the medication yourself




+ learn in the end to find your way around without using a tool

PRINCIPLE #1:

**DON'T LET TECHNOLOGY DO
SOMETHING YOU WOULDN'T DO
YOURSELF**

PRINCIPLE #2:

**USE KPIs THAT DON'T JUST
MAXIMIZE FOR ENGAGEMENT
& ONLINE TIME
- SEEK DEEP METRICS** 

PRINCIPLE #3:

**LOOK AT
WHO GAINS AND WHO LOSSES
WHAT**



PRINCIPLE #4:

RESPECT YOUR USER, THEIR VALUES AND GOALS

(be transparent with yours)



PRINCIPLE #5:

”INDIVIDUALS AND INTERACTIONS
OVER TOOLS, SOFTWARE AND
TECHNOLOGY.“





THANK YOU.

/* Alexander Steinhart
ThoughtWorks

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