PERESTROIKA




MESTLEBORY



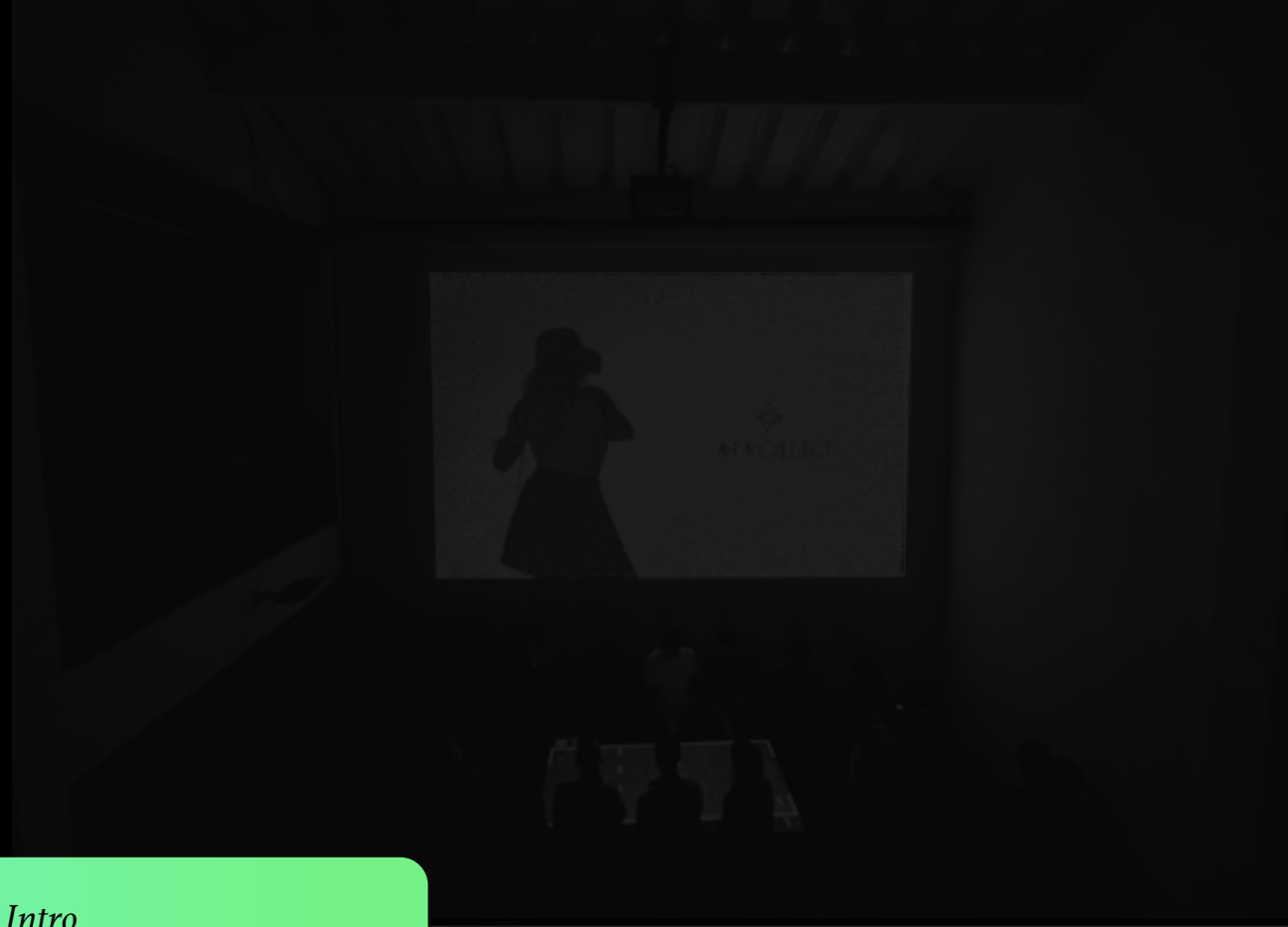


Resumo

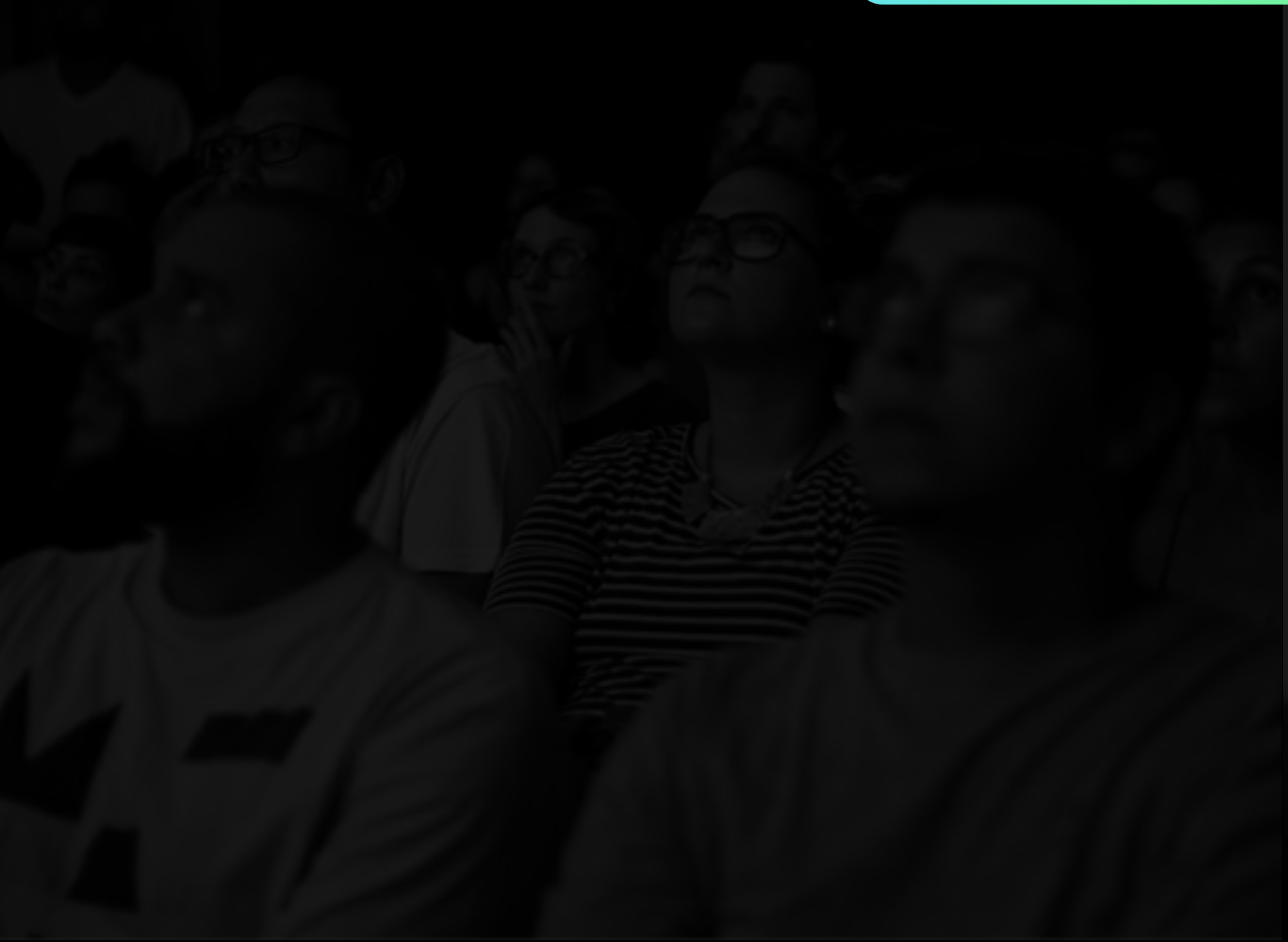








o. Intro

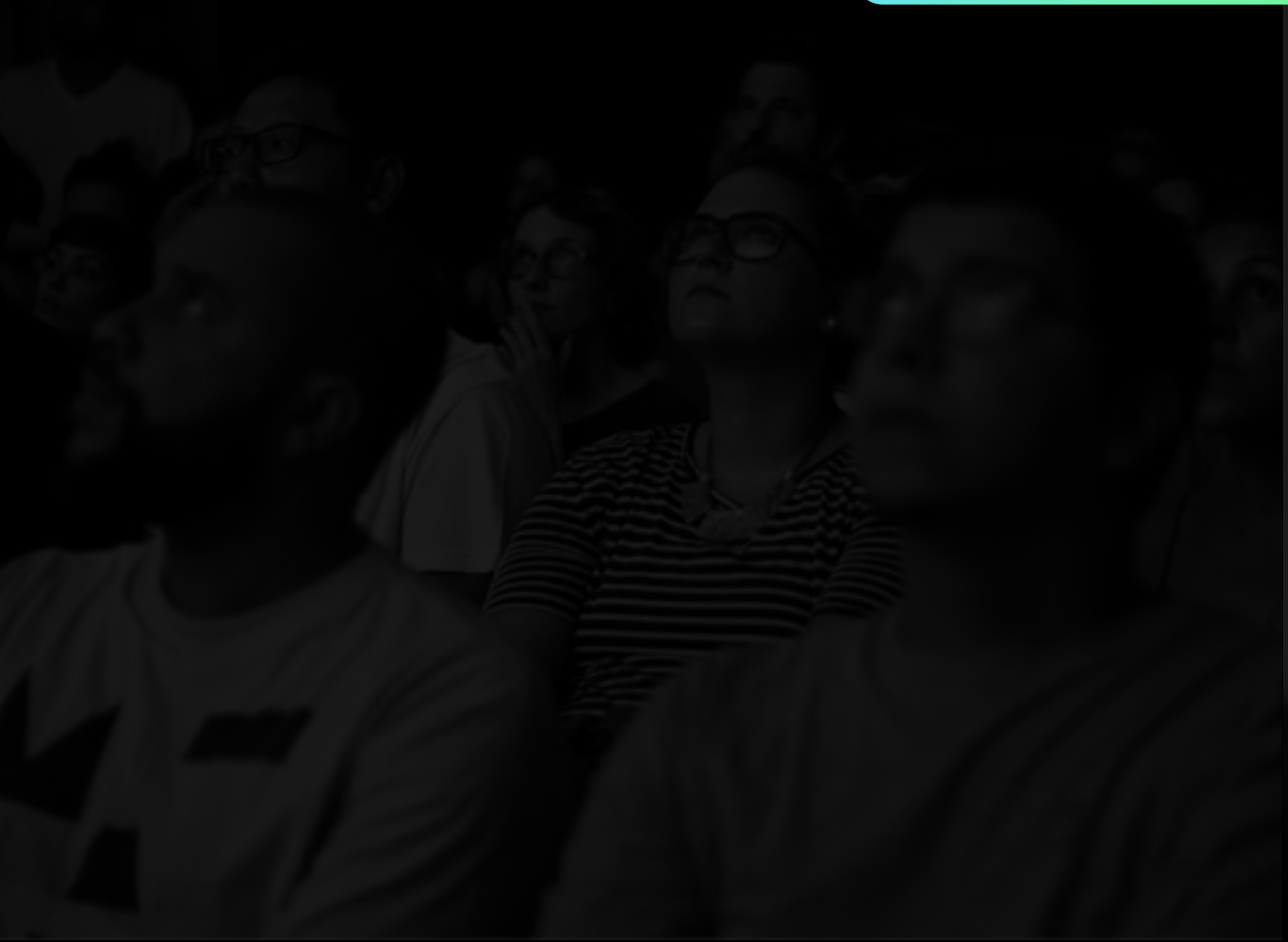


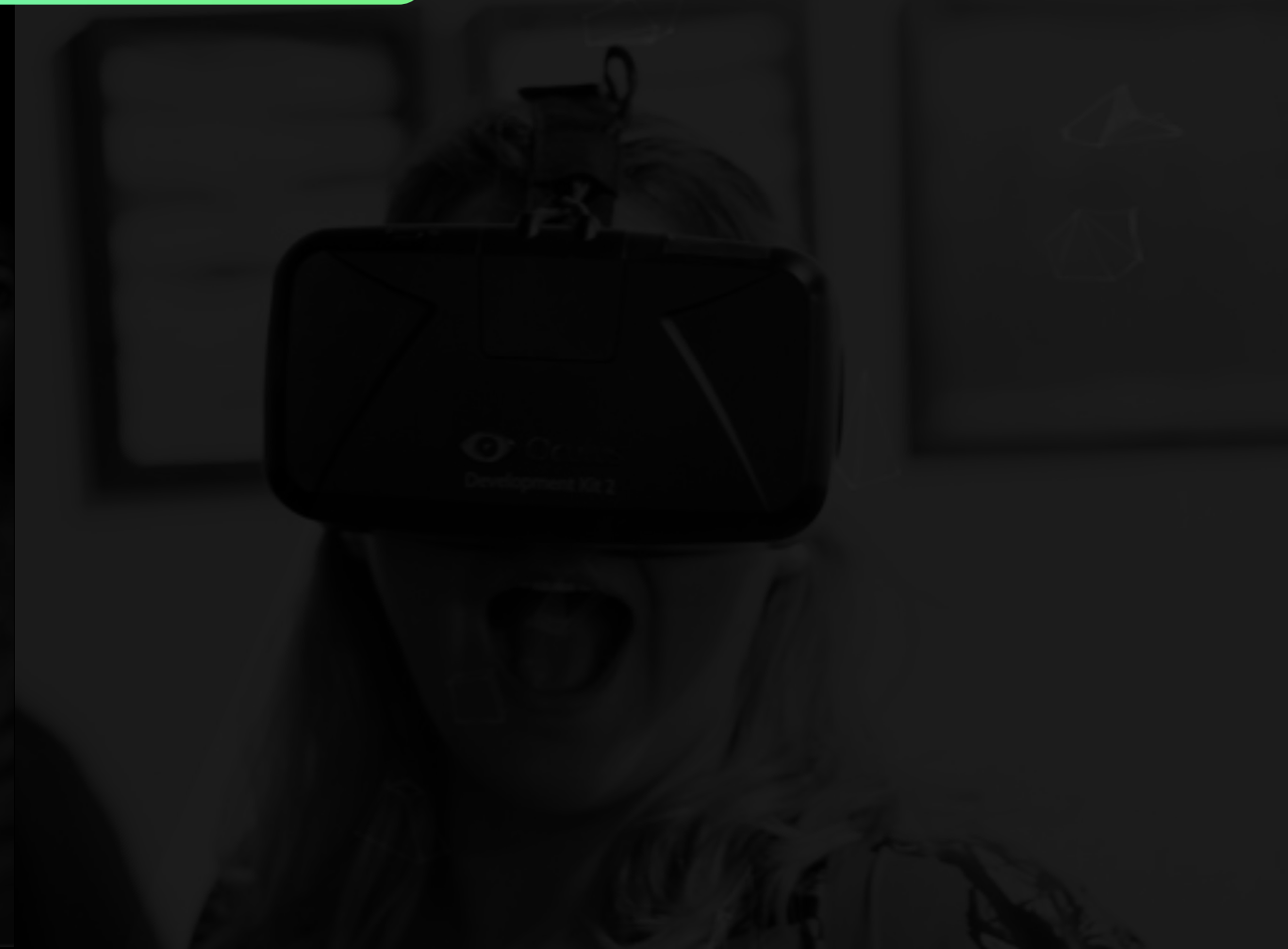


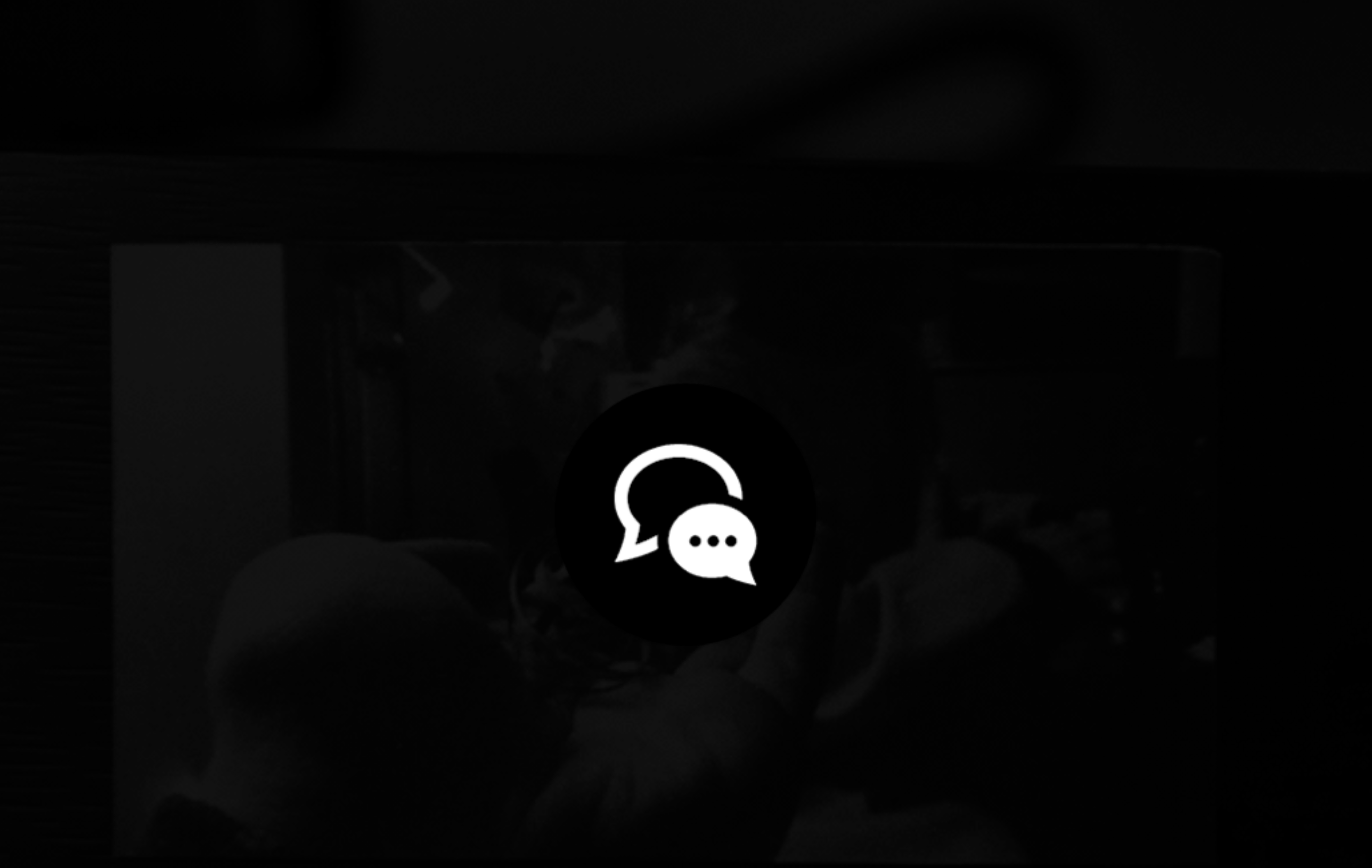




1. WTF







1. WTF is Futurism

‘Futurismo é a disciplina que se propõe a imaginar cenários futuros,

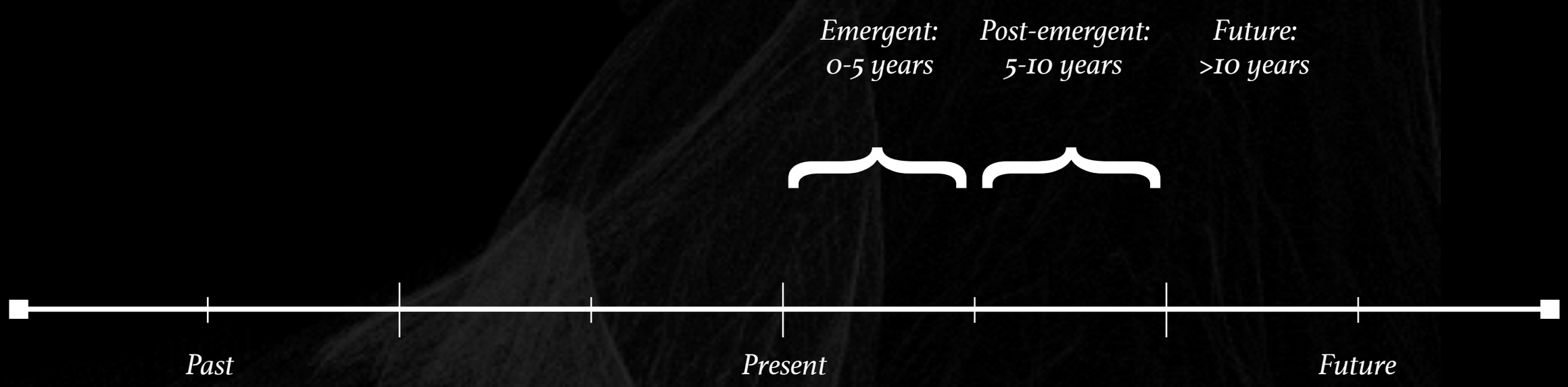
num tempo pós-emergente, com três grandes intenções:

explorar possibilidades distantes da nossa realidade,

traduzir estas abstrações para o grande público de maneira empática

– ajudando, assim, a sociedade a tomar melhores decisões no presente.’



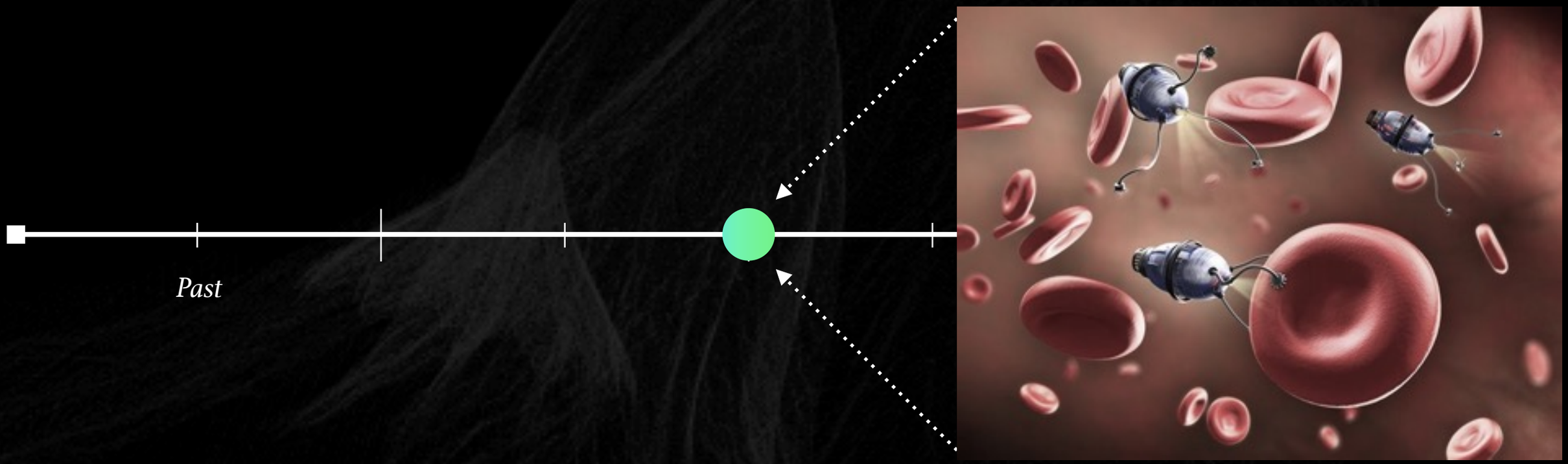

Emergent:
0-5 years
Post-emergent:
5-10 years
Future:
>10 years
Past
Present
Future

Future:
>10 years

Past

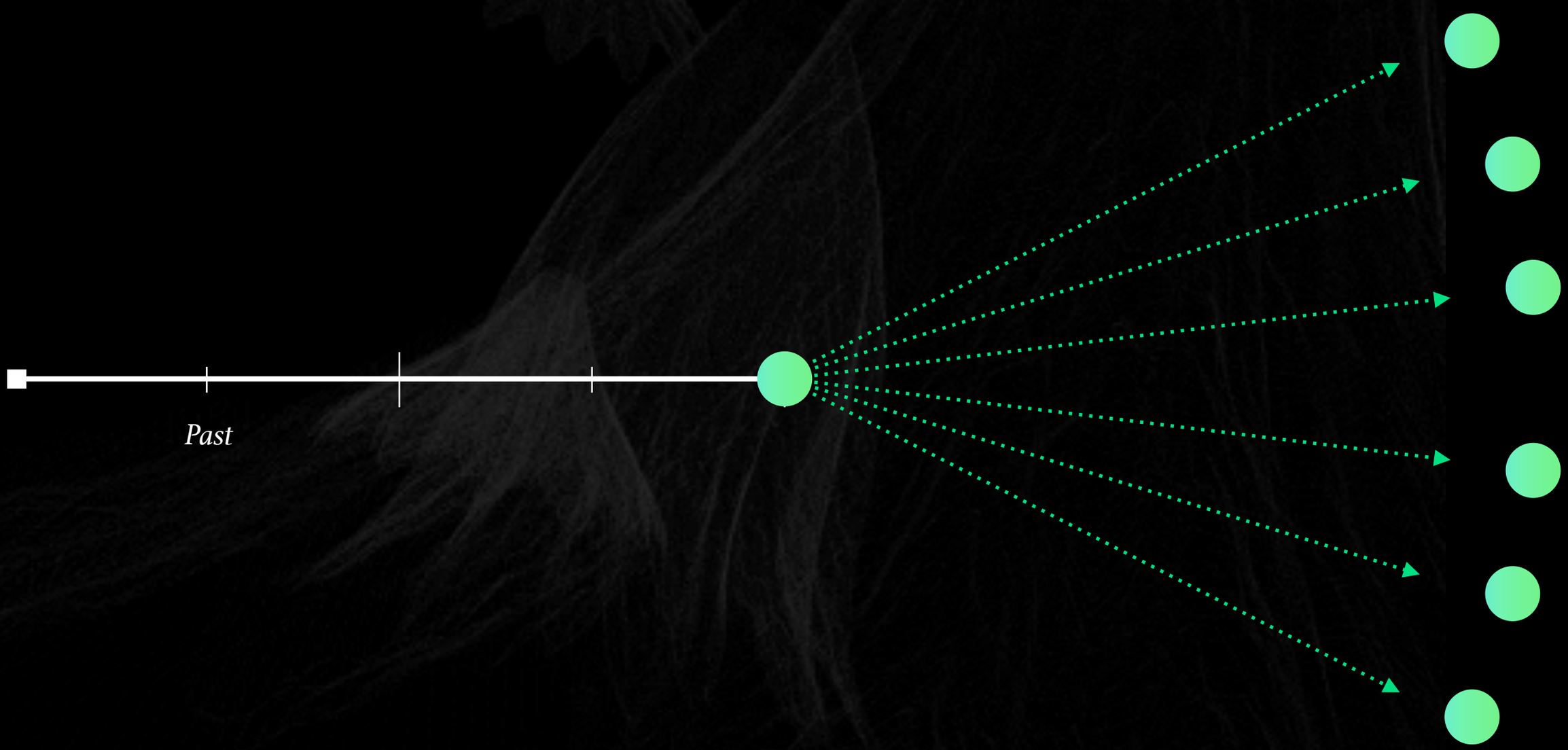
Present

Future


Past






Past

2. Futurism vs. Trends/Coolhunting

	Trends/Coolhunting	*Futurismo*
Timeframe	*Emergente*	*Pós-emergente/Futuro*
Fonte	*Moda, Arte, Comportamento*	*Ciência, Tecnologia, Comportamento*
Métrica de Sucesso	*Acertar a tendência*	*Gerar reflexões para mudança*
Skill-chave	*Percepção e Rapidez*	*Modelamento & Abstração*
Aplicações	*Aplicação no Mercado Bens de Consumo: curto prazo*	*Reflexão para Novas Estruturas da Sociedade: médio/longo prazos*

3. Becoming a Futurist

Futurismo como
atividade-mãe
(não num exercício paralelo,
sem compromisso)

Ideias próprias
sobre futurismo
(não um replicador
das ideias alheias)

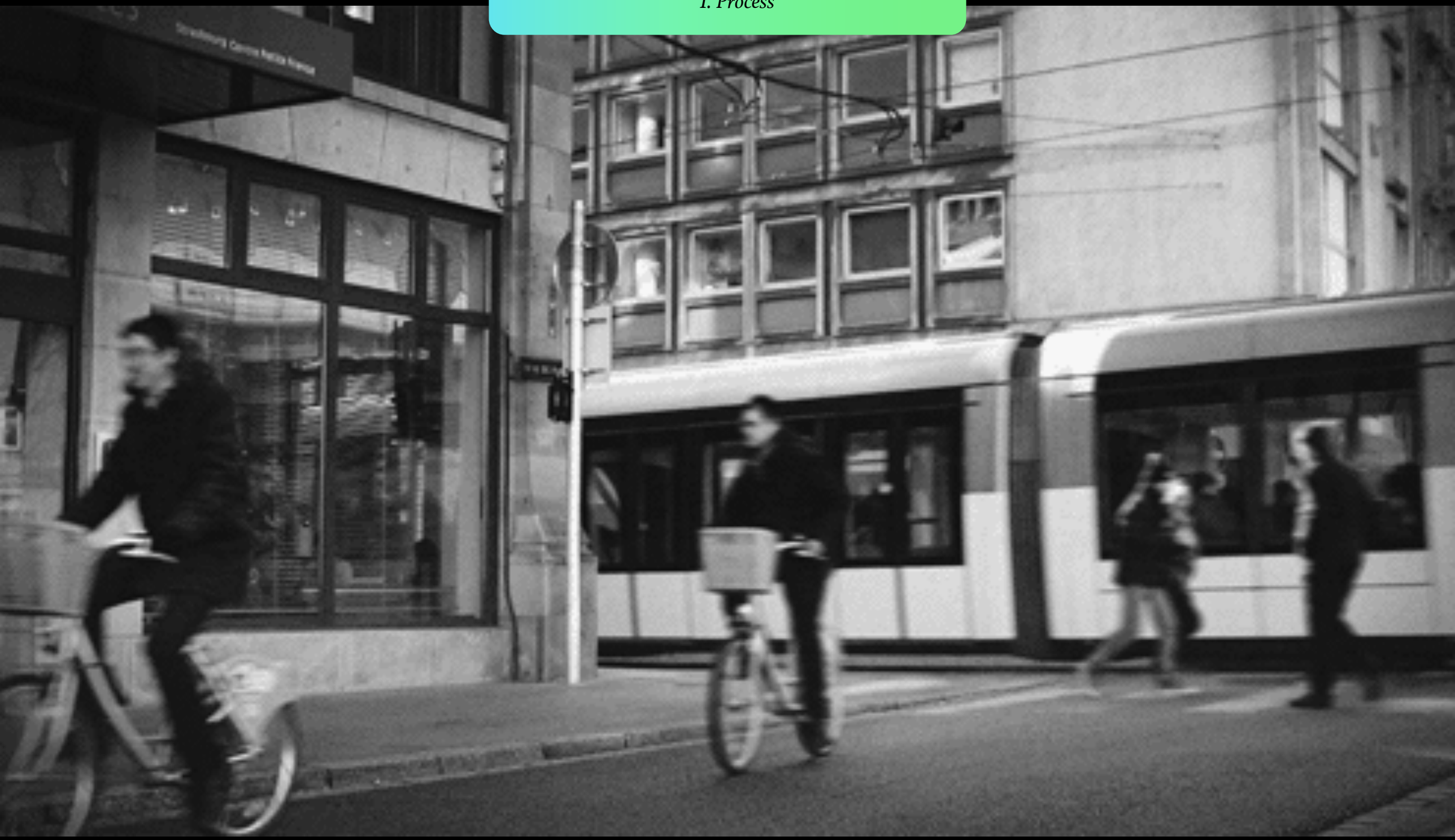
Documentar ideias
em matrizes
com descrições 5W1H
(não largados ao vento).

Publicar as matrizes
para julgamento
de profissionais experientes
em futurismo
(não principiantes).

Ter as ideias
reconhecidas/validadas
por esses profissionais
(e não desaprovadas).

2. Understandings

I. Process





Capture – Model/Matrix – Explore – Translate

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CNET › Mobile › Wearable Tech › Microsoft HoloLens

Microsoft's HoloLens is super limited - - and hella magical

April 1, 2016 10:00 AM PDT

PETER RUBIN CULTURE 05.20.14 6:30 AM

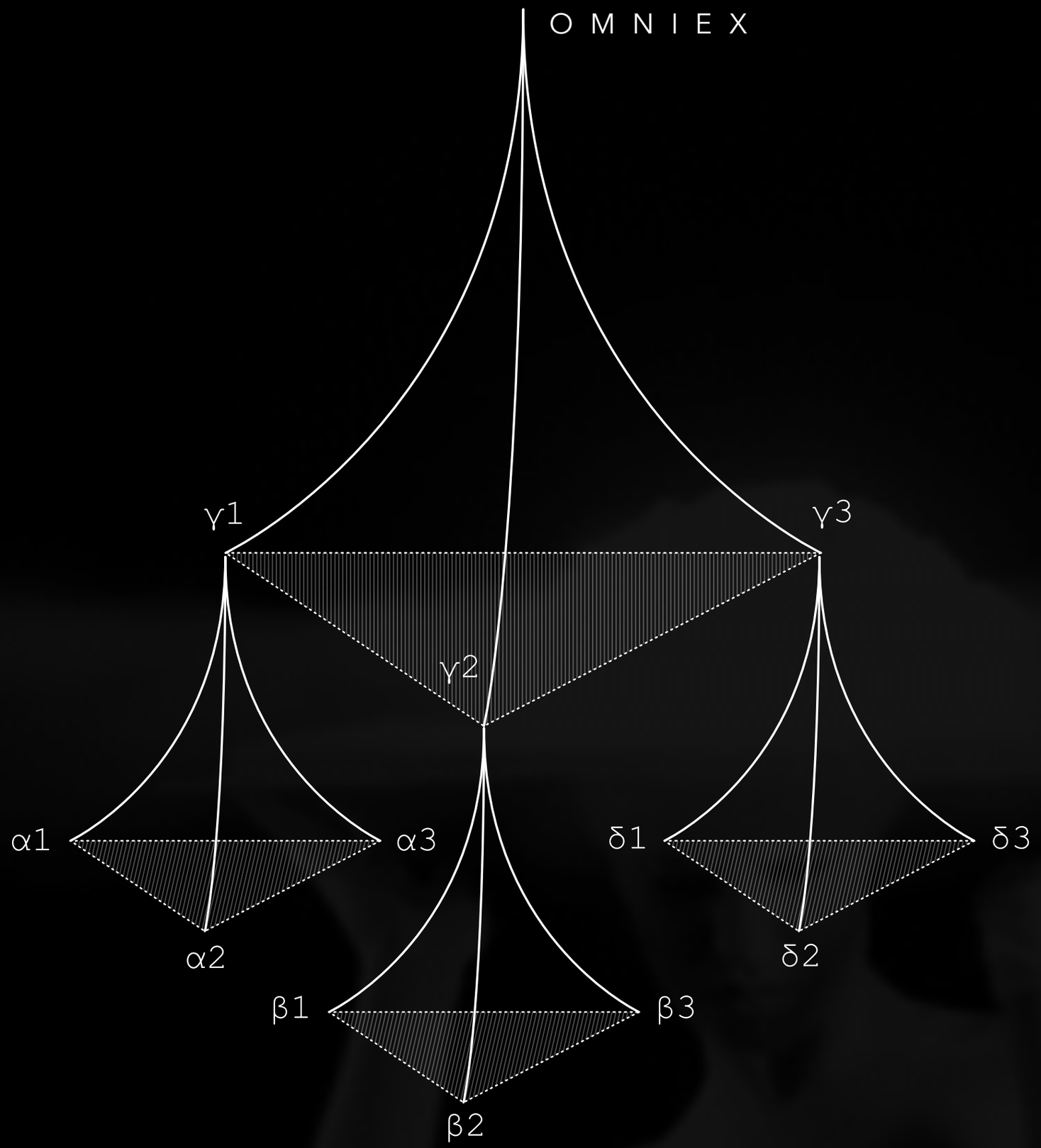
THE INSIDE STORY OF OCULUS RIFT AND HOW VIRTUAL REALITY BECAME REALITY

Virtual Reality news: SDK for Google Cardboard app now on iPhone

Capture

AR – TIMELINE


VR4 iGlasses
TomAuer EyeTap
AR Quake BARS
Bionic Eye AR Cellphones G1
Meta Augmented Matel Noogle Foursquare Appshaker Spectrek Blippar Layar Vizux Wikitude
View AR Octagon AR Exm Sony Daqri Holens Metaio Me ViewAR Junaio City Lens String Vuforia Fove Magic Leap Meta1 Massive Education Sixth Sense Google Glass Cast AR
1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015



α1 *ar/vr/nr*

α2 *eeg*

α2 *gesture control*

β1 *3fs*

β2 *roles*

β3 *sociability*

δ1 *social networks*

δ2 *IA*

δ3 *viral*

γ1 *sensorized simulated era*

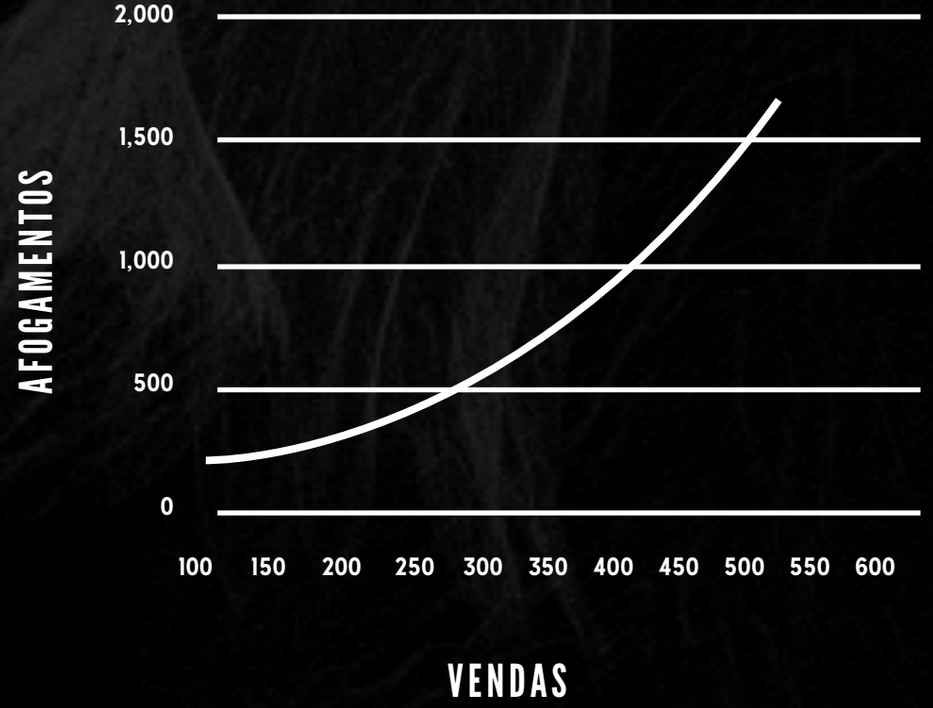
γ2 *endless gamified mindset*

γ3 *exponential mainstream*

2. Correlation vs. Causality

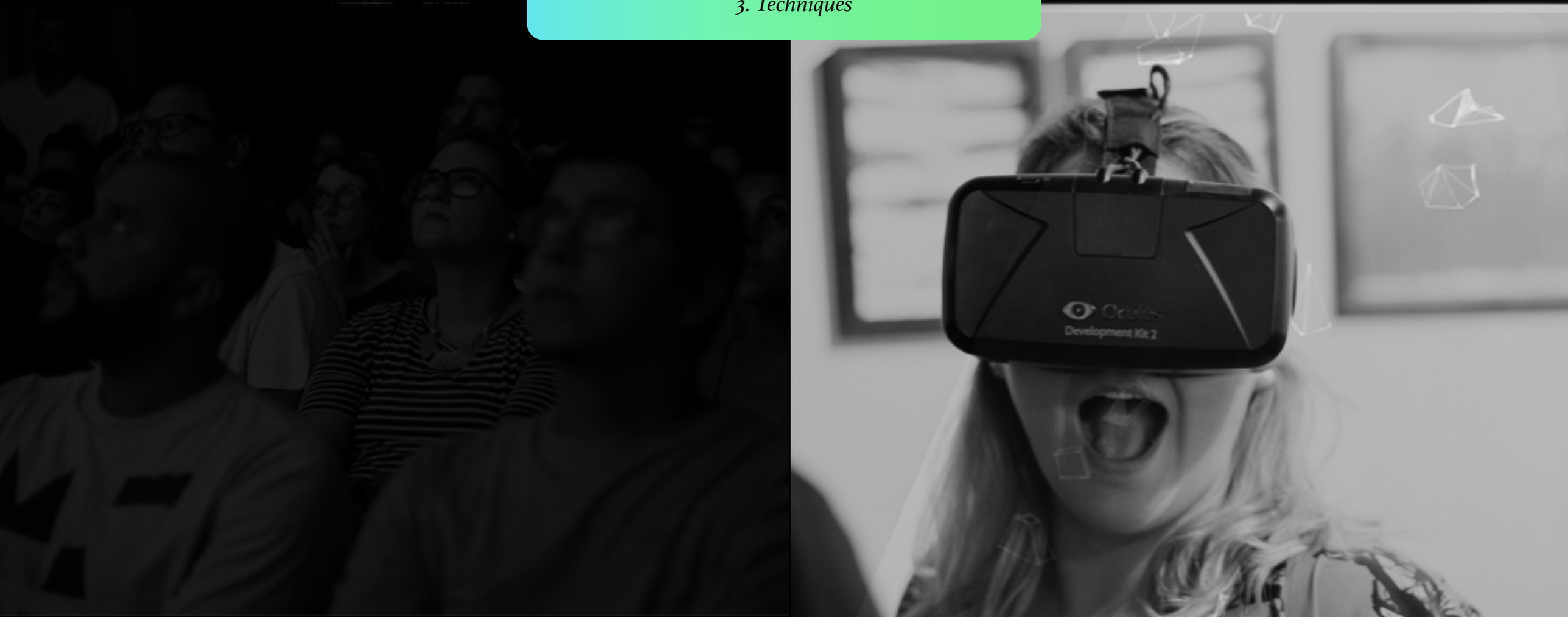


RELAÇÃO ENTRE AS VENDAS DE PICOLÉS E AFOGAMENTOS



	Produto I	*Produto I*	*Produto II*	*Produto II*	*Produto III*	*Produto III*	
Janeiro	*Teste A*	-	*Teste A*	-	*Teste A*	-	*Testando o produto: I vs. II vs. III*
Janeiro	*Teste B*	-	*Teste B*	-	*Teste B*	-	*Testando a estratégia: A vs. B*
Abril	*Teste AB*	-	*Teste AB*	-	*Teste AB*	-	*Testando o período: Janeiro vs. Abril*

3. Techniques



1. Headlining the Future

Manchete

Foto

Primeiro Parágrafo

2. Future Artifacts

Artifact from the Future: Indulgence Navigator

JAN 14, 2015 By Neela Lazkani

This Artifact from the Future is an example of products, services, and experiences that may play out in the future based on the forecast perspective **MEASUREMENT: The Creative Search for Metrics that Matter** from our 2013 *Reworking Health: New Authorities in a Well-Being Economy* research.

INDULGENCE NAVIGATOR



***WHAT**:*

You've had a hard week at work and want to indulge—but not at the expense of your long-term health. There are libraries worth of information online on the effects of any indulgence imaginable, but they give general advice, and everyone's body processes substances differently. The Indulgence Navigator, on the other hand, gives recommendations based on your unique genetic predispositions. While it's been banned on several app markets, you've jailbroken your devices to integrate your biometric data to learn how to have the most fun you can safely have this Friday night.

***SO WHAT**:*

Artifact

What

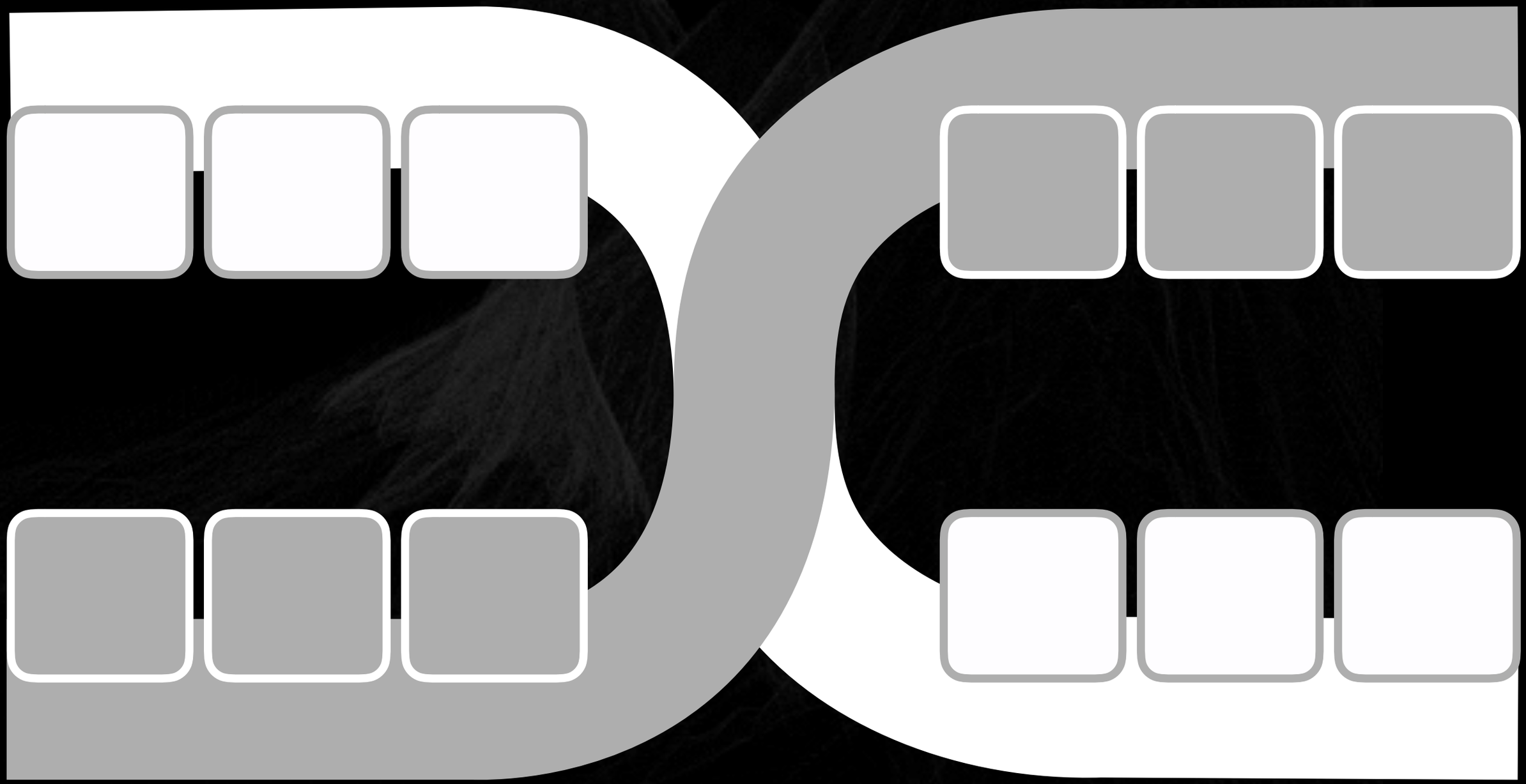
So What

3. Forecasting Two Curves

Two Curves

Today's mainstream

Tomorrow's mainstream

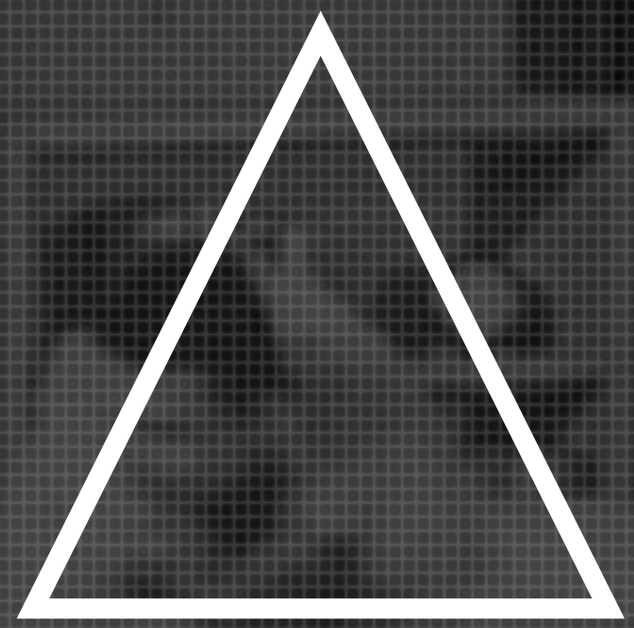


Signals of change

Infrastructure legacy


TODAY

INTRO



NEW MINDSET

NEW CONCEPTS


POX




MINDSET

abundância

$$Exo = \text{(massive transformative purpose)} + \overbrace{\left(\begin{array}{c}\text{staff on demand}\\ \text{community and crowd}\\ \text{algorithms}\\ \text{leased assets}\\ \text{engagement}\end{array}\right) + \left(\begin{array}{c}\text{interface processes}\\ \text{dashboards}\\ \text{experimentation}\\ \text{autonomy}\\ \text{social technologies}\end{array}\right)}^{4/10}$$

leadership must know exponentials // changemakers create spin offs // partner with adjacent ExOs
open you APIs // hire someone to disrupt yourself // set up a Google X equivalent



*MOMENTO MACHISTA


152
NASA
Welcome to NASA
Ames Research Center

OI, EU SOU A GABI

:)



GENDER JUSTICE @ TW

POR UM MUNDO SEM PRIVILÉGIO DE GÊNERO.

POR QUE TEMOS FALANDO TANTO

SOBRE MULHERES EM TI?

70% DA PRIMEIRA TURMA DE BACHARELADO EM CIÊNCIA DA COMPUTAÇÃO DO IME

ERAM MULHERES (1974).



DECEMBER 10TH, 1815

NOVEMBER 27TH, 1852



DECEMBER 9TH, 1906

JANUARY 1ST, 1992

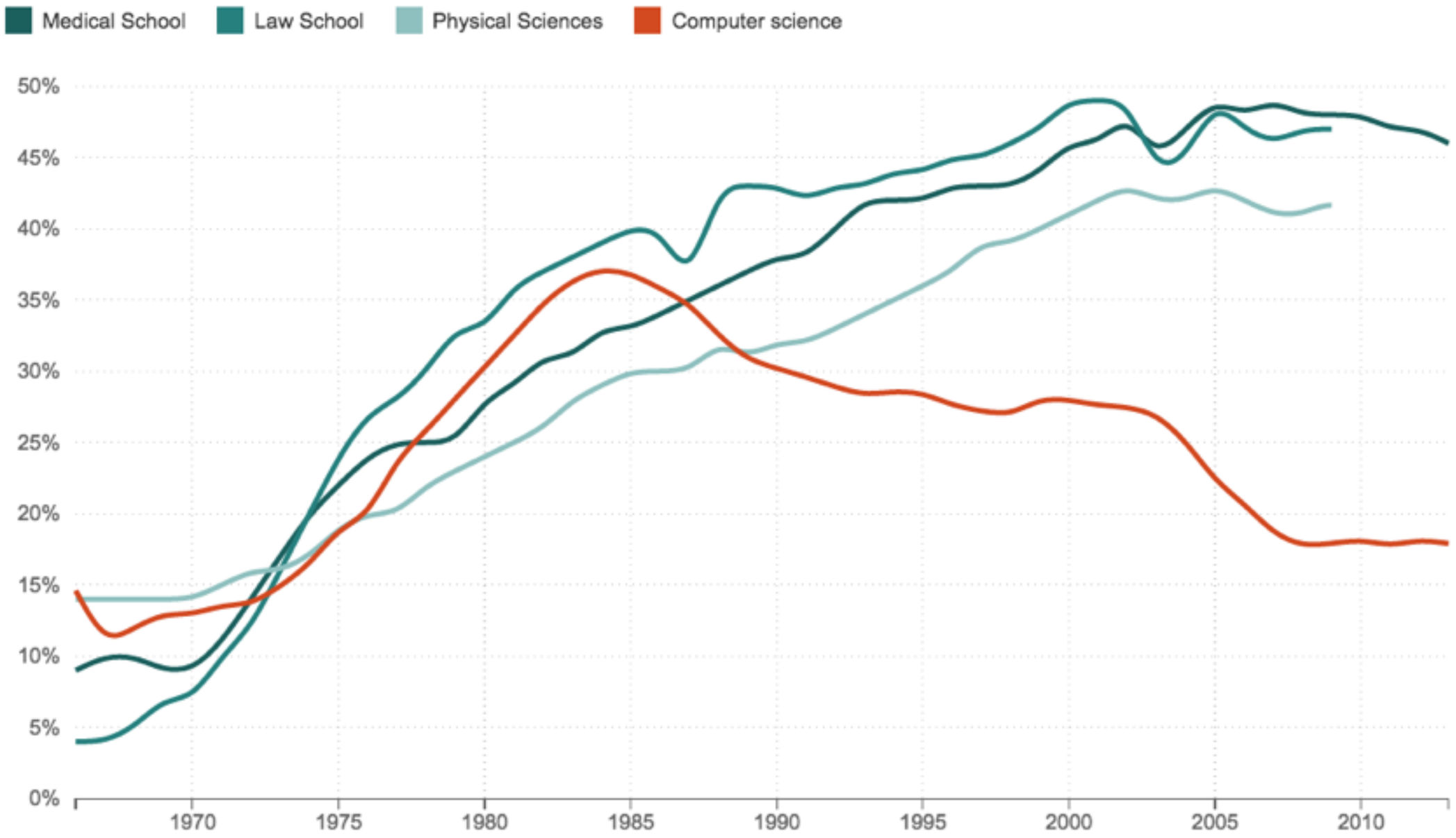
11% DOS INGRESSOS NO BACHARELADO EM CIÊNCIA DA COMPUTAÇÃO DO IME

ERAM MULHERES (2015).

Fonte: Fuvest.

What Happened To Women In Computer Science?

% Of Women Majors, By Field



ANOS 80:

PRIMEIROS 'HOME COMPUTERS' COMERCIALIZADOS


IBM

O PROBLEMA NÃO É MEU CÉREBRO.

PROMETO. ;)

MAS, AFINAL: POR QUE É TÃO IMPORTANTE

SOBRE MULHERES EM TI?

TRÊS RAZÕES

PRINCIPAIS

1. TODA EMPRESA

É UMA EMPRESA DE TECNOLOGIA.

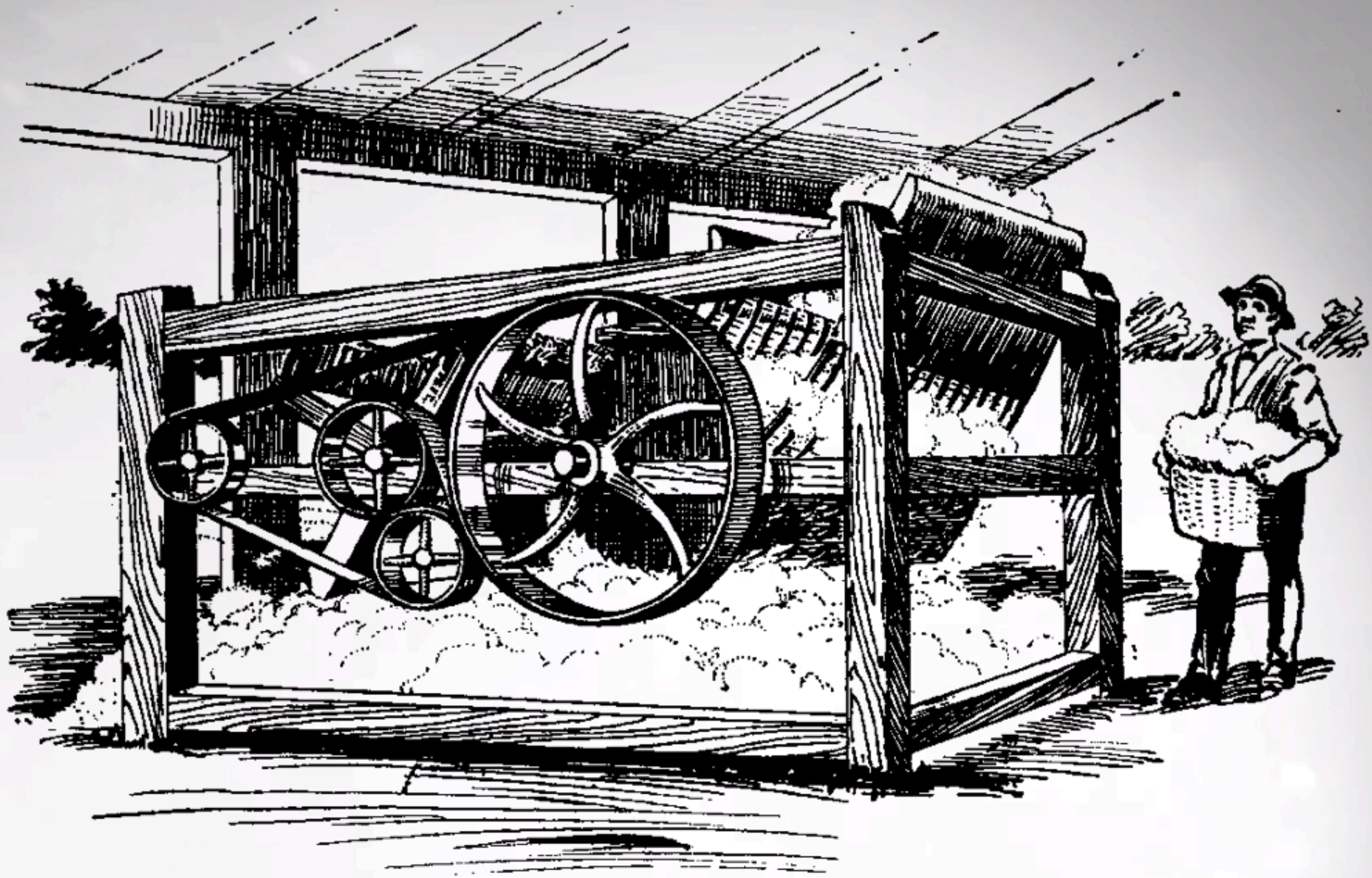
2. TECNOLOGIA E TRANSFORMAÇÃO SOCIAL:
GÊNERO É APENAS UMA PEQUENA PARTE DISSO.

3. E O MAIS IMPORTANTE

PARA MIM:

A TECNOLOGIA NÃO É BOA.
A TECNOLOGIA NÃO É RUIM.
A TECNOLOGIA NUNCA É NEUTRA.

A TECNOLOGIA É AMBÍGUA.



OBRIGADA. :)

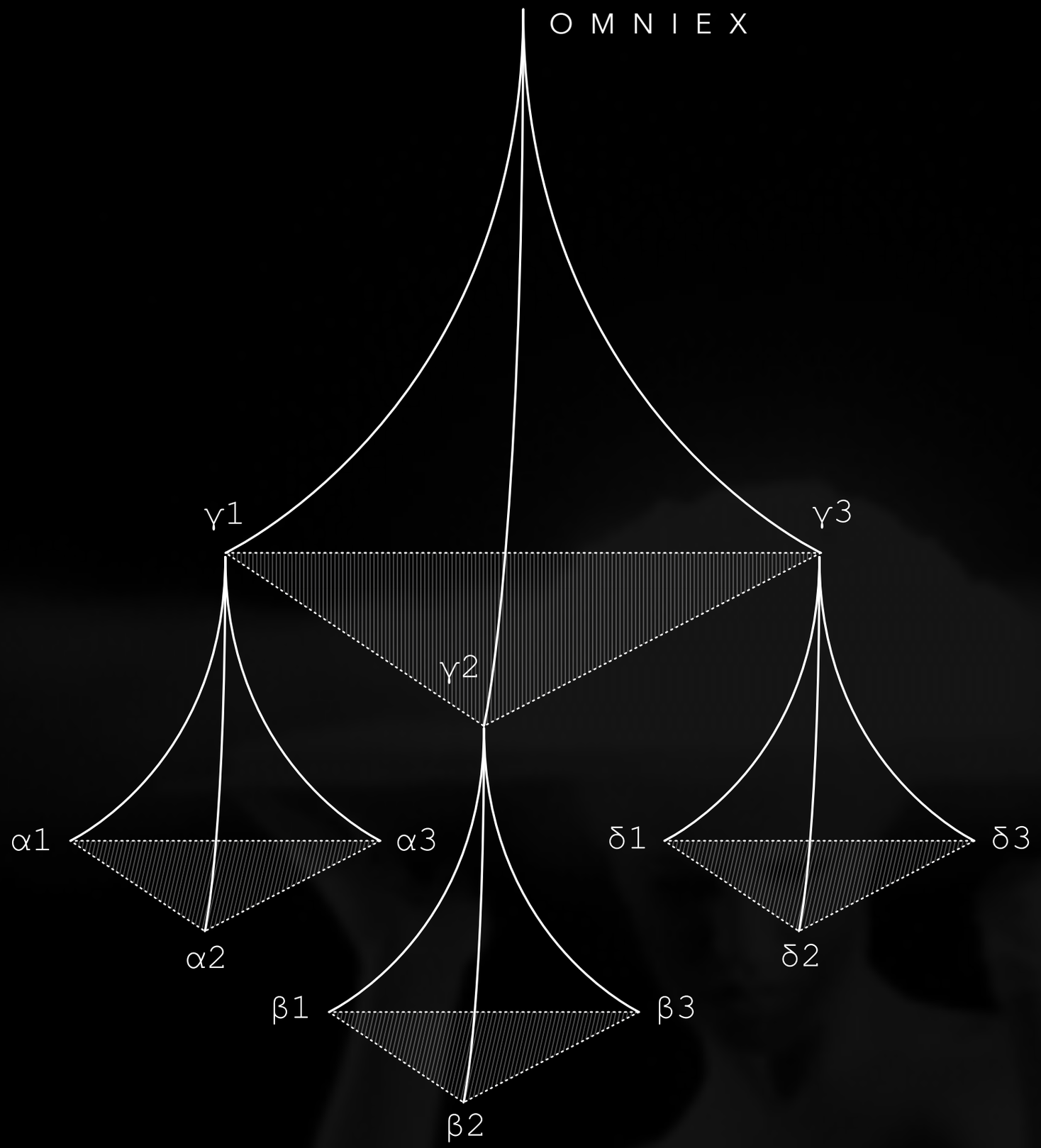
GGUERRA@THOUGHTWORKS.COM
@GABRIELAGUERRA



“TECHNOLOGY
IS NOT NEUTRAL.”

Gabi Guerra – Technologist


CONCEPTS



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β3 *sociability*

δ1 *social networks*

δ2 *IA*

δ3 *viral*

γ1 *sensorized simulated era*

γ2 *endless gamified mindset*

γ3 *exponential mainstream*

GAMIFIED MINDSET

12 IGNITES

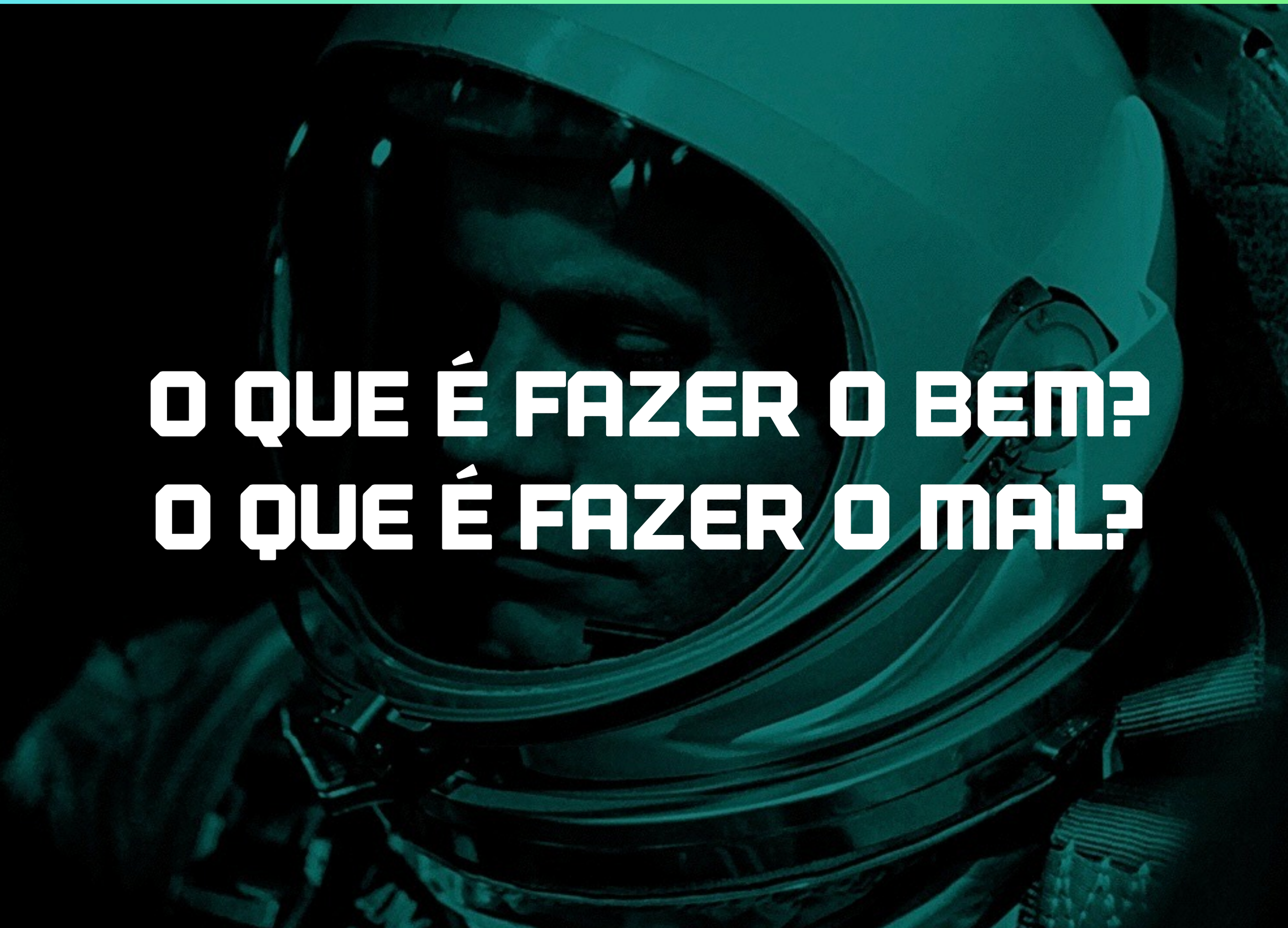
20 SLIDES DE 15S

SLIDES: BARRA

ENTRE IGNITES: 15S

ESTÃO PREPARADOS?

Positive Impact


O QUE É FAZER O BEM?
O QUE É FAZER O MAL?

Senso comum

GLOBAL CHALLENGE WEEK



COMIDA

ÁGUA


POBREZA

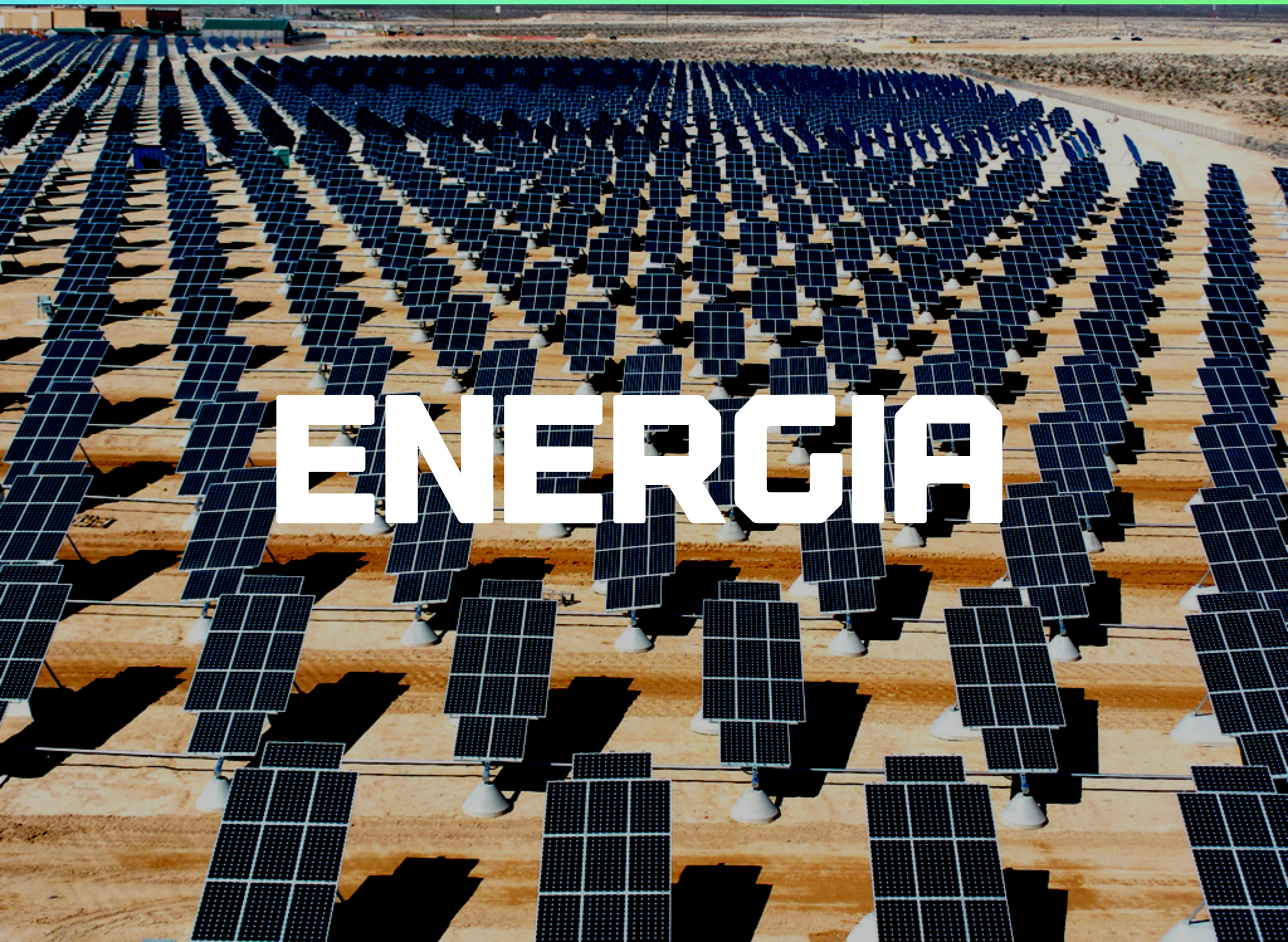

SAÚDE
GLOBAL

SEGURANÇA





EDUCAÇÃO


ENERGIA

MEIO

AMBIENTE

O QUE É IMPACTO POSITIVO?

Main activity = Primary waves

Main activity = Primary waves

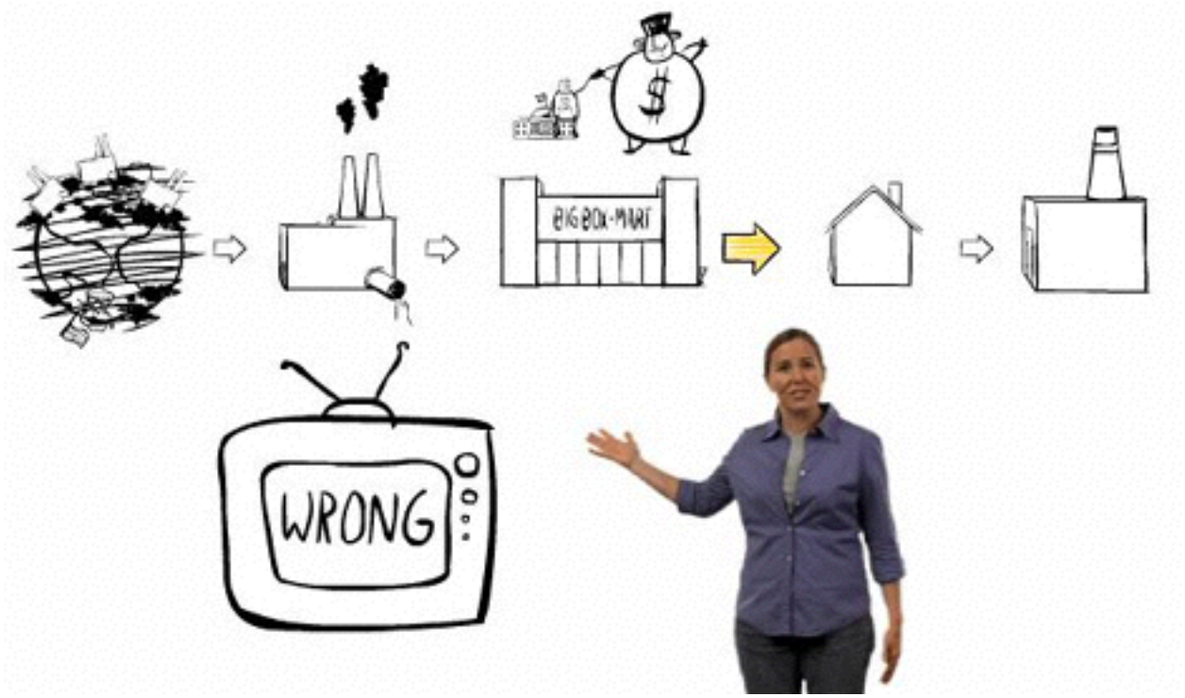
Avoid negative impact on secondary waves


ALIMENTAÇÃO
VS.
SAÚDE

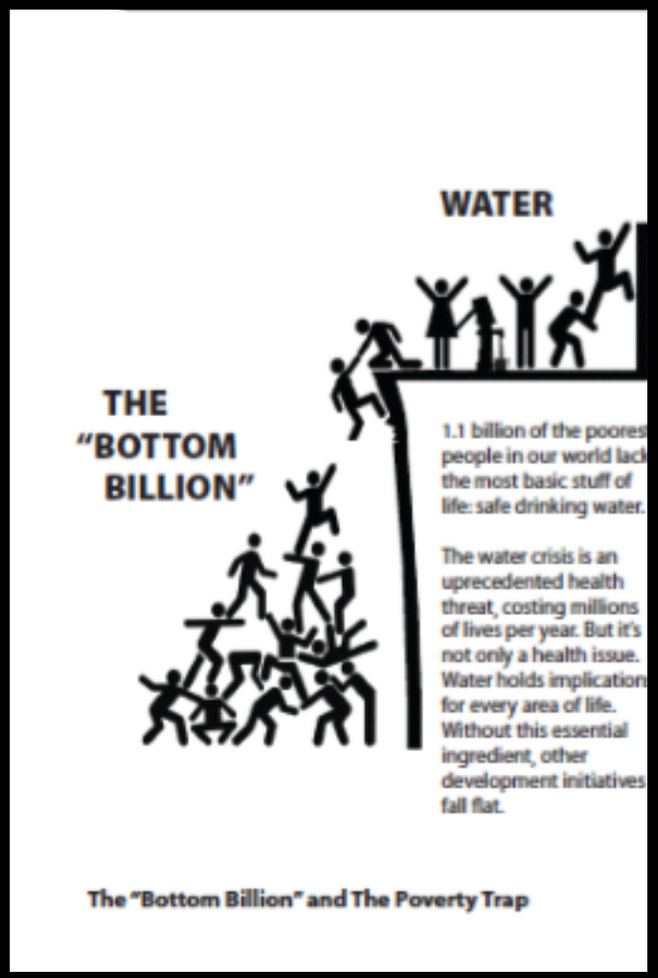
Main activity = Primary waves

Avoid negative impact on secondary waves

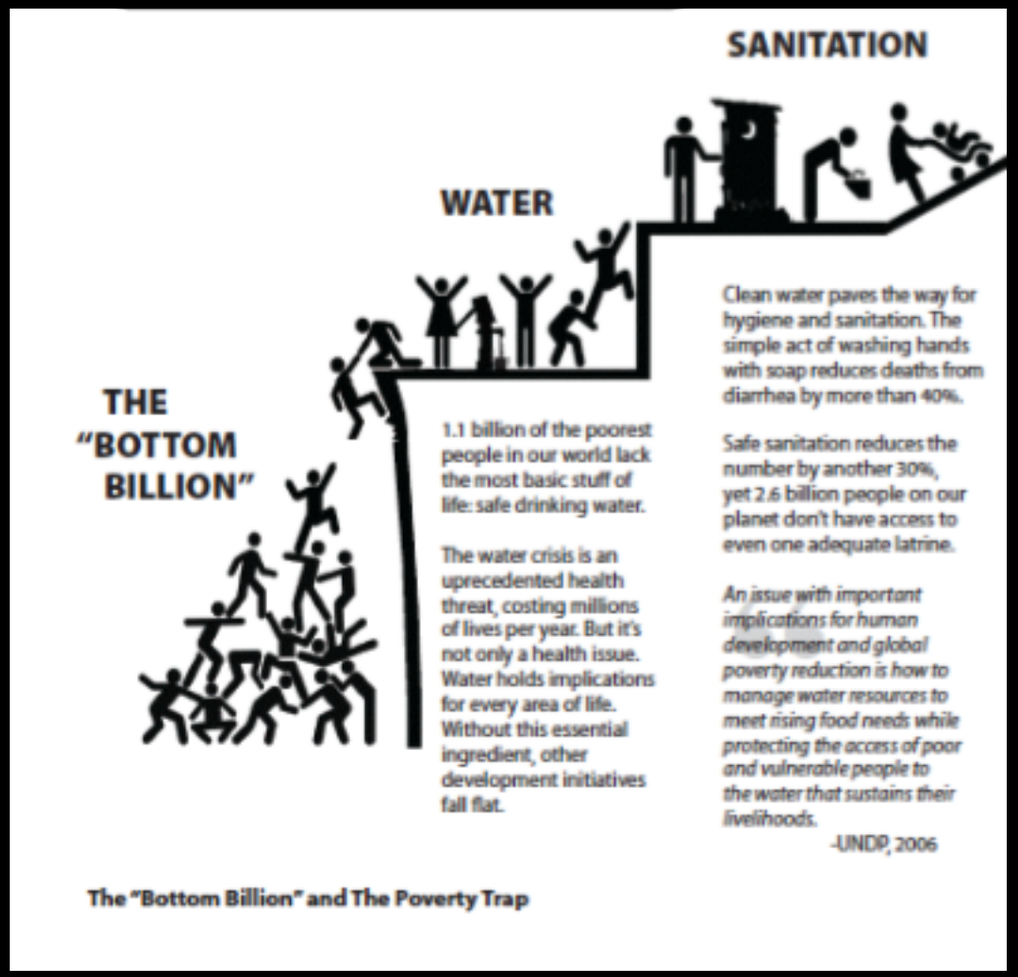
Circular and sustainable economy


BIG BOX-MART
WRONG

Why positive impact?



The "Bottom Billion" and The Poverty Trap


SANITATION
WATER
THE "BOTTOM BILLION"
1.1 billion of the poorest people in our world lack the most basic stuff of life: safe drinking water.
The water crisis is an unprecedented health threat, costing millions of lives per year. But it's not only a health issue. Water holds implications for every area of life. Without this essential ingredient, other development initiatives fall flat.
Clean water paves the way for hygiene and sanitation. The simple act of washing hands with soap reduces deaths from diarrhea by more than 40%.
Safe sanitation reduces the number by another 30%, yet 2.6 billion people on our planet don't have access to even one adequate latrine.
An issue with important implications for human development and global poverty reduction is how to manage water resources to meet rising food needs while protecting the access of poor and vulnerable people to the water that sustains their livelihoods.
-UNDP, 2006
The "Bottom Billion" and The Poverty Trap



THE "BOTTOM BILLION"



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-UNDP, 2006

Improving community health is almost impossible without safe drinking water.

Nearly 90 percent of all diseases in the world are caused by a combination of unsafe drinking water, inadequate sanitation, and poor hygiene; half of the hospital beds in the world are filled by people suffering from a water-related condition.

Clean water and sanitation are among the most powerful preventative medicines for reducing child mortality. They are to diarrhea what immunization is to killer diseases such as measles or polio: a mechanism for reducing risk and averting death.

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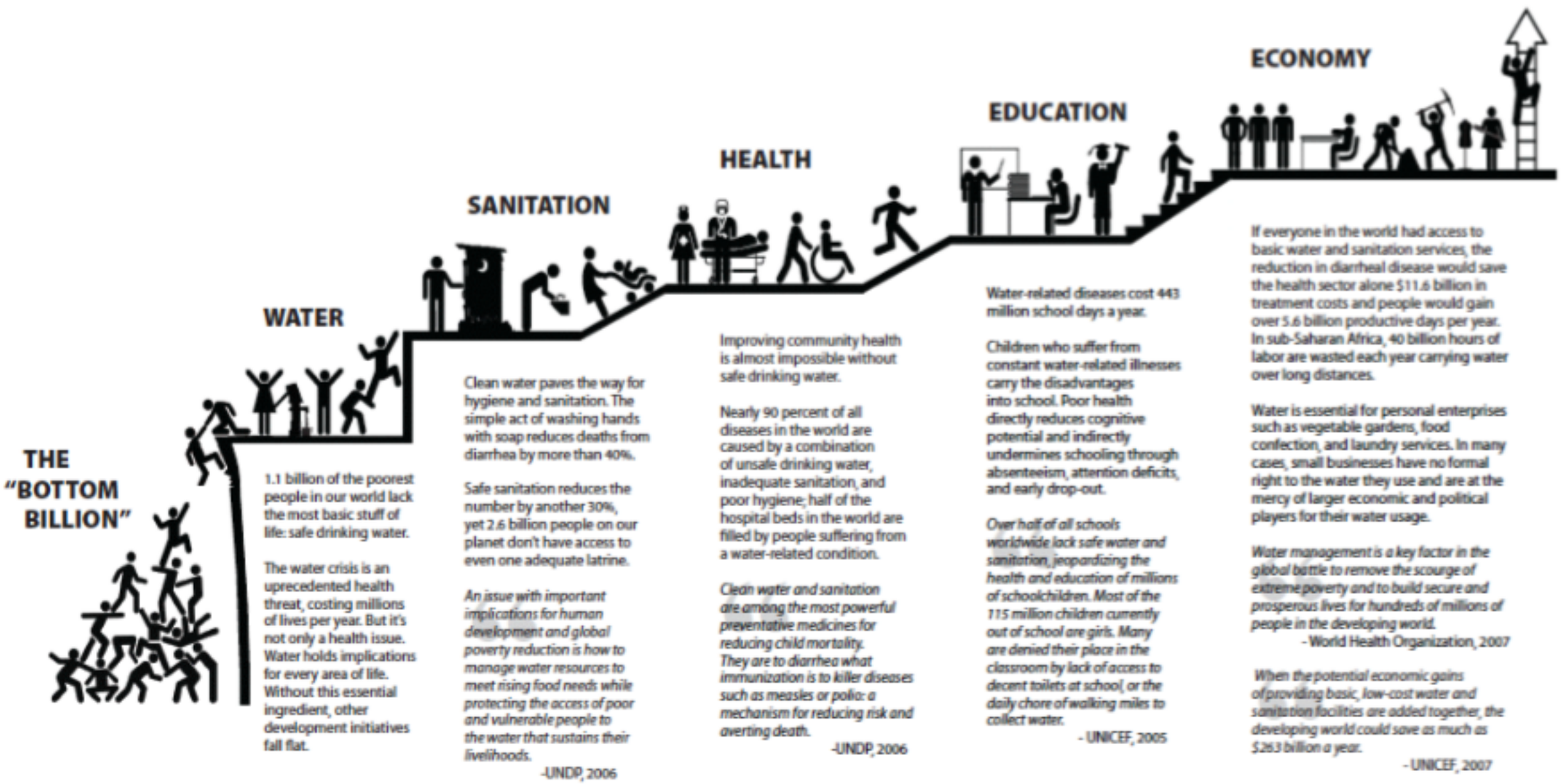
Water-related diseases cost 443 million school days a year.

Children who suffer from constant water-related illnesses carry the disadvantages into school. Poor health directly reduces cognitive potential and indirectly undermines schooling through absenteeism, attention deficits, and early drop-out.

Over half of all schools worldwide lack safe water and sanitation, jeopardizing the health and education of millions of schoolchildren. Most of the 115 million children currently out of school are girls. Many are denied their place in the classroom by lack of access to decent toilets at school, or the daily chore of walking miles to collect water.

- UNICEF, 2005

The "Bottom Billion" and The Poverty Trap



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If everyone in the world had access to basic water and sanitation services, the reduction in diarrheal disease would save the health sector alone $11.6 billion in treatment costs and people would gain over 5.6 billion productive days per year. In sub-Saharan Africa, 40 billion hours of labor are wasted each year carrying water over long distances.

Water is essential for personal enterprises such as vegetable gardens, food confection, and laundry services. In many cases, small businesses have no formal right to the water they use and are at the mercy of larger economic and political players for their water usage.

Water management is a key factor in the global battle to remove the scourge of extreme poverty and to build secure and prosperous lives for hundreds of millions of people in the developing world.

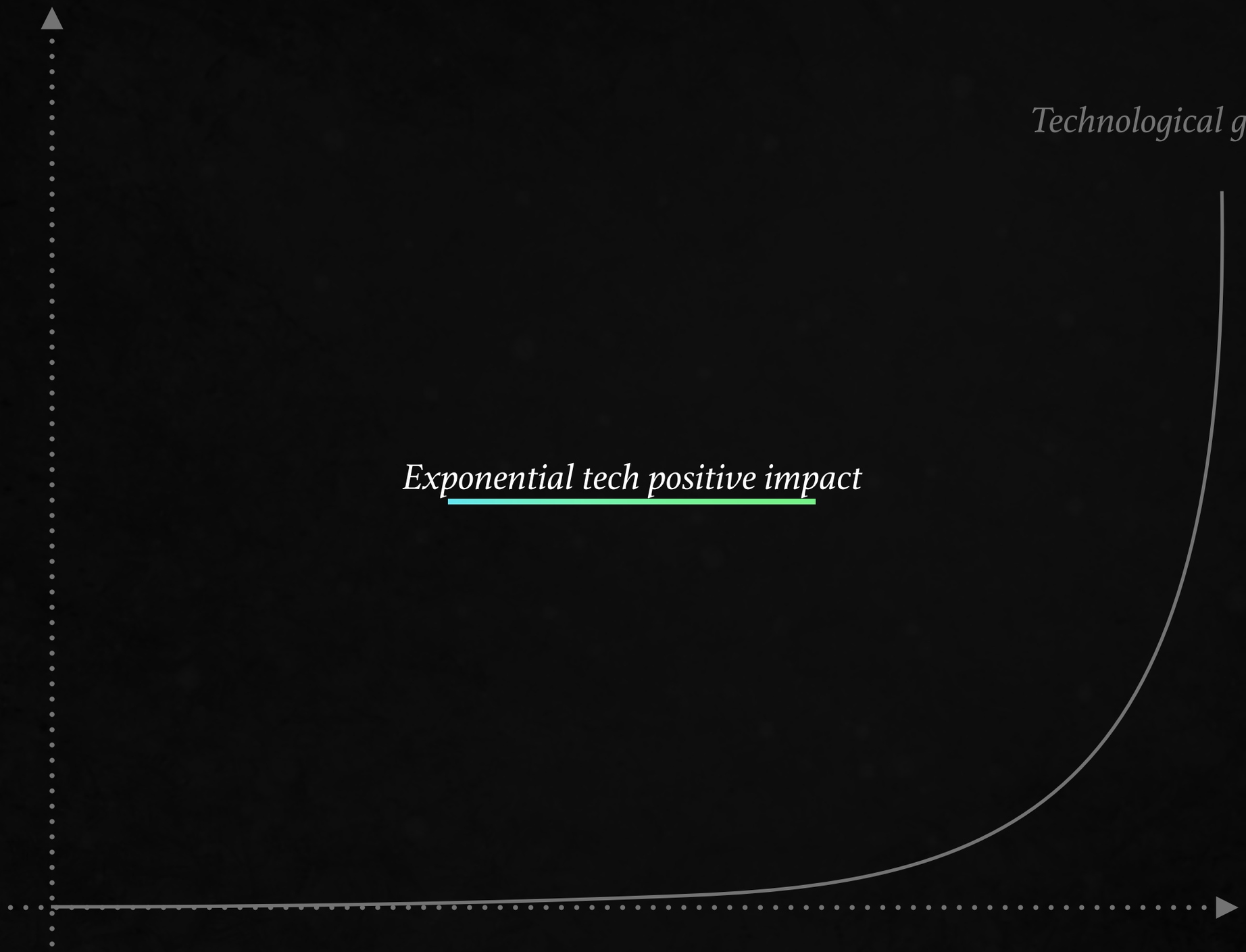
- World Health Organization, 2007

When the potential economic gains of providing basic, low-cost water and sanitation facilities are added together, the developing world could save as much as $263 billion a year.

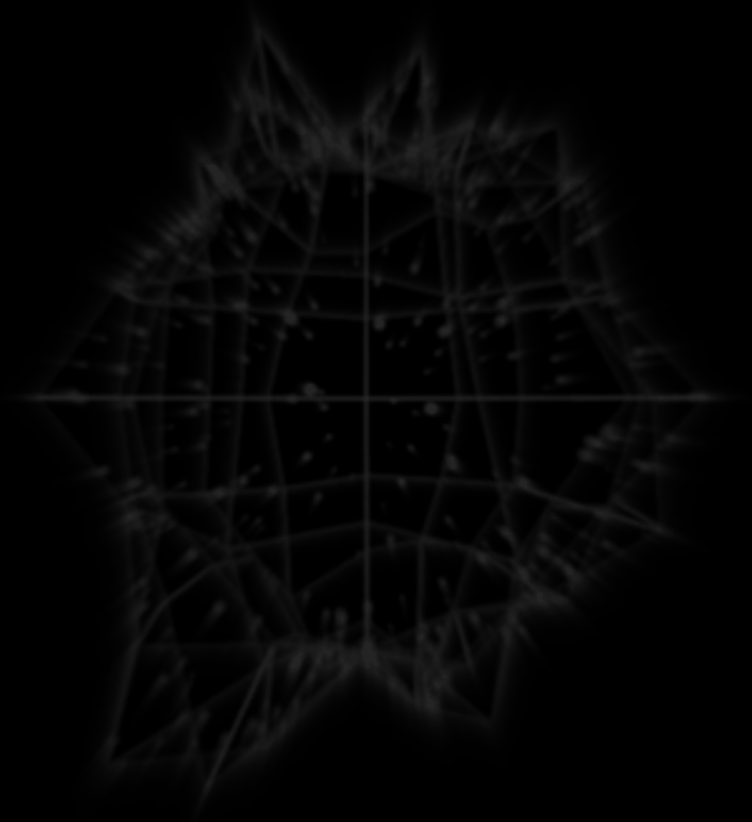
- UNICEF, 2007

The "Bottom Billion" and The Poverty Trap

15S


Technological growth
Exponential tech positive impact

Future is today

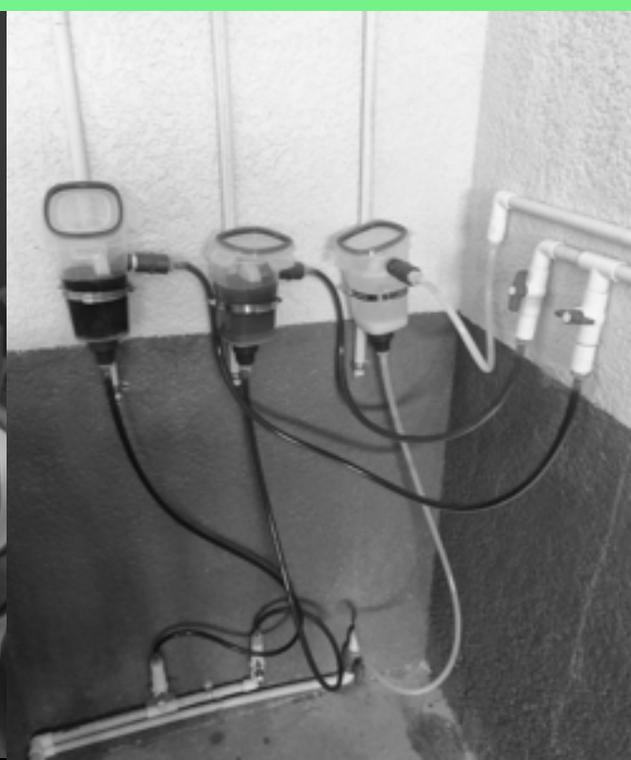






AguaClara











bullfrogpower®

COPIA

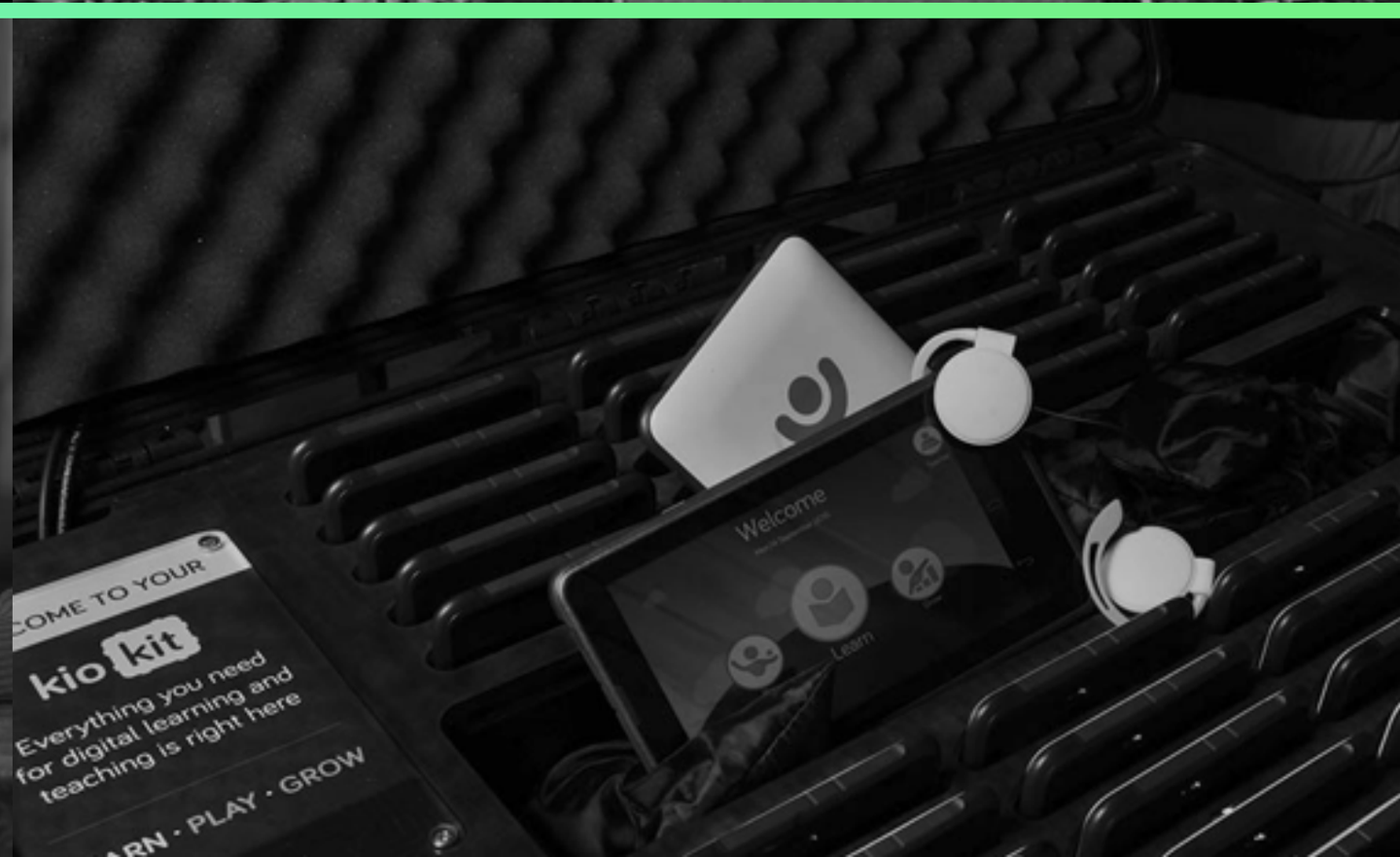

COPIA
Current Pickup
Scheduled
Set pickup location
AT&T Park
Set pickup


Truck Rental &
CAUTION
oodHero

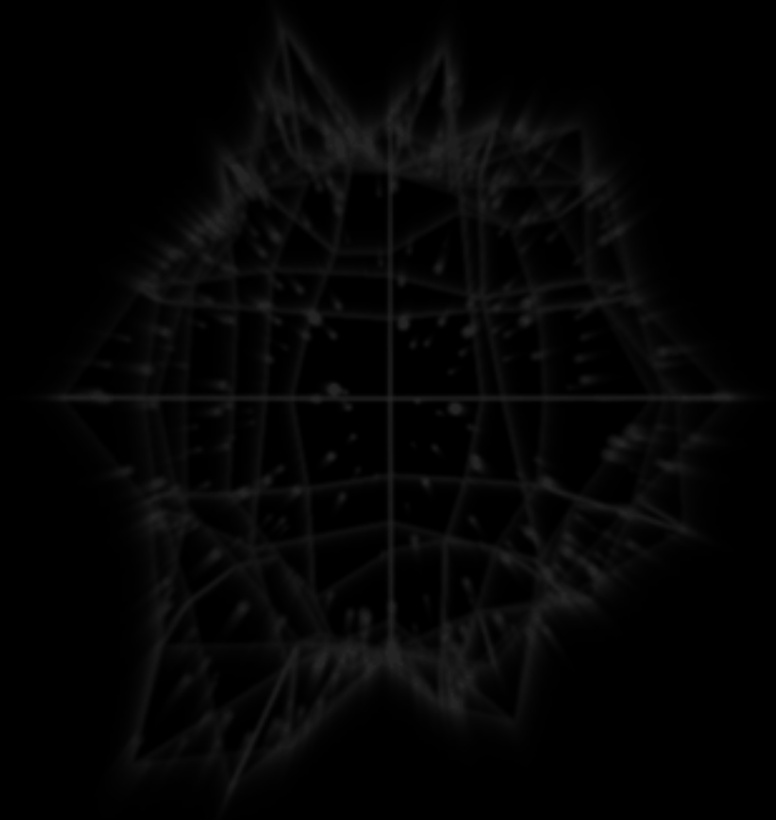
BRCK



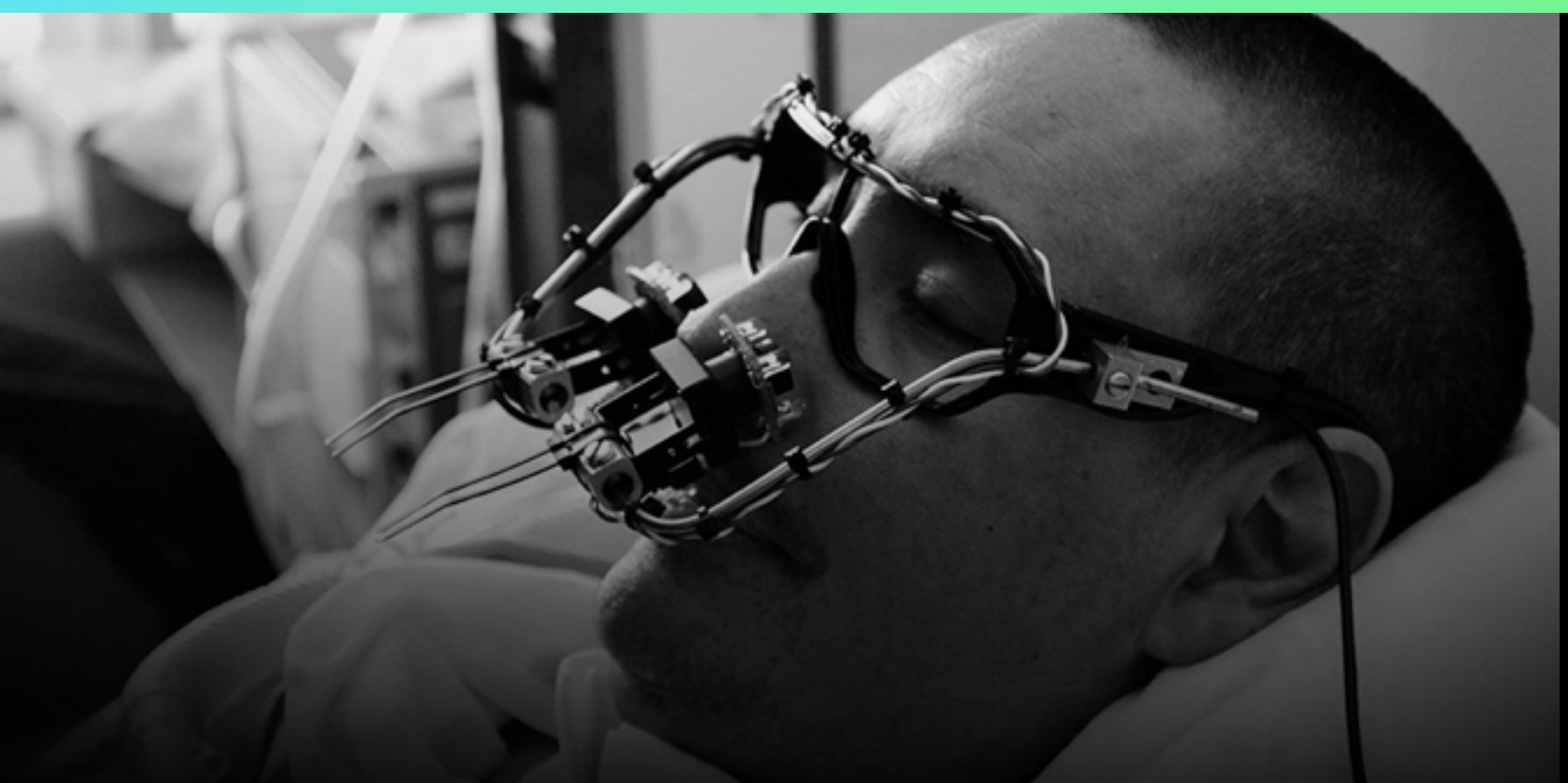



COME TO YOUR
kio kit
Everything you need
for digital learning and
teaching is right here
RN · PLAY · GROW
Welcome
Learn

Future is tomorrow







not impossible

MIT HYPERLOOP

MIT HYPERLOOP

BOARDING PASS

from
SAN FRANCISCO
17:28

to
LOS ANGELES
18:01

duration
33 minutes

passenger
Santiago Anndreuzza

pod and seat
pod **X3-65C3** seat **5A**

travel date
January 31st 2020

boarding
17:13 from **track 3**

HOW MUSK'S SUPERTRAIN COULD WORK

Rail gun technology
1. Electric current flows up positive rail

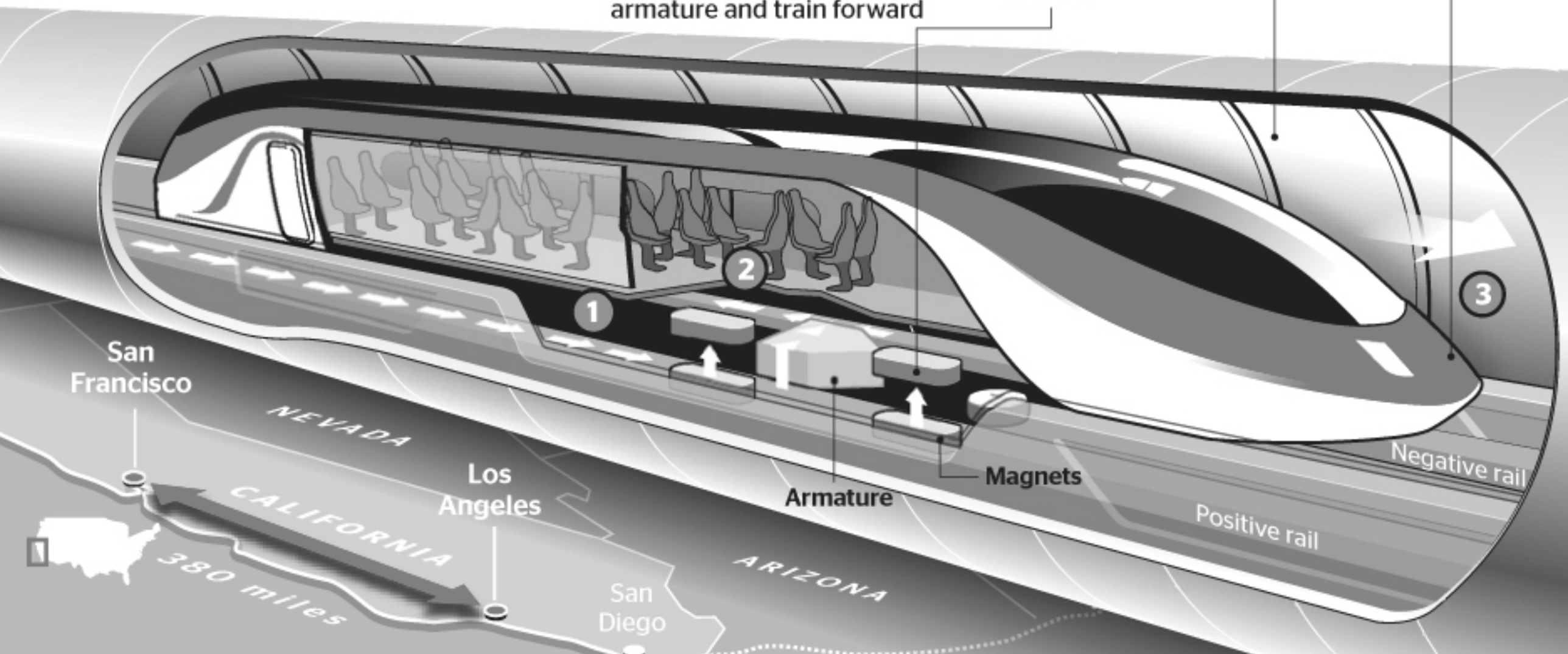
2. Current flows across armature and down negative rail

3. Magnetic force is directed towards end of rails which pushes armature and train forward

Maglev technology levitates the train eradicating rail friction

Reduced air pressure in tunnel cuts wind resistance

Top speed **750mph**

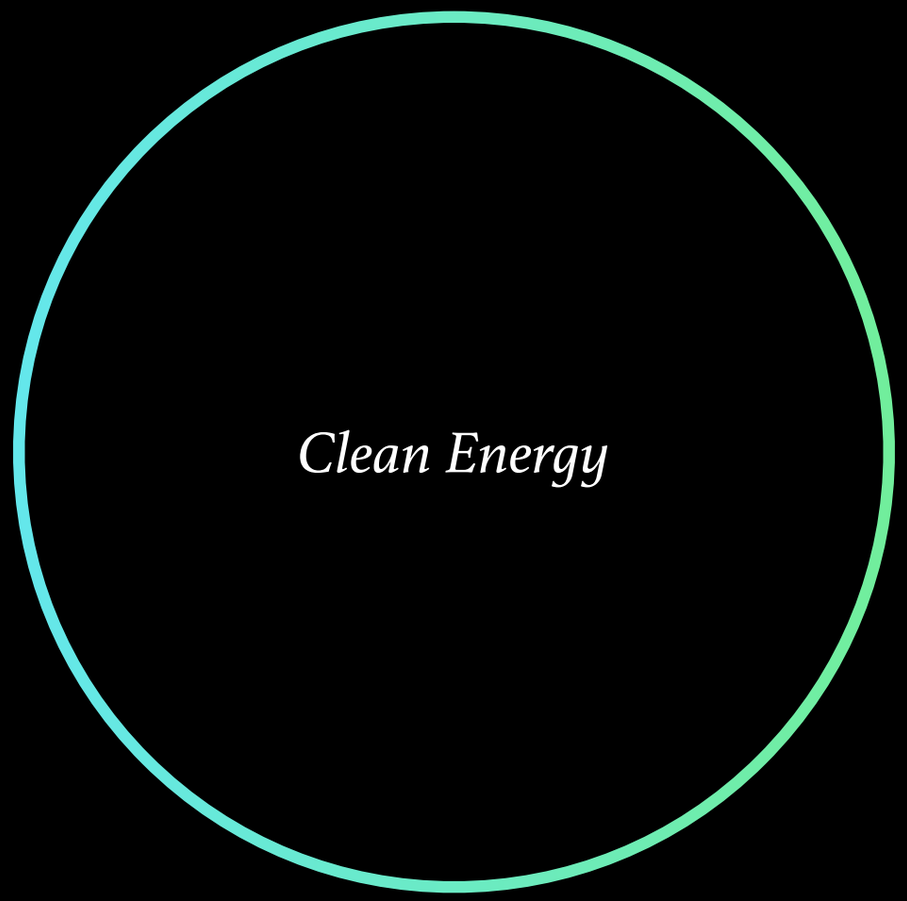



SANDY HOOK ELEMENTARY

Why exponential techs?

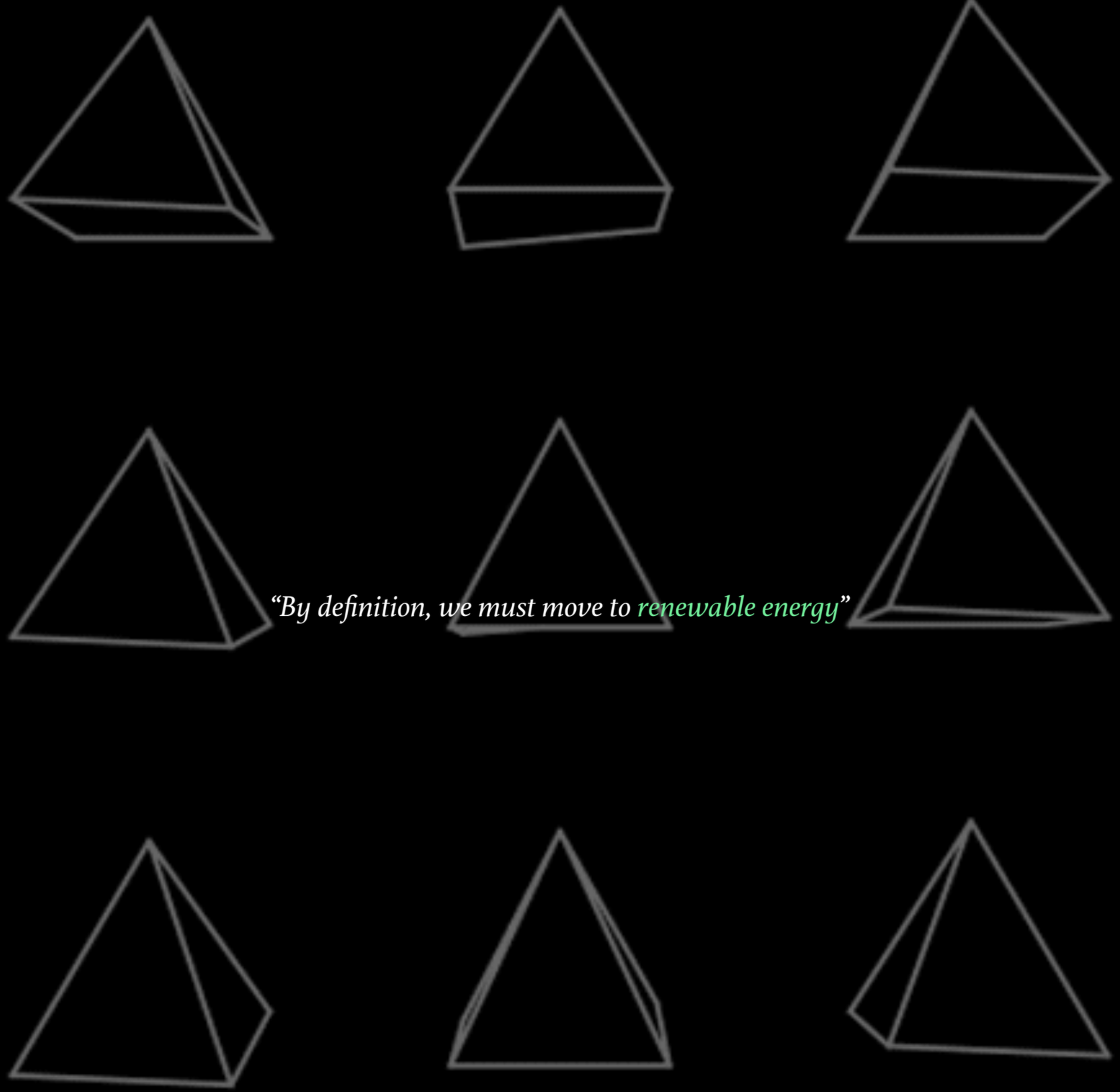
Scalability & Cost

15S

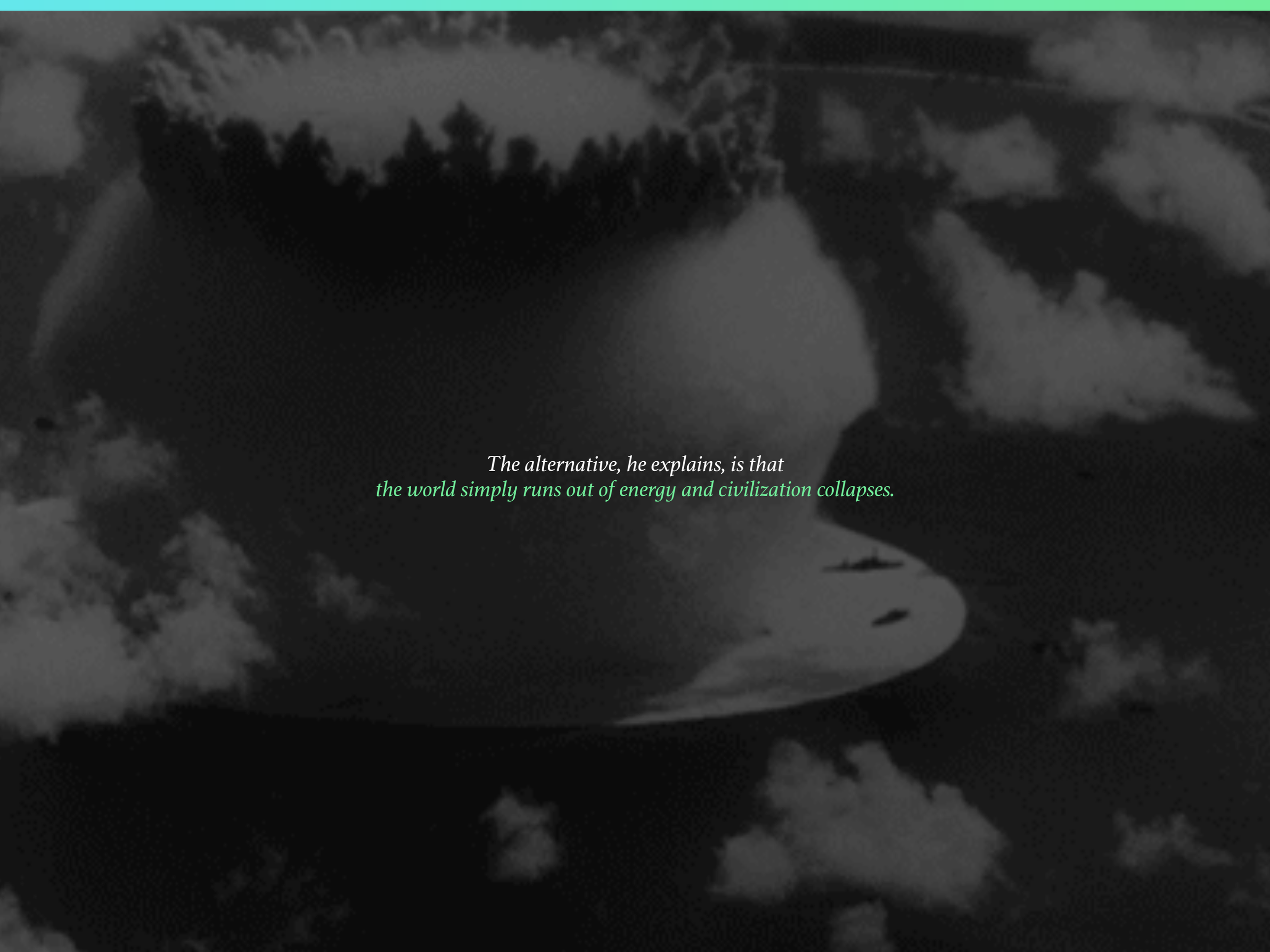

Clean Energy

How much oil is in the world?

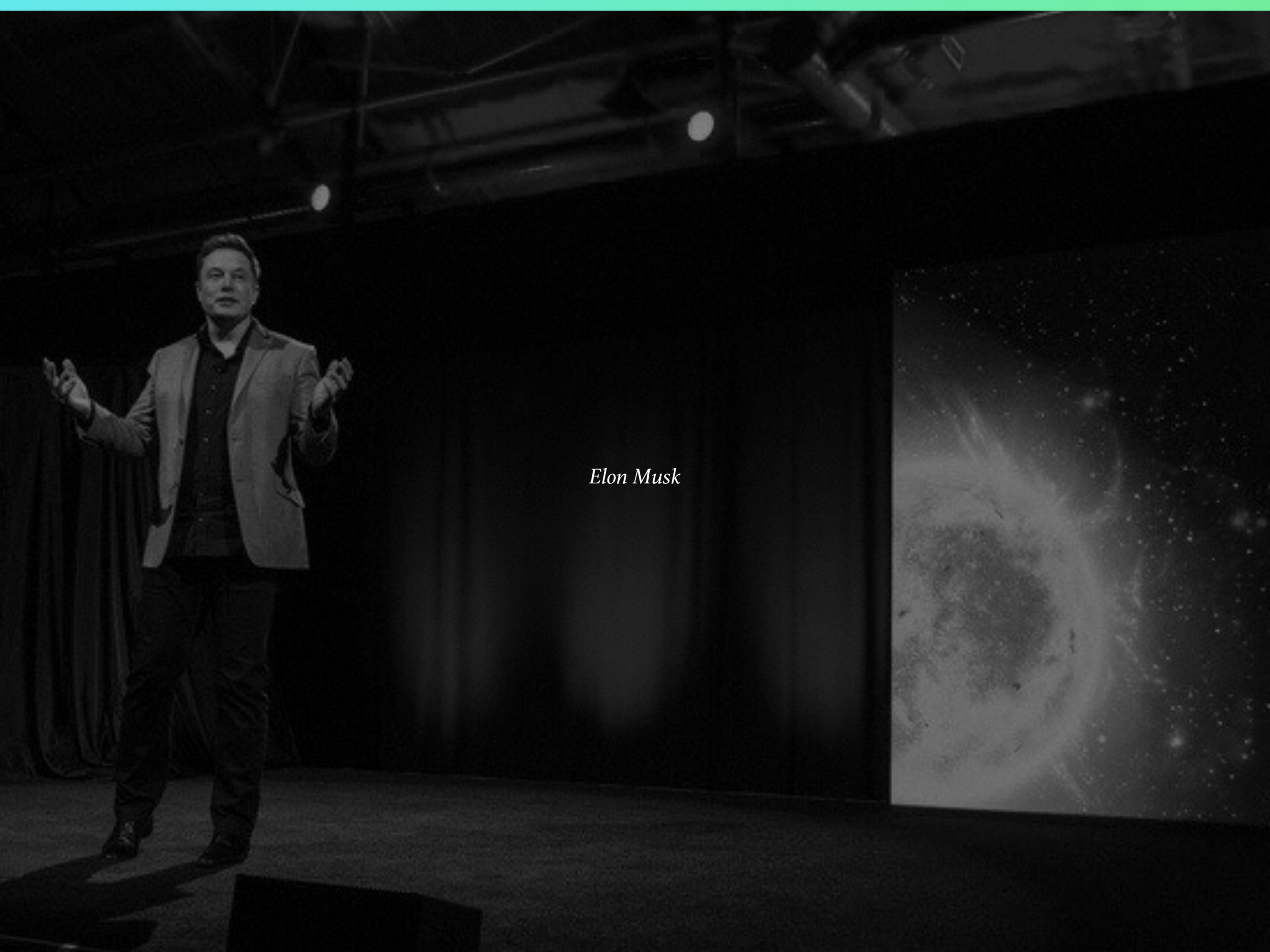
If things remain as they are today,
the oil will last another 40 years



“By definition, we must move to renewable energy”

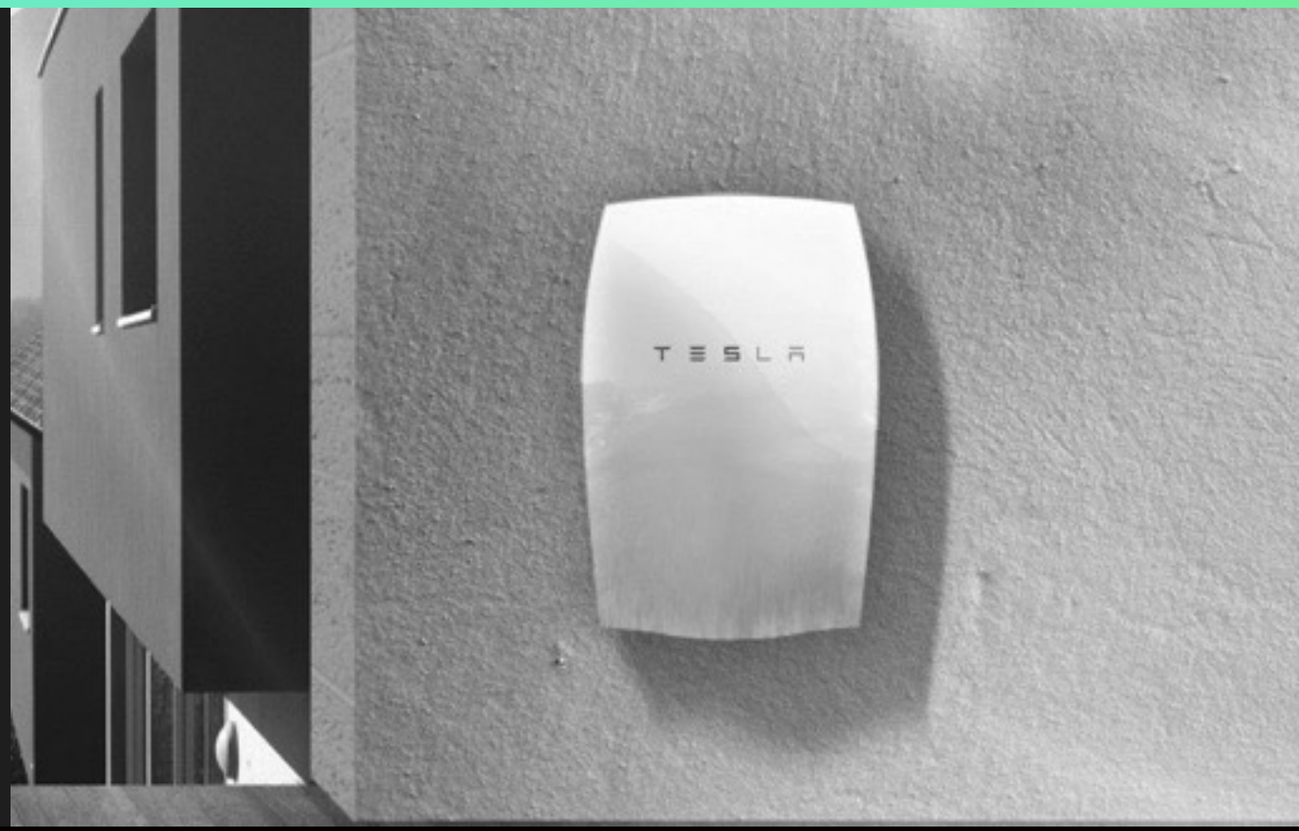


The alternative, he explains, is that the world simply runs out of energy and civilization collapses.



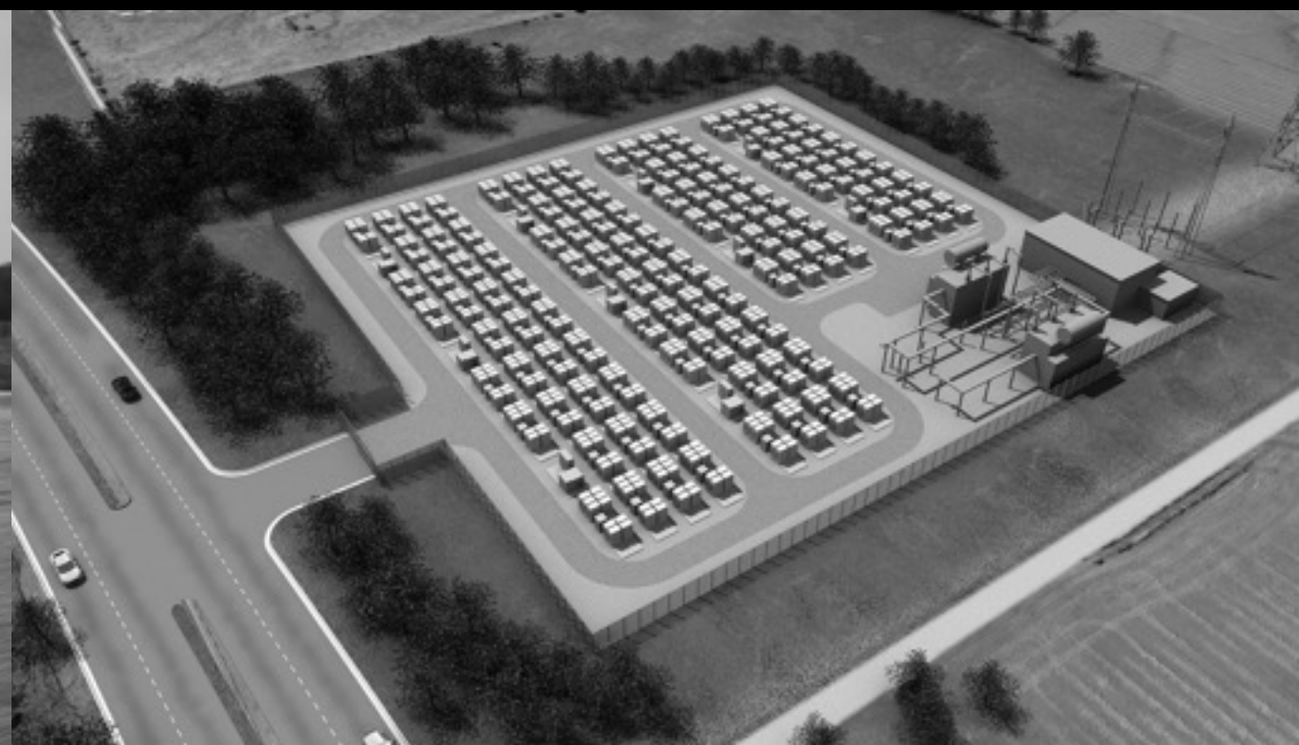
Elon Musk

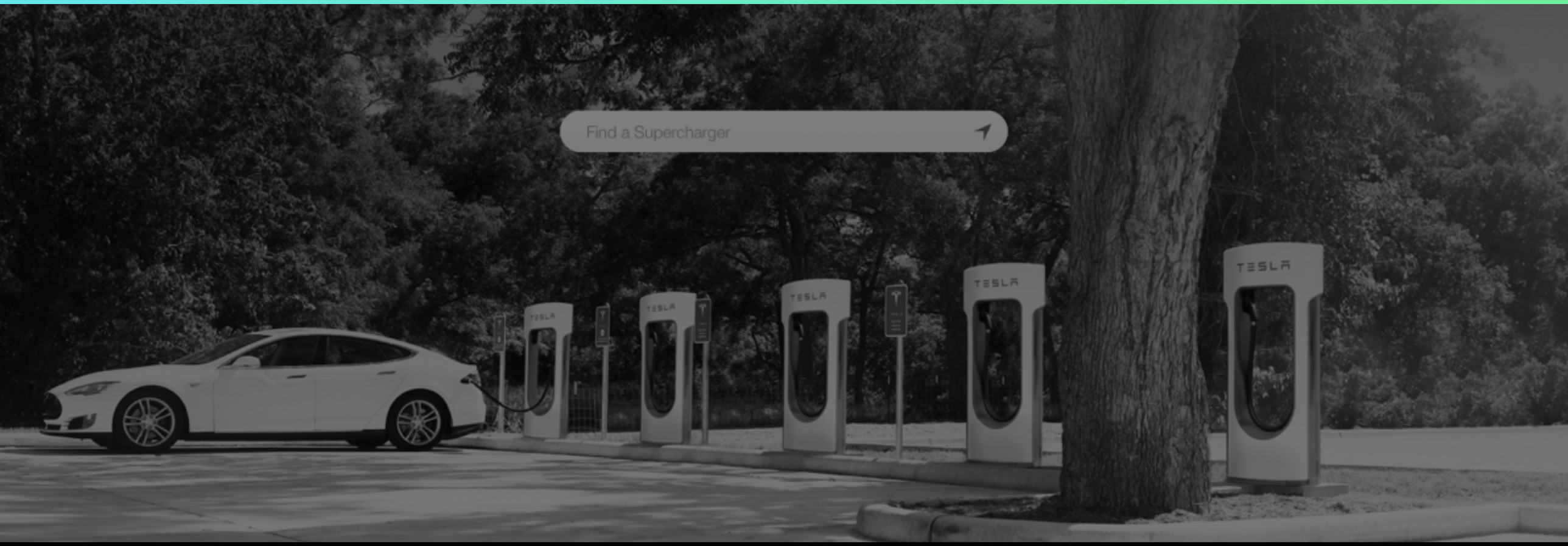
Of all options for renewable energy,
Musk points to solar as by far the most abundant.



Tesla Ecosystem:
Motors + Powerpack + Powerwall







Free super chargers

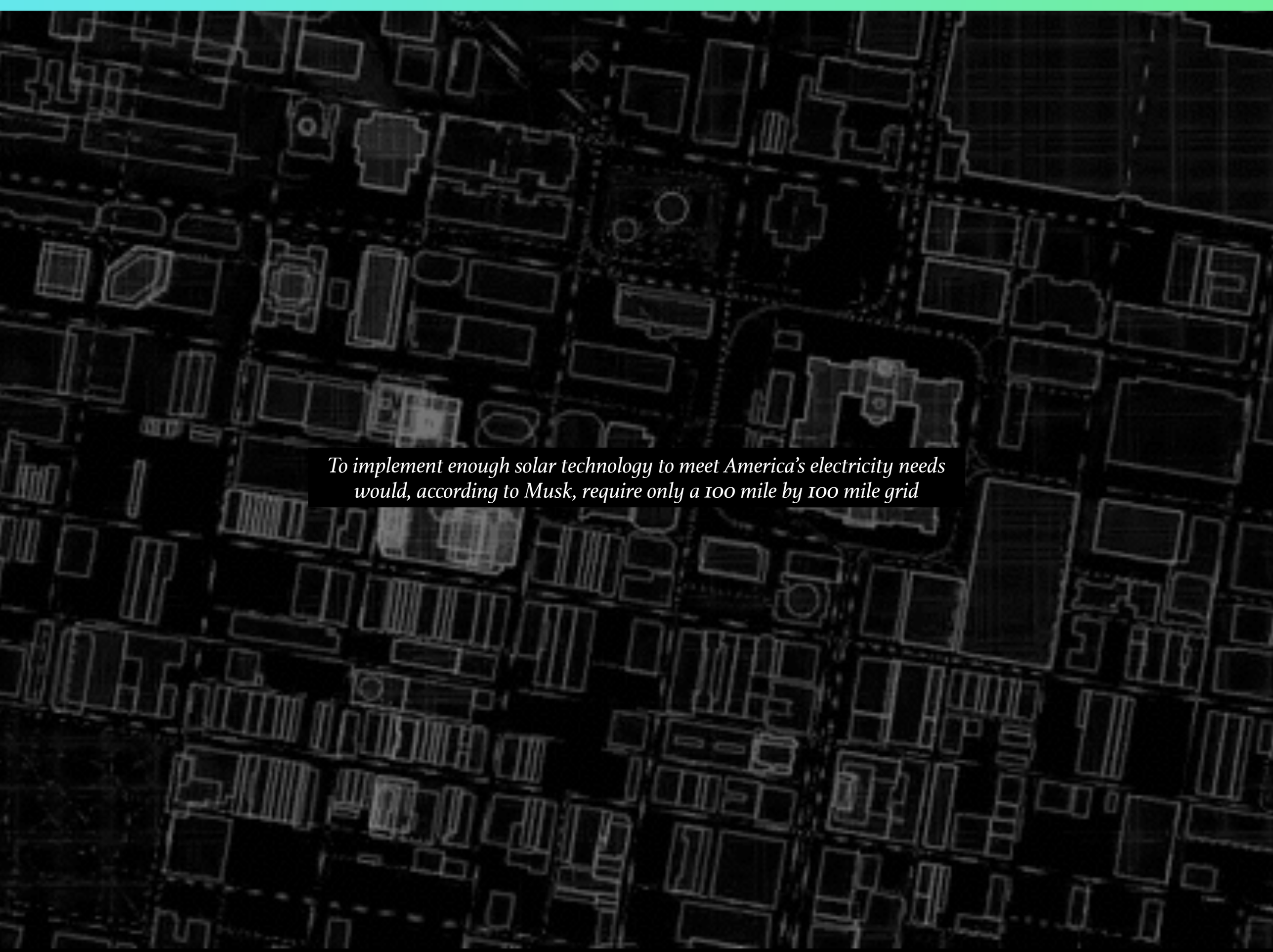


The World's Fastest Charging Station

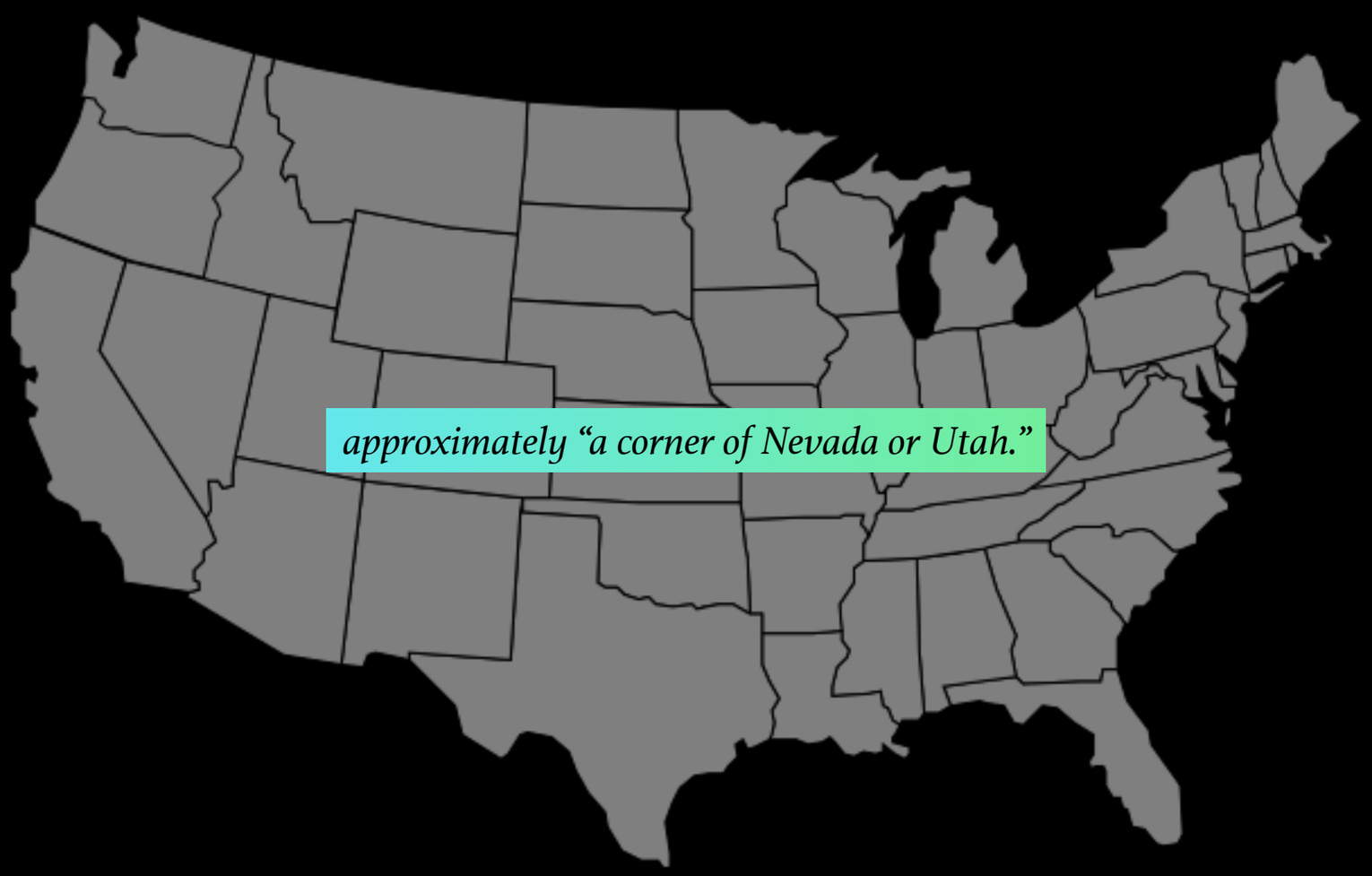
Superchargers are free connectors that charge Model S in minutes instead of hours. Stations are strategically placed to minimize stops during long distance travel and are conveniently located near restaurants, shopping centers, and WiFi hot spots. Each station contains multiple Superchargers to help you get back on the road quickly.



Tesla Model 3,:
pre-sales numbers in the US of the car already reached 276.000



To implement enough solar technology to meet America's electricity needs would, according to Musk, require only a 100 mile by 100 mile grid


approximately “a corner of Nevada or Utah.”

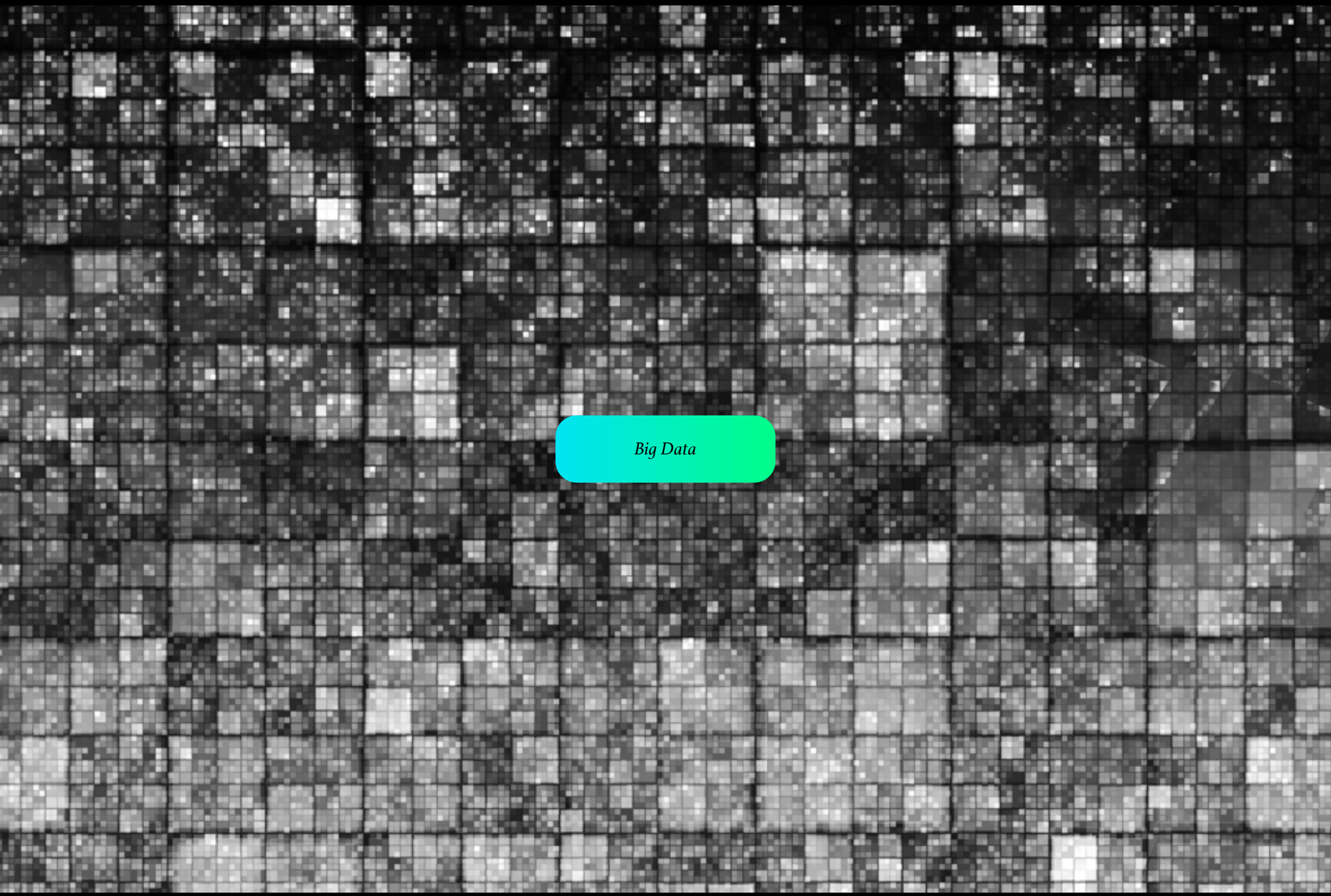


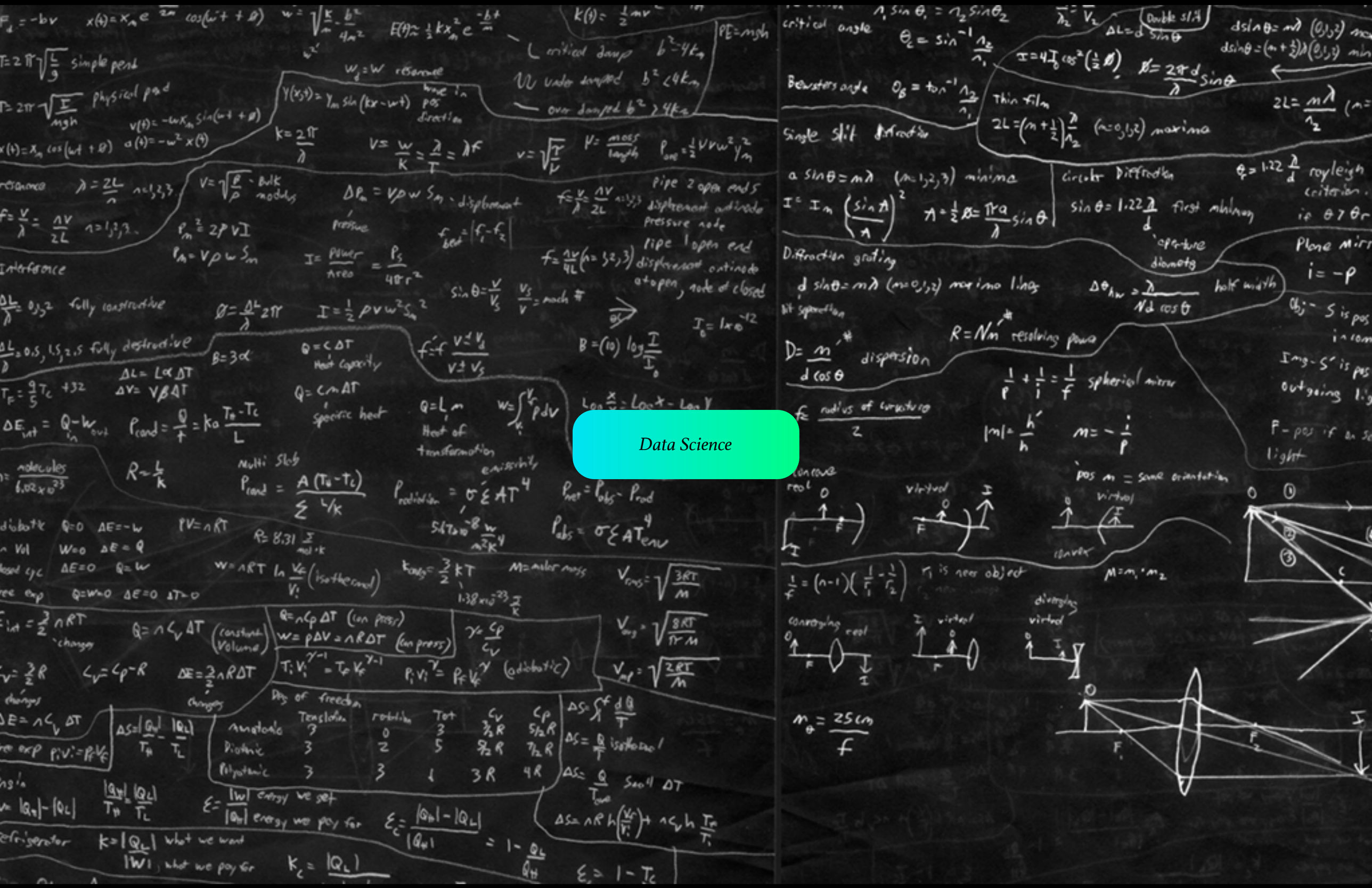
Solar Panels Covering Entire Spain Can Power the World,

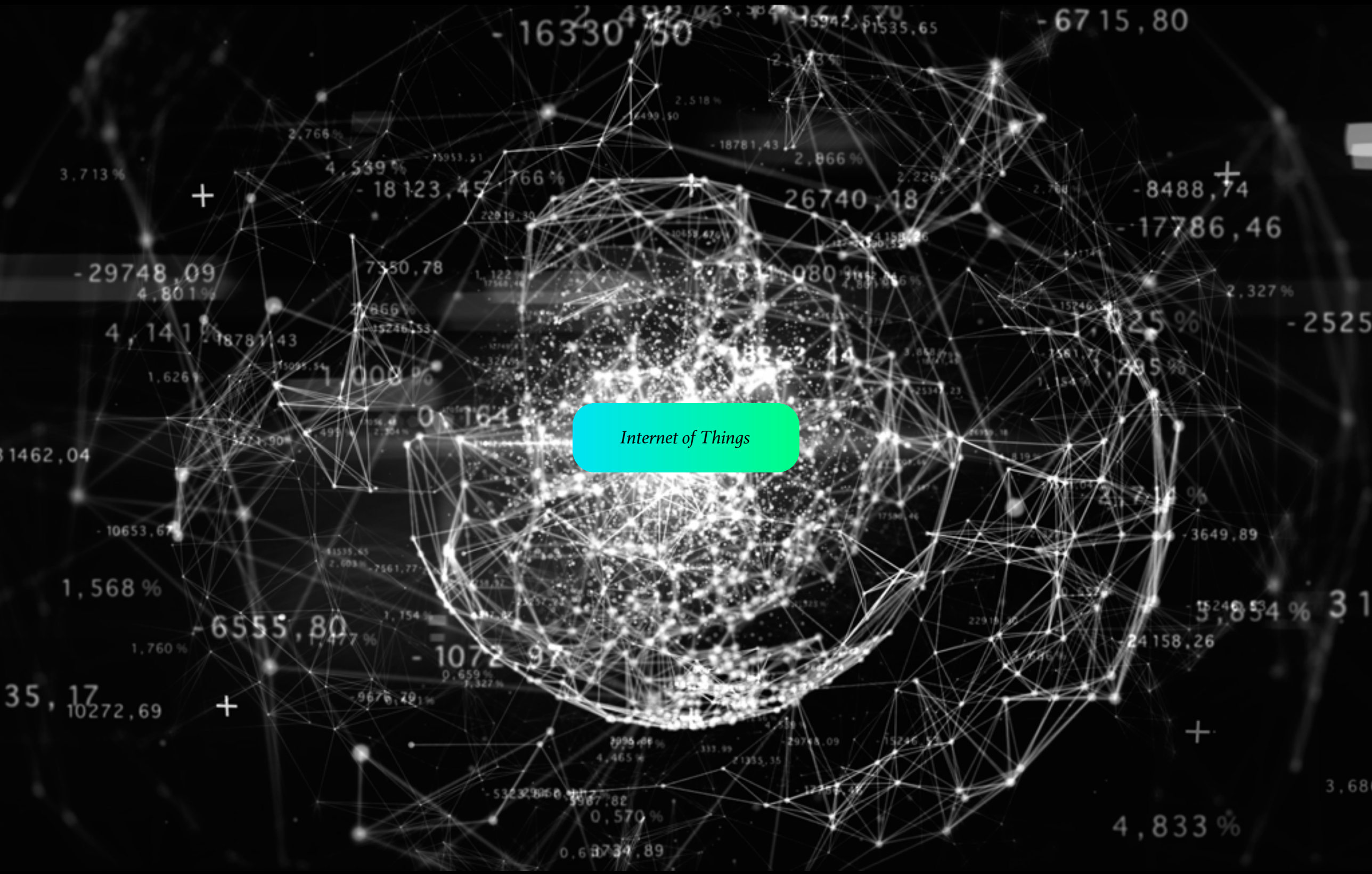

Tesla + SolarCity

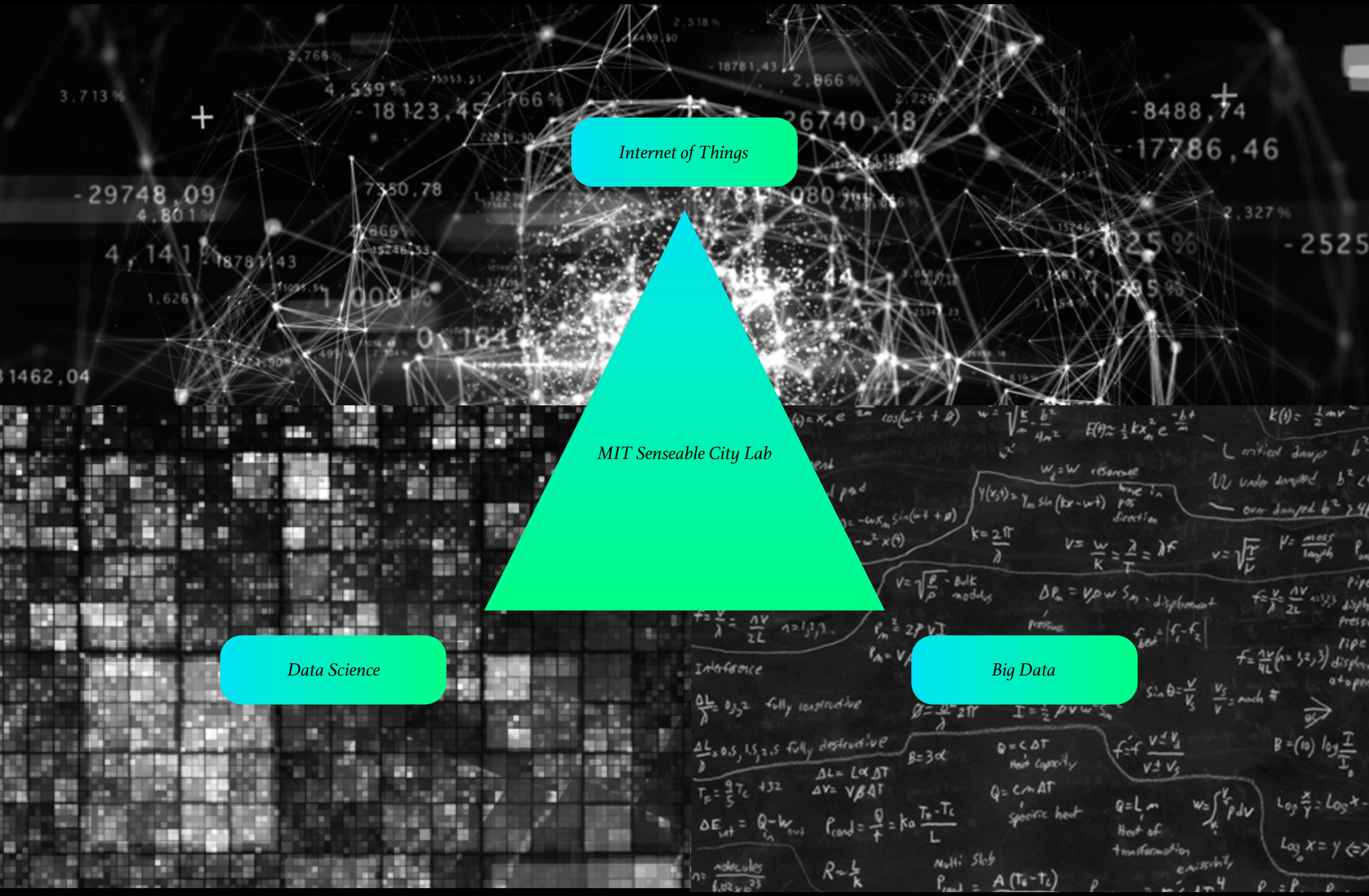
other sources of renewable energy:
wind, geothermal, biomass or hydroelectric power

15S


Big Data


Data Science


Internet of Things


Internet of Things
MIT Senseable City Lab
Data Science
Big Data

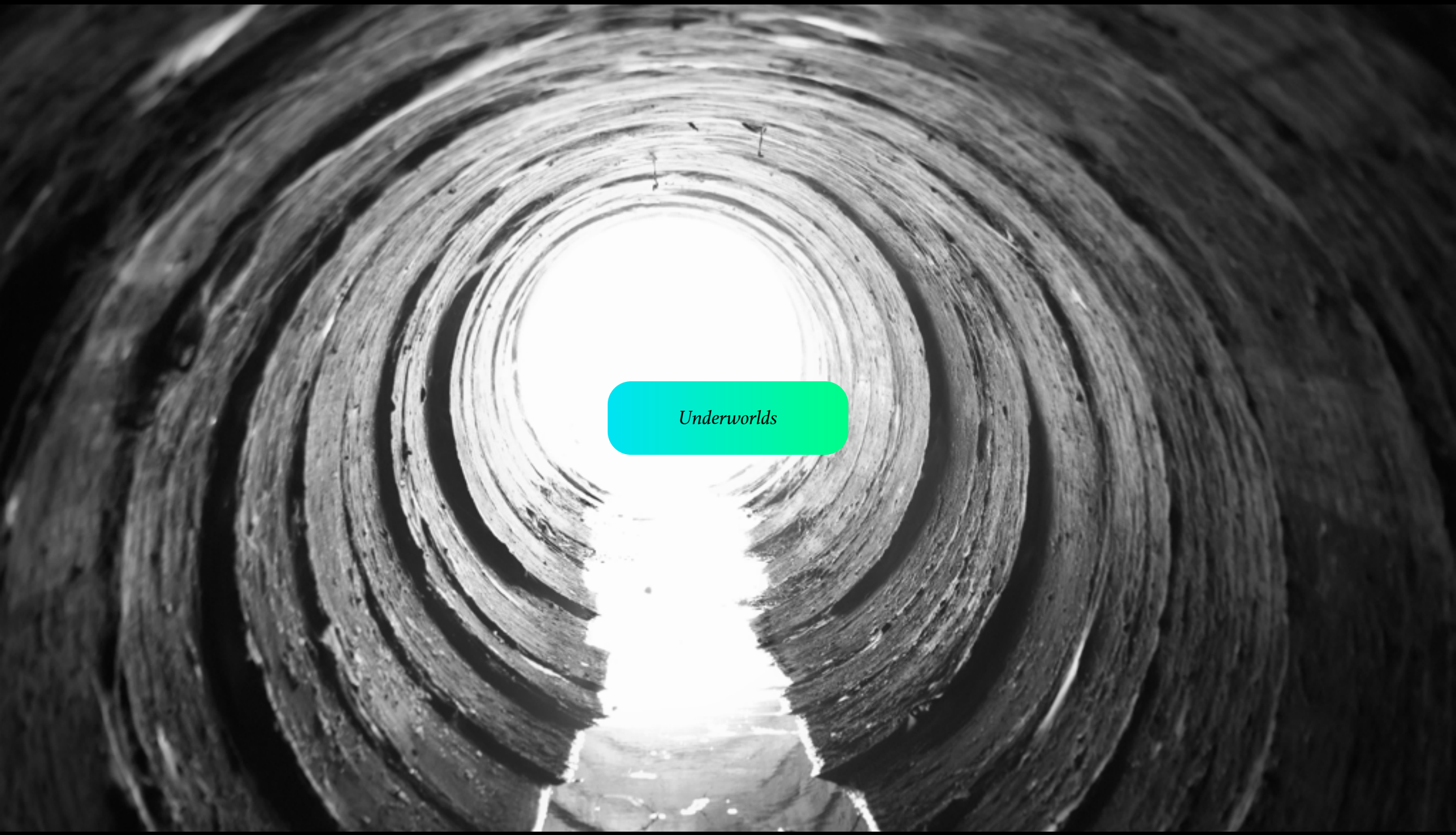


Trash Track

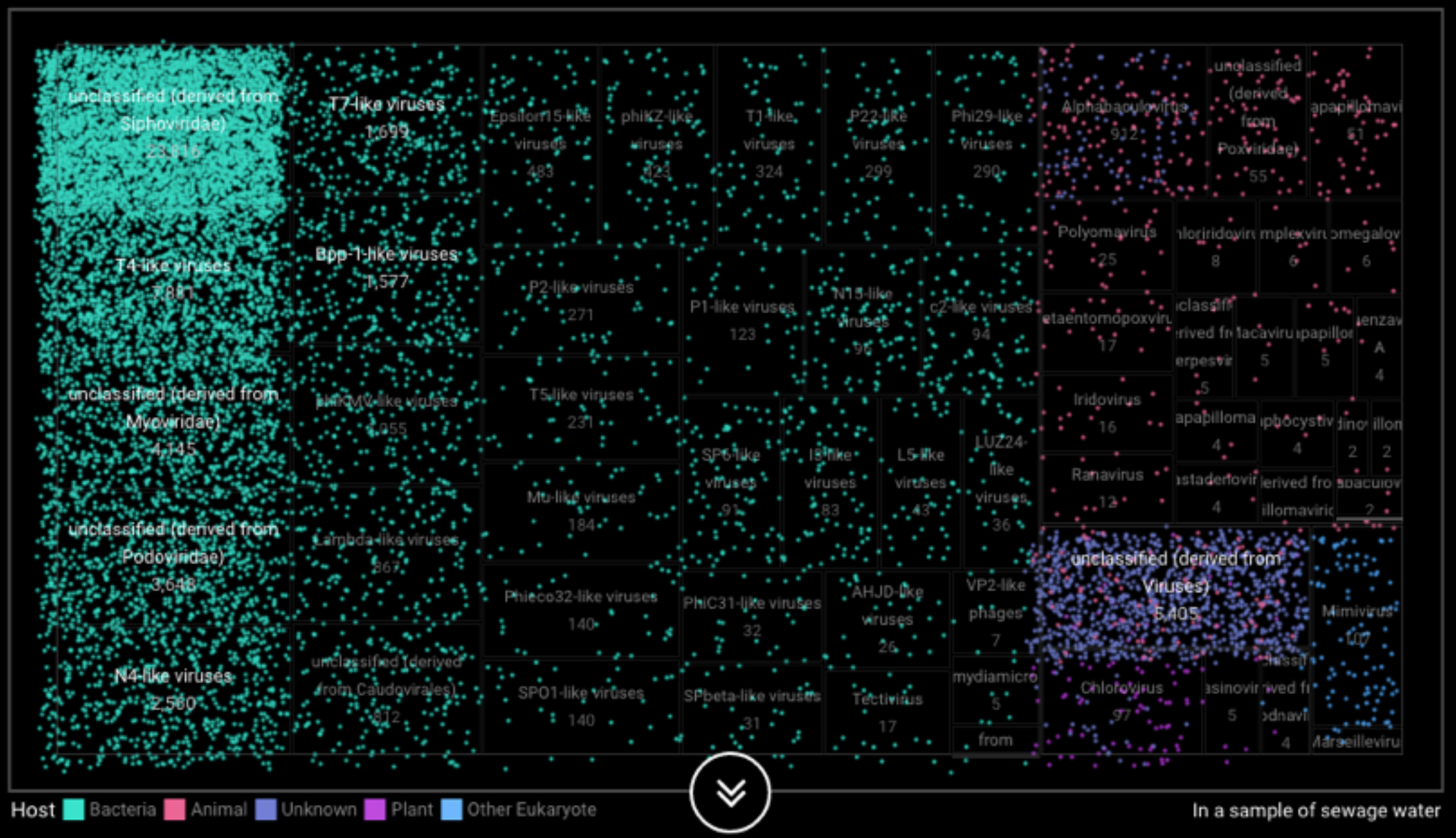

We invited 500 people in Seattle to tag their trash

The day of deployment




Underworlds


58,309 Viruses


unclassified (derived from Siphoviridae)
T7-like viruses
1,699
Epsilon15-like viruses
483
phiKZ-like viruses
T1-like viruses
324
P22-like viruses
299
Phi29-like viruses
290
Alphabaculovirus
912
unclassified (derived from Poxviridae)
55
T4-like viruses
Bpp-1-like viruses
1,577
P2-like viruses
271
P1-like viruses
123
N15-like viruses
c2-like viruses
94
Polyomavirus
25
unclassified (derived from Myoviridae)
4,145
T5-like viruses
231
Iridovirus
16
Mu-like viruses
184
SP6-like viruses
91
I3-like viruses
83
L5-like viruses
43
LUZ24-like viruses
36
Ranavirus
12
unclassified (derived from Podoviridae)
3,648
Lambda-like viruses
867
Phieco32-like viruses
140
PhiC31-like viruses
32
AHJD-like viruses
26
VP2-like phages
7
unclassified (derived from Viruses)
5,405
Mimivirus
107
N4-like viruses
2,580
unclassified (derived from Caudovirales)
812
SPO1-like viruses
140
SPbeta-like viruses
31
Tectivirus
17
mydiamicro
5
from
Chlorovirus
97
5
4
Host
Bacteria
Animal
Unknown
Plant
Other Eukaryote
In a sample of sewage water


Hub Cab
FLASHDANCERS
GENTLEMEN'S CLUB
52ND & BROADWAY
NYC TAXI
BUS
ONLY



hubcab

MIT senseable city lab

HubCab is an interactive visualization that invites you to explore the ways in which over 170 million taxi trips connect the City of New York in a given year. **Show me how it works.**

Taxi Pickup

Taxi Dropoff






Science Driven Government



Transparency: Information is Power

GRUPOS DE CINCO



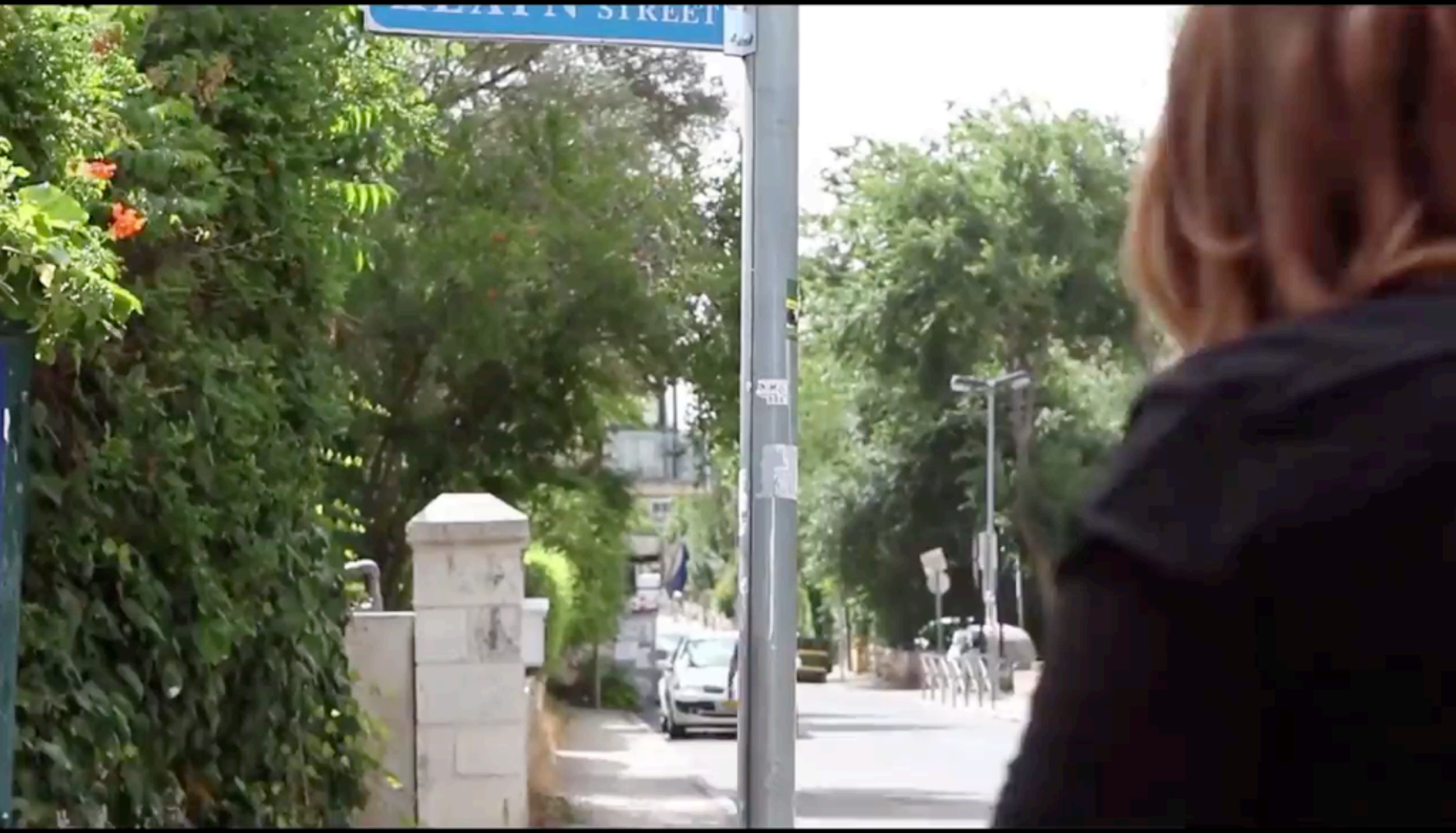
“TECHNOLOGY
IS NOT NEUTRAL.”

Gabi Guerra – Technologist


ORCAM


GREYHOUND
ALDO
Nocturnal.
CONAN
Why the city never sleeps?
all night.
JERSEY BOYS
BEST MUSICAL
2006 TONY AWARD WINNER
So Much Happened Before Dorothy Dropped In
WICKED
Tonight belongs to...
PHANTOM
Rock of Ages
TADS Steaks
sbarro
sbarro
sbarro
sbarro
sbarro
sbarro
GIFTS
GIFTS
CABARET
CABARET

Visually impaired


STREET


10
100



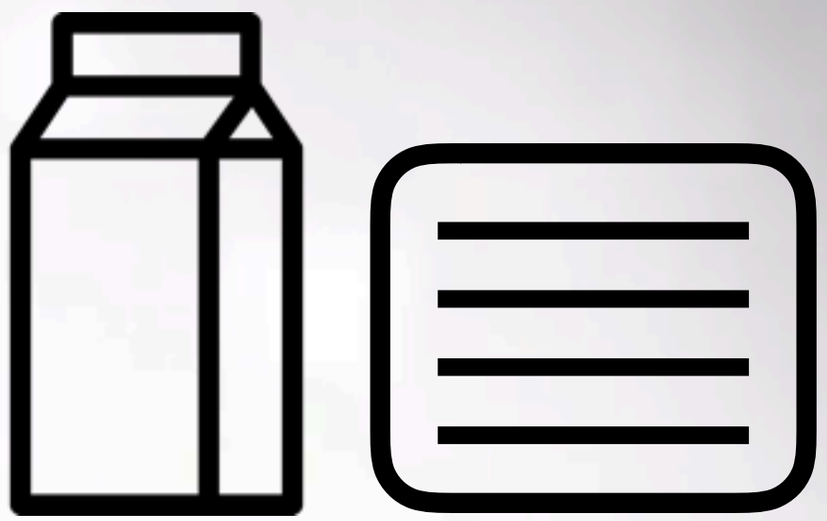



Rockets Into Israel but Do No Damage
At This Party, Every Name Is Bold


10
FEDERAL RESERVE NOTE
DB 88881380 A
B2
THE UNITED STATES OF AMERICA
TEN
DB 88881380 A
THIS NOTE IS LEGAL TENDER FOR ALL DEBTS, PUBLIC AND PRIVATE
Treasurer of the United States.
Secretary of the Treasury.
SERIES 2003
HAMILTON
TEN DOLLARS
100
FEDERAL RESERVE NOTE
CA 12345678 A
A1
THE UNITED STATES OF AMERICA
100
CA 12345678 A
THIS NOTE IS LEGAL TENDER FOR ALL DEBTS, PUBLIC AND PRIVATE
Treasurer of the United States.
Secretary of the Treasury.
SERIES 2001
FRANKLIN
ONE HUNDRED DOLLARS

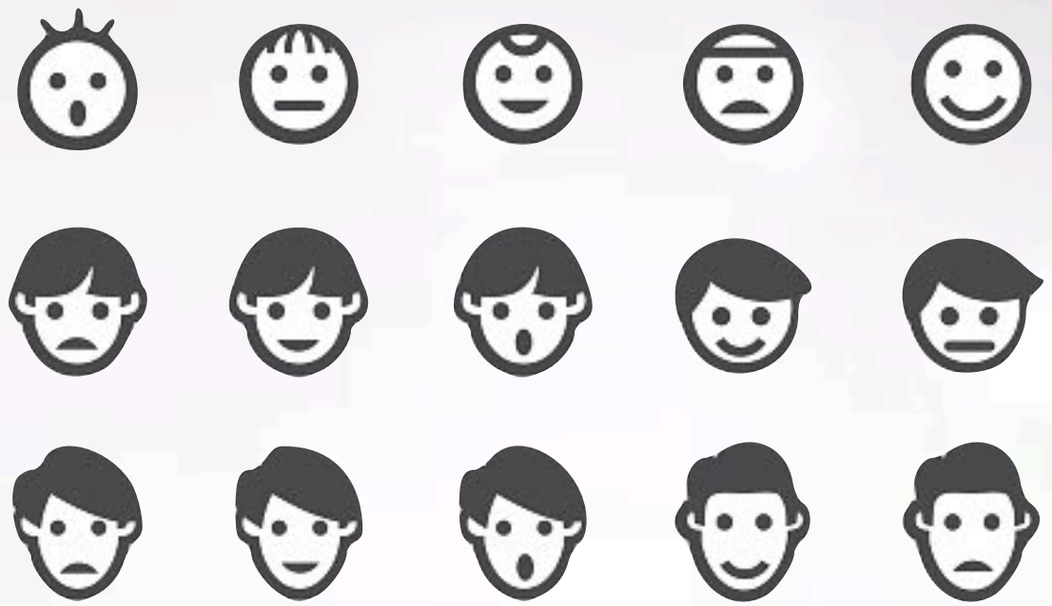



















An insurance
overview




ORCAM

15S

DeepMind

Google DeepMind

Go, Weiqi or Baduk

2,5k years



Fan Hui and Lee Sedol


AlphaGo

5x0 & 4x1

ATARI®

Deep Neural Networks

Reinforcement Learning



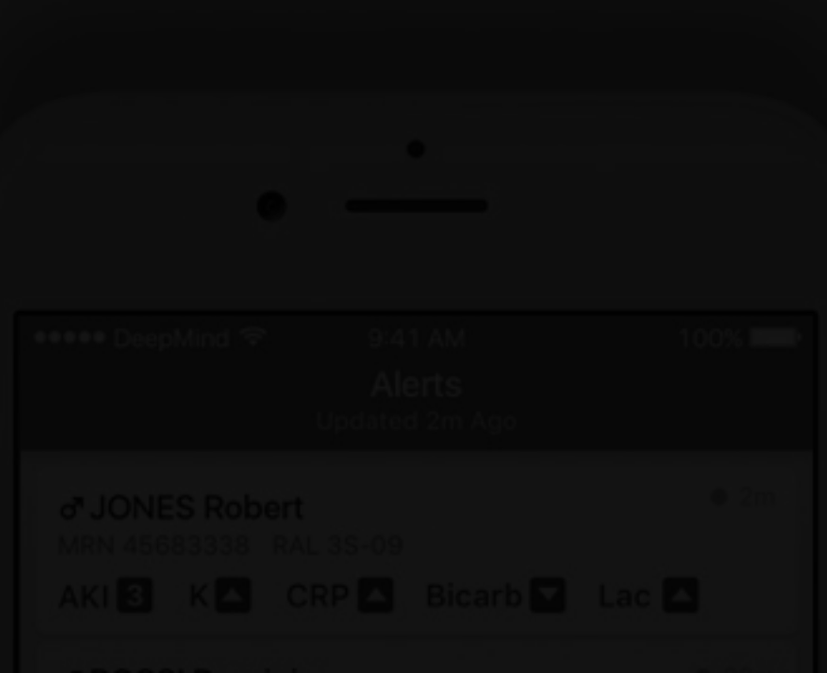
DQN

49 Atari games

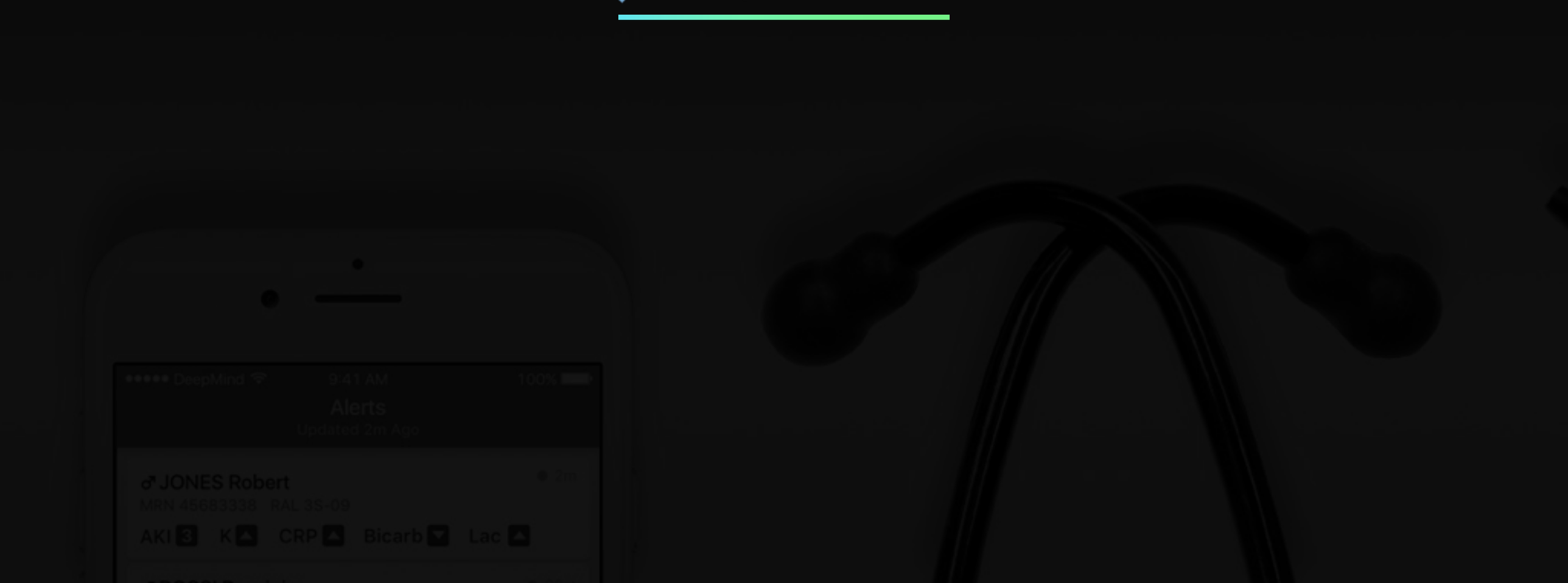
"It's the first time that anyone has built a single general learning system that can learn directly from experience..."

"The ultimate goal is to build general purpose smart machines,
that's many decades away."

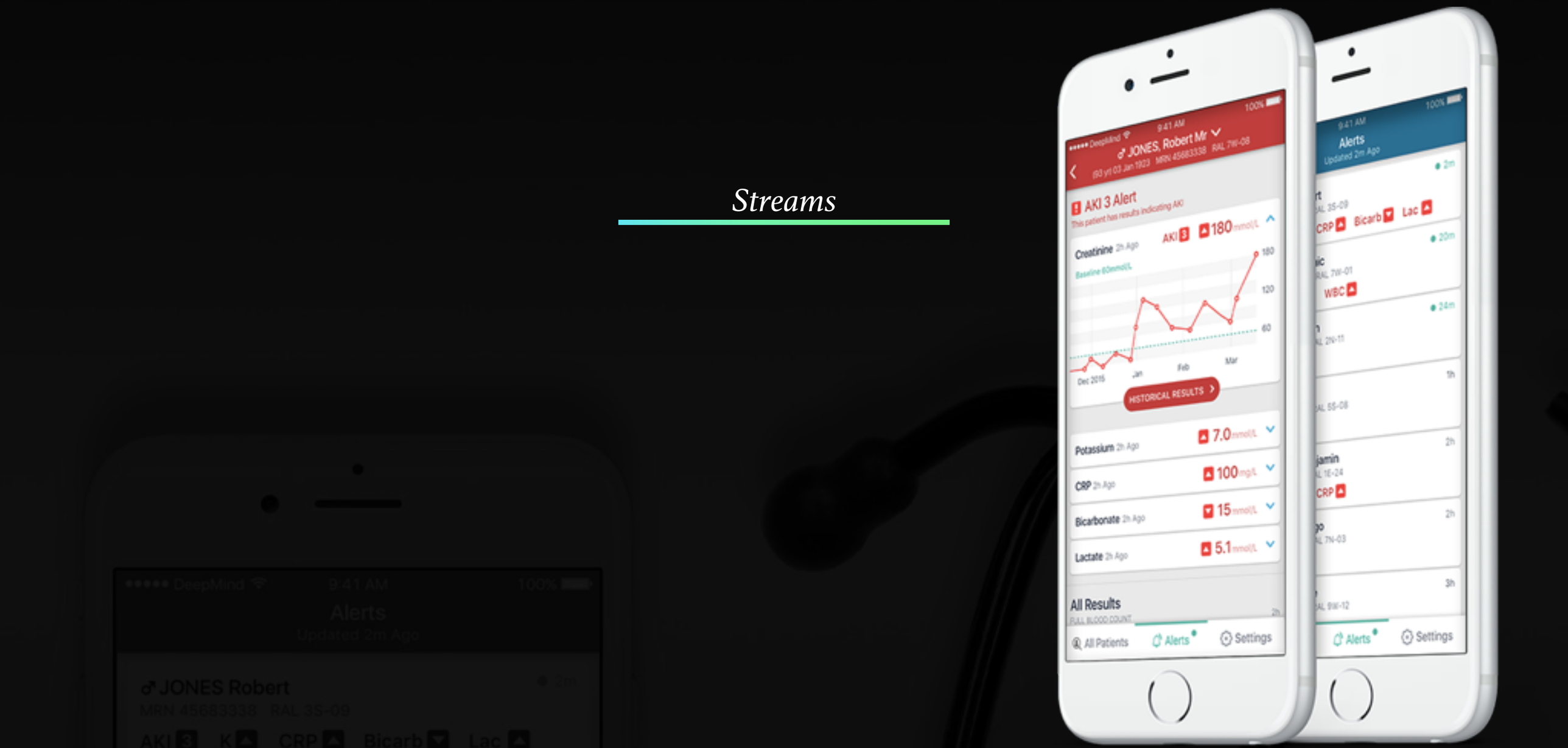
National Health Service



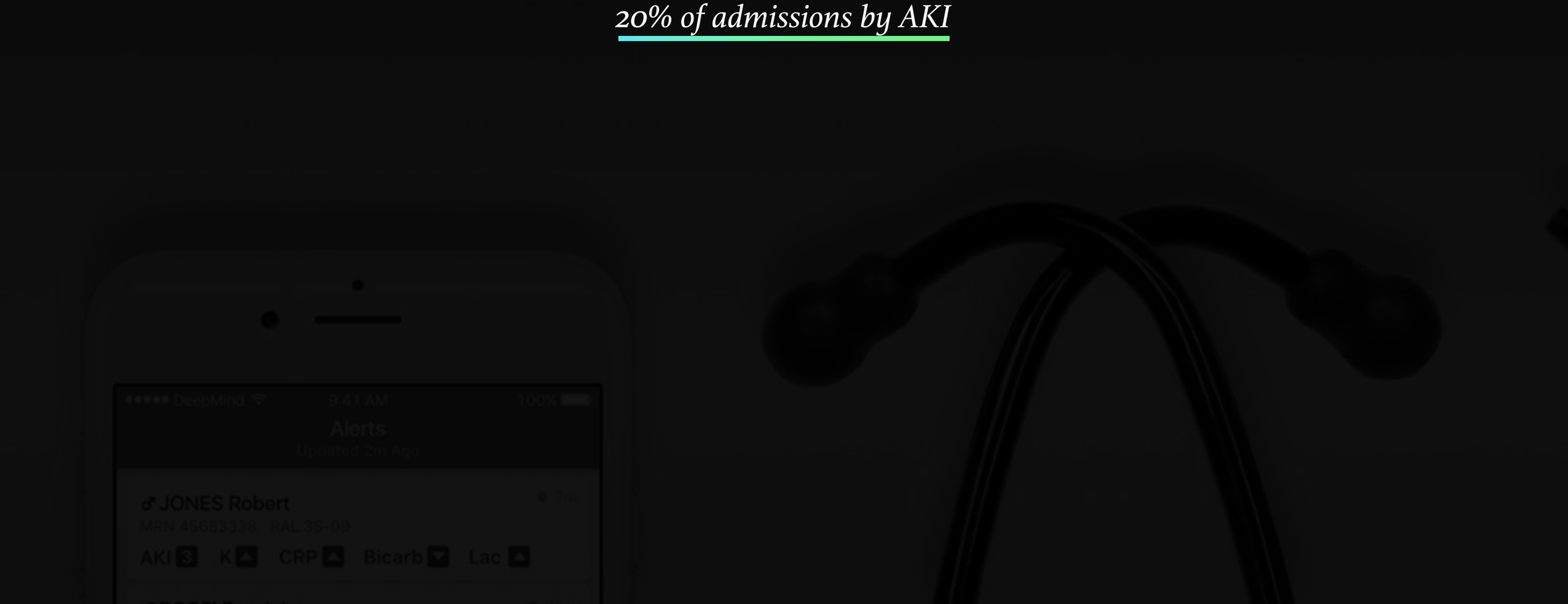
DeepMind Health



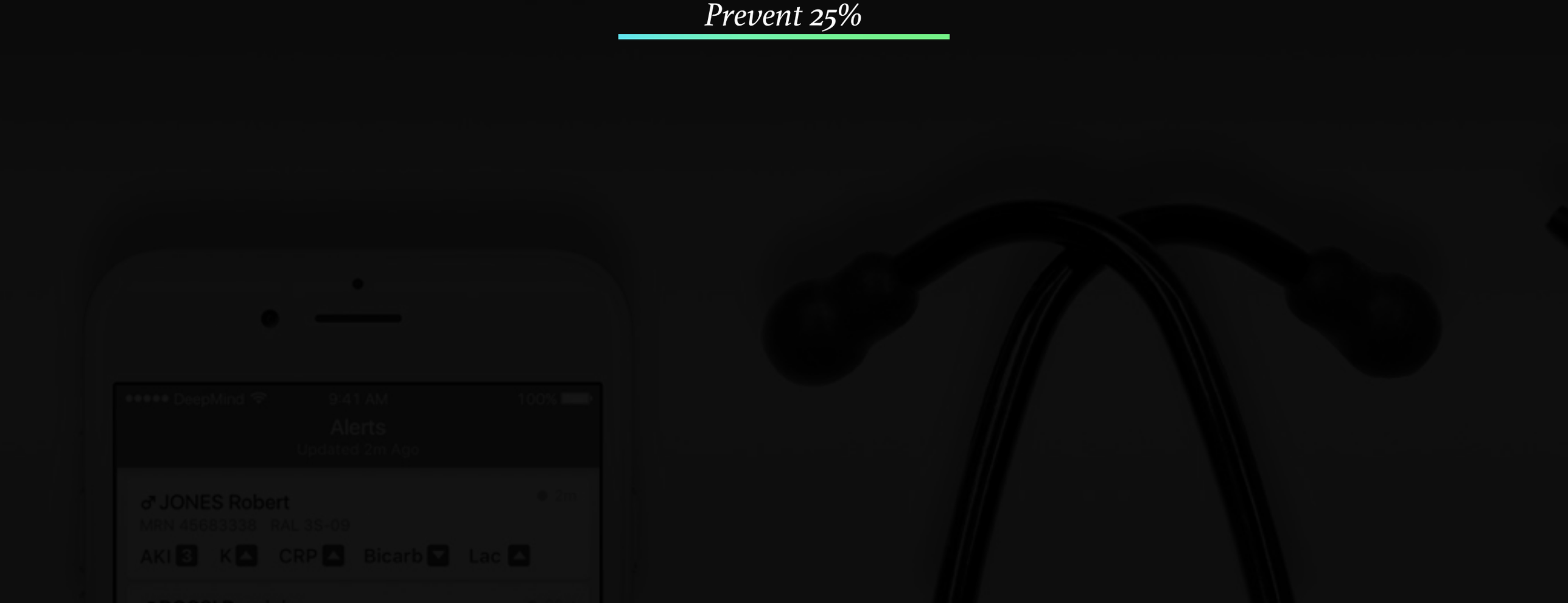
Streams


DeepMind
9:41 AM
100%
Alerts
Updated 2m Ago
JONES Robert
MRN 45683338 RAL 3S-09
AKI 3
K
CRP
Bicarb
Lac
JONES, Robert Mr
AKI 3 Alert
This patient has results indicating AKI
Creatinine 2h Ago
AKI 3
180 mmol/L
Baseline 60mmol/L
HISTORICAL RESULTS
Potassium 2h Ago
7.0 mmol/L
CRP 2h Ago
100 mg/L
Bicarbonate 2h Ago
15 mmol/L
Lactate 2h Ago
5.1 mmol/L
All Results
FULL BLOOD COUNT
All Patients
Alerts
Settings

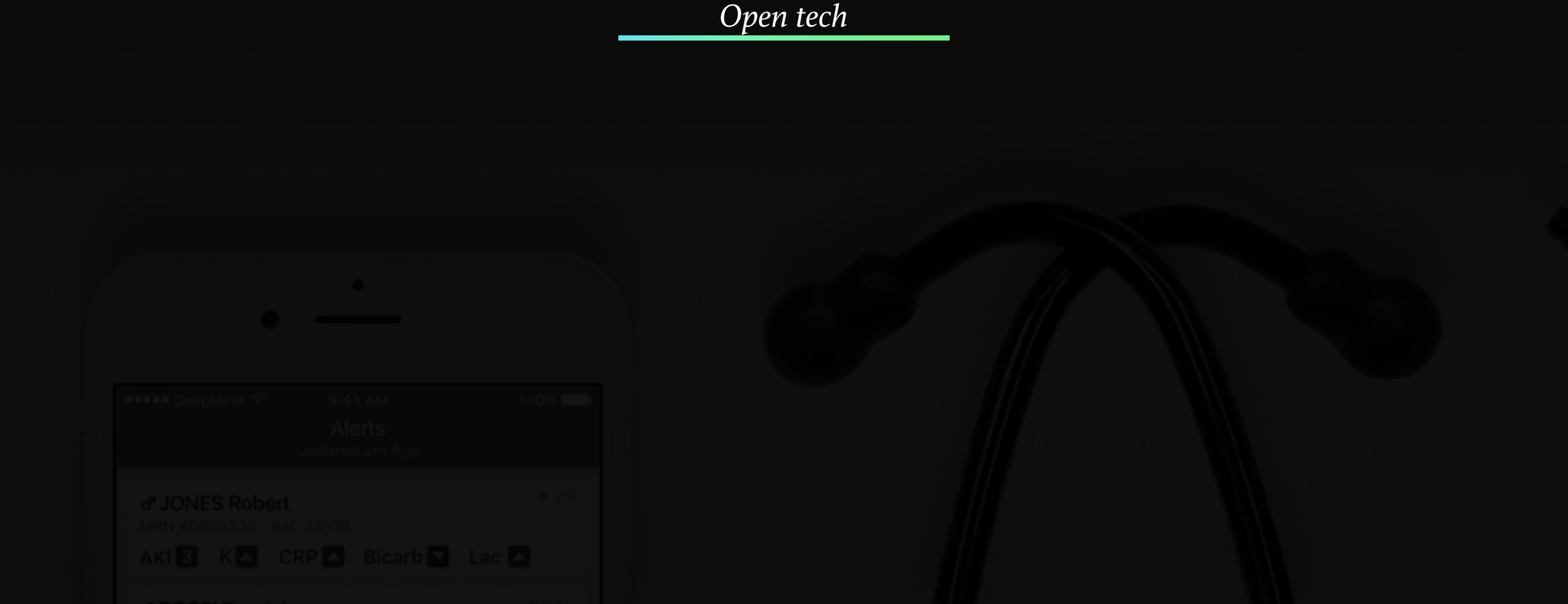
20% of admissions by AKI



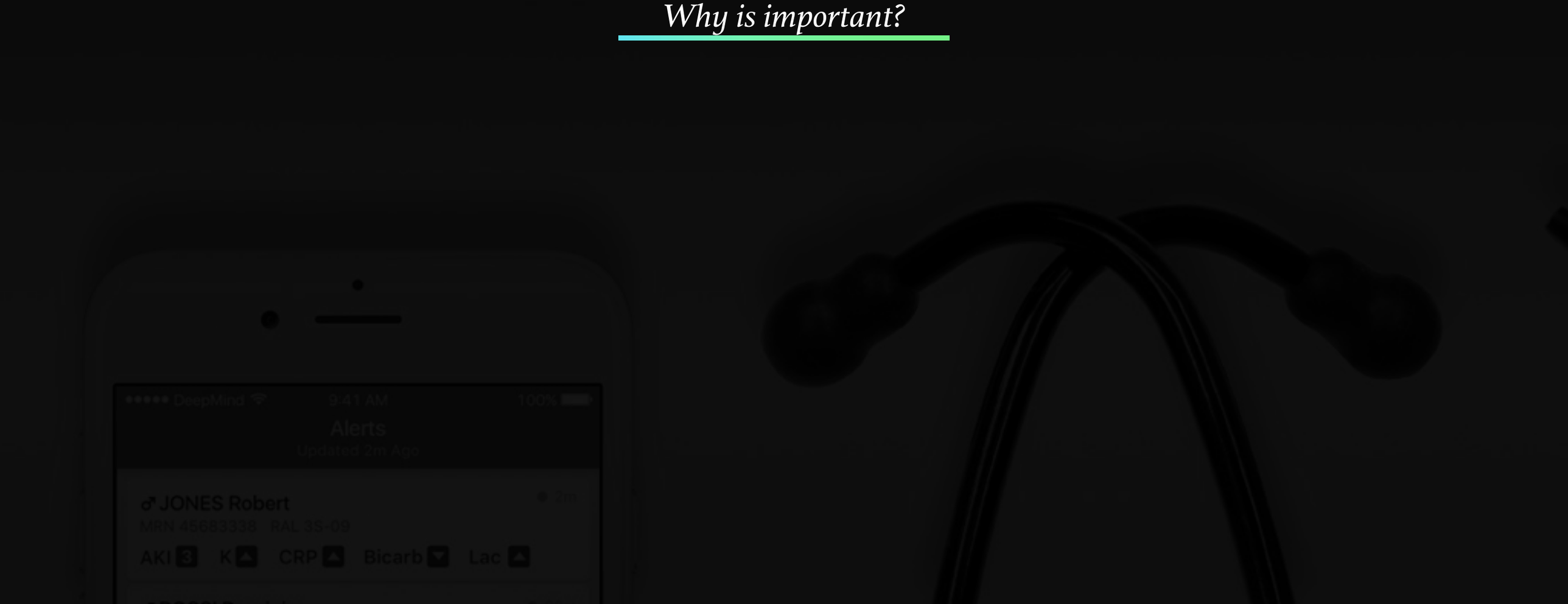
Prevent 25%


DeepMind
9:41 AM
100%
Alerts
Updated 2m Ago
♂ JONES Robert
2m
MRN 45683338 · RAL 3S-09
AKI 3
K
CRP
Bicarb
Lac

Open tech


DeepMind
9:41 AM
100%
Alerts
Updated 2m Ago
♂ JONES Robert
2m
MRN 45683338 · RAL 3S-09
AKI 3
K
CRP
Bicarb
Lac

Why is important?

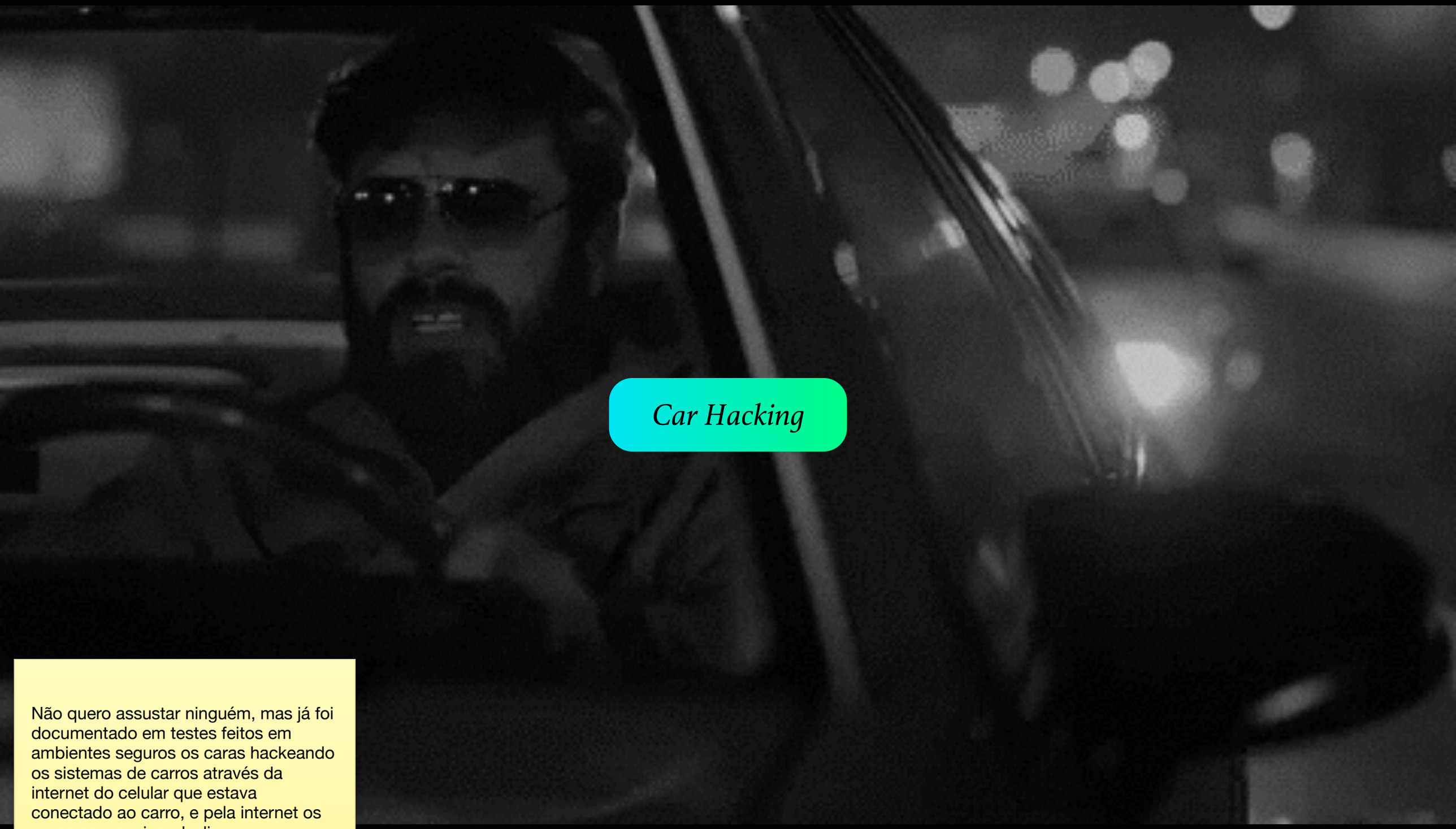


15S

Taking hacks to the next level

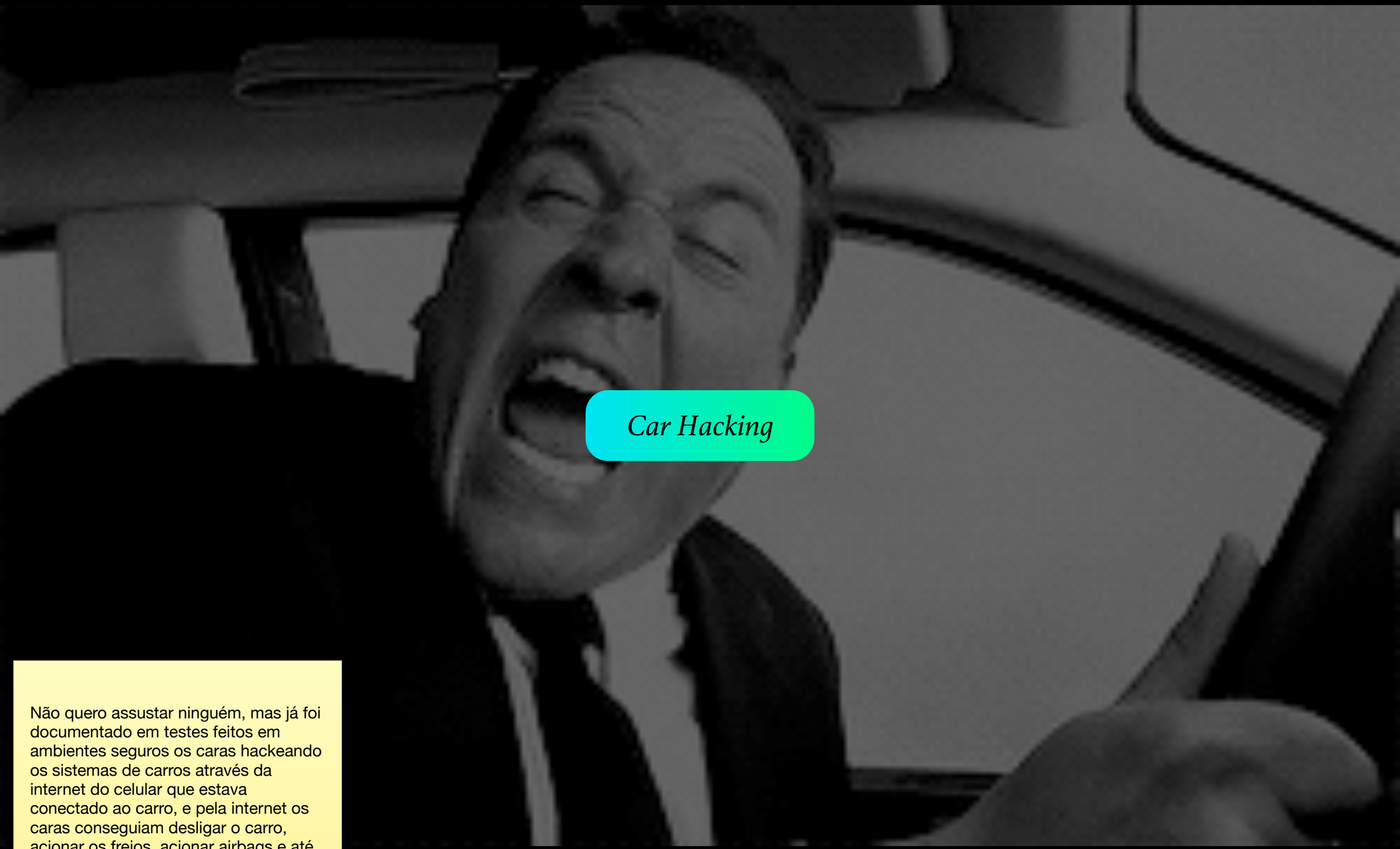
Computer Hacking

Acho que todo mundo aqui deve ter uma noção que é mais simples do que parece hackear computadores e redes através da internet. As vezes através de um vírus em um download ou até mesmo só estando conectado na mesma rede wifi.



Car Hacking

Não quero assustar ninguém, mas já foi documentado em testes feitos em ambientes seguros os caras hackeando os sistemas de carros através da internet do celular que estava conectado ao carro, e pela internet os caras conseguiam desligar o carro, acionar os freios, acionar airbags e até mesmo mover a coluna da direção.



Car Hacking

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Safety-critical systems

Existem outras redes onde a segurança é um fator crítico, como redes governamentais, militares, financeiras, controle industrial, usinas nucleares, etc. Uma das formas de proteger (ou tentar proteger) essas redes é isolando elas de outras redes.



O nome desse tipo de isolamento é Air Gap que consiste no isolamento físico de determinada rede, para que não haja nenhum tipo de comunicação com redes externas inseguras, como a internet, por exemplo. Então a gente pode ficar tranquilo se a rede estiver isolada, certo? Mais ou menos.

DAY AFTER TOMORROW

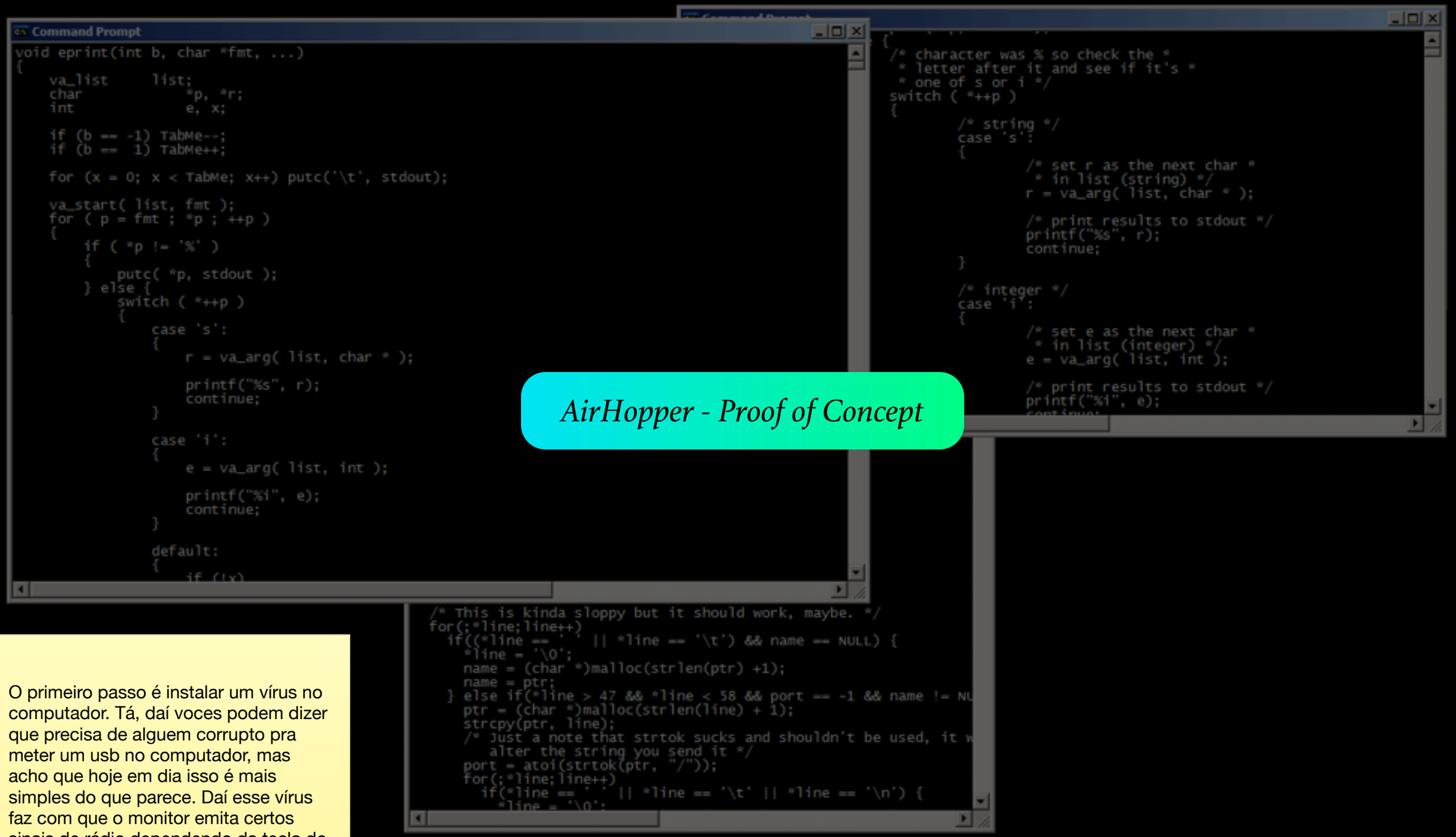
TIP 2015

por tiago mattos

Não sei se todos aqui viram os posts que o Tiago fez quando foi no TIP em Israel, no ano passado. Mas, em um deles ele mencionou uma parada que eu fiquei muito intrigado: os caras encontraram uma forma de hackear redes que tinham Air Gap. E eles foram bem criativos.

AirHopper (2014)

Em 2014 os caras da Cyber Security Labs, da Universidade de Ben Gurion em Israel desenvolveram uma técnica de obter dados de um computador de uma rede com air gap usando sinais de radio e um celular (que nao estava conectado em nada, nem wifi, nem bluetooth, nem rede de telefonia).

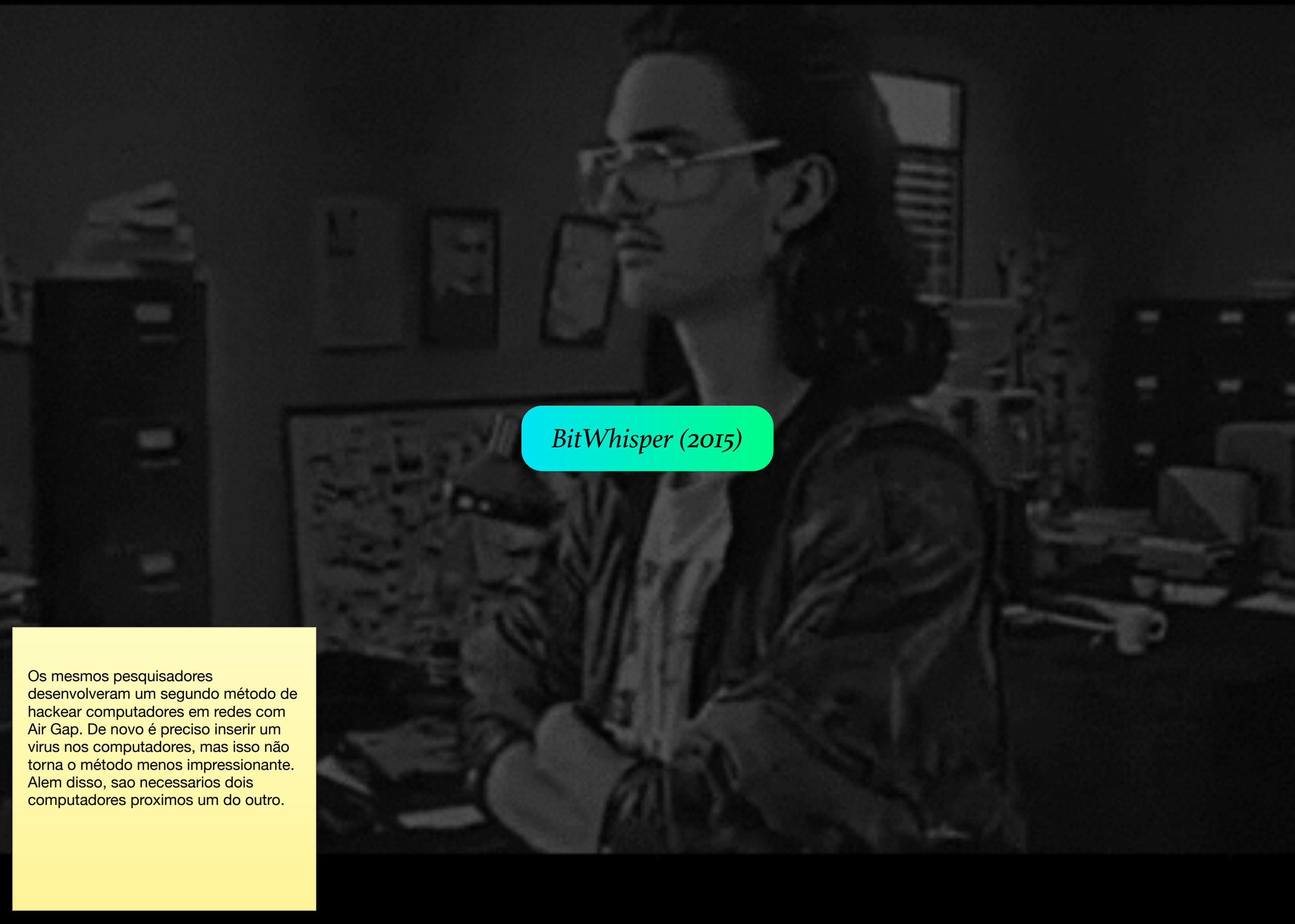


AirHopper - Proof of Concept

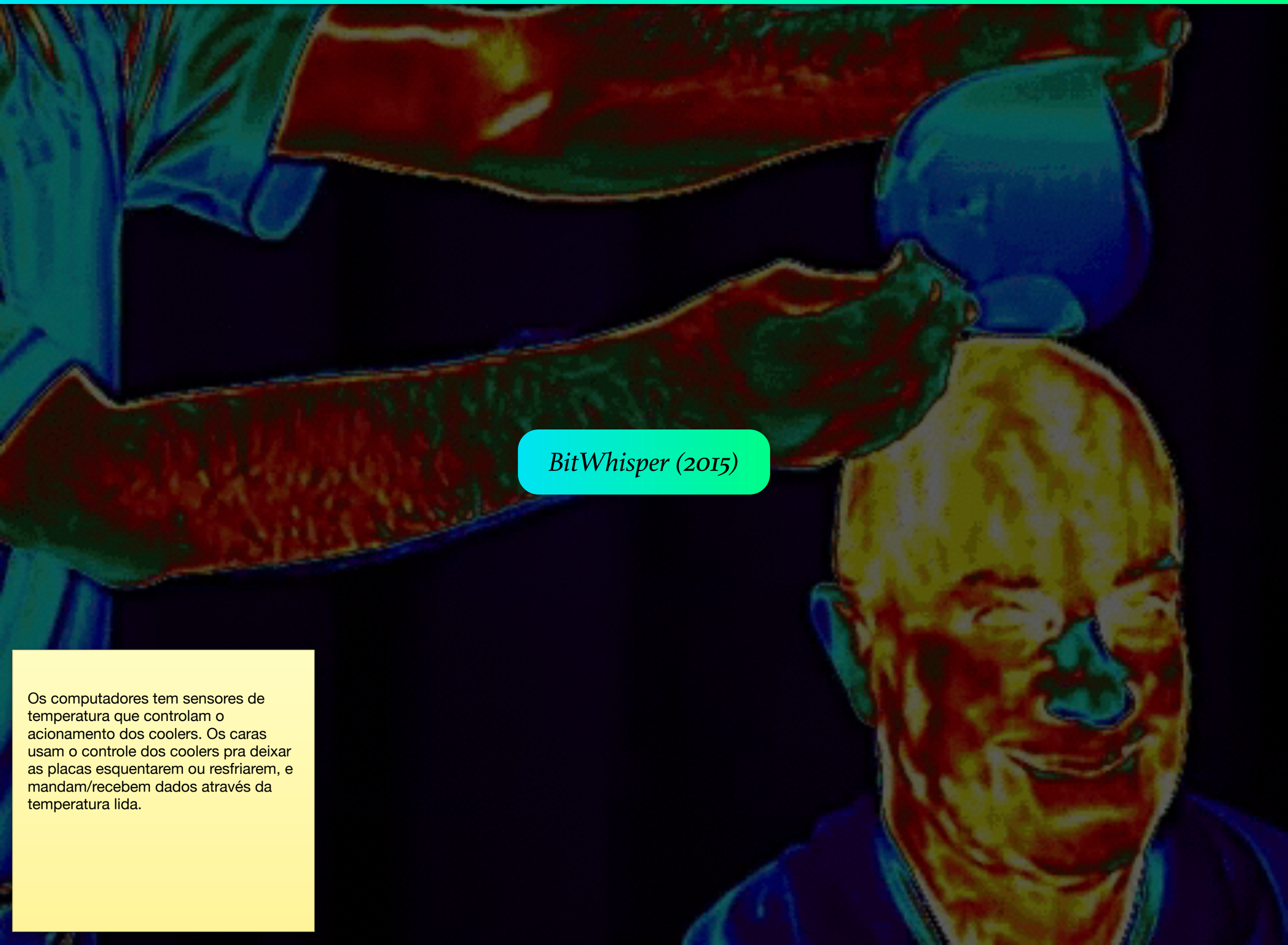
O primeiro passo é instalar um vírus no computador. Tá, daí voces podem dizer que precisa de alguem corrupto pra meter um usb no computador, mas acho que hoje em dia isso é mais simples do que parece. Daí esse vírus faz com que o monitor emita certos sinais de rádio dependendo da tecla do teclado que for pressionada, e esses sinais sao captados pelo celular.



Eu cortei o vídeo, mas no inicio eles mostram que nao tem nenhum conexão com nenhum tipo de rede. Tem algumas limitaçãos, tipo: o celular precisa estar a no maximo 7m do pc e ele capta no maximo 60 bps



Os mesmos pesquisadores desenvolveram um segundo método de hackear computadores em redes com Air Gap. De novo é preciso inserir um virus nos computadores, mas isso não torna o método menos impressionante. Alem disso, sao necessarios dois computadores proximos um do outro.



BitWhisper (2015)

Os computadores tem sensores de temperatura que controlam o acionamento dos coolers. Os caras usam o controle dos coolers pra deixar as placas esquentarem ou resfriarem, e mandam/recebem dados através da temperatura lida.

BitWhisper - Proof of Concept

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Em 5 minutos o computador da esquerda mandou o sinal para reposicionar o lança misseis. Depois de mais uns 7 minutos, o computador consegue mandar o comando de lançar os misseis.



Ben-Gurion University of the Negev

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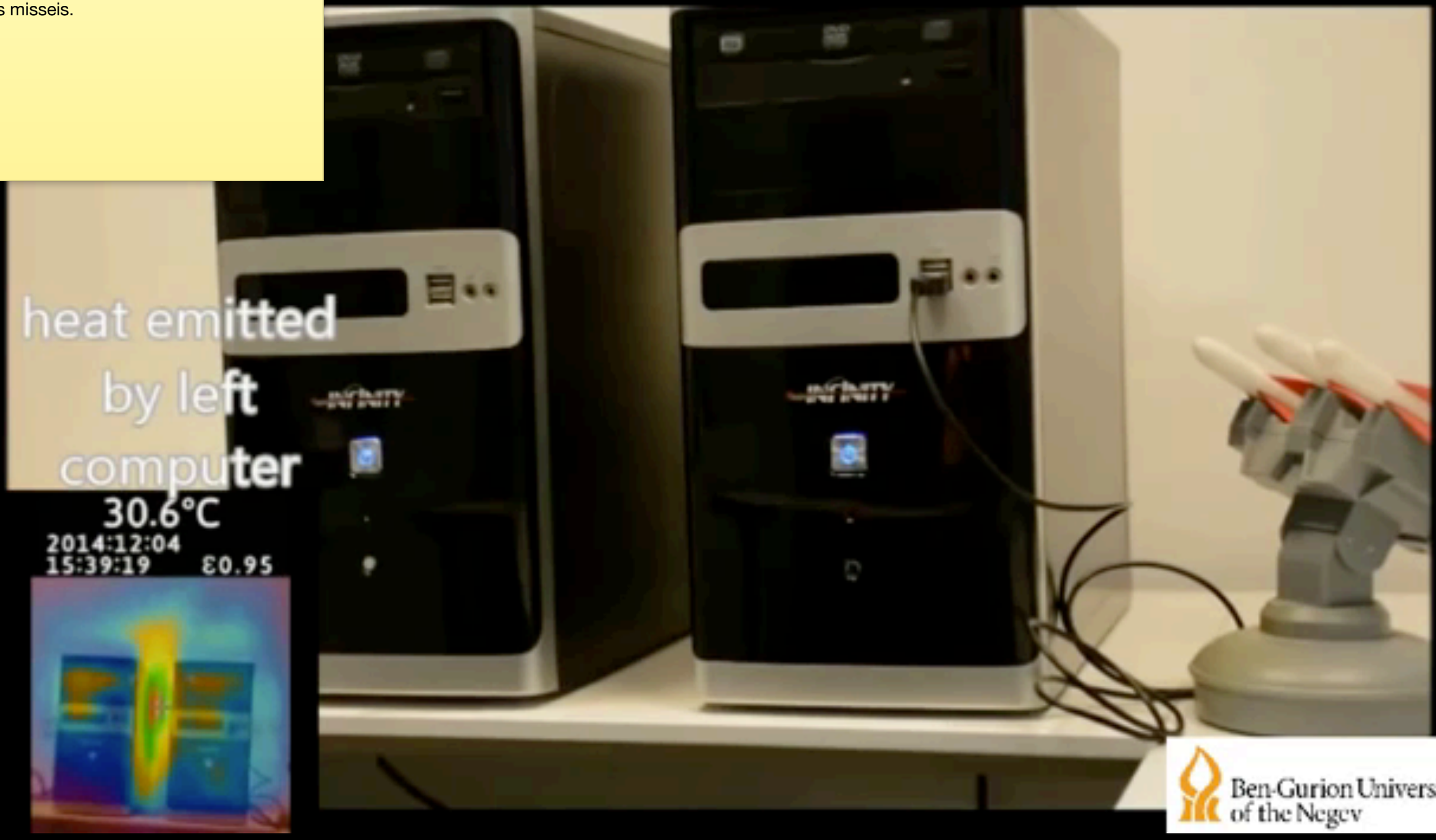
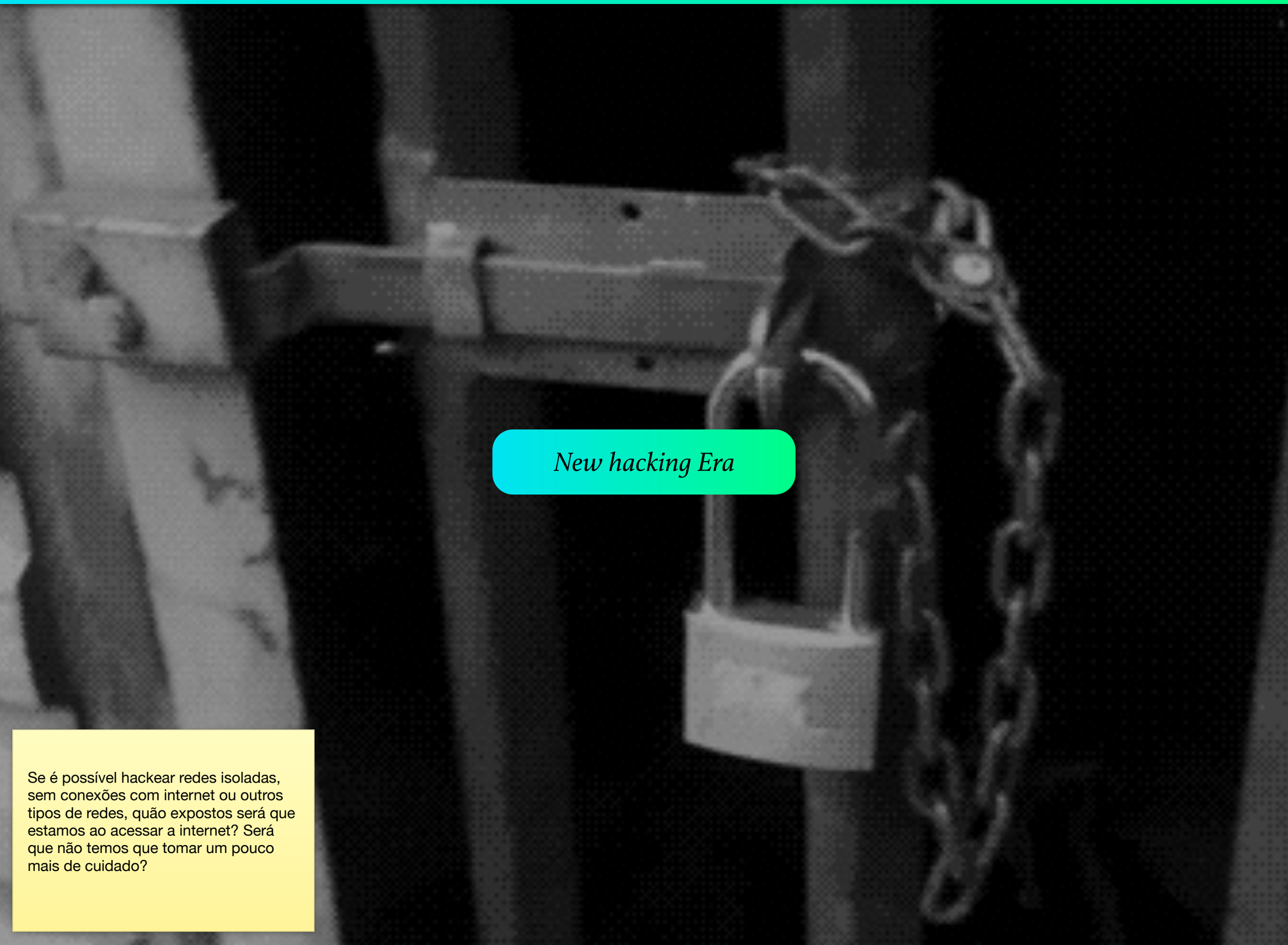
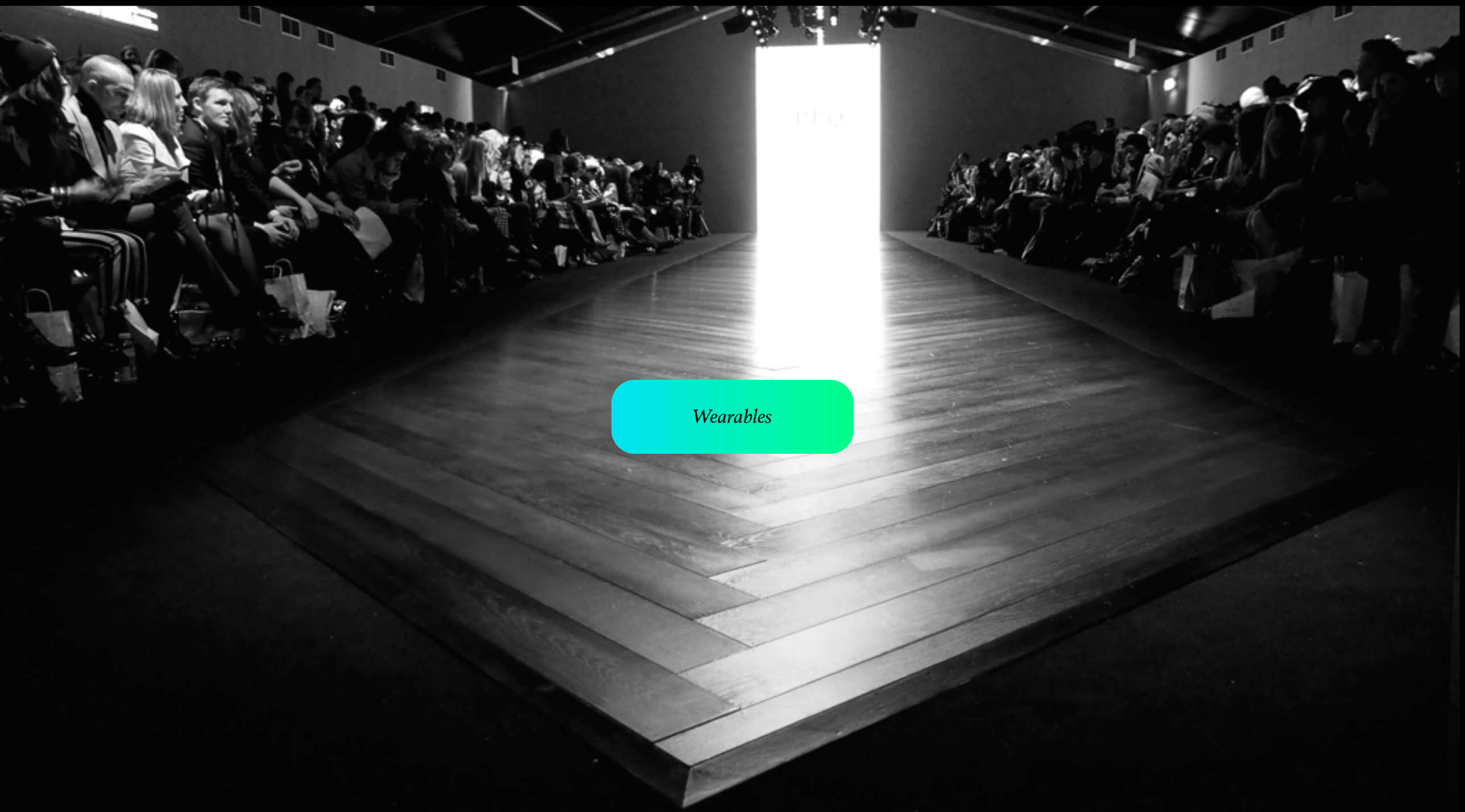




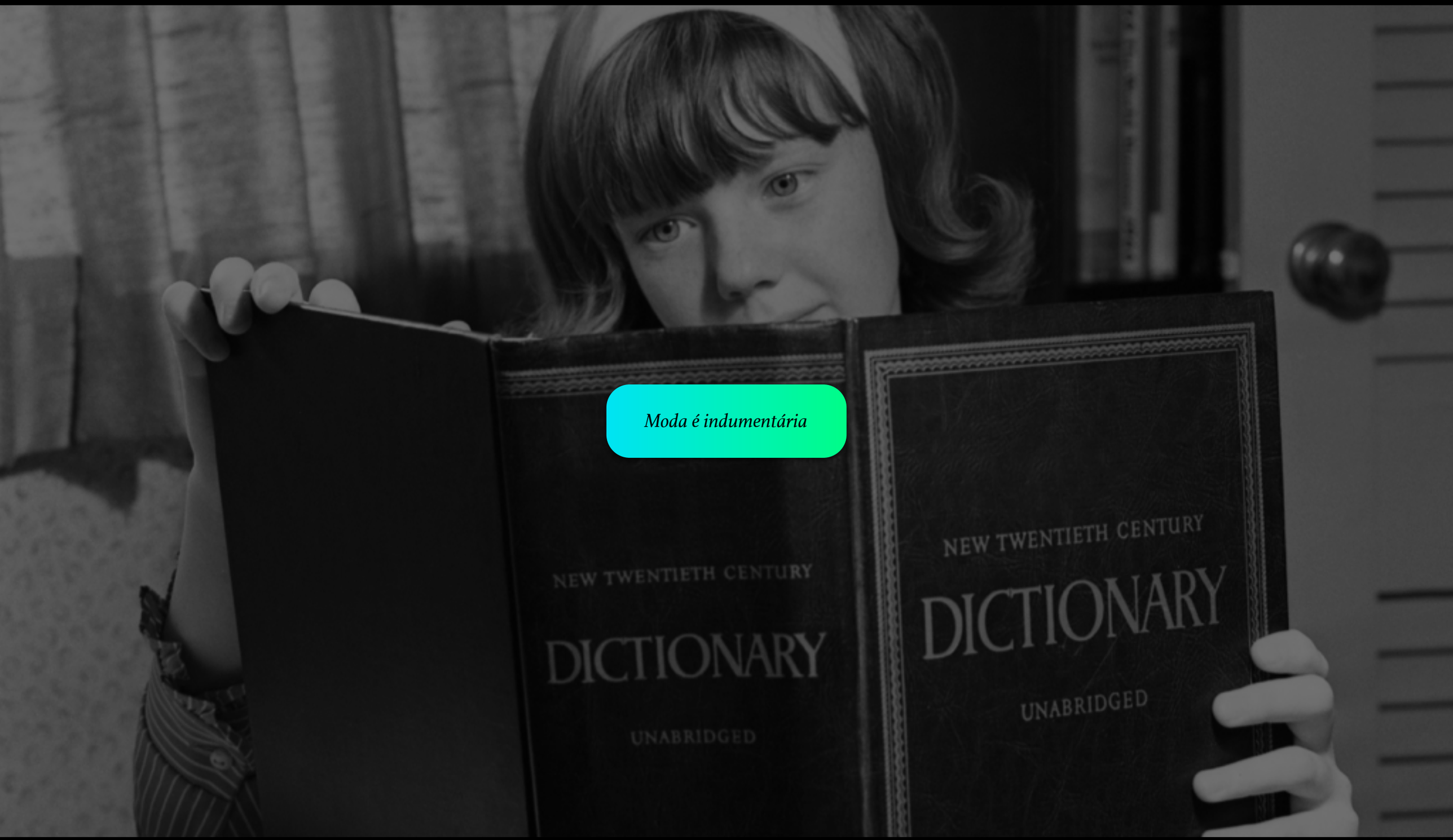
New hacking Era

Se é possível hackear redes isoladas, sem conexões com internet ou outros tipos de redes, quão expostos será que estamos ao acessar a internet? Será que não temos que tomar um pouco mais de cuidado?

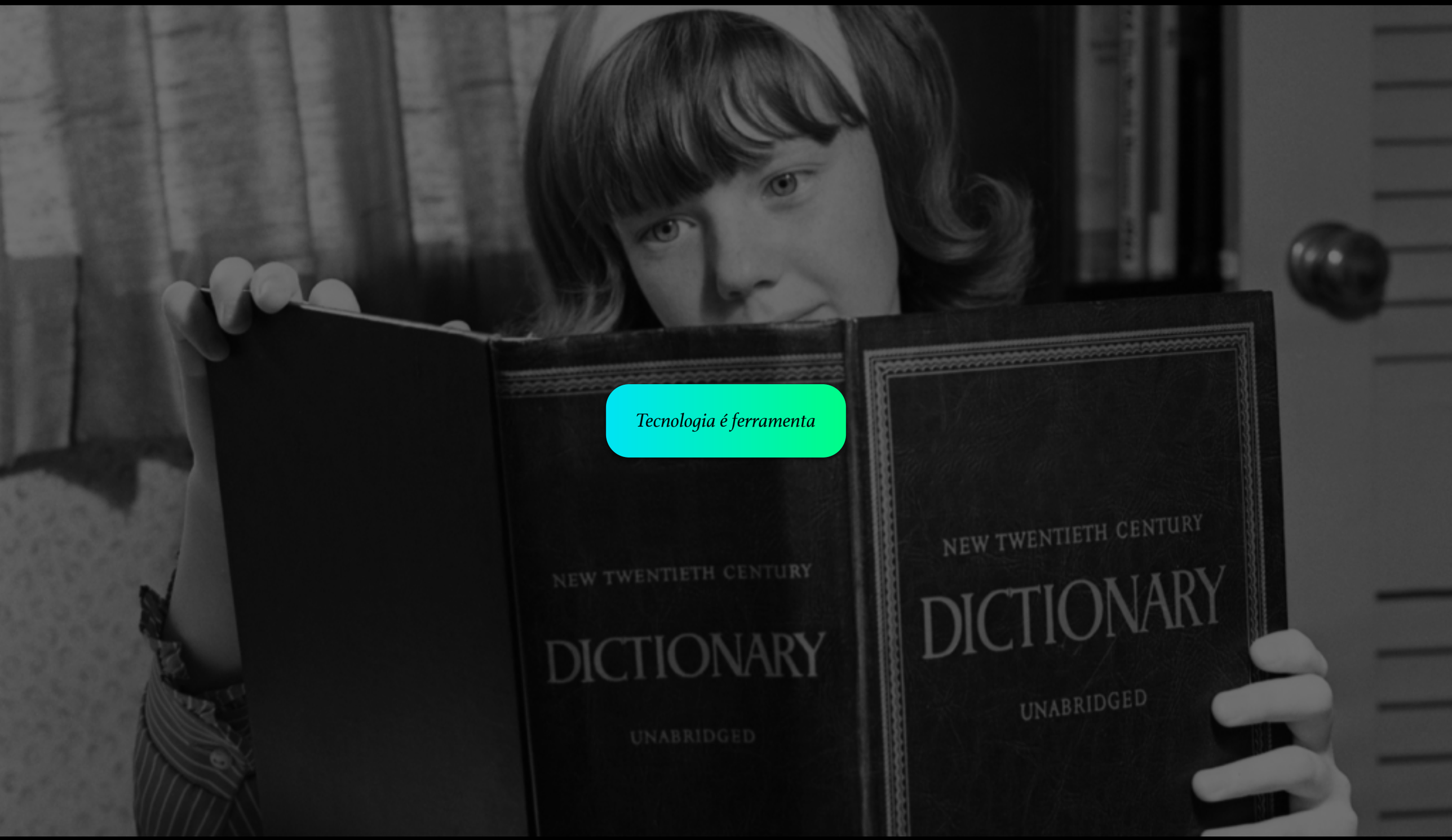
15S



Wearables

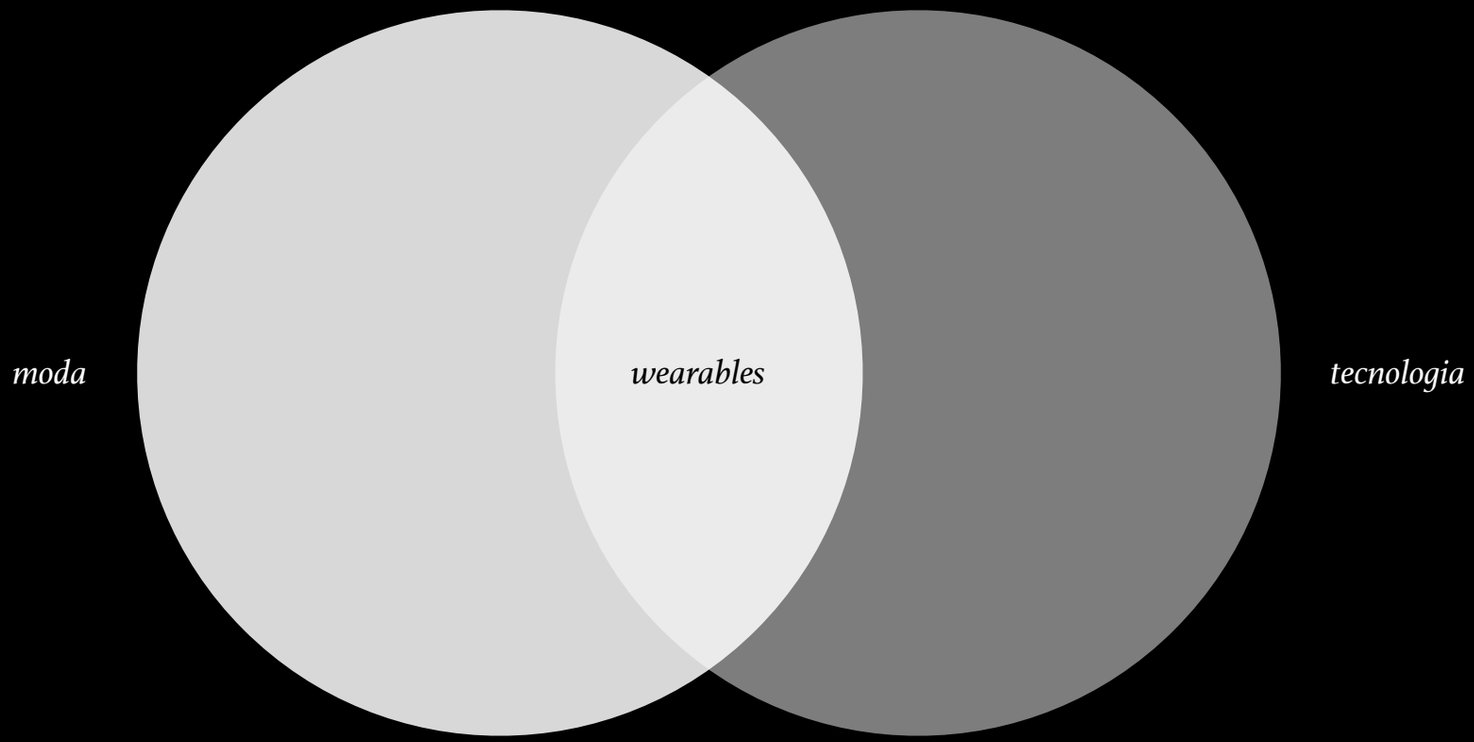


Moda é indumentária



Tecnologia é ferramenta

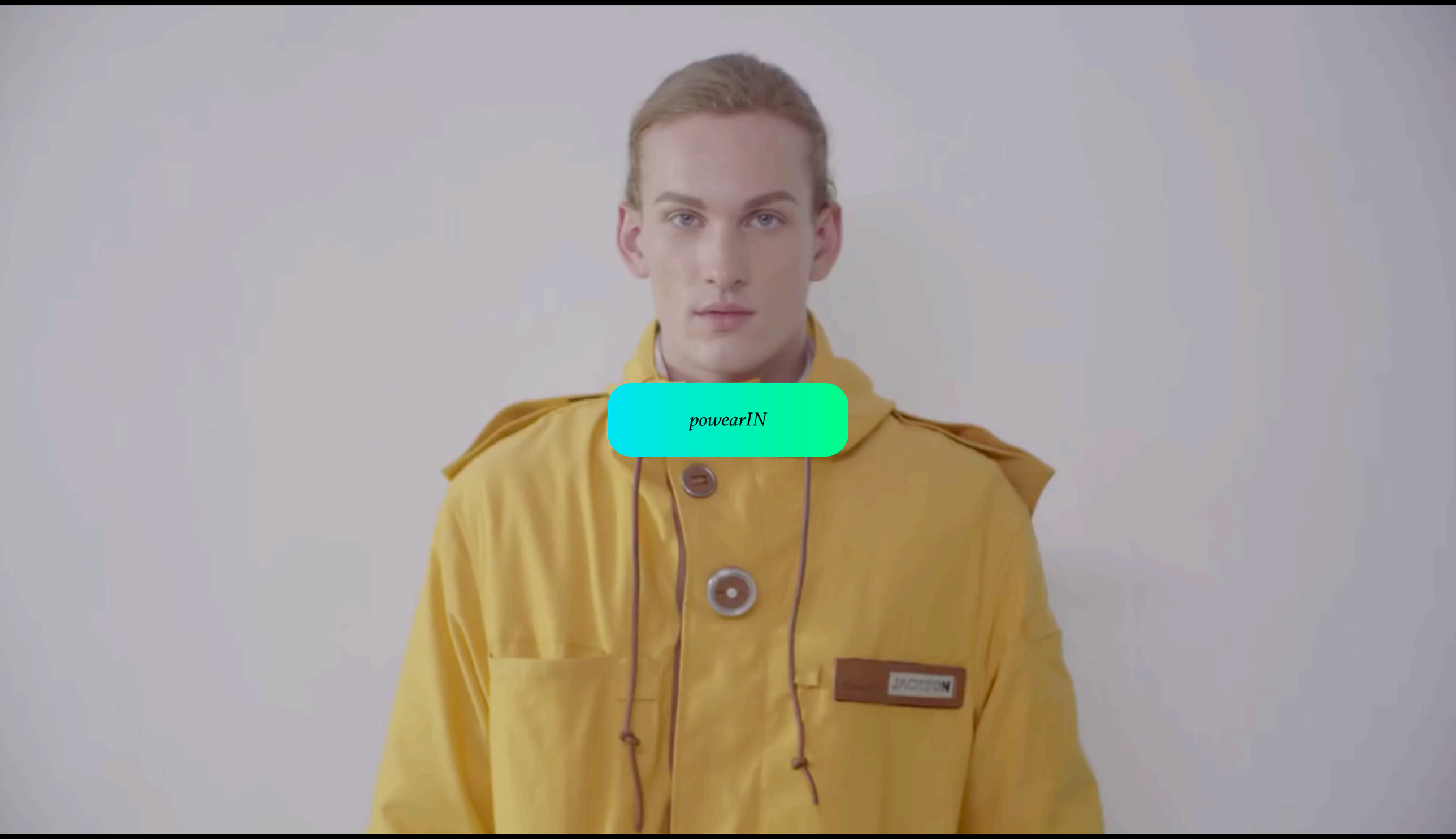

WTF is Wearables?


moda
wearables
tecnologia

estética



funcionalidade


powearIN

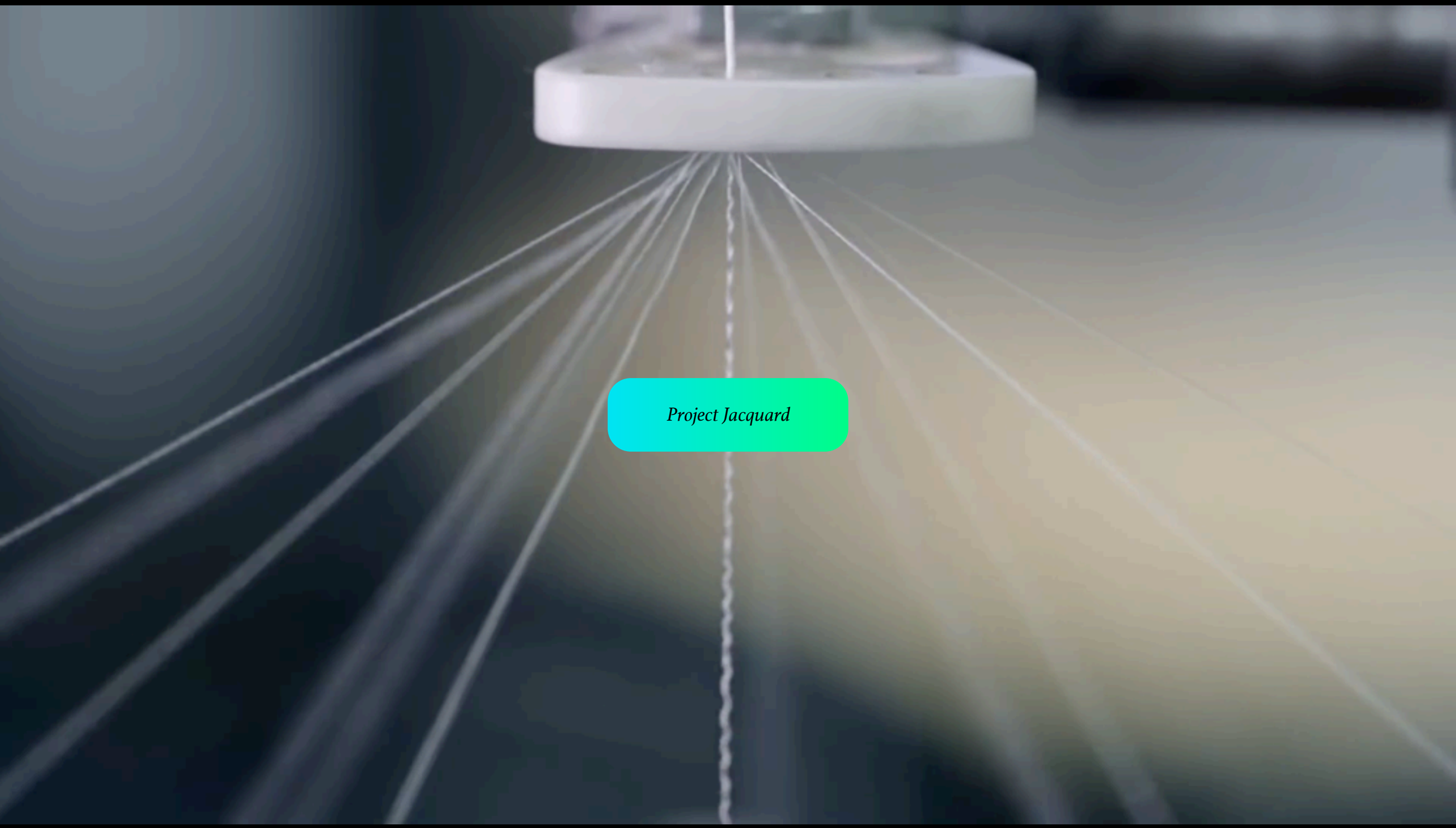



MIT Second Skin




shiftWear

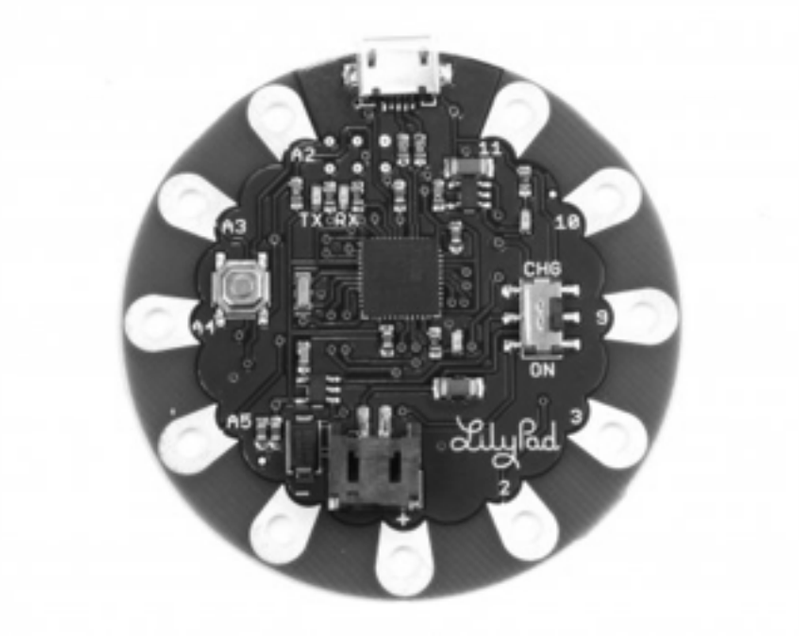

DisPlayList
INK Splash
Author | David C.
My Designs
New List
INK Splash
Crumbling
Brush Strokes
Club Music Loop
Spinning Ink
Growing Flower
Patterns


Project Jacquard





Porra, mas é o Google.


A2
11
TX
RX
10
A3
CHG
9
ON
A5
LilyPad
3
2


REPÚBLICA FEDERATIVA DO BRASIL
20
20
REAIS


REAL
REAL



15S



Sensory Substitution

Nós vamos ver uma imagem que expressa um som.

This section contains 39 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

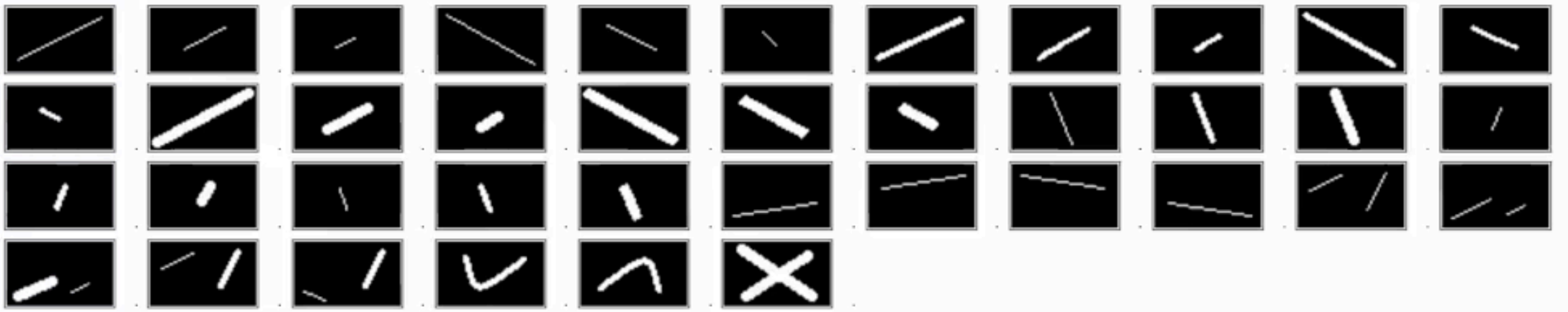
start exam

Always remember the three rules of EyeMusic:

1. The picture scanning goes from left to right and every scan starts with a short beep.

2. The height of the object in the picture is represented by the frequency of the sound.

3. Different colours are represented by sounds played by different musical instruments



É possível ver com os ouvidos?
(Uma sequência de mais testes.)

This section contains 39 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

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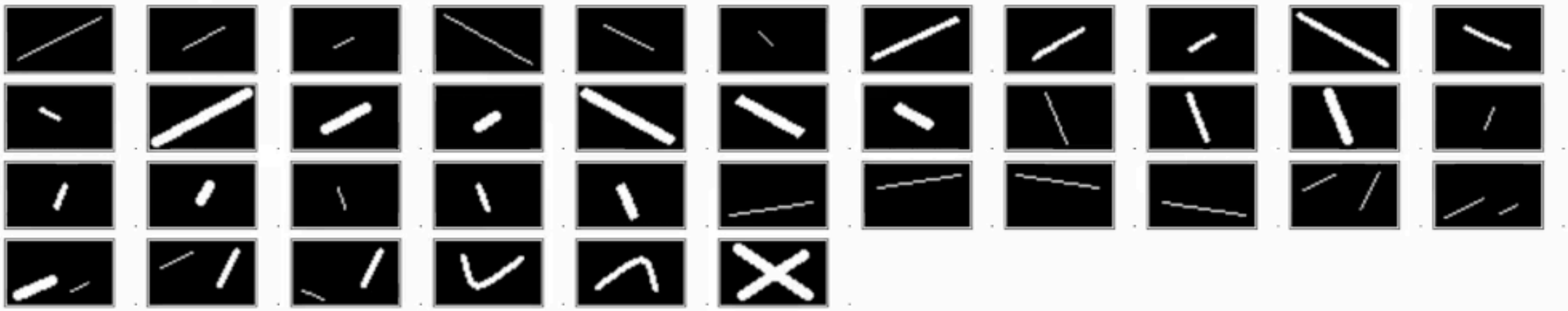
start exam



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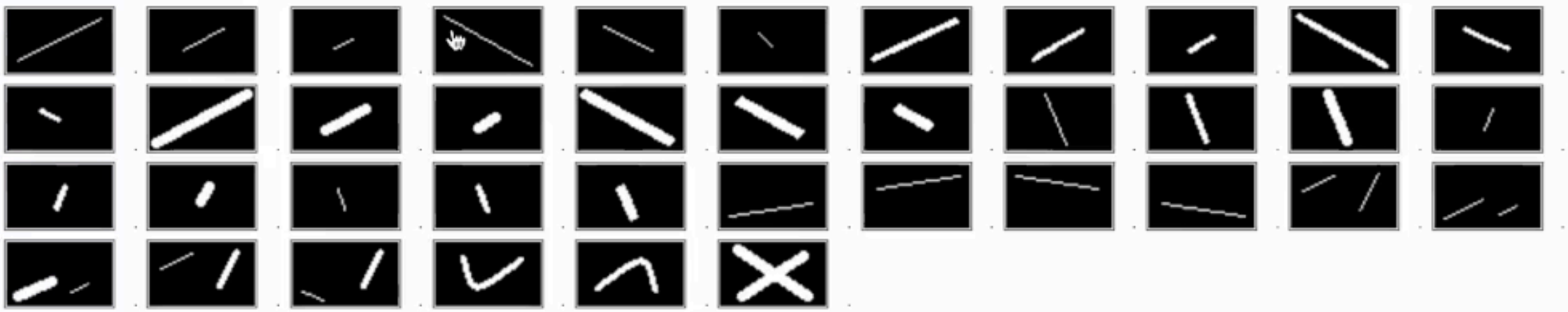

This section contains 39 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

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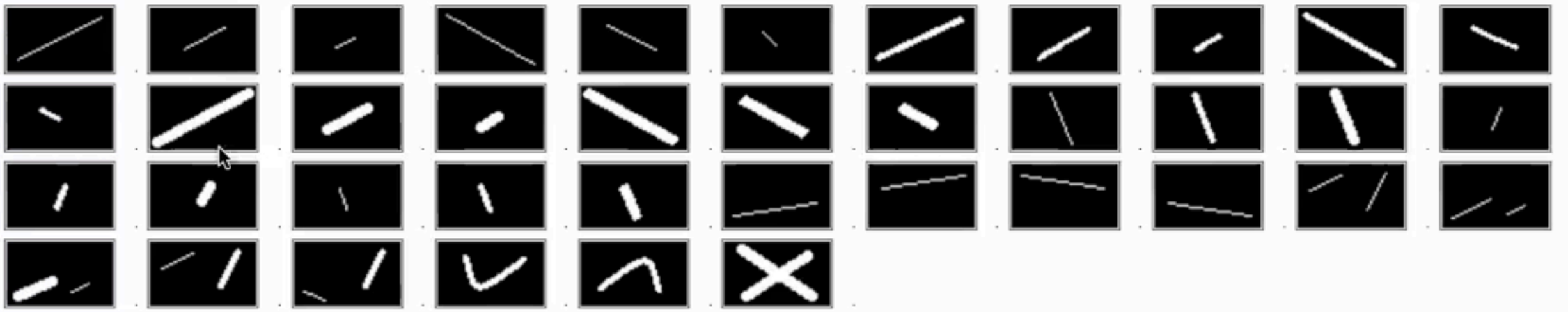
start exam



Complicando um pouquinho mais.

This section contains 39 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

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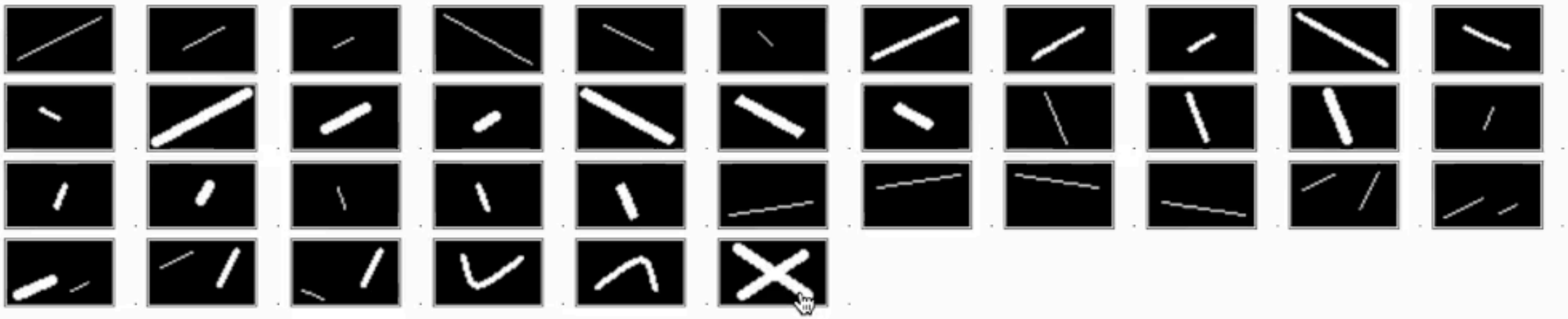
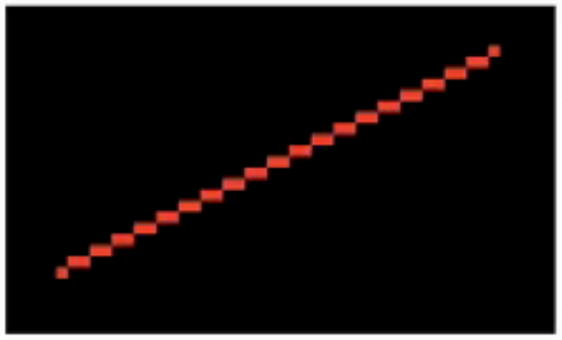
start exam



E se mudarmos de cor?

This section contains 39 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

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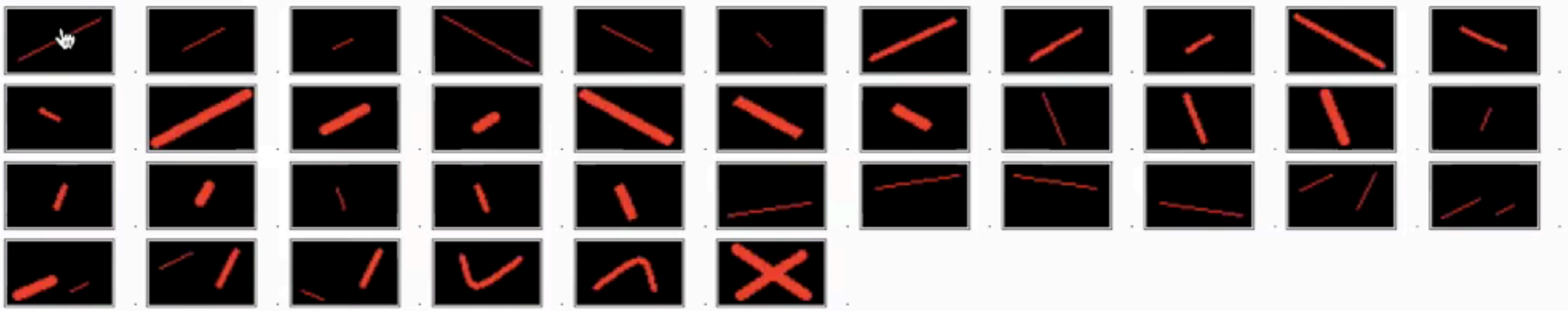
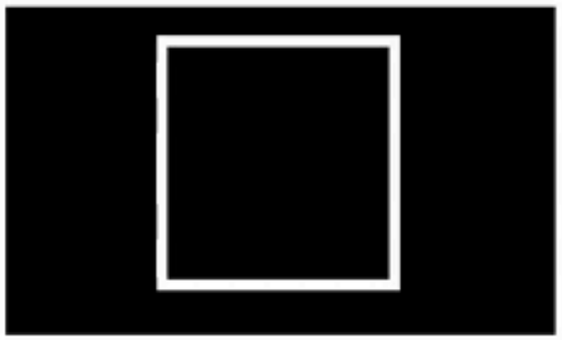
start exam



Formas, números e palavras.

This section contains 24 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

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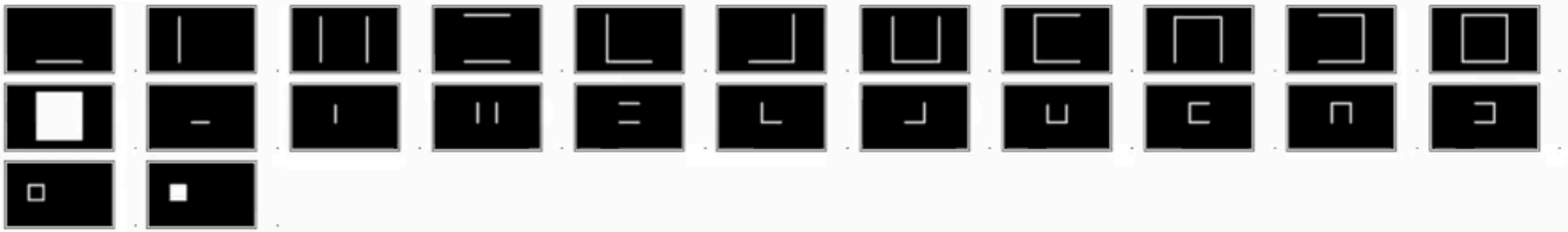
start exam



This section contains 19 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

Always remember the three rules of EyeMusic:

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start exam



This section contains 26 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



Always remember the three rules of EyeMusic:

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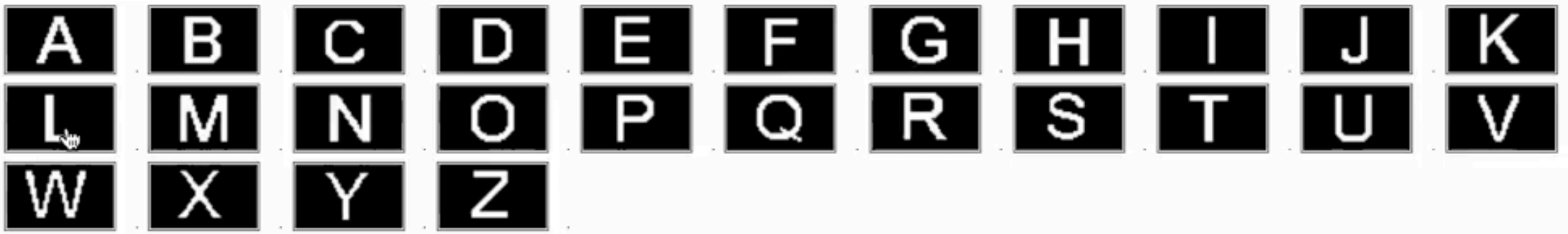
play and pause

start exam



This section contains 22 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

start exam

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Enxergando o mundo com os ouvidos.

This section contains 5 images, you can move between the images with tab and shift + tab buttons, press enter to "sound" the selected image. press ctrl to start and stop the audio, press SHIFT + F1 for faster press SHIFT + F2 for slower.

return to home



play and pause

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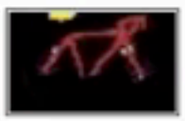
start exam

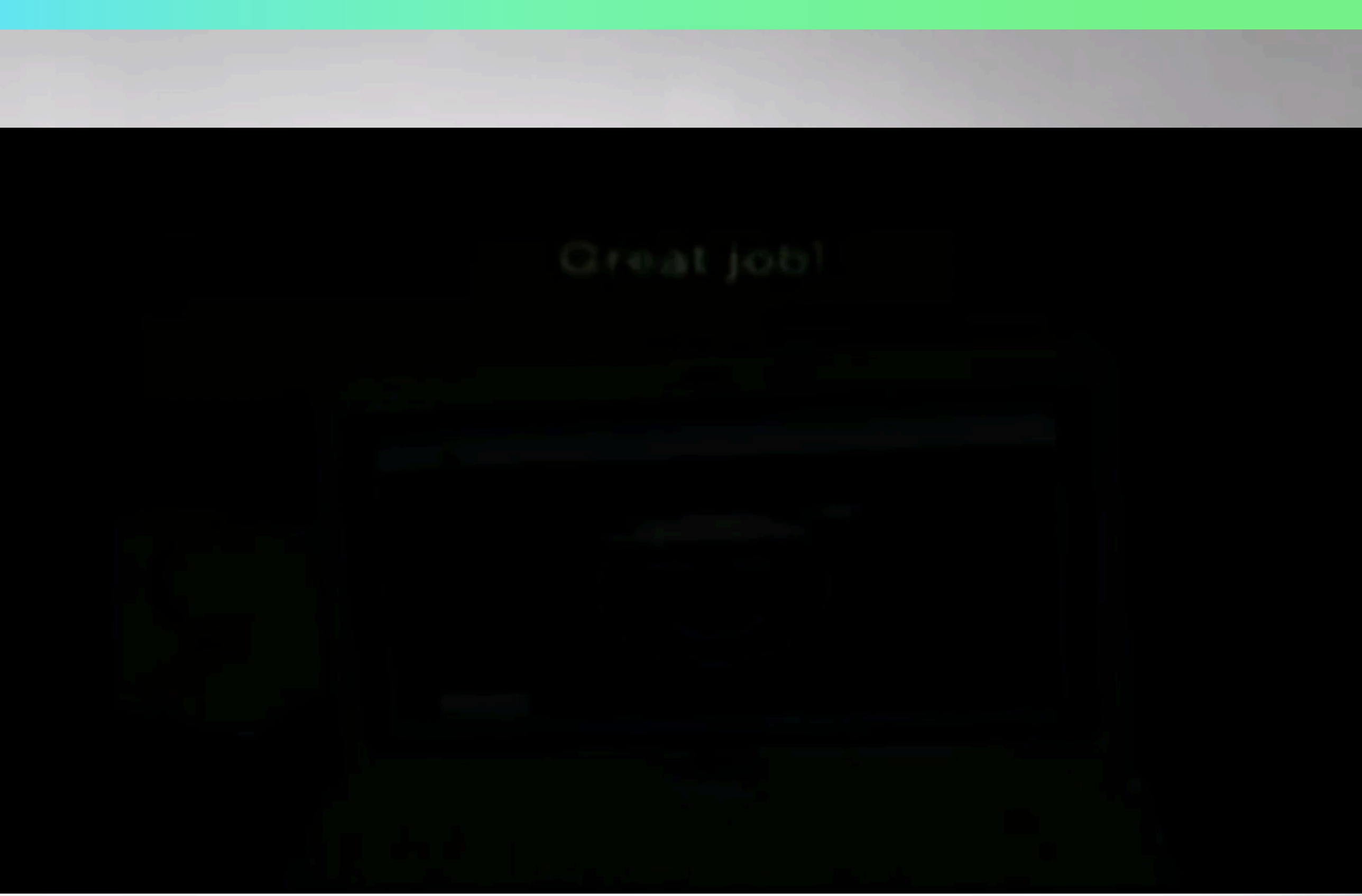


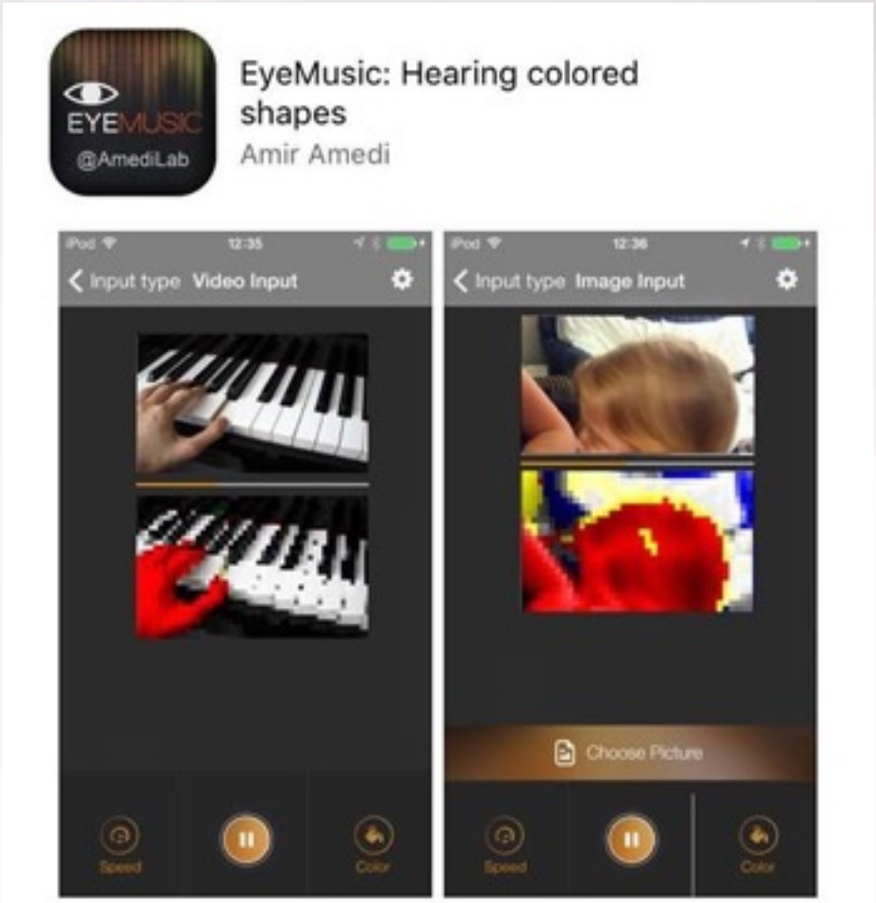




Vejam isso no mundo real.

Teaching congenitally blind to "see" faces using visual to auditory sensory substitution

Amir Amedi's Lab


Great job!


EyeMusic: Hearing colored shapes
Amir Amedi
EYEMUSIC
@AmediLab
Input type Video Input
Input type Image Input
Choose Picture
Speed
Color

GRUPOS DE CINCO

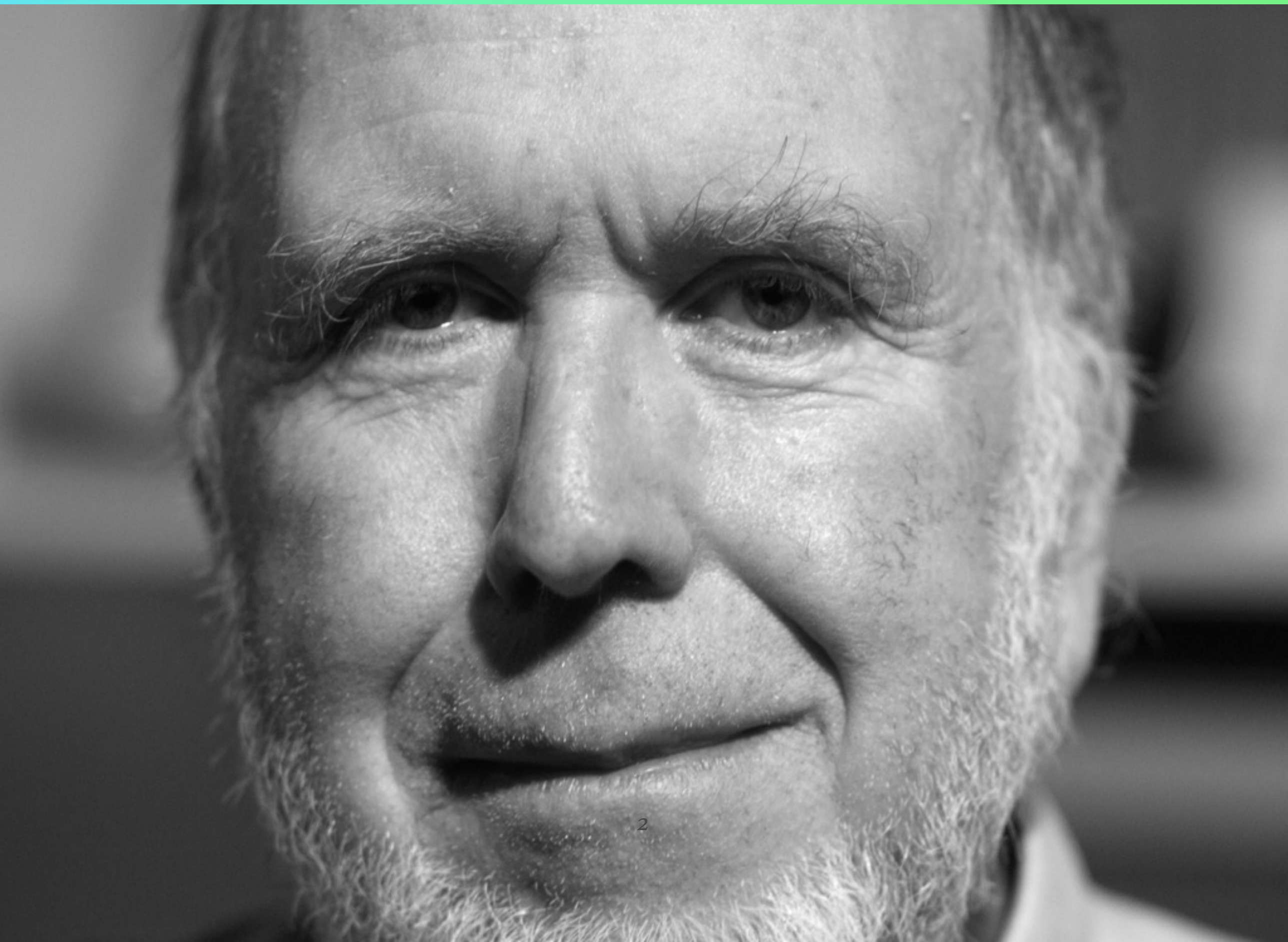


“TECHNOLOGY
IS NOT NEUTRAL.”

Gabi Guerra – Technologist


burn in hell
kurzweil


THE LIFE AND IDEAS OF RAY KURZWEIL
TRANSCENDENT MAN
PREPARE TO EVOLVE
PTOLEMAIC PRODUCTIONS IN PARTNERSHIP WITH THERAPY STUDIOS PRESENTS TRANSCENDENT MAN
ART DIRECTION BY JOHN CRANSTON ORIGINAL THEME MUSIC BY PHILIP GLASS EDITED BY MEG RAMSAY AND DOOBIE WHITE DIRECTOR OF PHOTOGRAPHY SHAWN DUFRAINE
EXECUTIVE PRODUCERS JOE DISANTO JOHN RAMSAY WREN WATERS DOOBIE WHITE DREW DOWDLE JOHN ERICK DOWDLE AND OLIVER LUCKETT
INSPIRED BY THE BOOK THE SINGULARITY IS NEAR BY RAY KURZWEIL PRODUCED BY BARRY PTOLEMY AND FELICIA PTOLEMY DIRECTED BY BARRY PTOLEMY
PTOLEMAIC PRODUCTIONS
Therapy
DIGISYND





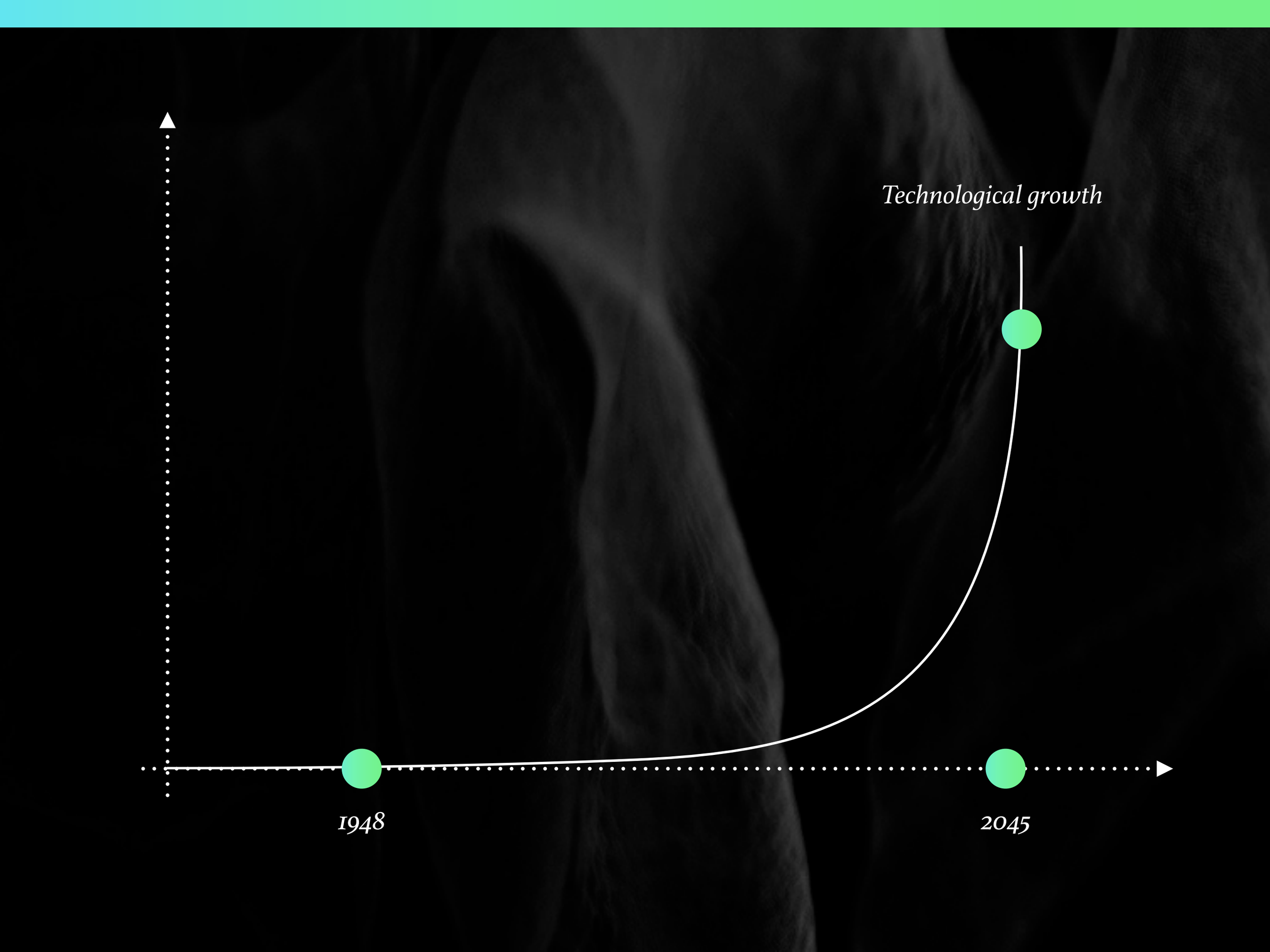

want to hear
actionable meas
mood meas, effect
how to see data?
priv. vs. public
meta: effects of meas
resources
regulatory
metrics
dangerous data?
interface w/ medical
to say
time tracking
what is measured
athletes
learning/knowing
soft properties
design principles for
genes, brain, etc
geocoding
Body Mean

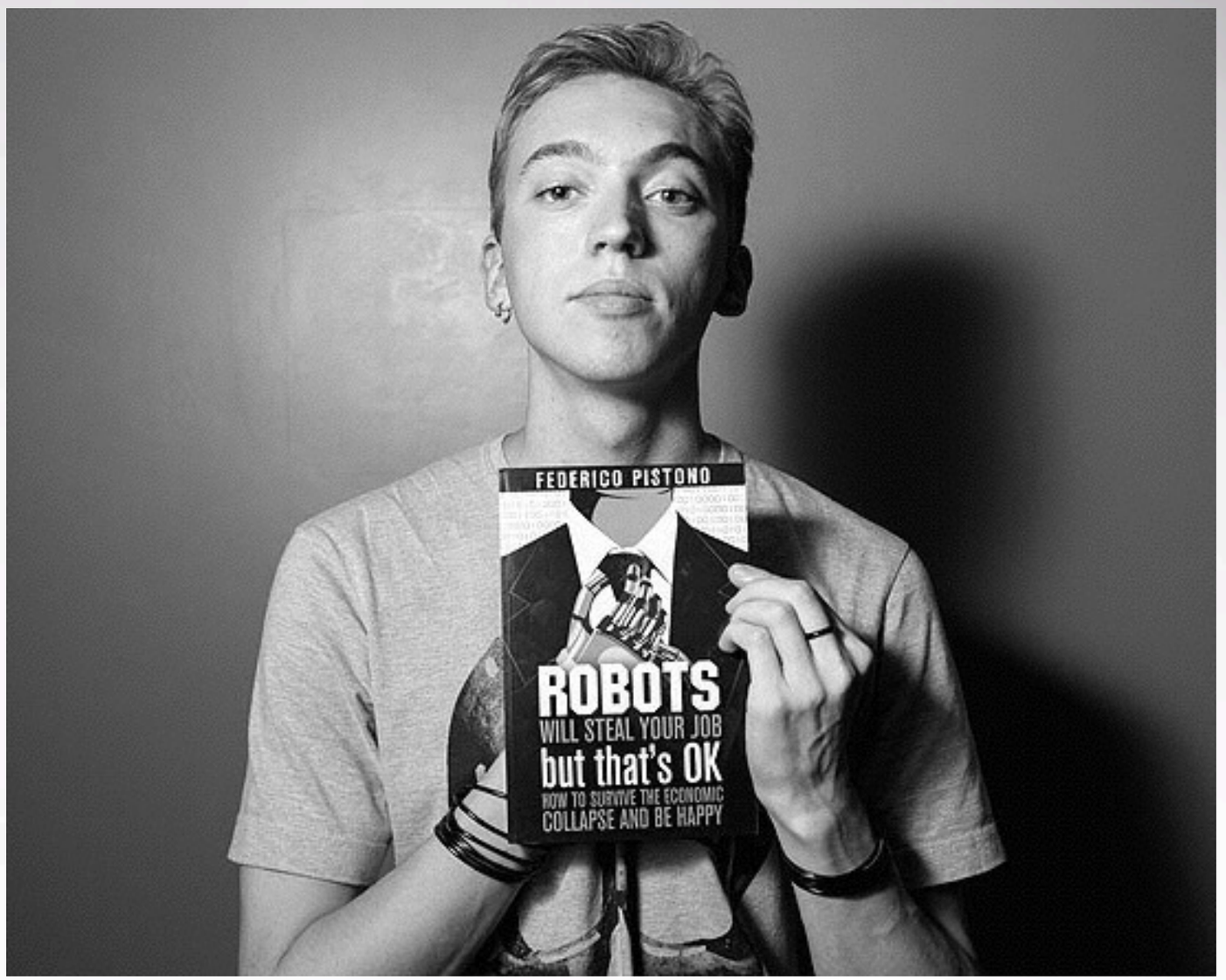


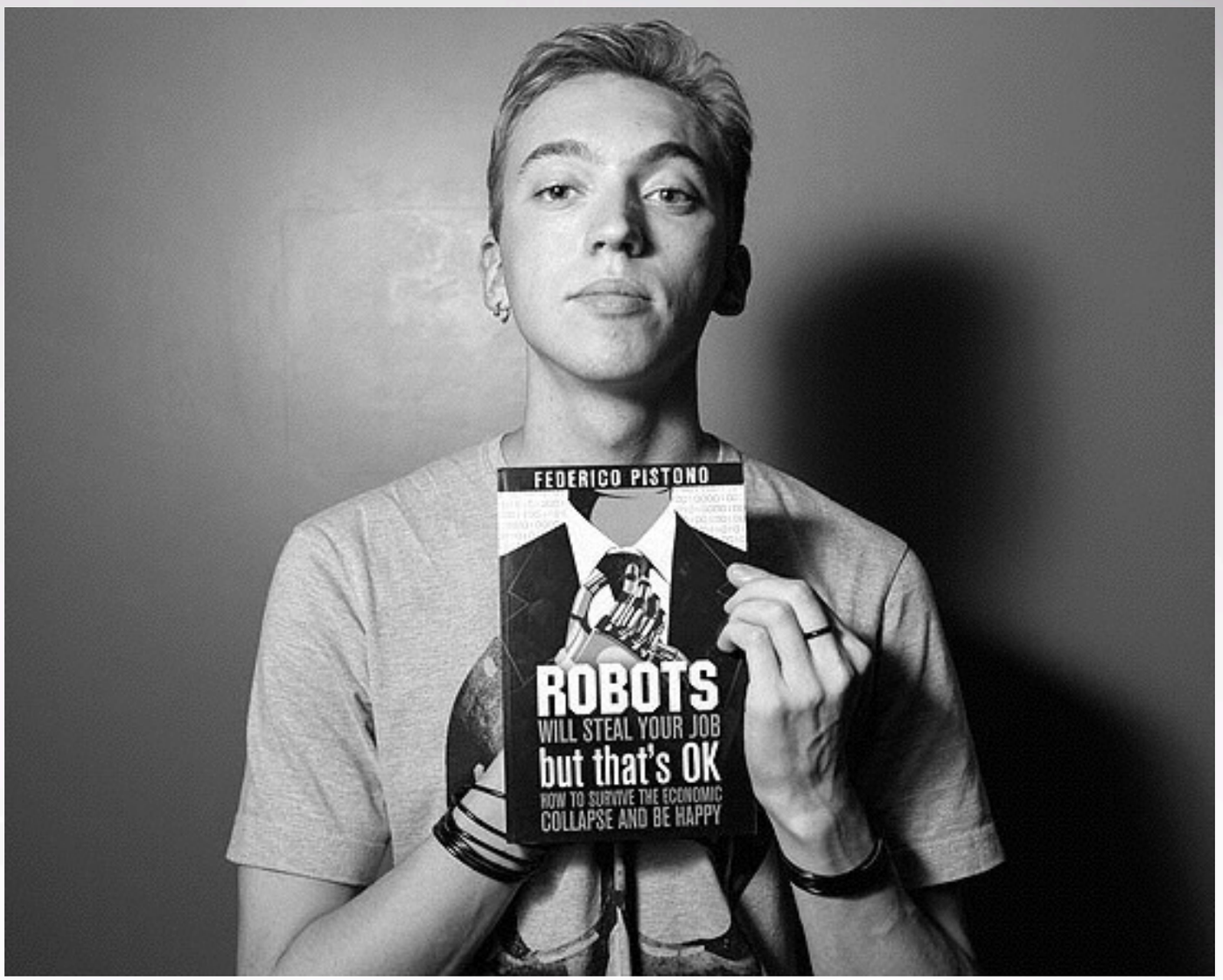


Sabe por que o Ray
escolheu o ano de 2045?
Porque nesta época ele estará
com quase 100 anos.
Estará prestes a morrer

Dizer que a singularidade
acontecerá em 2045
é muito menos uma previsão
e muito mais uma tentativa
de explicar cientificamente
o exagerado desejo de Kurzweil
de se manter imortal.


Technological growth
1948
2045

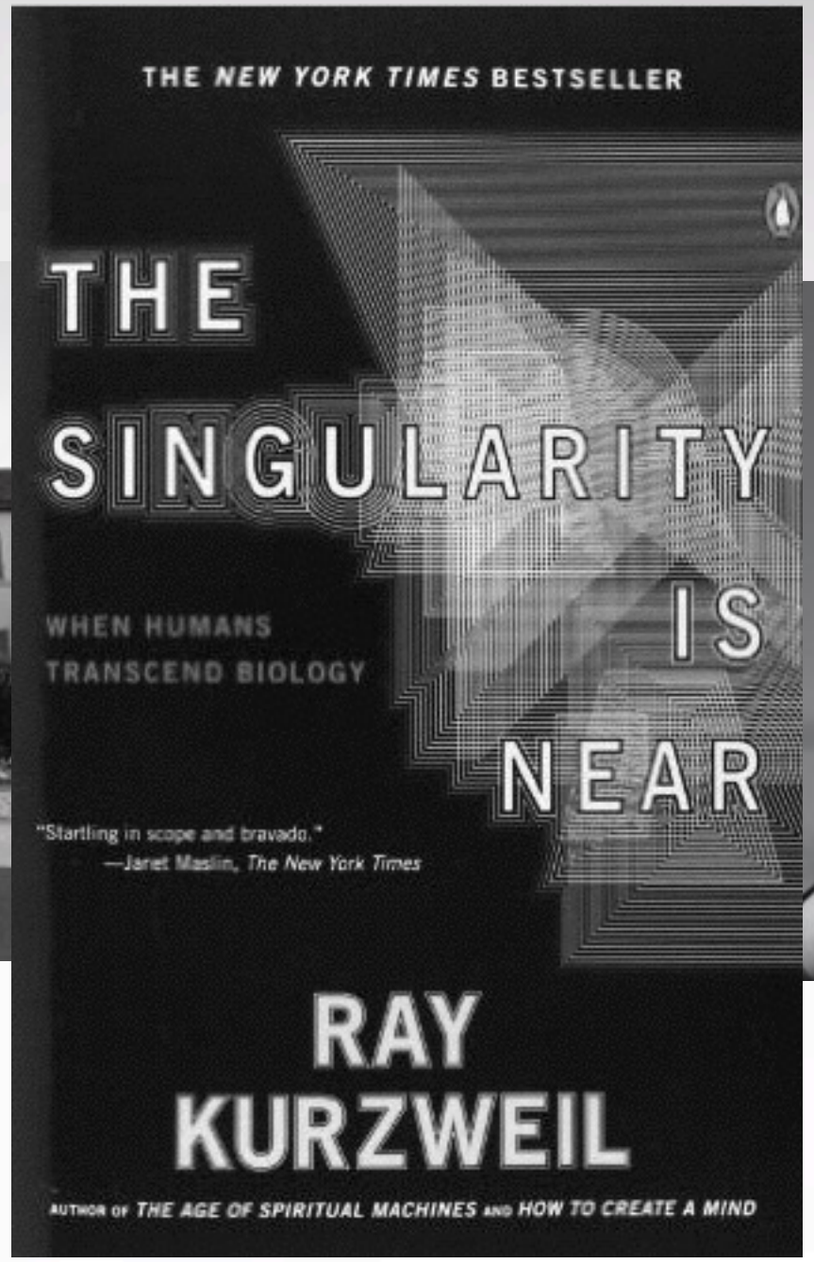

FEDERICO PISTONO
ROBOTS
WILL STEAL YOUR JOB
but that's OK
HOW TO SURVIVE THE ECONOMIC
COLLAPSE AND BE HAPPY



Todos com menos de 30 anos verão.

A maior qualidade de Ray
é também o seu maior defeito:
um inabalável ar profético.




THE NEW YORK TIMES BESTSELLER
THE SINGULARITY IS NEAR
WHEN HUMANS TRANSCEND BIOLOGY
"Startling in scope and bravado."
—Janet Maslin, The New York Times
RAY KURZWEIL
AUTHOR OF THE AGE OF SPIRITUAL MACHINES AND HOW TO CREATE A MIND



A maior qualidade de Ray
é também o seu maior defeito:
um **inabalável** ar profético.


TECH
INSIDER



Ray, bem-vindo ao programa.



Ray, foi uma delícia. Foi delicioso.



15S



"TECHNOLOGY
IS NOT NEUTRAL."

Gabi Guerra – Technologist

15S

Gender

Biological

Gender Identity

Gender Neutrality

Policies

Languages

Social Instructions

Transgender

About AI?

Gender defined

Man = Intellectual

Watson, Nao

Woman = Services

Siri, Translator, Waze

About AI Gender?

Will be same of humans?

Second Life

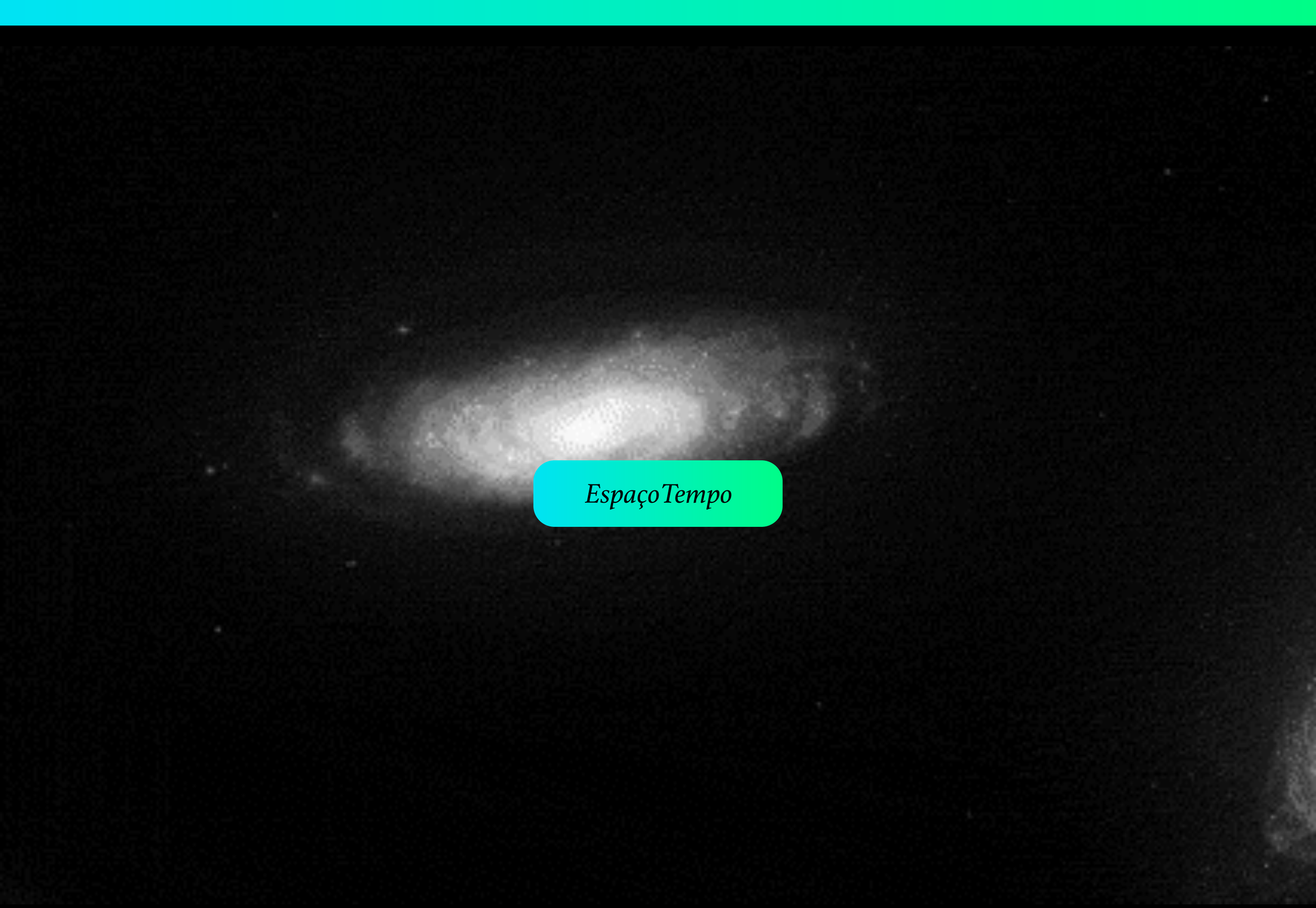

Gender Swap - Experiment with The Machine to Be Another
from BeAnotherLab
02:35
vimeo

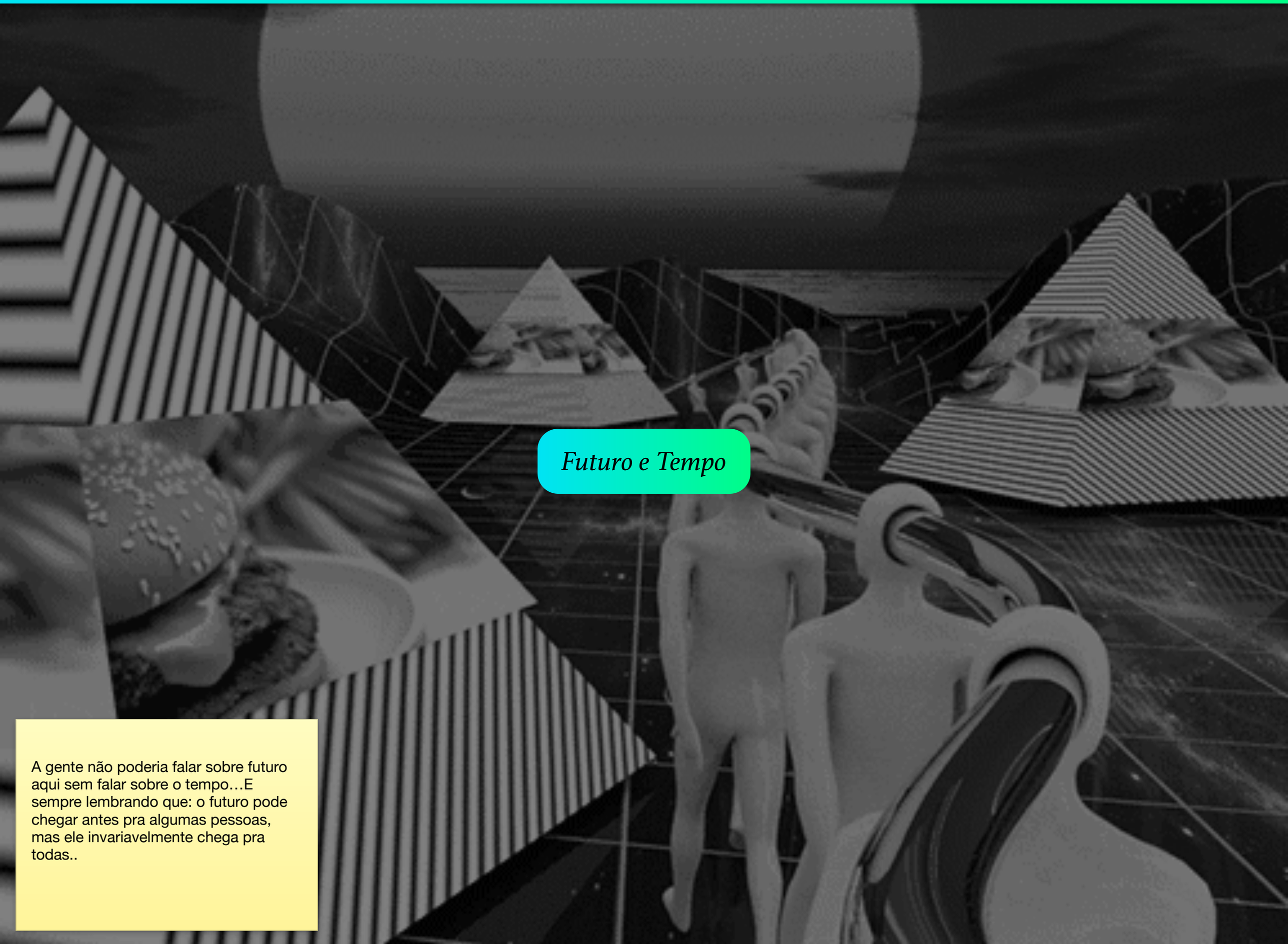
Will the single or multiple genders?

Will AI have a new type of gender identities?

Postgenderism

15S


EspaçoTempo



A gente não poderia falar sobre futuro aqui sem falar sobre o tempo…E sempre lembrando que: o futuro pode chegar antes pra algumas pessoas, mas ele invariavelmente chega pra todas..

Espaço → *Onde*

Tempo → *Quando*

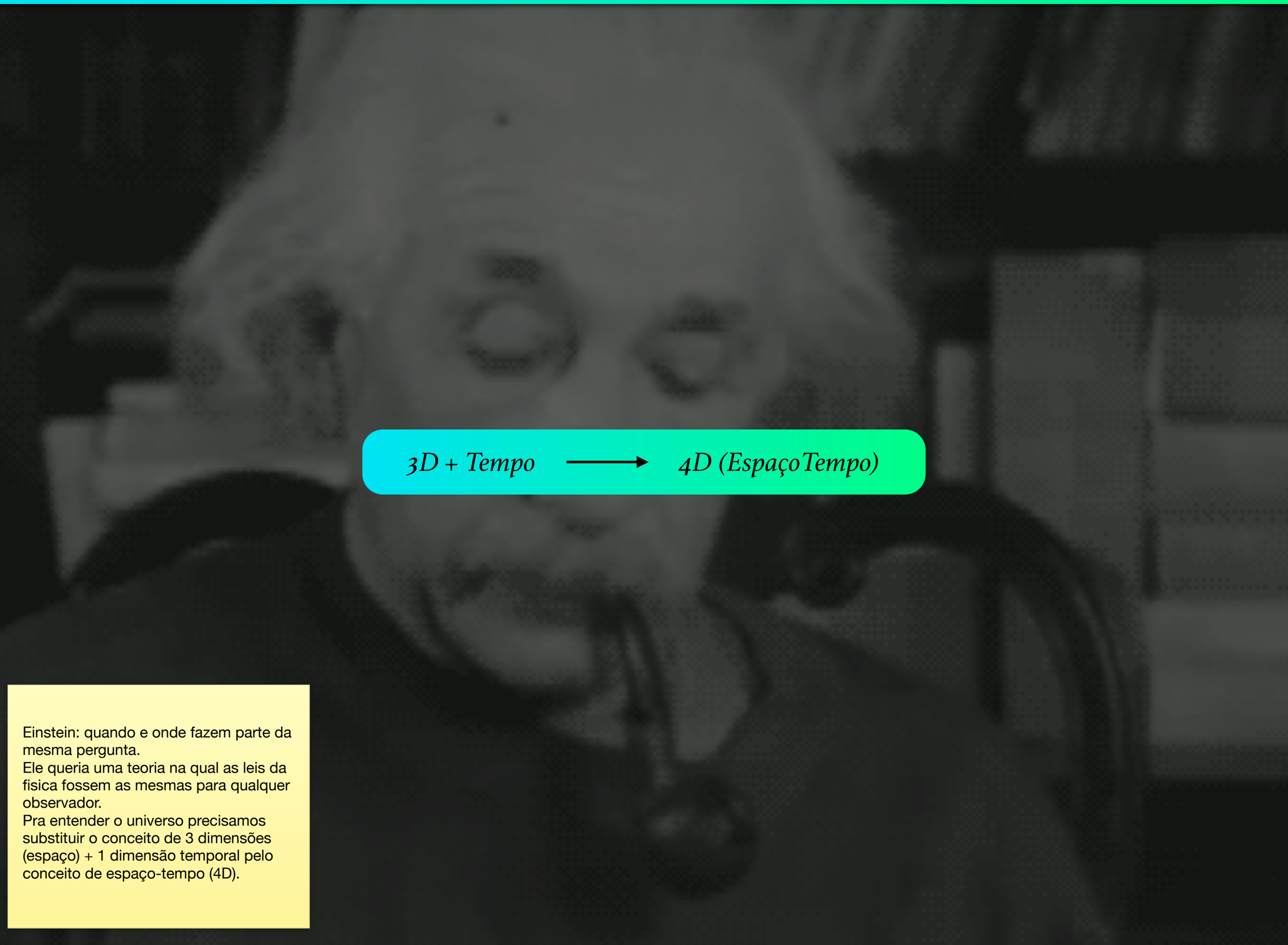
Se nós usarmos o espaço, as três dimensões, e o tempo nós conseguimos determinar onde e quando as coisas acontecem.



Física Clássica vs Física Moderna



Na física
clássica)
espaço e
imutáveis
Essa ideia
fisicos e
Lagrange



Einstein: quando e onde fazem parte da mesma pergunta.
Ele queria uma teoria na qual as leis da fisica fossem as mesmas para qualquer observador.
Pra entender o universo precisamos substituir o conceito de 3 dimensões (espaço) + 1 dimensão temporal pelo conceito de espaço-tempo (4D).

A velocidade da luz é constante

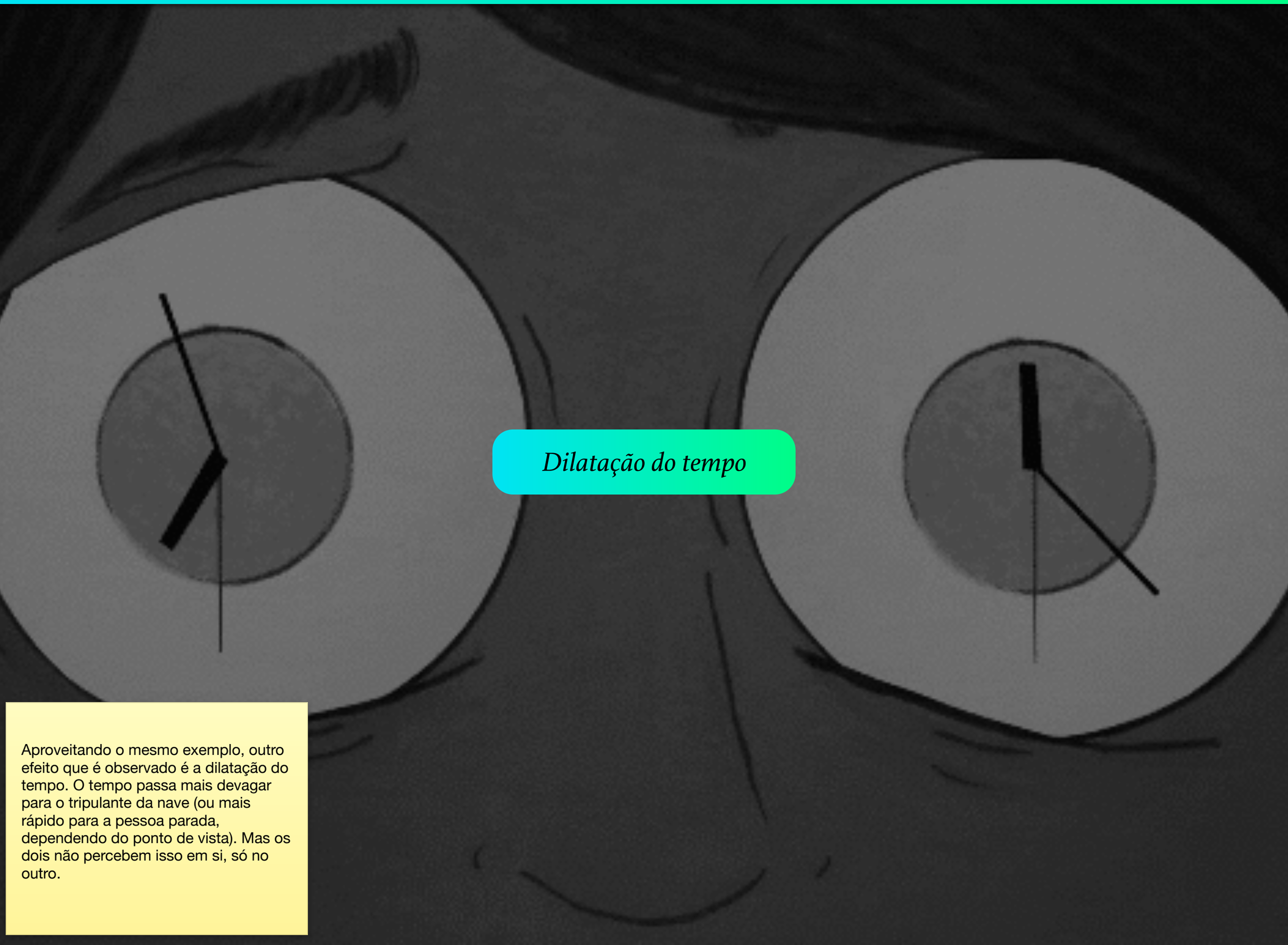
A velocidade da luz é muito importante dentro dessa teoria, pq ela é constante, todas as medidas da velocidade da luz revelam o mesmo valor, de aproximadamente 300 mil km / s. Nada viaja mais rápido que a velocidade da luz.

Compensações no espaço e no tempo

O fato da velocidade da luz ser cte implicam em efeitos incomuns para nós, compensações no espaço tempo. Em sistemas onde existem elementos viajando próximos da velocidade da luz, o espaço pode se contrair e o tempo pode se dilatar.

Contração do espaço

Imaginem duas pessoas: uma delas em uma nave viajando proxima da velocidade da luz indo de encontro a outra que está parada. A pessoa da nave irá enxergar o espaço fora da nave contraído, inclusive a outra pessoa. Já a que está parada irá ver o espaço normalmente mas enxergará a nave contraída.



Dilatação do tempo

Aproveitando o mesmo exemplo, outro efeito que é observado é a dilatação do tempo. O tempo passa mais devagar para o tripulante da nave (ou mais rápido para a pessoa parada, dependendo do ponto de vista). Mas os dois não percebem isso em si, só no outro.

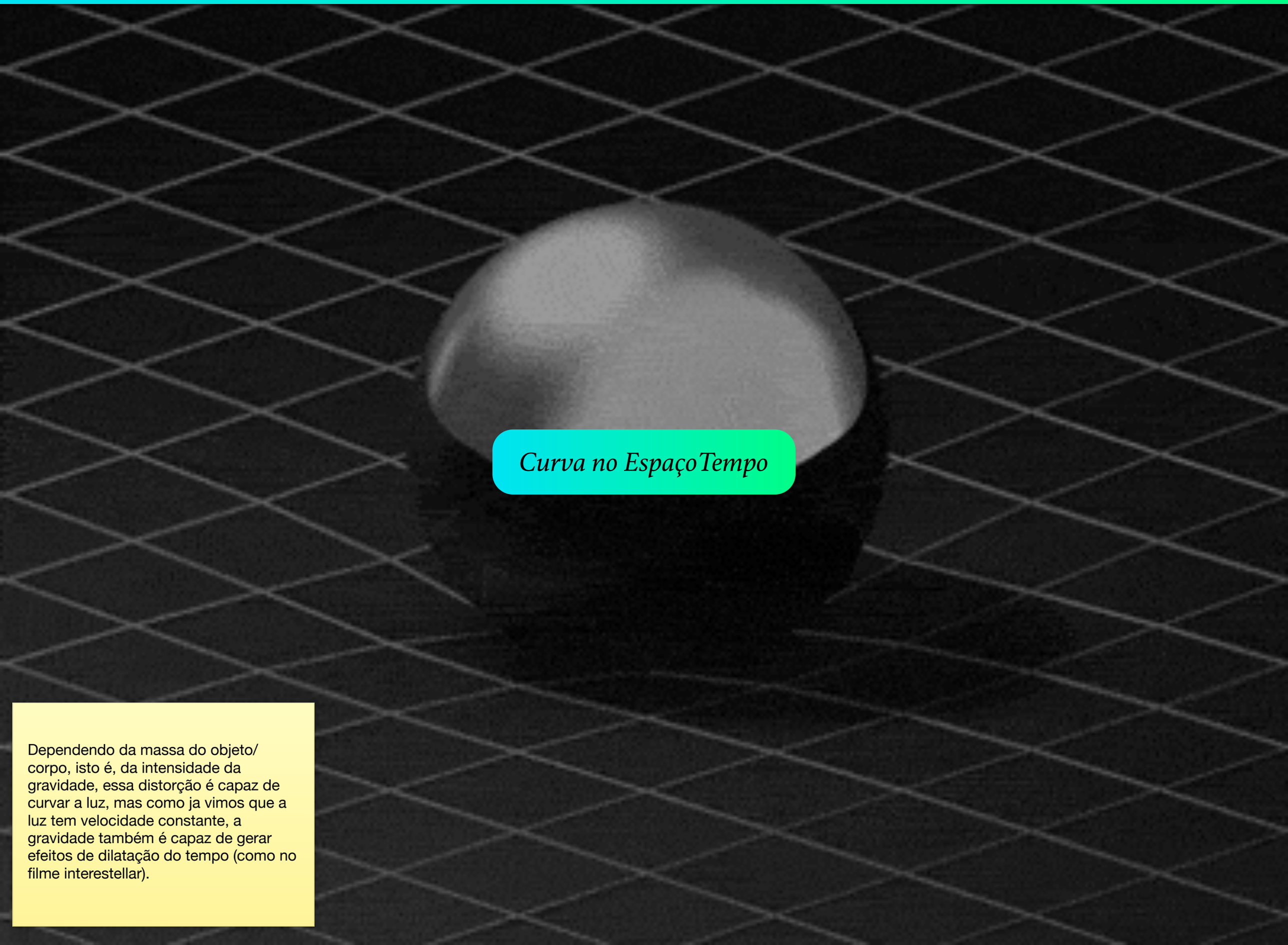
Paradoxo dos gêmeos

Pra entender melhor: se colocássemos um gêmeo para viajar em uma nave próxima a velocidade da luz e o outro gemeo ficasse na terra. Quando o gemeo da nave voltasse ele estaria mais novo do que o que ficou na terra, mas as percepções do tempo para cada um deles foi a mesma.

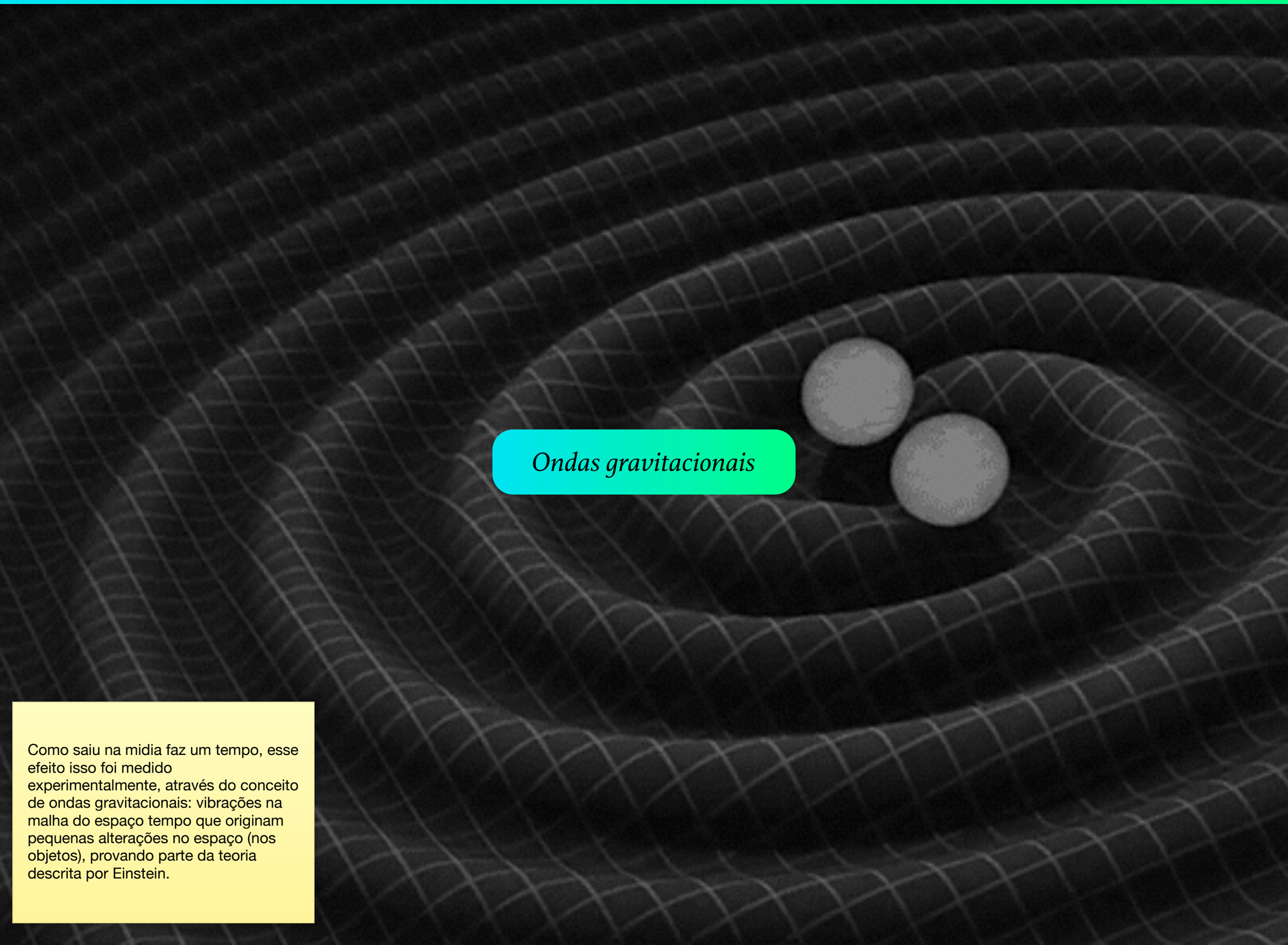
Einstein e a gravidade

Antes de Einstein, tínhamos a ideia de que espaço, tempo e a gravidade estavam separados. Einstein disse que não, e ainda previu que a gravidade não seria representada só como força e aceleração, mas como uma distorção da malha do espaço tempo.

Pra facilitar essa visualização, normalmente a malha do espaço tempo é representada em 2D



Dependendo da massa do objeto/ corpo, isto é, da intensidade da gravidade, essa distorção é capaz de curvar a luz, mas como ja vimos que a luz tem velocidade constante, a gravidade também é capaz de gerar efeitos de dilatação do tempo (como no filme interestellar).

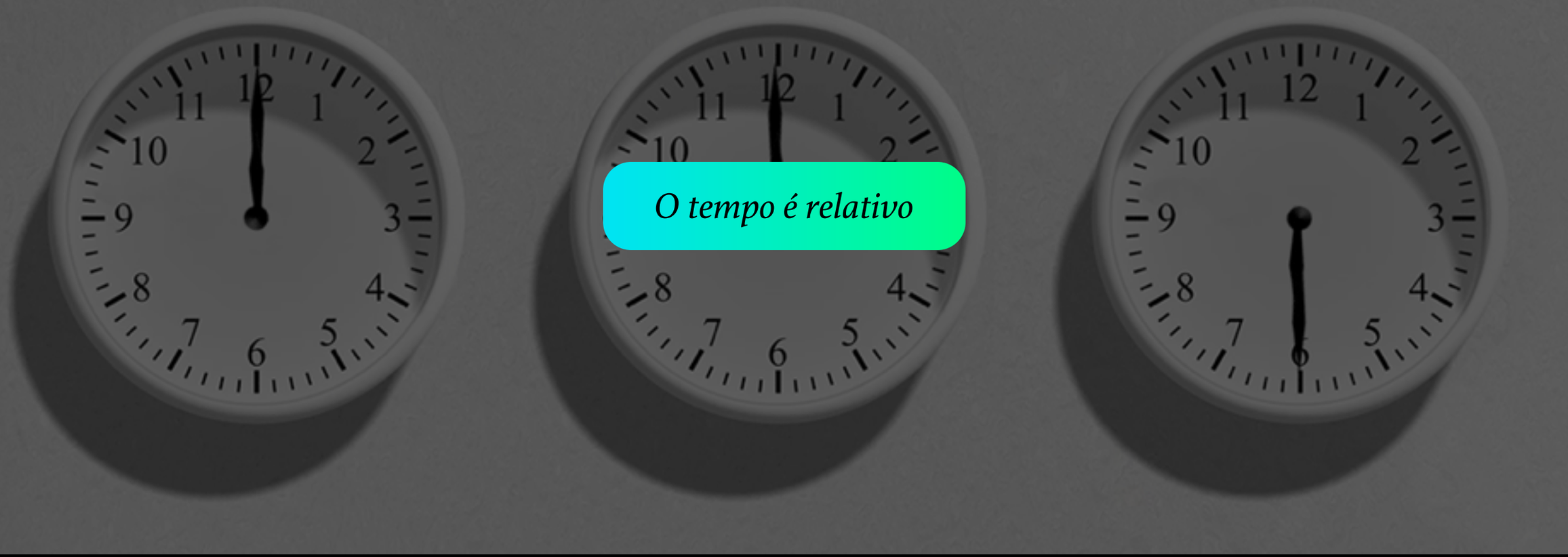


Ondas gravitacionais

Como saiu na midia faz um tempo, esse efeito isso foi medido experimentalmente, através do conceito de ondas gravitacionais: vibrações na malha do espaço tempo que originam pequenas alterações no espaço (nos objetos), provando parte da teoria descrita por Einstein.

Buracos negros

Mas quando começamos a observar esses efeitos em buracos negros, que sao estruturas de massa e gravidade excepcionalmente grandes, as equações colapsão, e precisamos aplicar outros conceitos, como fisica quantica pra começar a entender o que realmente ocorre nessas situações.



O tempo é relativo, existem efeitos que podem alterar nossa noção de tempo. Obviamente no nosso dia-a-dia a gente experimenta o tempo padronizado.

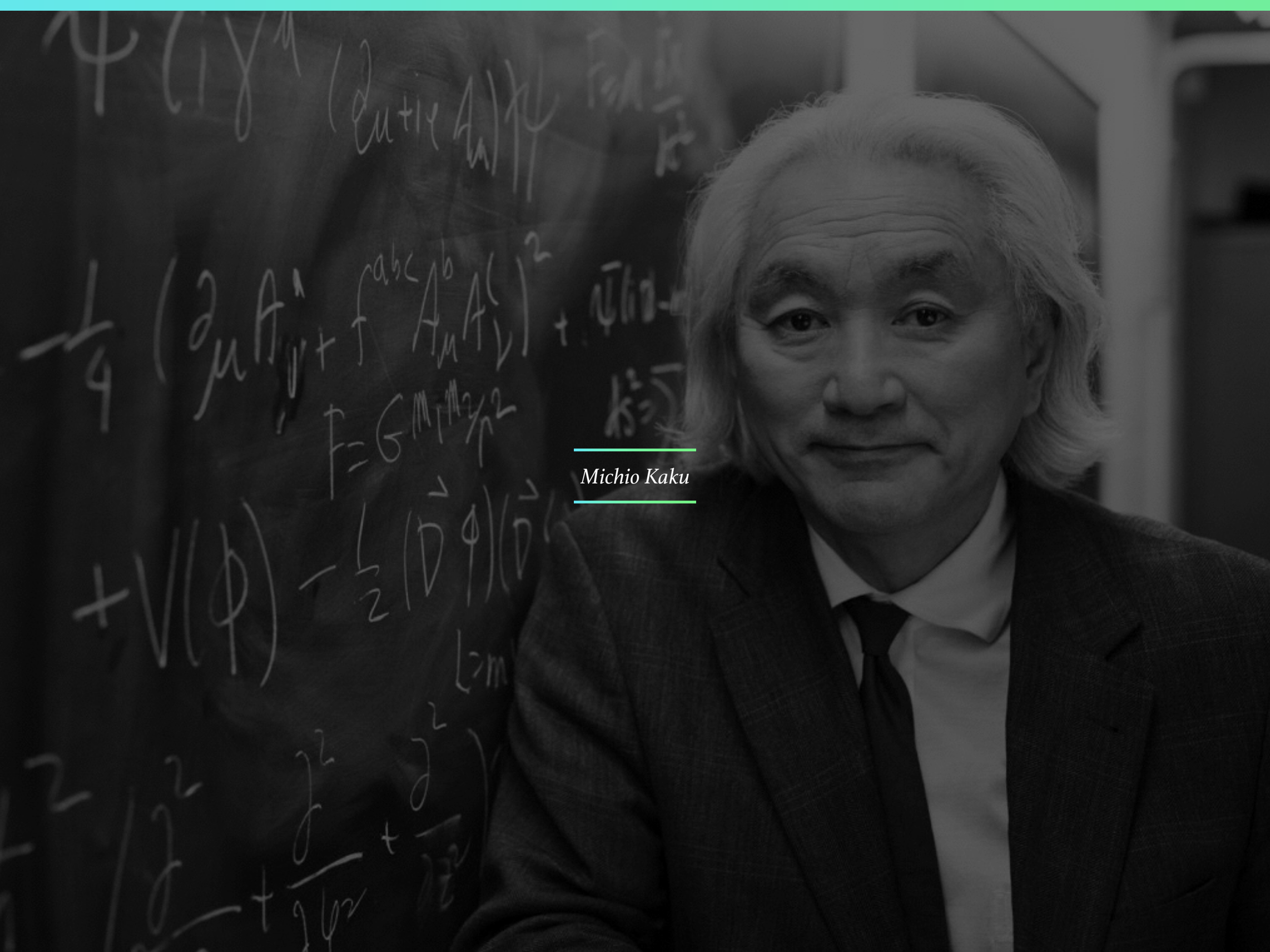


O tempo é uma experiência individual

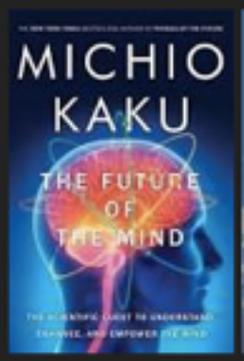
mas, essesncialmente o tempo é uma experiência individual. quem nunca sentiu o tempo passando mais rapido quando se estava fazendo algo que se gosta e mais devagar durante algo chato?

15S

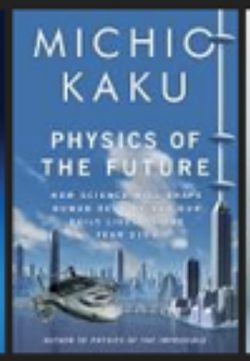

Multiverse



Michio Kaku



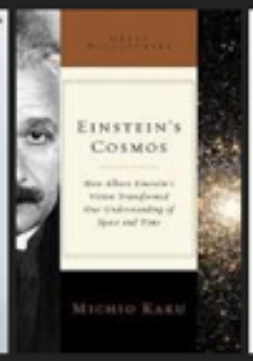
The Future of the Mind
2014



Physics of the Future
2011



Physics of the Impossible: A Sc…
2008



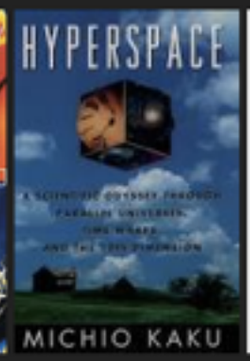
Einstein's Cosmos
2004



Parallel Worlds
2004



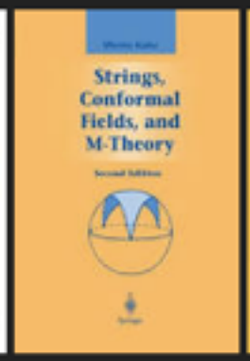
Visions
1998



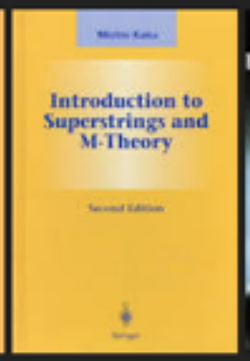
Hyperspace
1994



Quantum field theory
1993



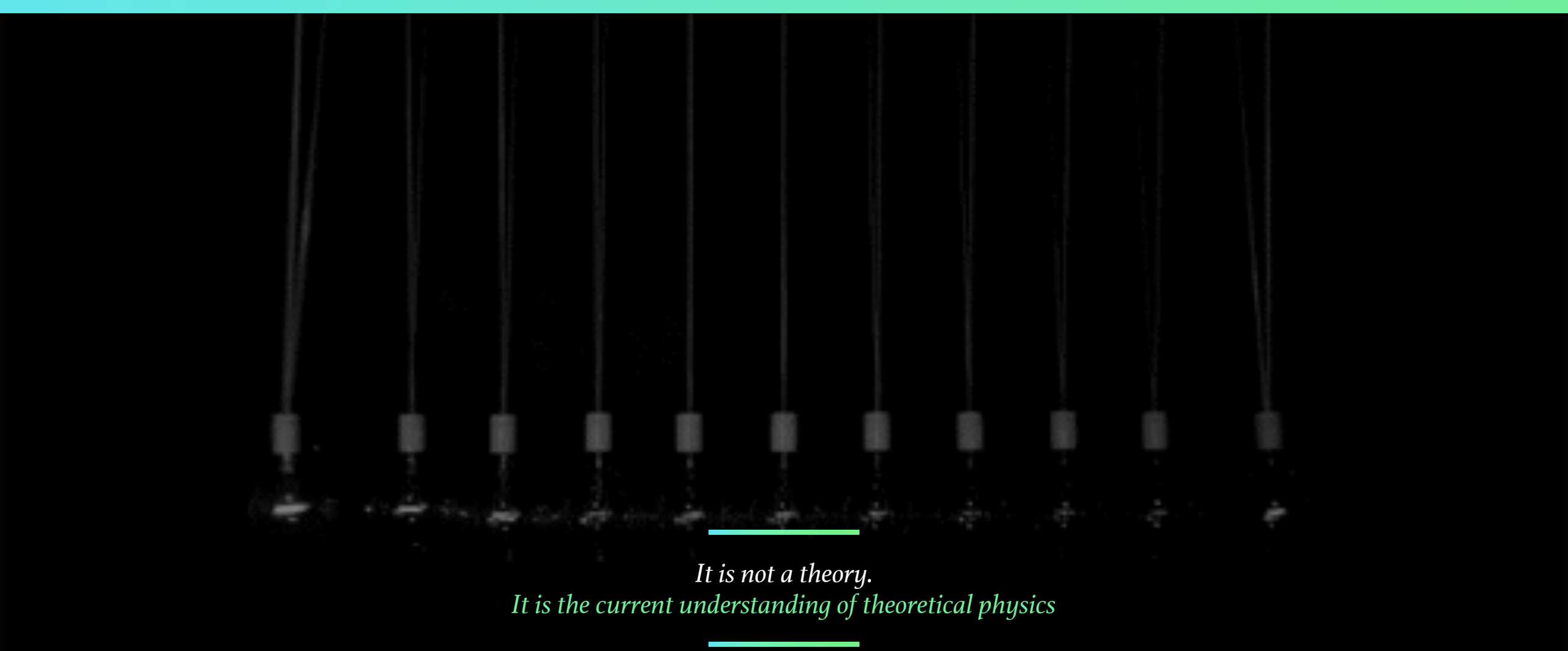
Strings, conformal fields, …
1991



Introduction to superstrings
1988



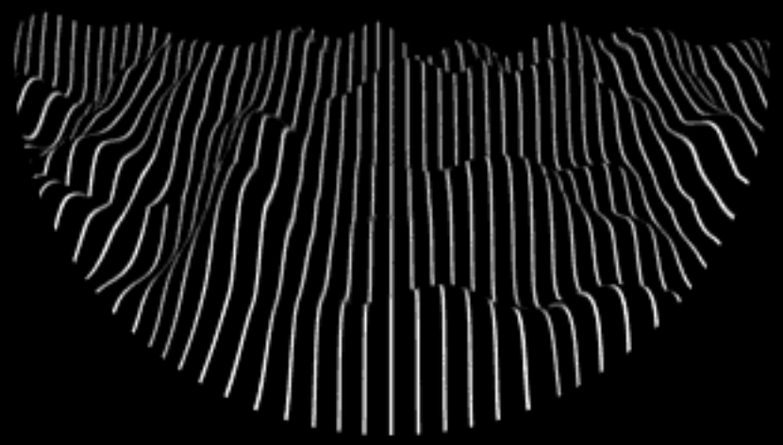
Beyond Einstein
1987



It is not a theory.

It is the current understanding of theoretical physics

Quantum Mechanics & String Theory



Quantum Mechanics:
Double State of the Things
& Schrodinger Cat

String Theory:
Before the Big Bang



Einstein said we are in a bubble

String Theory says they should be other bubbles out there

When two universes colide, they can form another universe

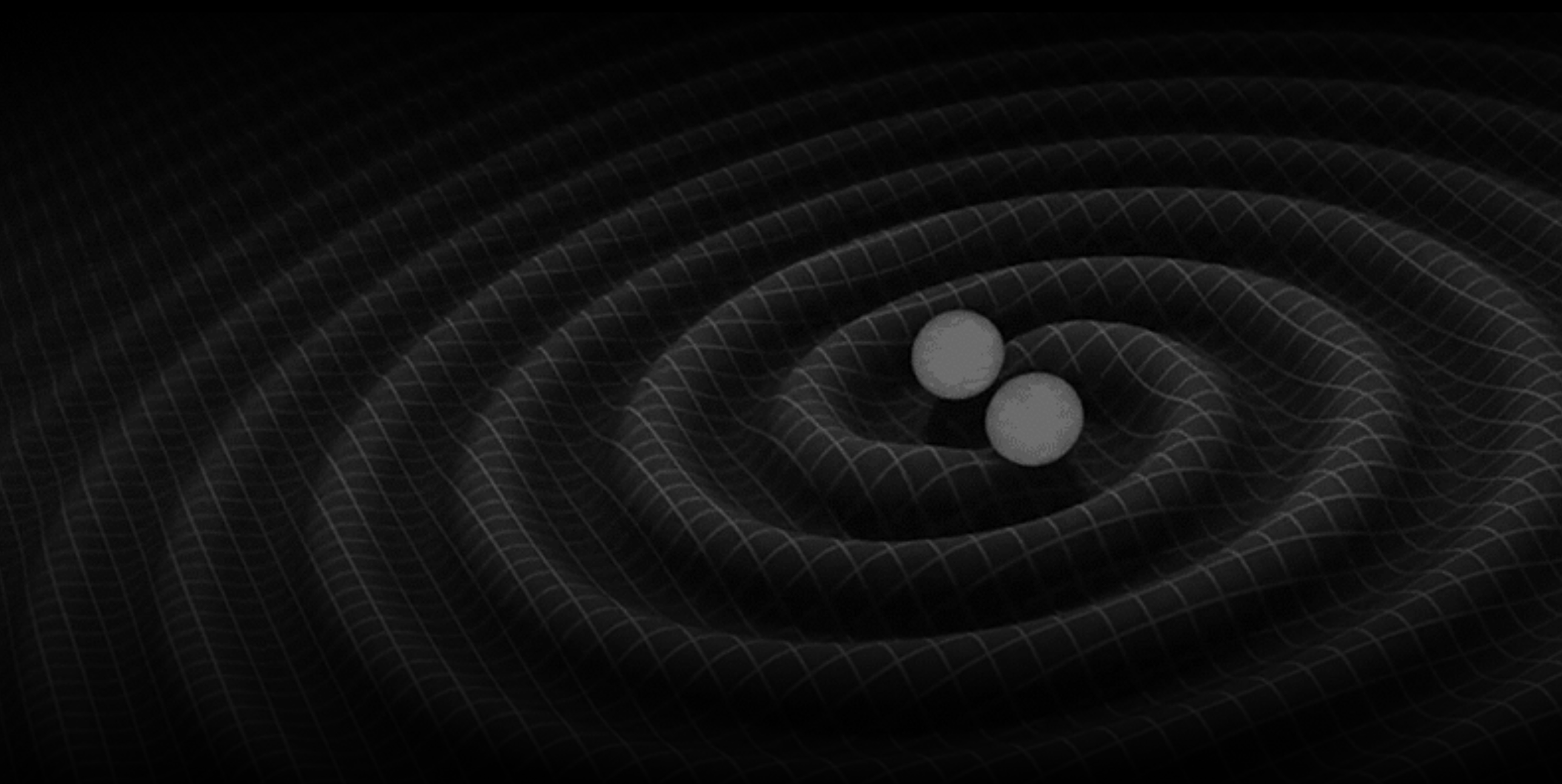
When a universe splits in half, it can create two universes

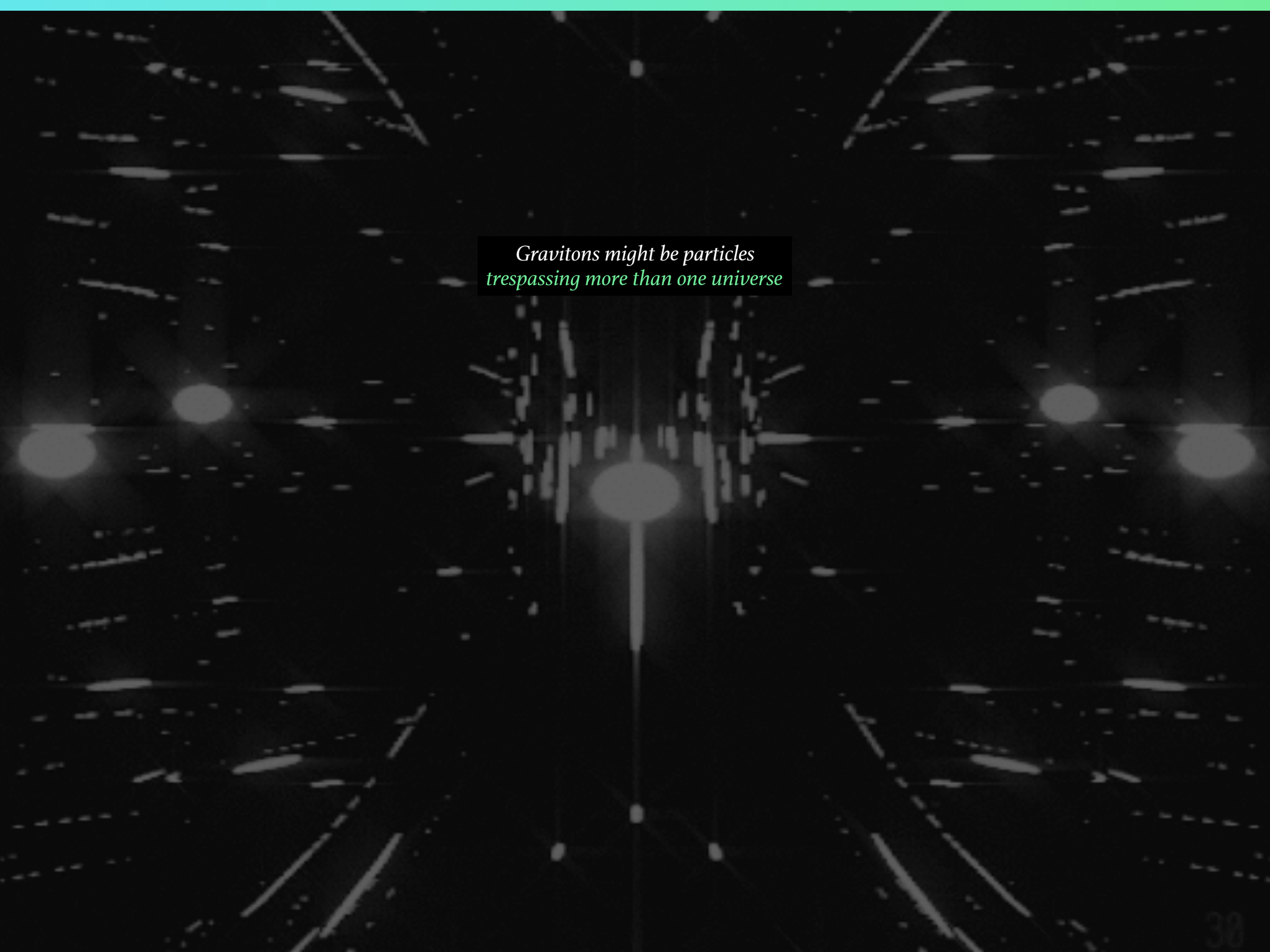
And that Michio Kaku think is
the big bang

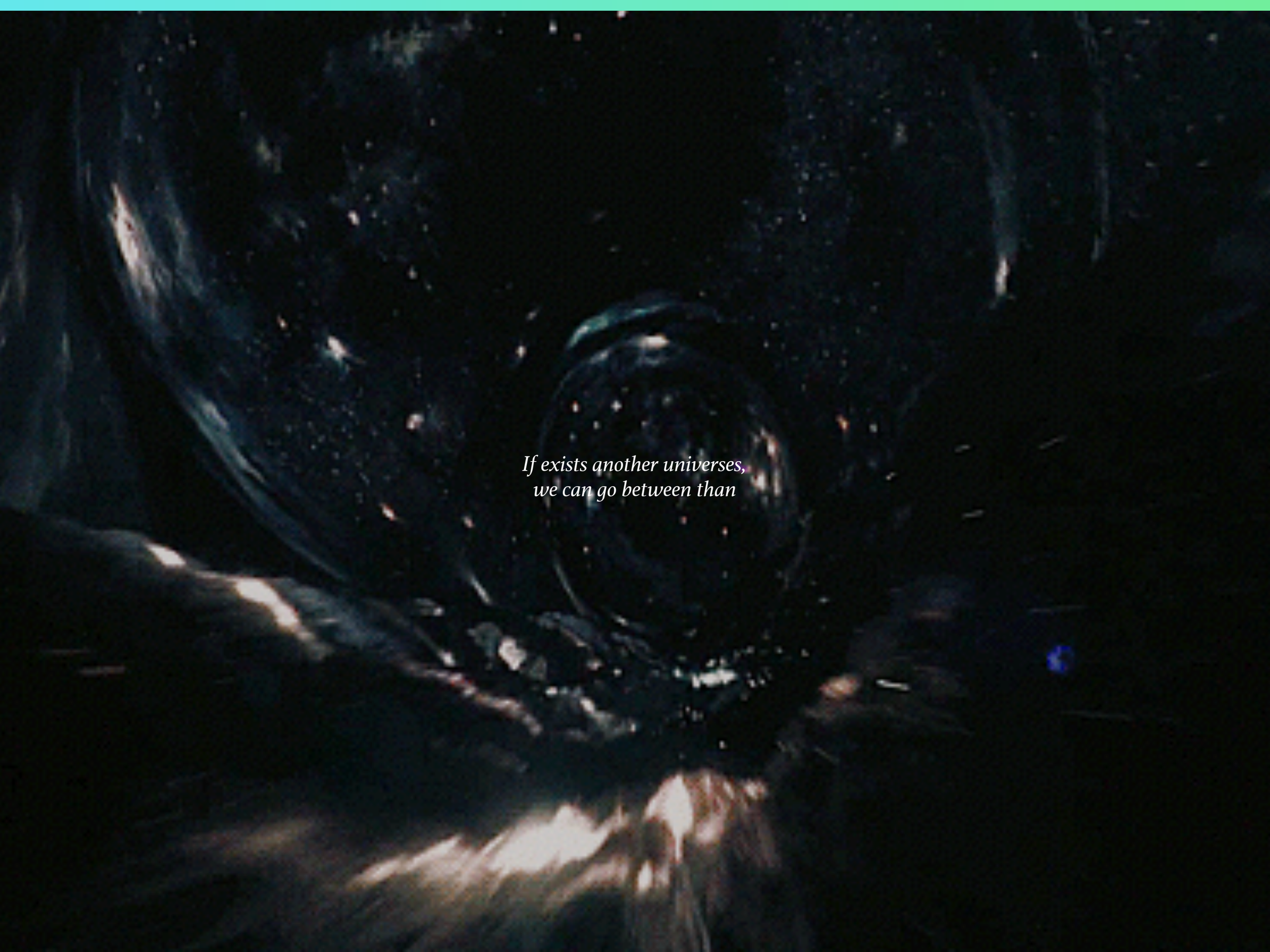
Unify
Quantum Mechanics
with Gravity

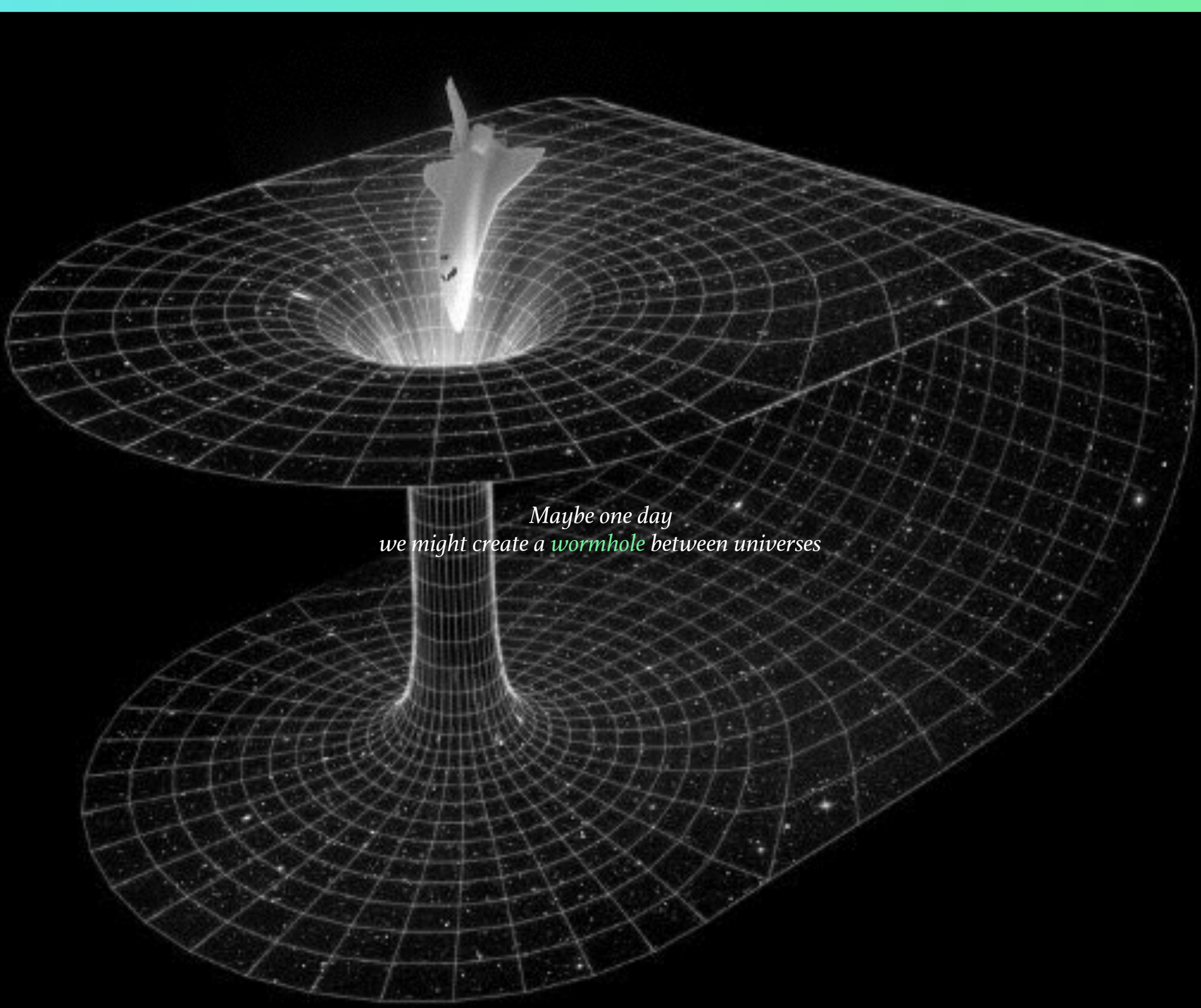


Centrists already confirmed that gravitational waves are real
and this is the first step to the string theory can be proven

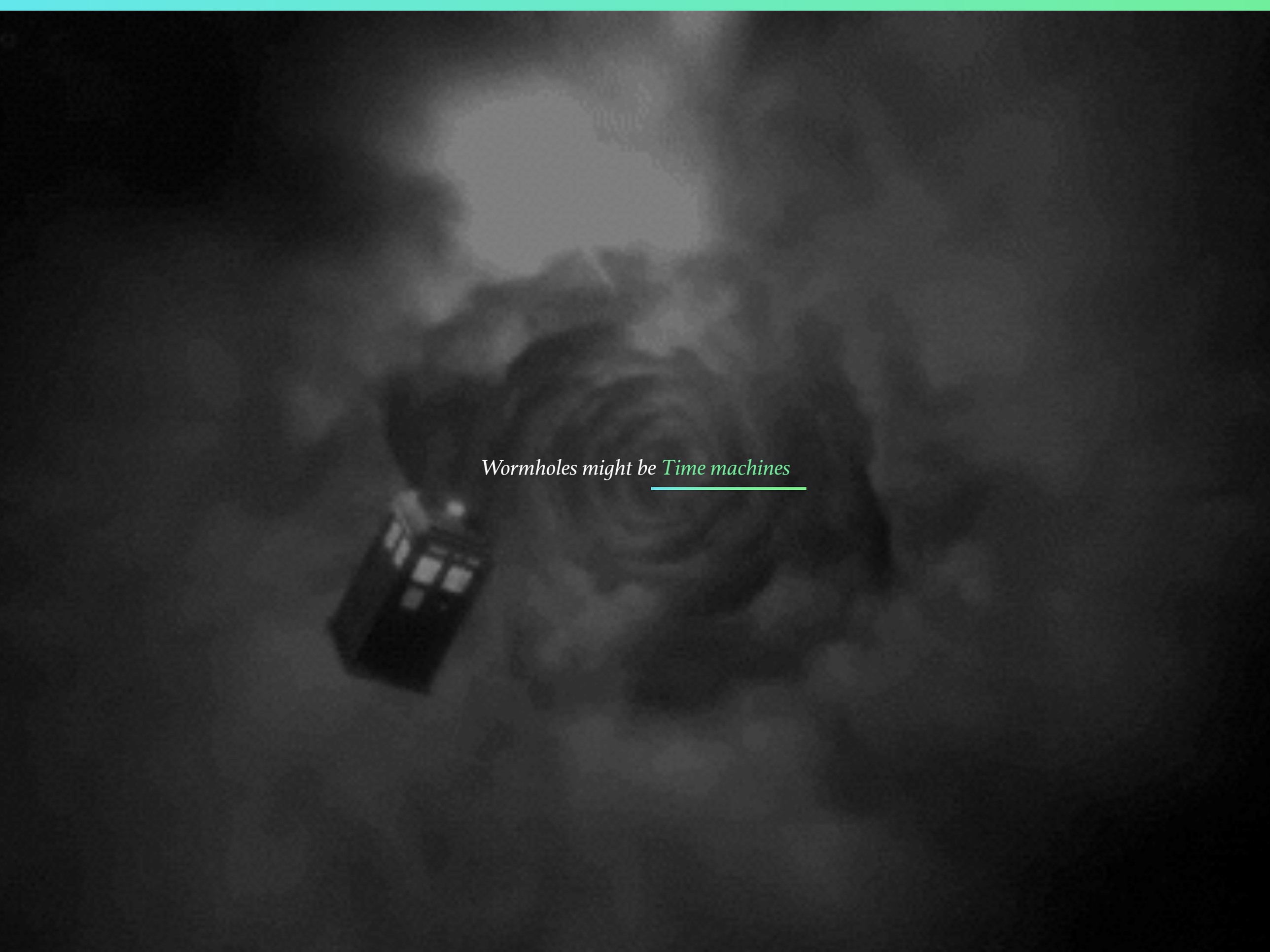


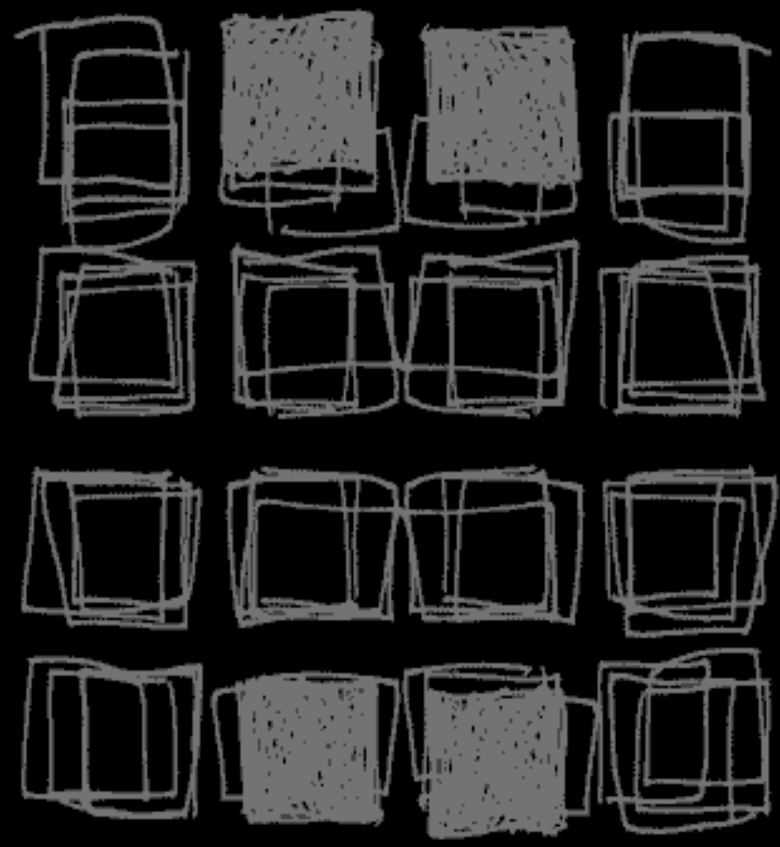

Gravitons might be particles
trespassing more than one universe


If exists another universes,
we can go between than



Maybe one day
we might create a wormhole between universes


Wormholes might be Time machines



Futuro Emergente *Futuro Pós Emergente* *Futuro*

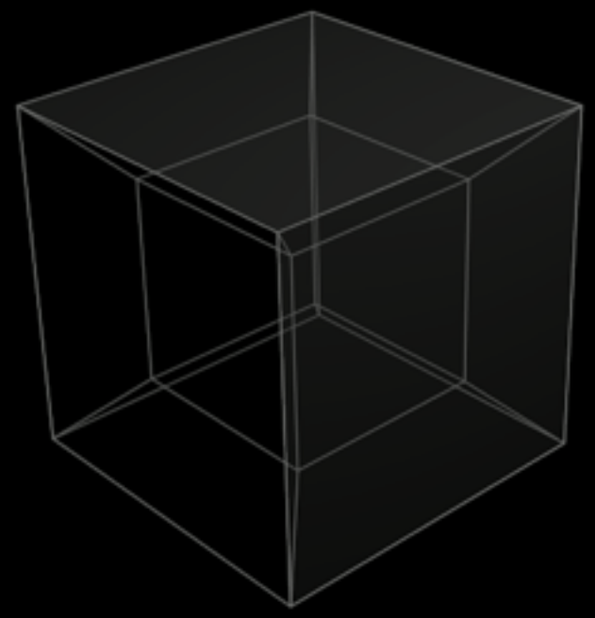
In an extreme future,
we already will have technology to do this



Why seek other universes?



Mesmo com tecnologias exponenciais,
um dia o ciclo de vida da Terra vai chegar ao fim



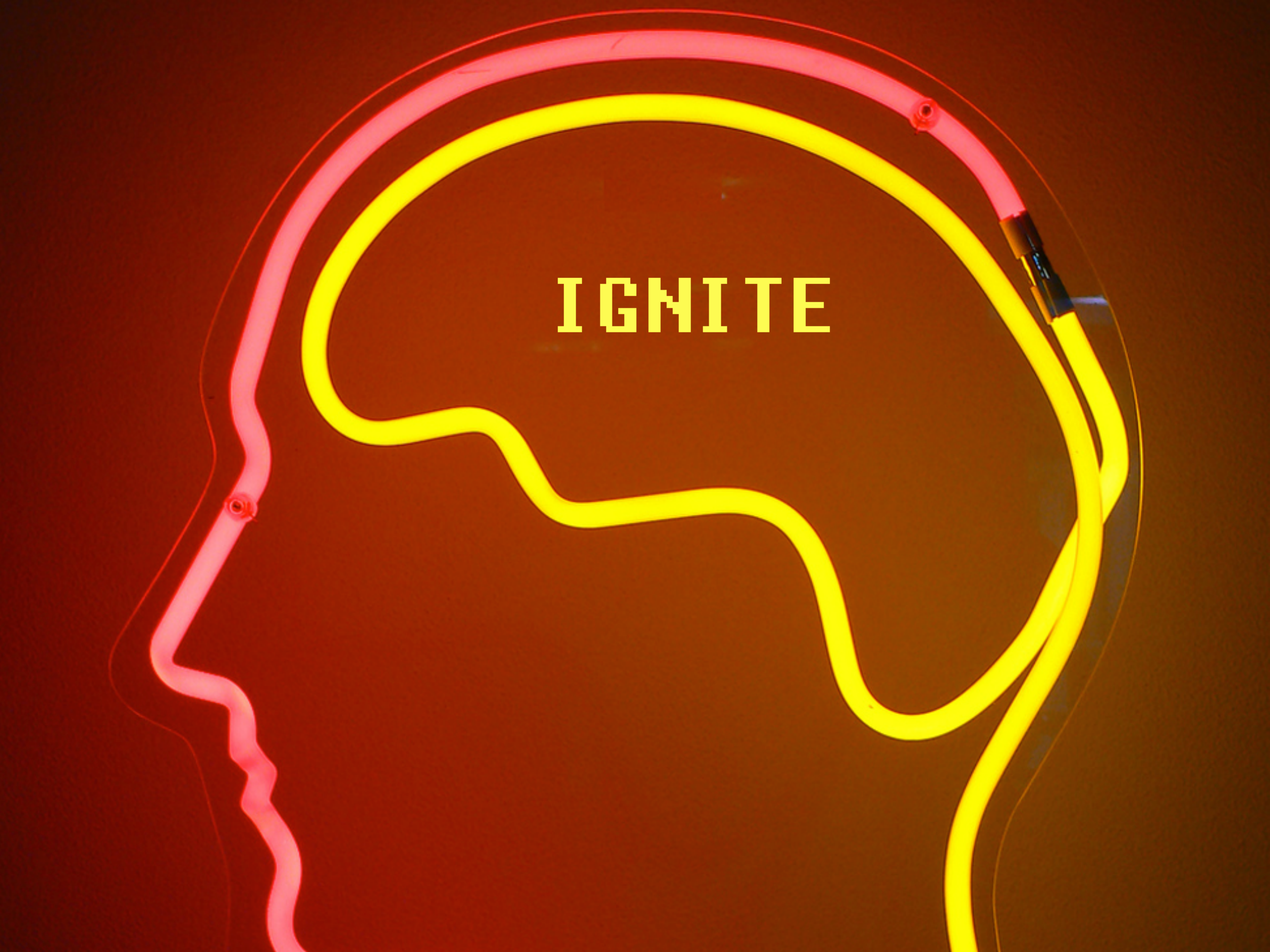
There's only one way to escape the death of the universe

and that is leave the universe

GRUPOS DE CINCO



Última história.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