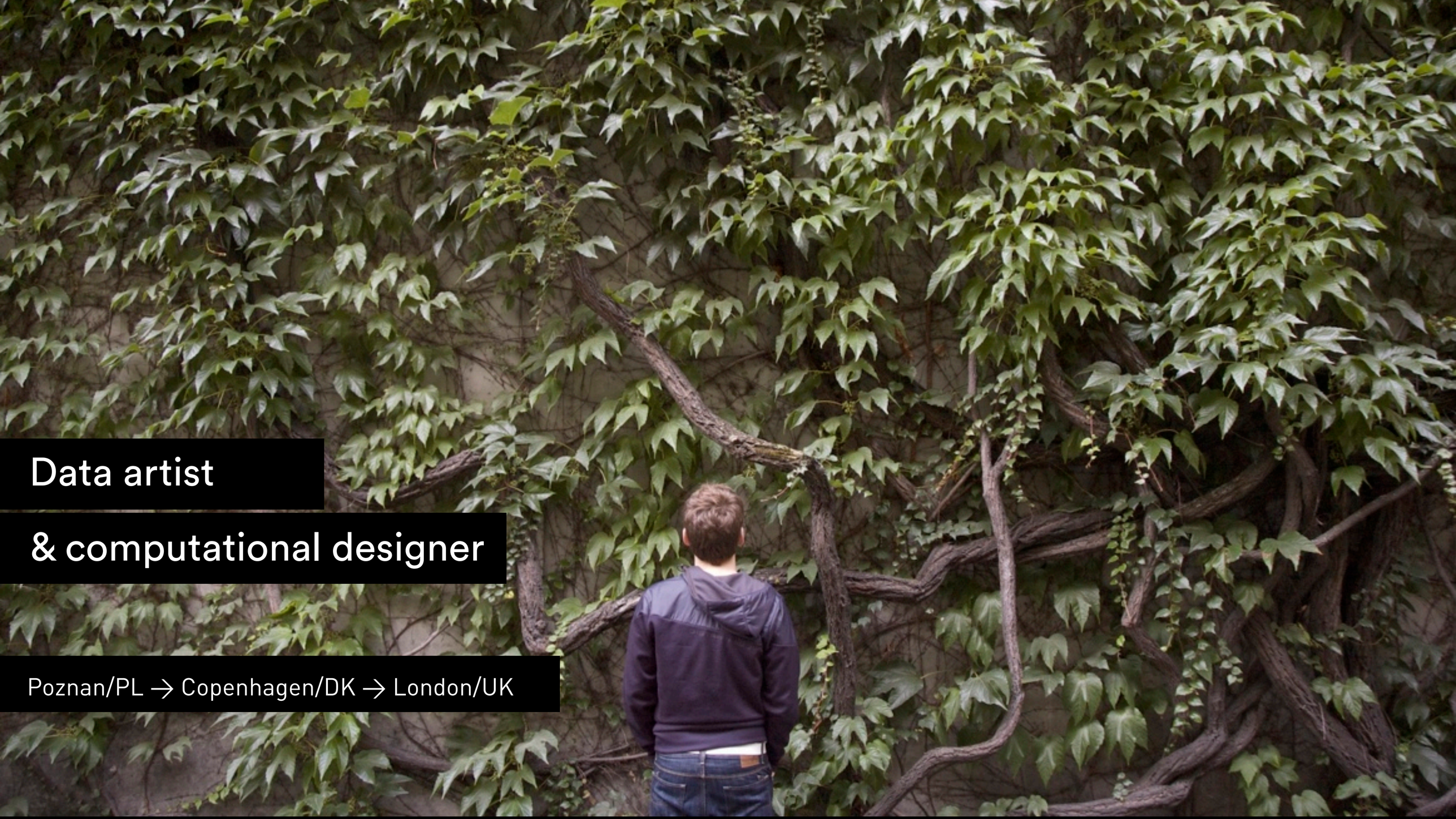
Data is Not A Number

Marcin Ignac / variable.io

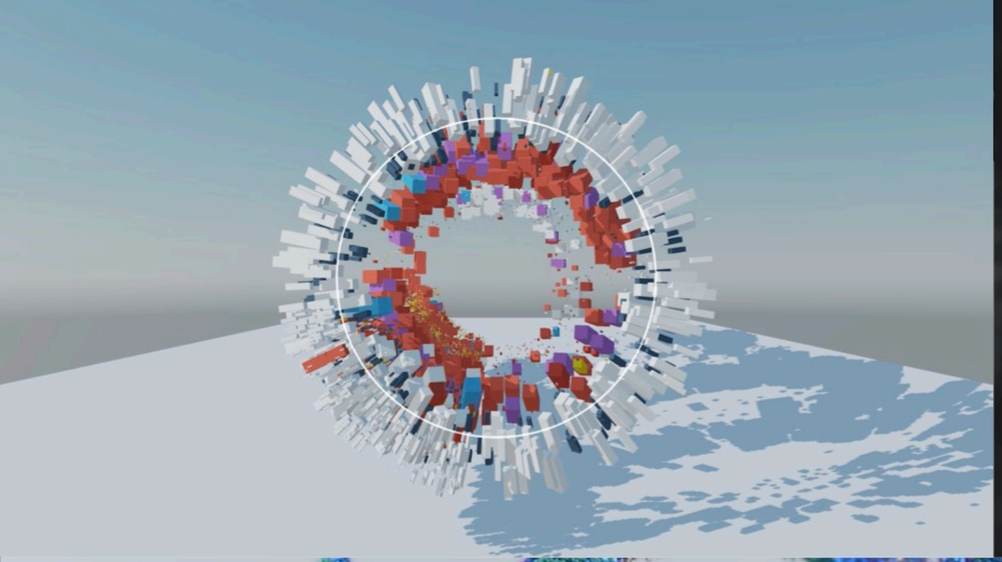
EFCE, 2020-09-11

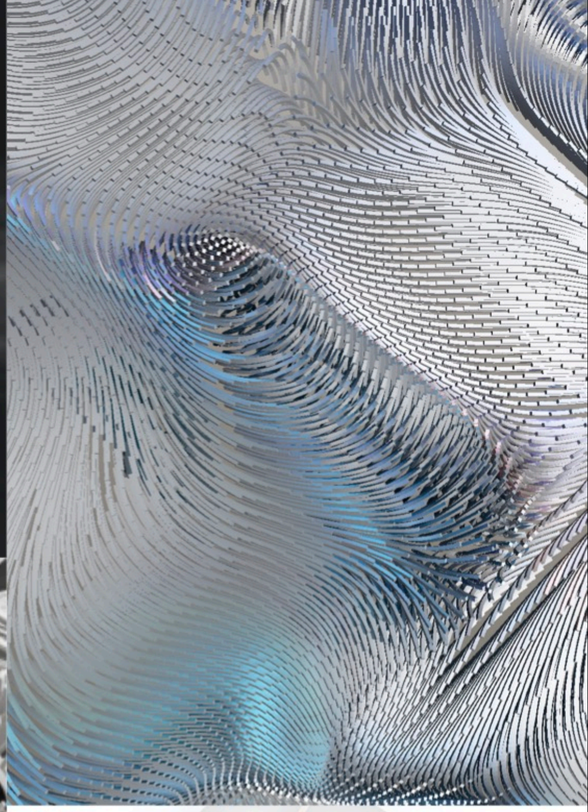


Data artist

& computational designer

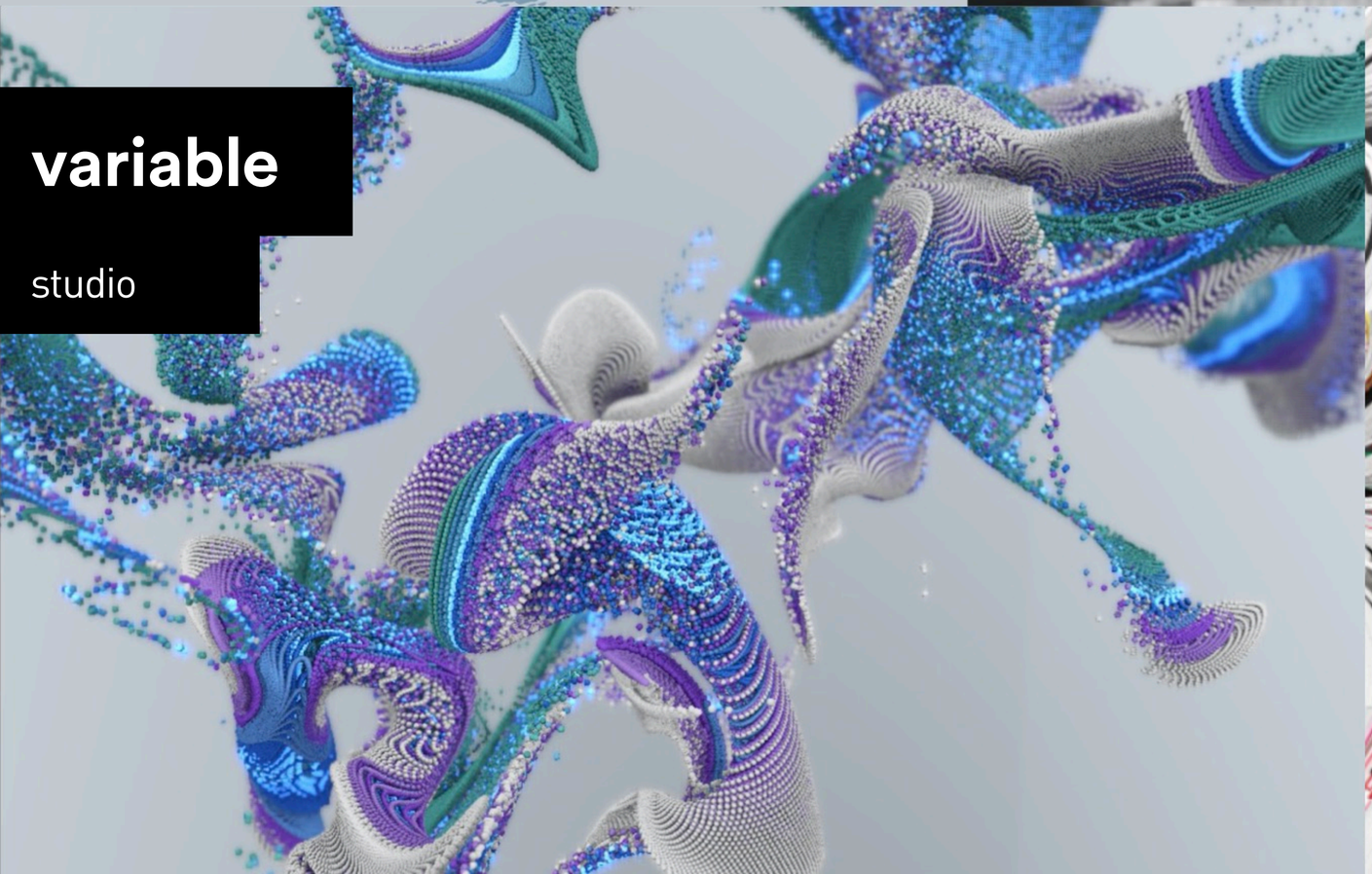
Poznan/PL → Copenhagen/DK → London/UK

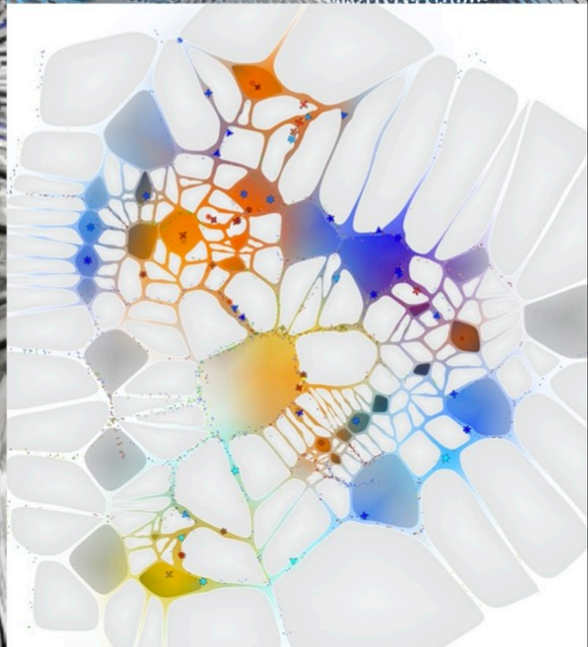




variable

studio



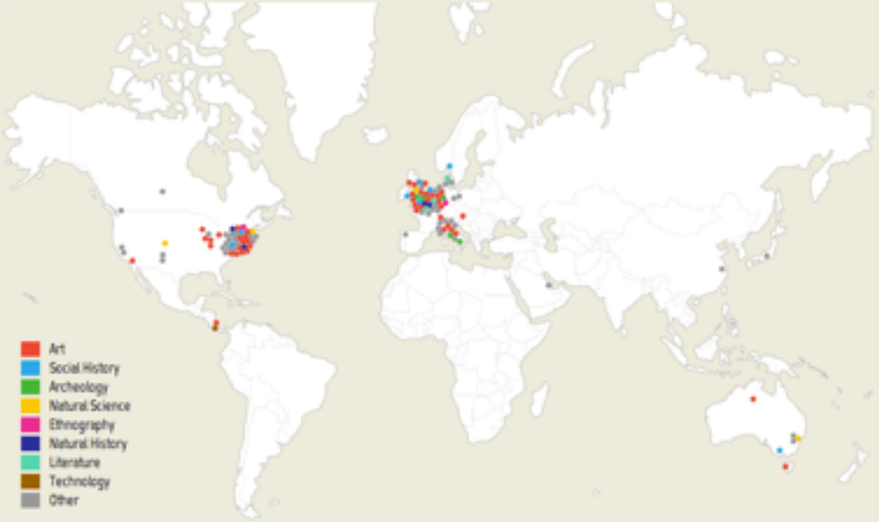


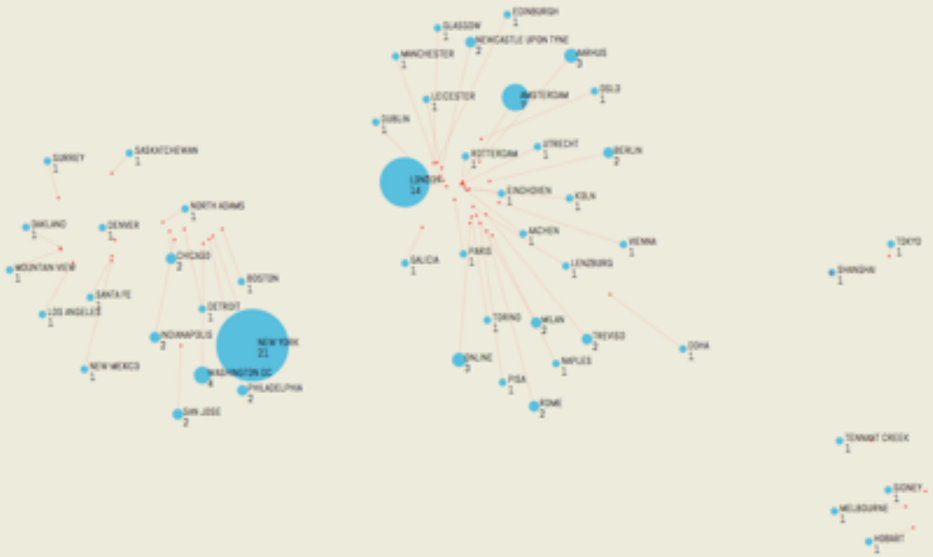
Data /ˈdeɪtə/ is a set of values of qualitative or quantitative variables

Data?

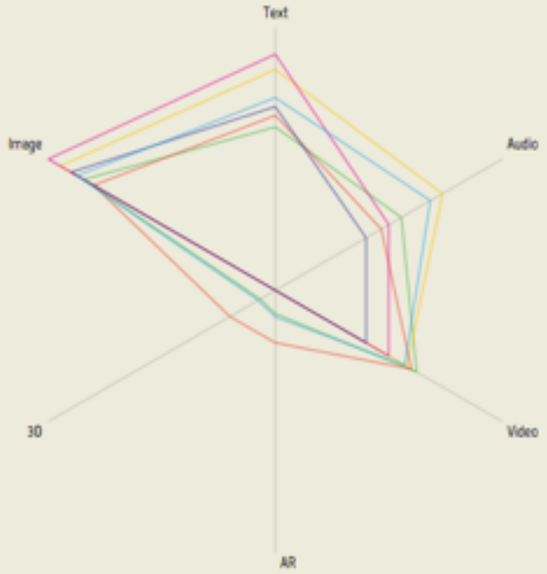
Financial year	Grant	Grant Reference	Applicant Surname	Grant Type	Organisation	Region	Country	Project title	Start Date	End Date
2000/01	063634	063634/Z/01/Z	AGRANOFF	Advanced Fellowship for Medical	St George's University of London	Greater London	United Kingdom	Comprehensive functional analysis of the mycobacterium tuberculosis Nramp orthologue and its contribution to intracellular survival.	01/11/2001	30/11/200
2000/01	066619	066619/Z/01/Z	BLAIR	Advanced Fellowship for Medical	University of Oxford	South East	United Kingdom	Study of clinical and molecular genetic pathogenesis of hypertrophic cardiomyopathy.	15/10/2001	14/10/200
2000/01	056586	056586/Z/99/A	BROWN	Advanced Fellowship for Medical	Imperial College London	Greater London	United Kingdom	A molecular analysis of streptococcus pneumonia virulence.	01/10/2000	30/09/200
2000/01	062868	062868/Z/00/A	BRYANT	Advanced Fellowship for Medical	University of Cambridge	East of England	United Kingdom	Lipocortin - 1 regulation of the cellular responses to lipopoly - saccharide and bacterial infection in mice and horses.	01/08/2001	31/07/200
2000/01	062868	062868/Z/00/Z	BRYANT	Advanced Fellowship for Medical	University of Cambridge	East of England	United Kingdom	Lipocortin - 1 regulation of the cellular responses to lipopoly- saccharide and bacterial infection in mice and horses.	01/10/2000	30/09/200
2000/01	063557	063557/Z/01/Z	BUTTERY	Project Grant	University of Cambridge	East of England	United Kingdom	An analysis of the role of integrin receptors in the regulation of morphological plasticity in cerebellar Purkinje neurons.	01/10/2001	31/12/200
2000/01	063645	063645/Z/01/Z	COCK	Advanced Fellowship for Medical	University College London	Greater London	United Kingdom	Mechanisms of cell death and neuroprotection following status epilepticus.	01/09/2001	30/09/200
0/01	065054	065054/Z/01/Z	DOCKRELL	Advanced Fellowship for Medical	University of Sheffield	Yorkshire and the Humber	United Kingdom	The role of macrophage apoptosis in the pathogenesis of pneumococcal infection in vitro and in vivo.	01/10/2001	31/05/200
0/01	054740	054740/Z/98/B	DONNELLY	Advanced Fellowship for Medical	University College Dublin	Ireland	Ireland	Macrophage migration inhibitory factor (MIF) and inflammatory lung disease.	01/10/2000	31/03/200
2000/01	063835	063835/Z/01/Z	GARDEN	Advanced Fellowship for Medical	Imperial College London	Greater London	United Kingdom	The molecular basis of contact-dependent immunoregulation by anergic T cells.	13/08/2001	12/04/200
2000/01	064975	064975/Z/01/Z	HARARI	Advanced Fellowship for Medical	Imperial College London	Greater London	United Kingdom	Regulation of NF-kB by nitric oxide.	01/01/2002	31/12/200
2000/01	063599	063599/Z/01/Z	JACOBS	Advanced Fellowship for Medical	Imperial College London	Greater London	United Kingdom	The molecular basis of dengue haemorrhagic fever/ dengue shock syndrome: viral replication and innate antiviral defences.	01/08/2001	31/08/200
2000/01	064968	064968/Z/01/Z	LECLERC	Advanced Fellowship for Medical	University of Bristol	South West	United Kingdom	Role of AMP-activated protein kinase in human pancreatic islets: molecular identification of new interacting partners.	01/05/2002	31/08/200
2000/01	061174	061174/Z/00/A	NEWPORT	Advanced Fellowship for Medical	University of Cambridge	East of England	United Kingdom	Genetic regulation of immune responses to BCG vaccination in infants .	01/01/2001	31/01/200
2000/01	064389	064389/Z/01/Z	THOMPSON	Advanced Fellowship for Medical	King's College London	Greater London	United Kingdom	Molecular genetics of cholestatic liver disease.	01/07/2001	30/06/200
2000/01	065029	065029/Z/01/Z	WIGMORE	Advanced Fellowship for Medical	University of Edinburgh	Scotland	United Kingdom	Stress protein pre-conditioning and the hepatocyte acute phase protein response.	01/01/2002	31/12/200
2000/01	064261	064261/Z/01/Z	WILKINSON	Advanced Fellowship for Medical	Imperial College London	Greater London	United Kingdom	Host and bacillary correlates of pathology in human tuberculosis.	01/10/2001	30/09/200
2000/01	064271	064271/Z/01/Z	ALDRED	Advanced Training	University of	East	United	Genomic approaches to the molecular pathology of	01/08/2001	31/07/200

Data > Information > Knowledge


Art
Social History
Archeology
Natural Science
Ethnography
Natural History
Literature
Technology
Other



Data?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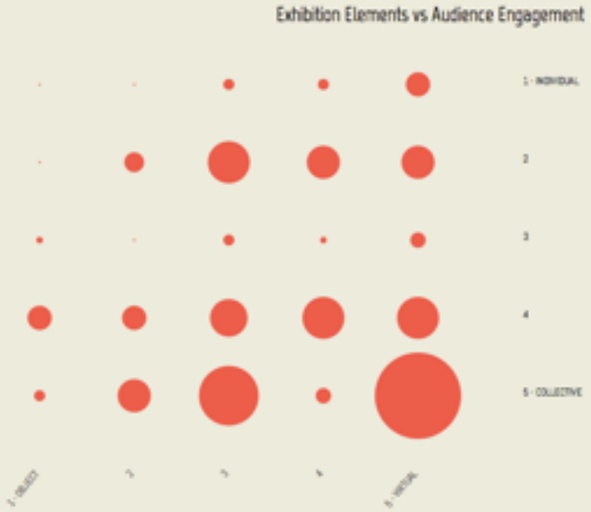
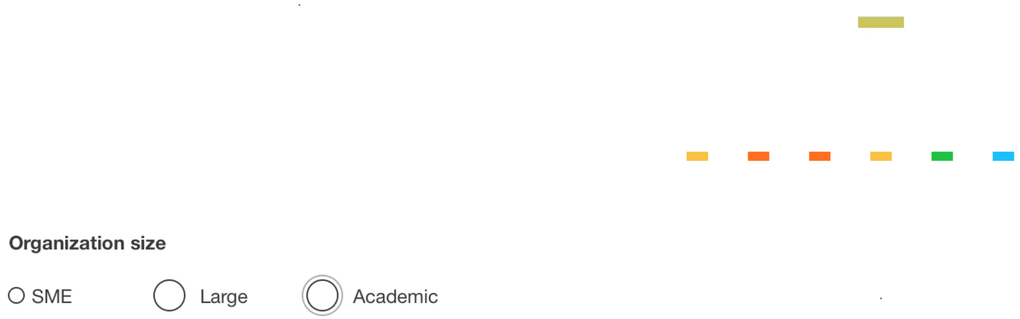

Exhibition Elements vs Audience Engagement
1 - INDIVIDUAL
2
3
4
5 - COLLECTIVE

Type of Institution - Field of Activity - Topic - Type of Media Exhibited - Audience Perception

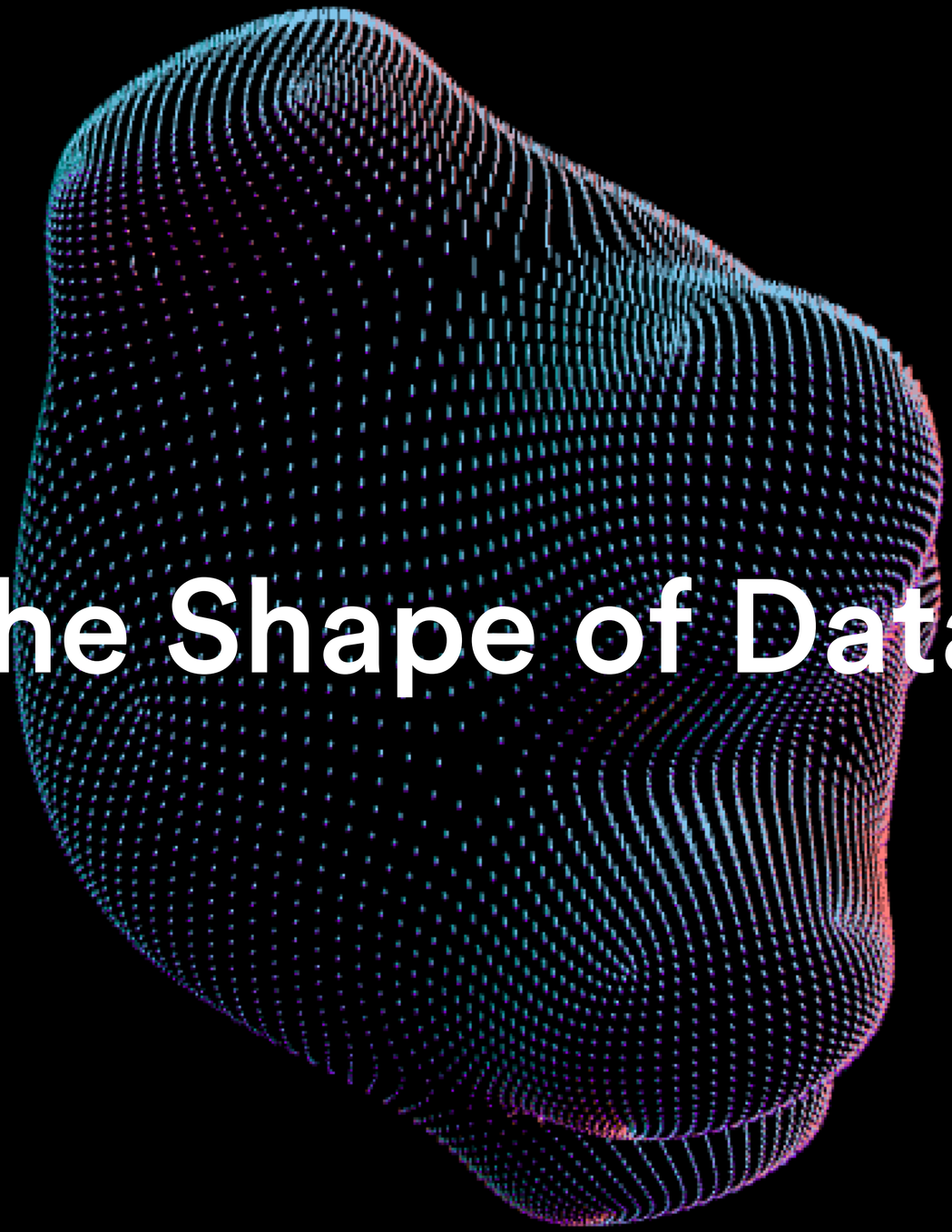
Organizations, projects and collaborators

2009 2010 2011 2012 2013



Data that can be experienced
and not only counted.

Blending of design, software and the aesthetics emerging from data, processes and human behaviour.

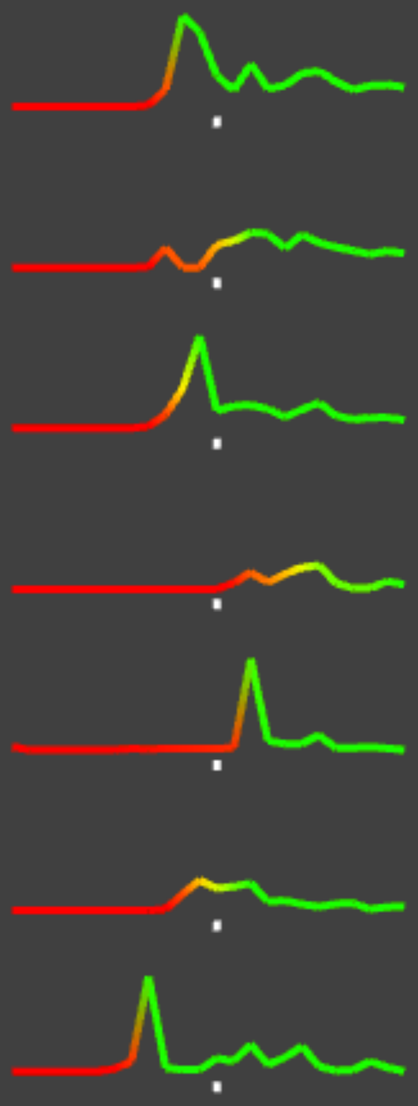


The Shape of Data

Algorithmic Skin

Nike FuelBand

One Week



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Wed May 07

6411 / 9
Tue May 06

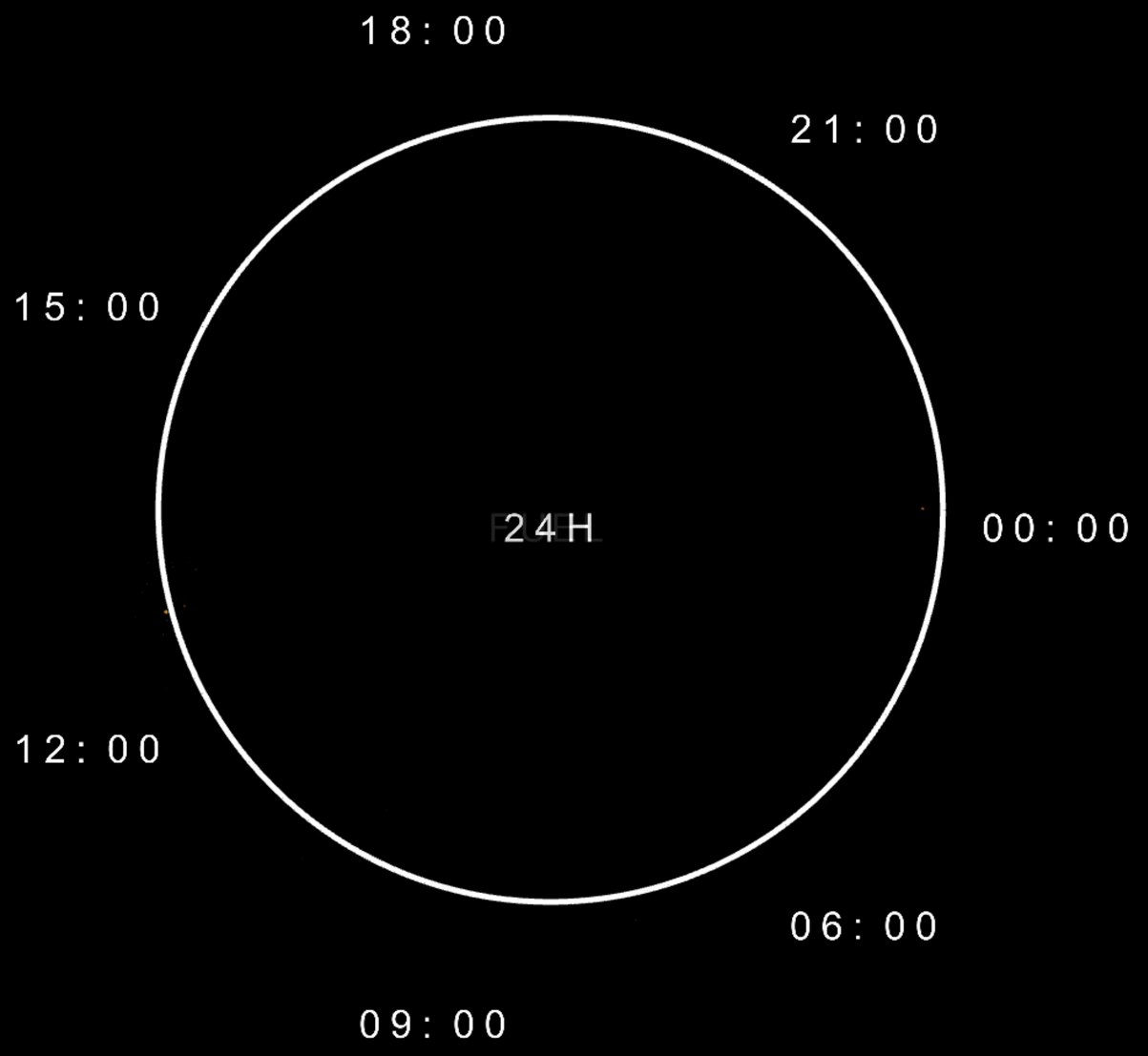
7534 / 10
Mon May 05

3720 / 4
Sun May 04

6852 / 9
Sat May 03

7660 / 10
Fri May 02

6207 / 5
Thu May 01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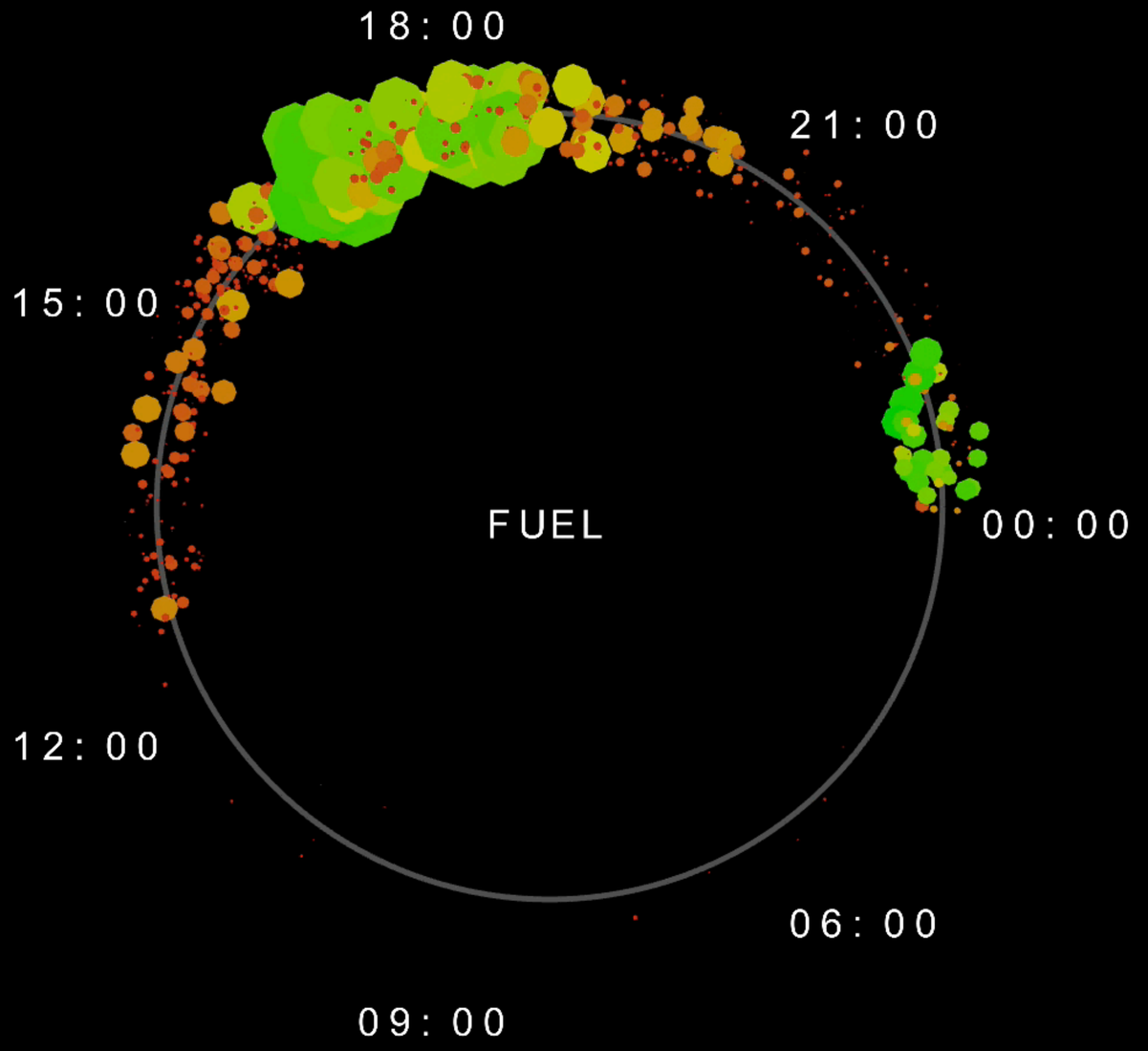
09:00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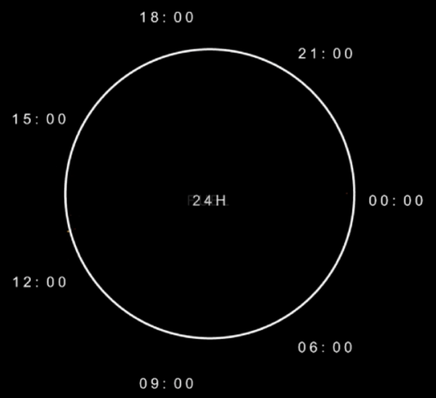
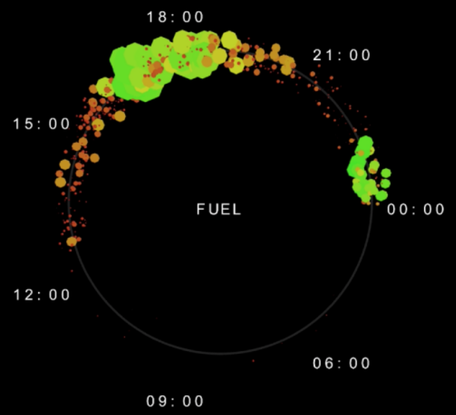
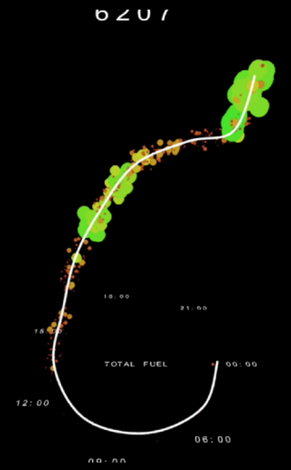


24 hours form a circle

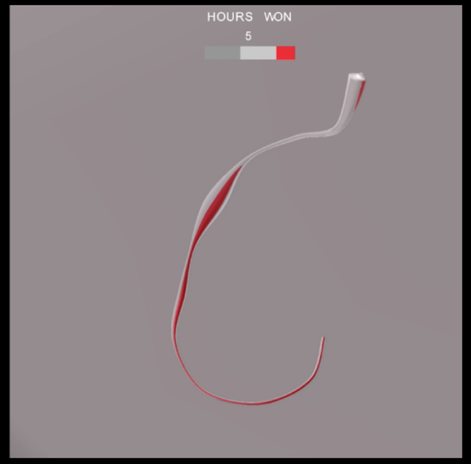


You collect fuel points throughout the day



Total amount of fuel points makes the fiber grow

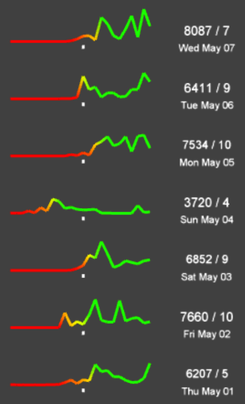
We form one continuous shape for your whole day



Number of hours won influences the colors

Whole week, one fiber for each day

7 runners


8087 / 7
Wed May 07
6411 / 9
Tue May 06
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3720 / 4
Sun May 04
6852 / 9
Sat May 03
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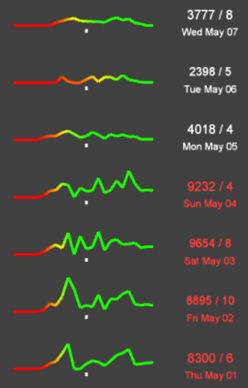
Fri May 02
6207 / 5
Thu May 01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8300 / 6
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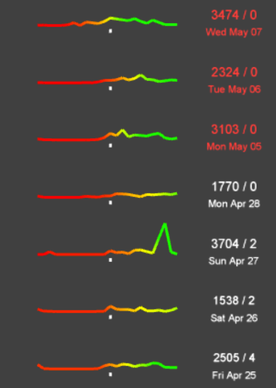
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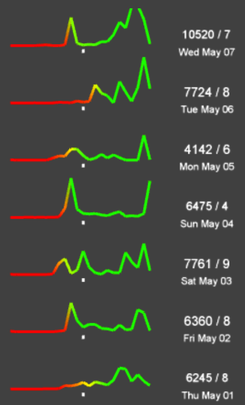
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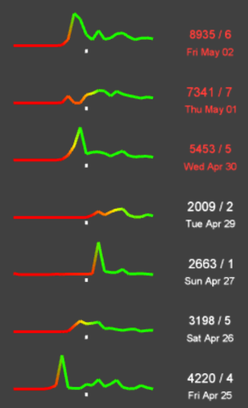
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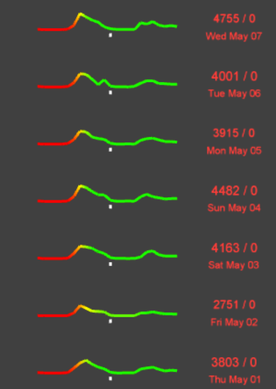
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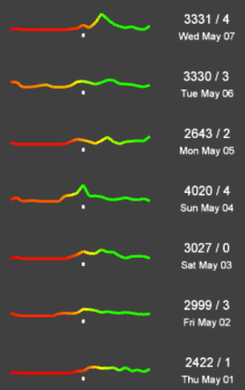
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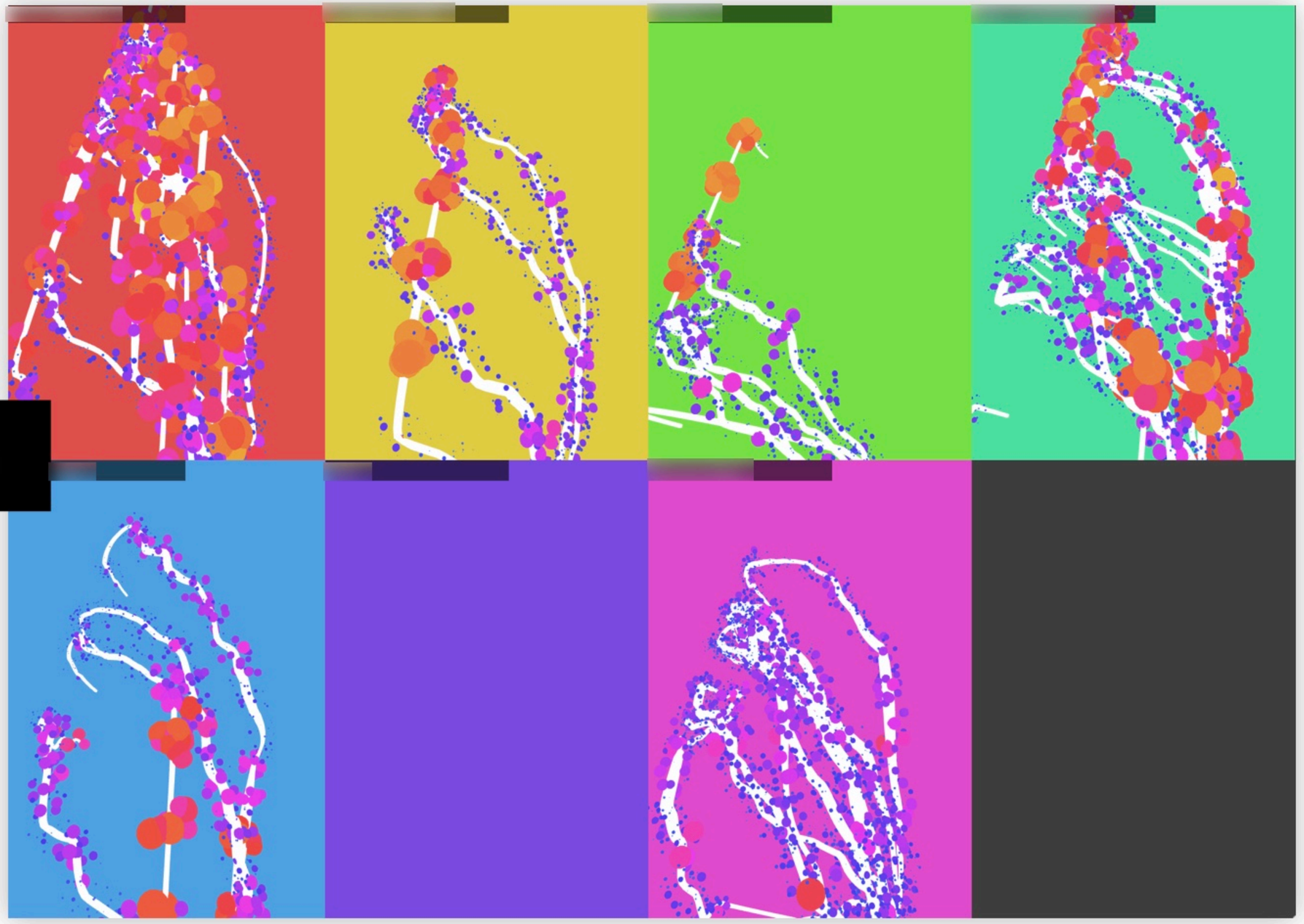
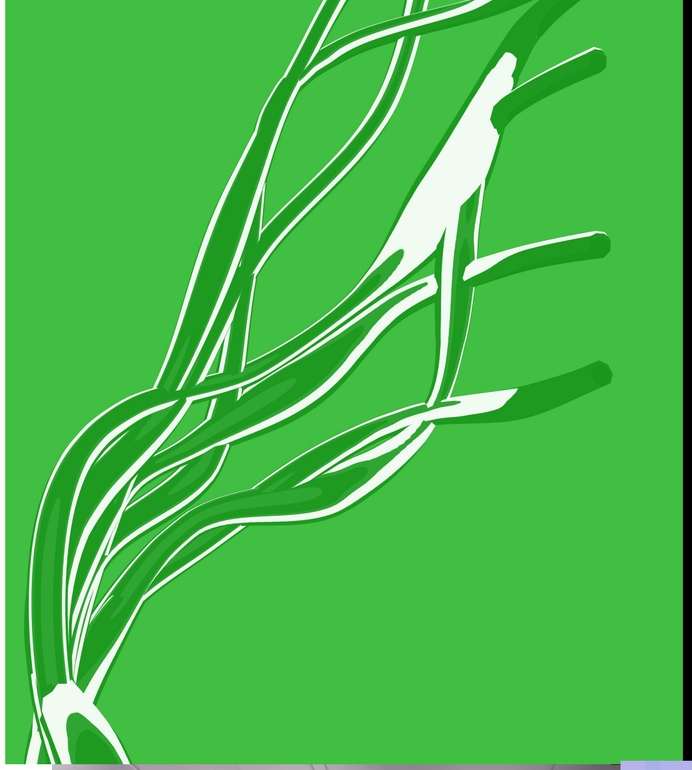
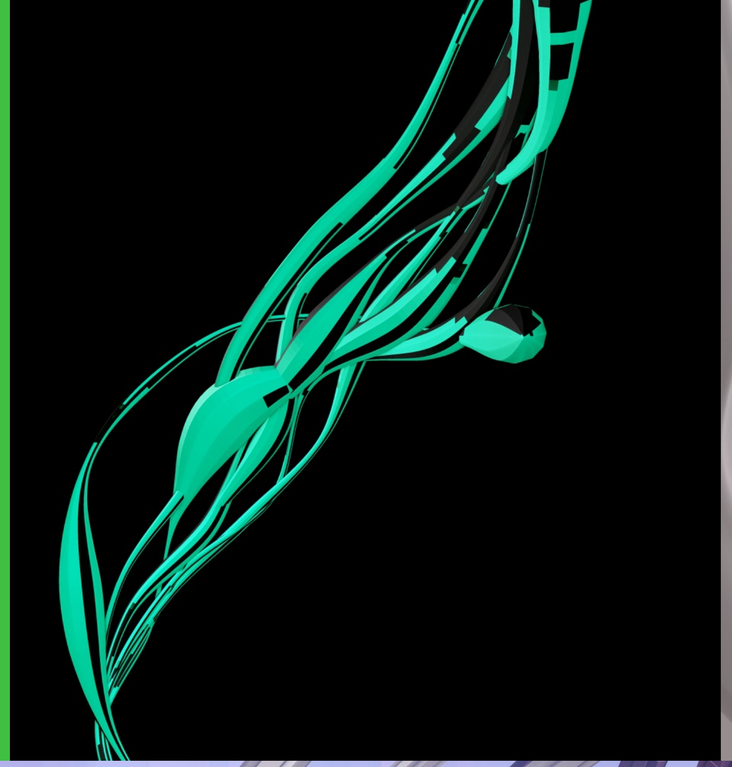
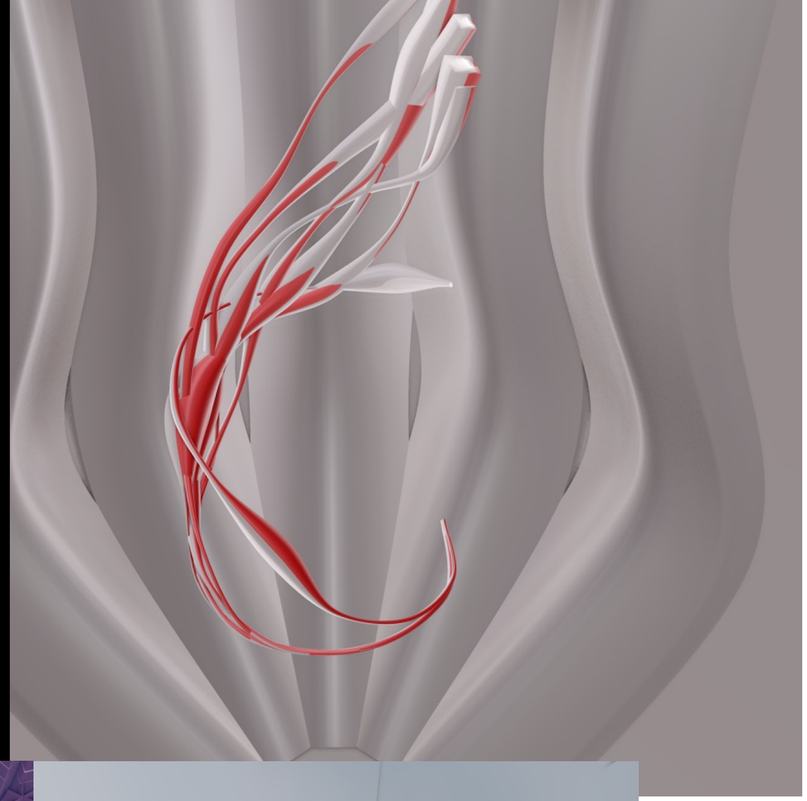
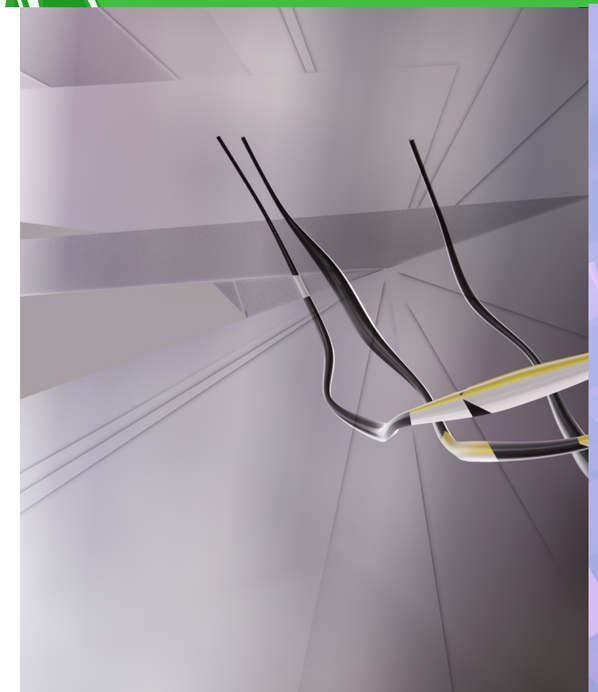
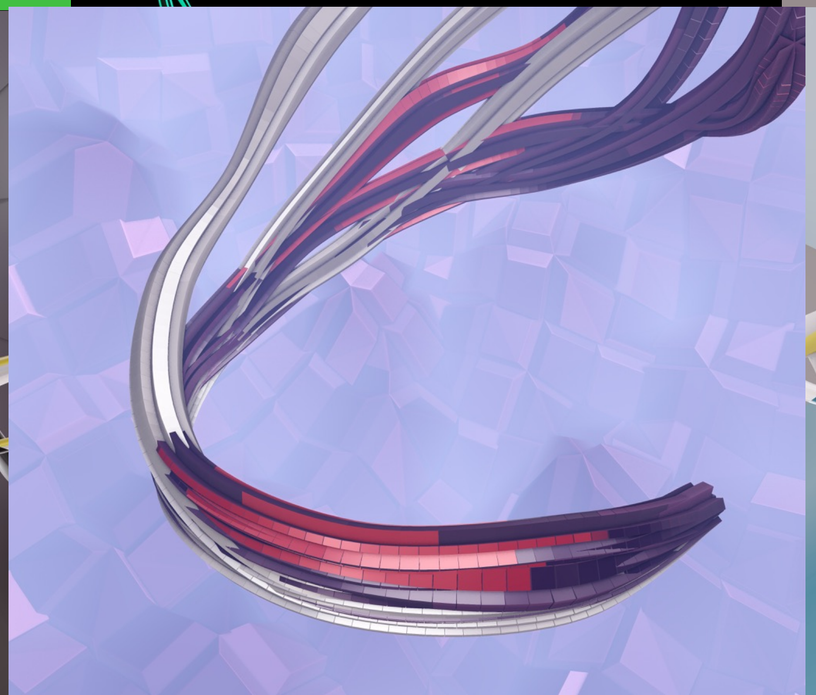
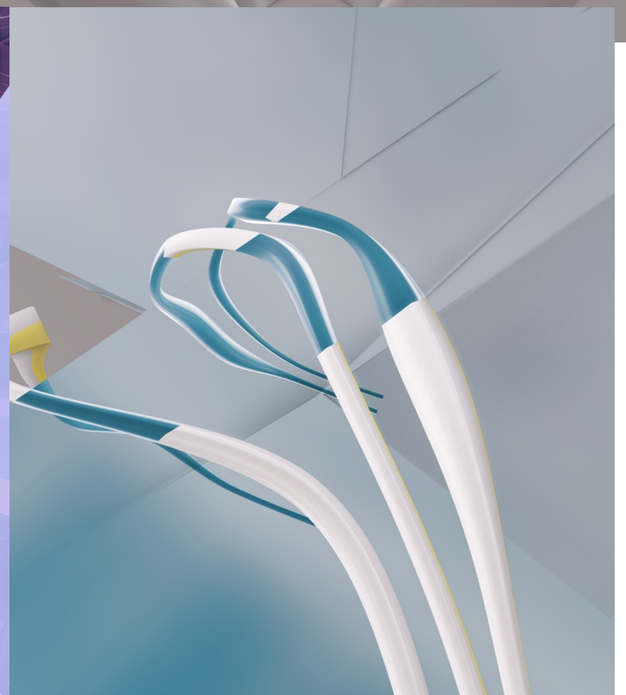
Thu May 01

Exploration



Inspiration

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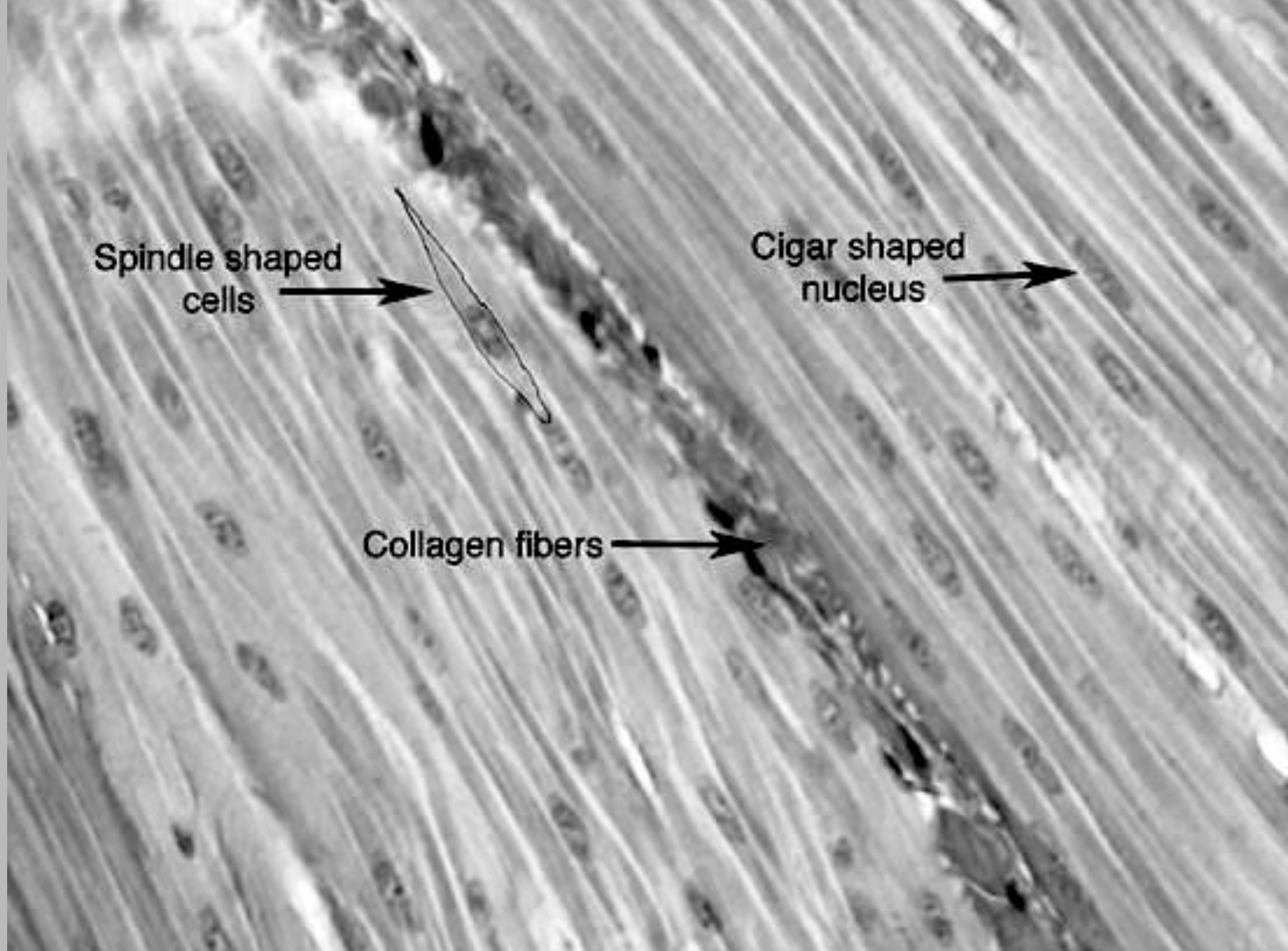
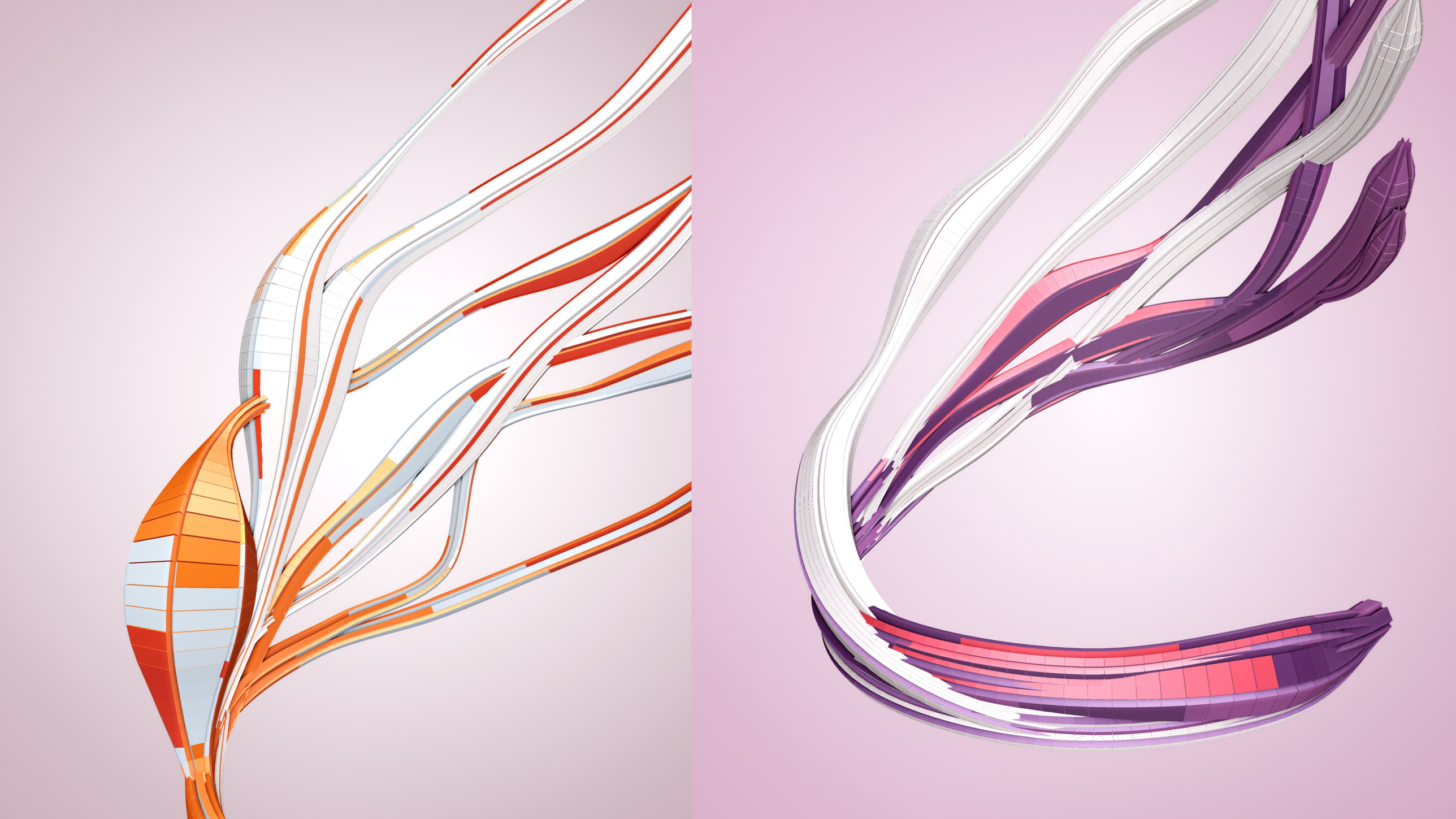


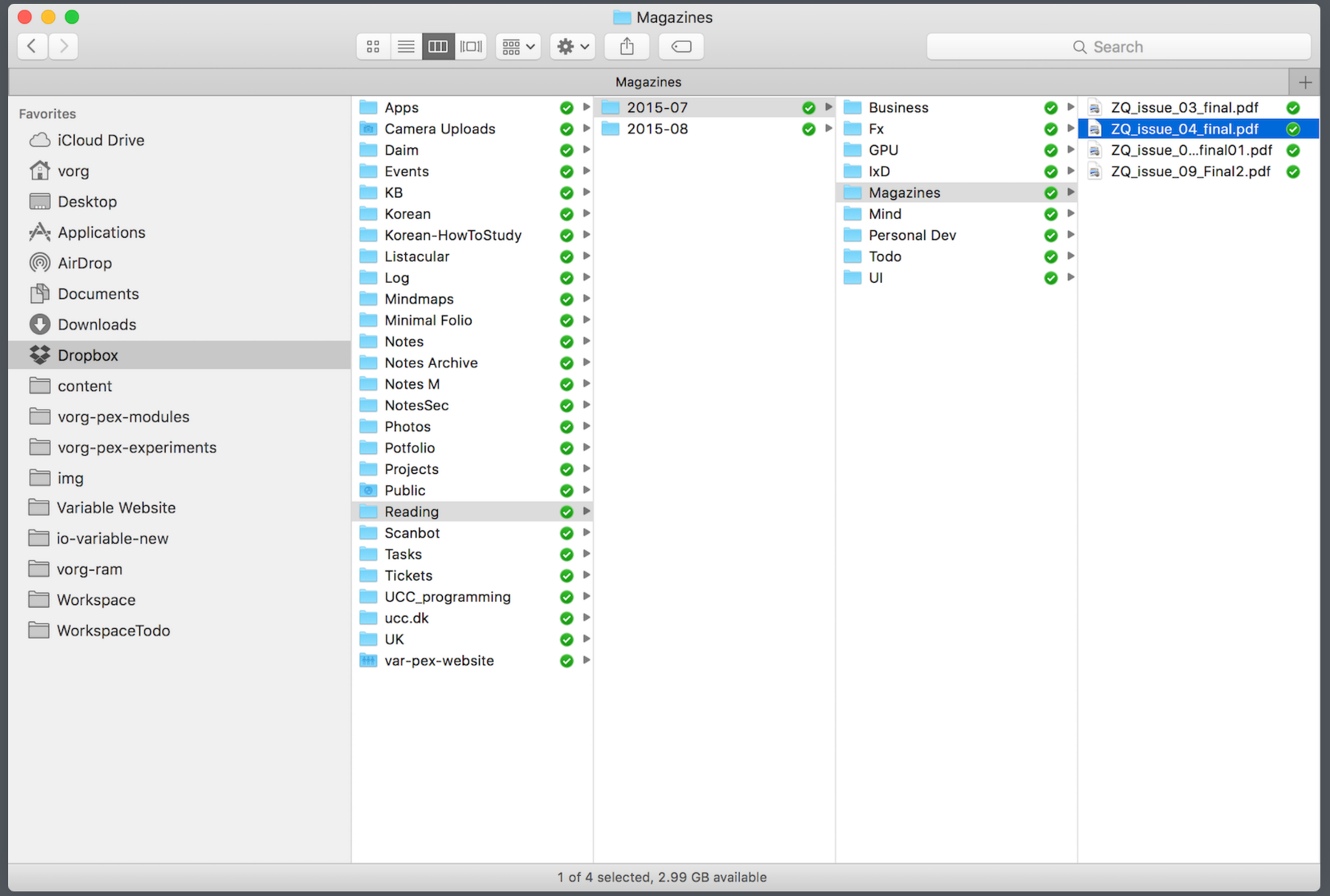
Inspiration

computer vision



Data as a Place

Dropbox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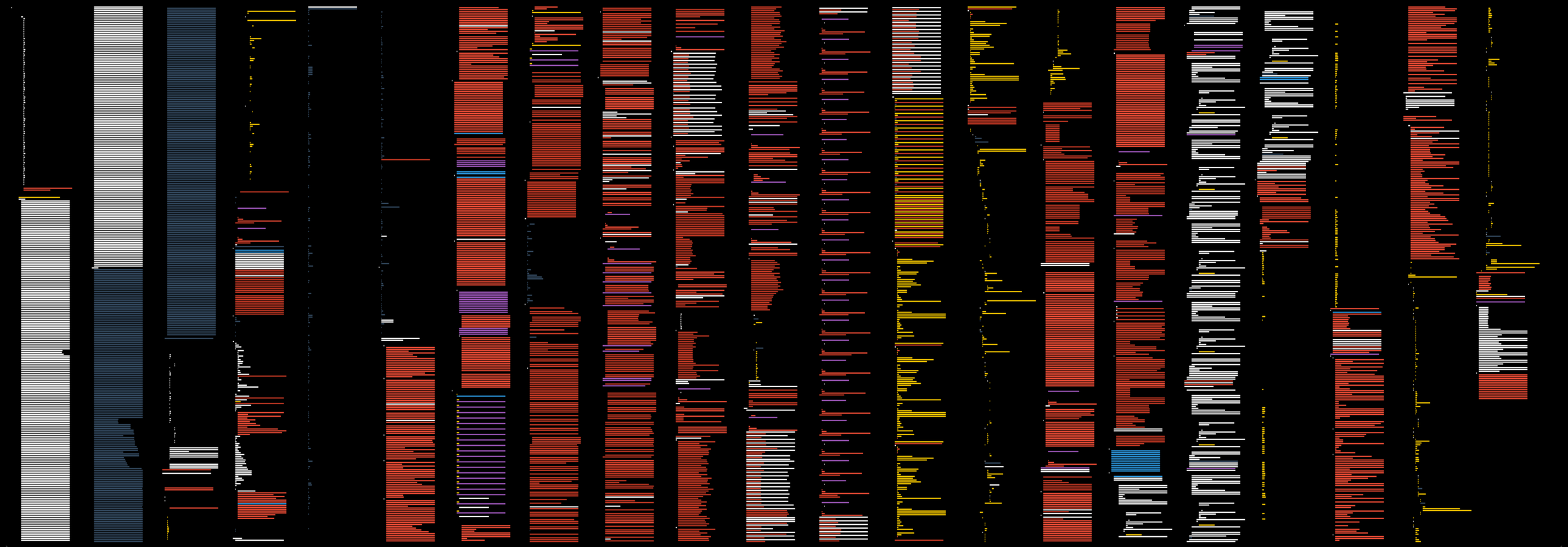
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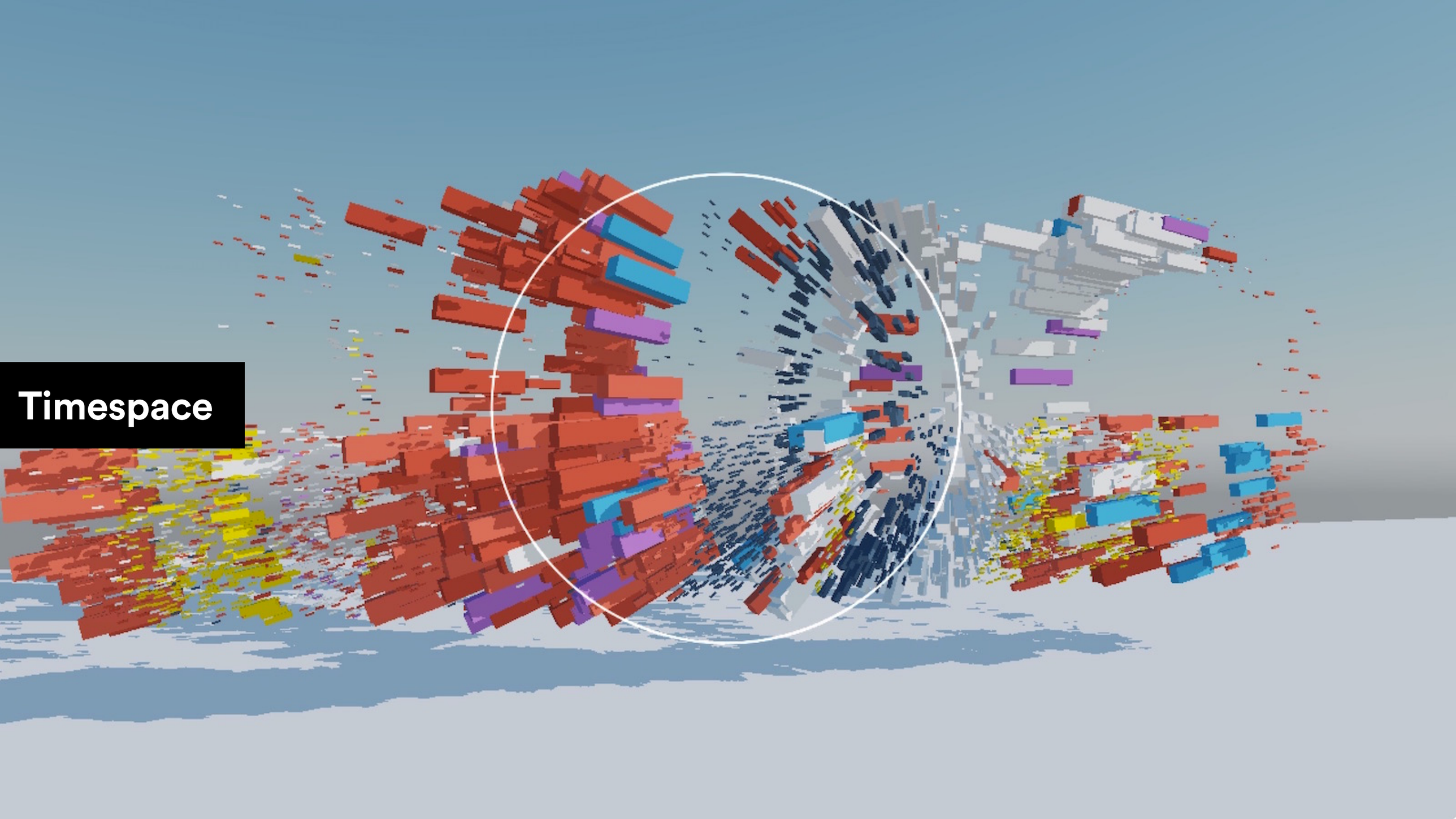
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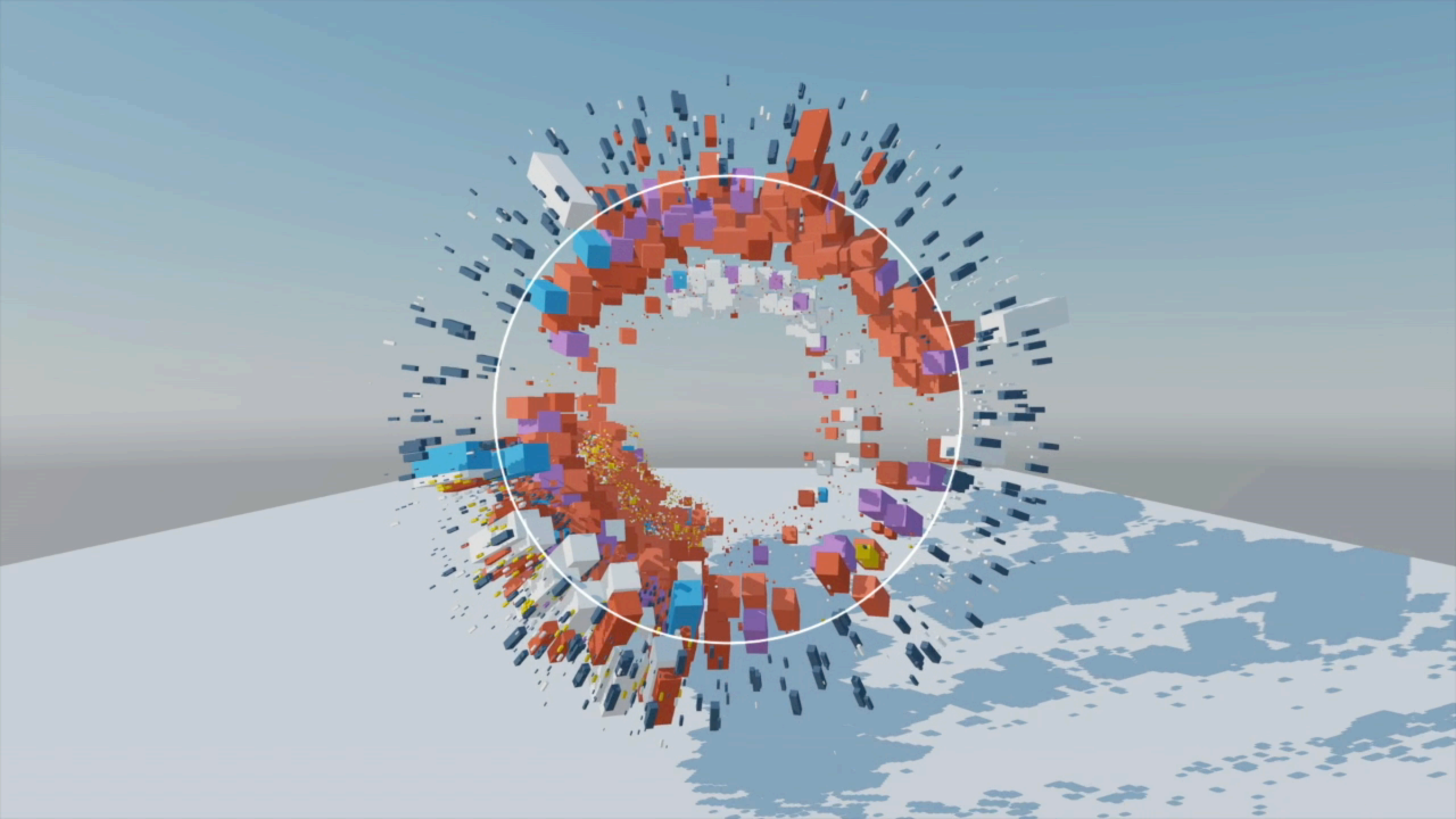
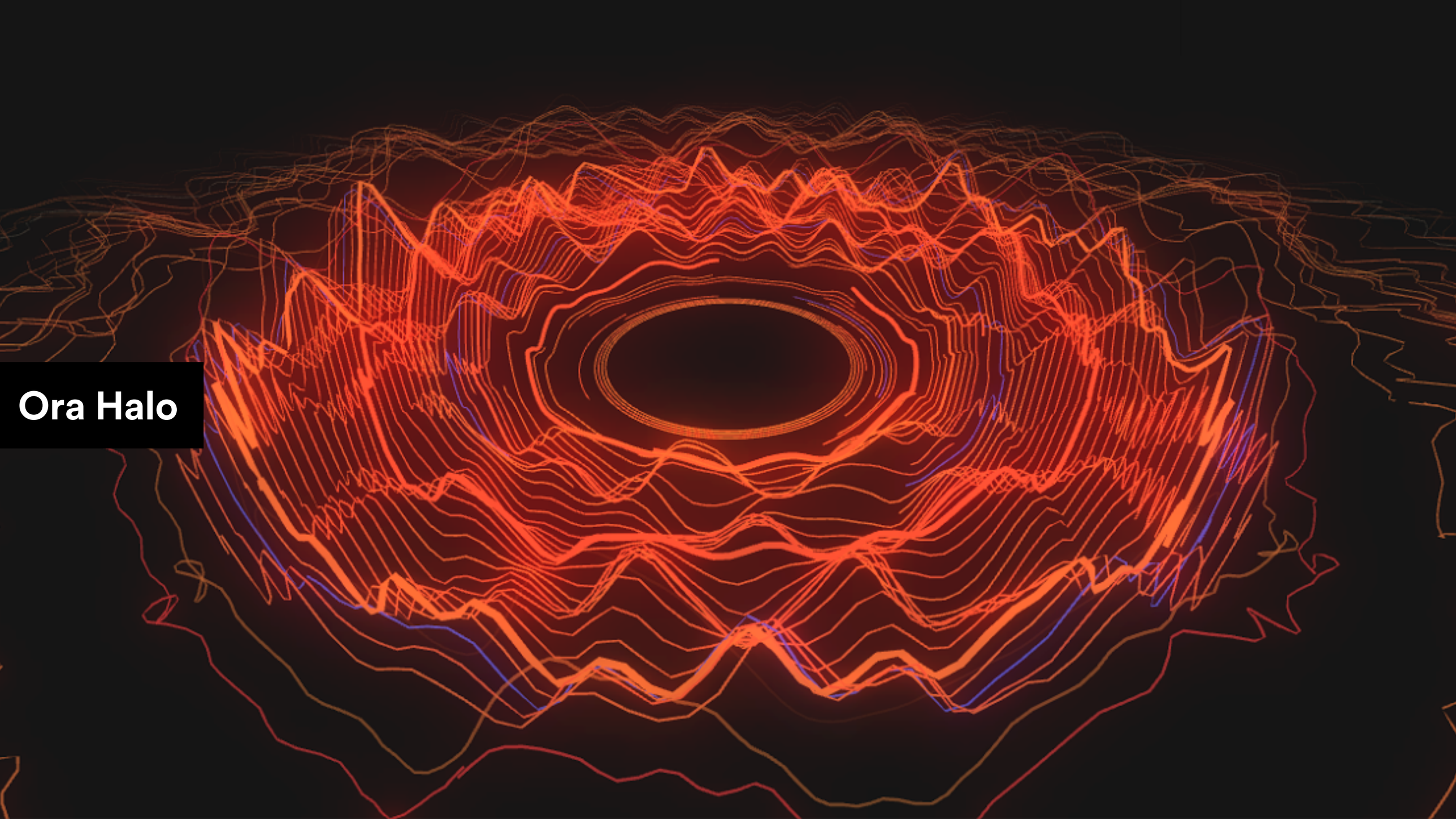
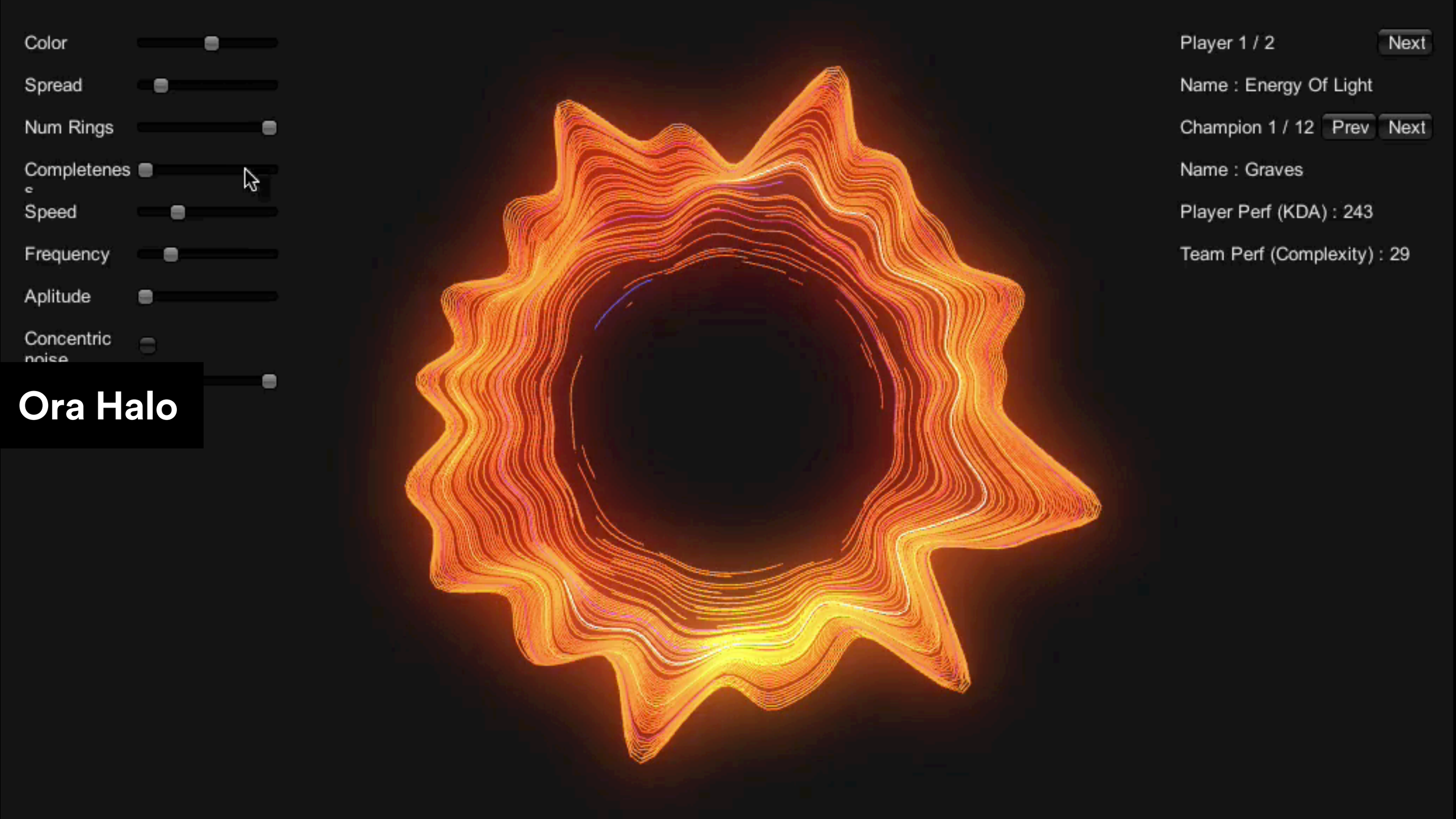


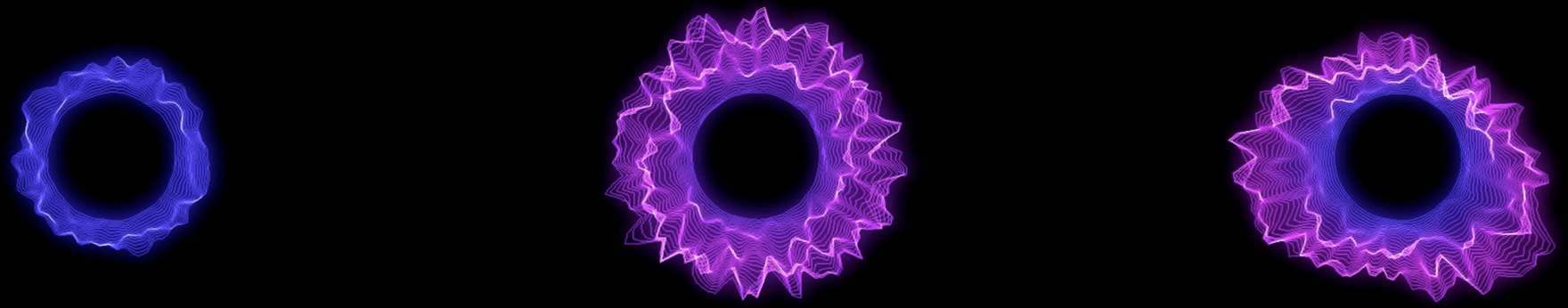
Synesthesia


Ora Halo

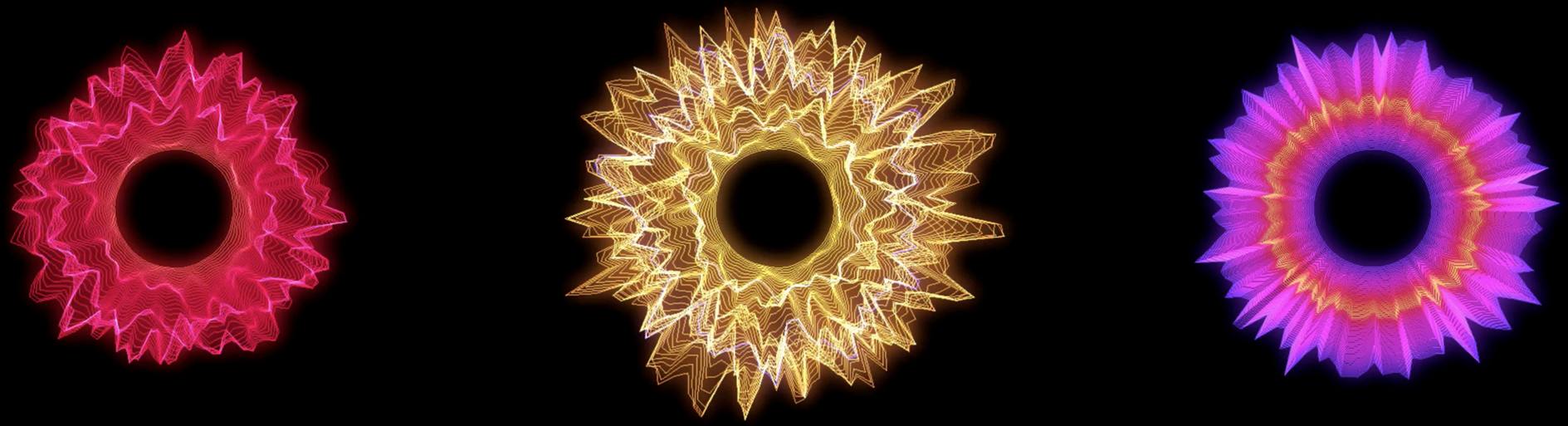

Color
Spread
Num Rings
Completenes
s
Speed
Frequency
Aplitude
Concentric
noise
Player 1 / 2
Next
Name : Energy Of Light
Champion 1 / 12
Prev
Next
Name : Graves
Player Perf (KDA) : 243
Team Perf (Complexity) : 29
Ora Halo

All
Body Mea
Fitness
Me
Nutrition
Reproduc
Results
Sleep
Vitals
Dashboard
10:09
100%
Dashboard
Day
Week
Month
Year
Activity
Today, 10:09
MOVE
134/320 kcal
320
EXERCISE
12/30 min
30
STAND
3/12 hr
12
22 Feb
29
7 Mar
14
Steps
Daily Average: 8,757
1,152
22 Feb
29
7 Mar
14
Heart Rate
Min: 53 Max: 138
Dashboard
Health Data
Sources
Health Mate
10:09
135
134
Fat mass
18.3 %
B.M.I.
23.4

Hey Siri what's my heart rate
63 BPM
68 BPM, 4m ago



Ora Halo



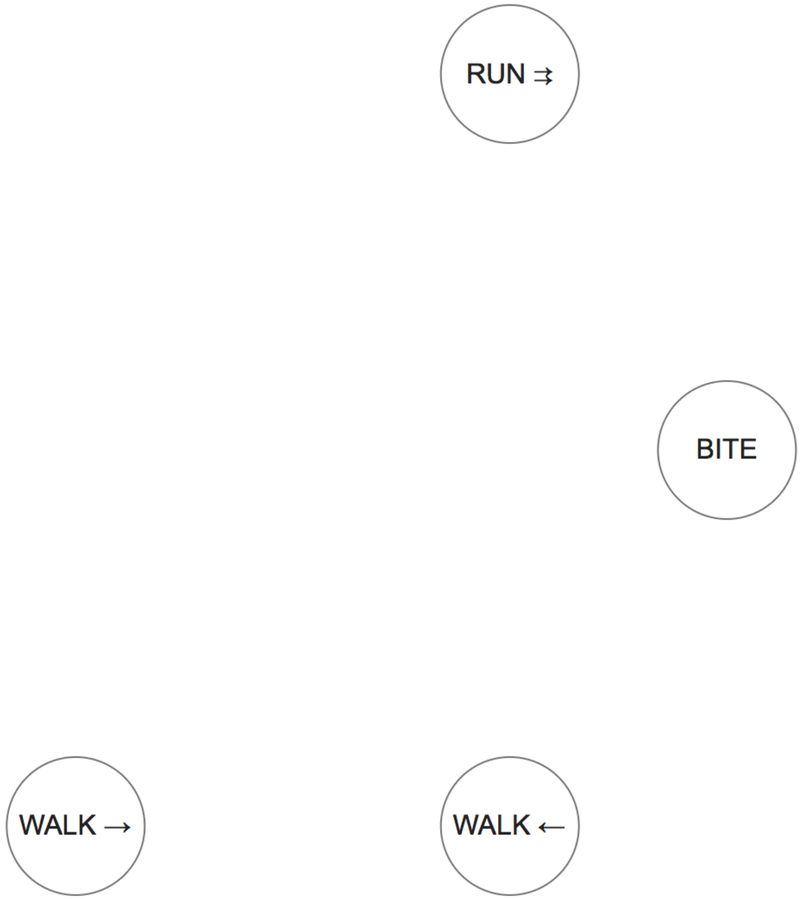
Naked Mole-Rats
11B
GF27

Naked Mole-Rats

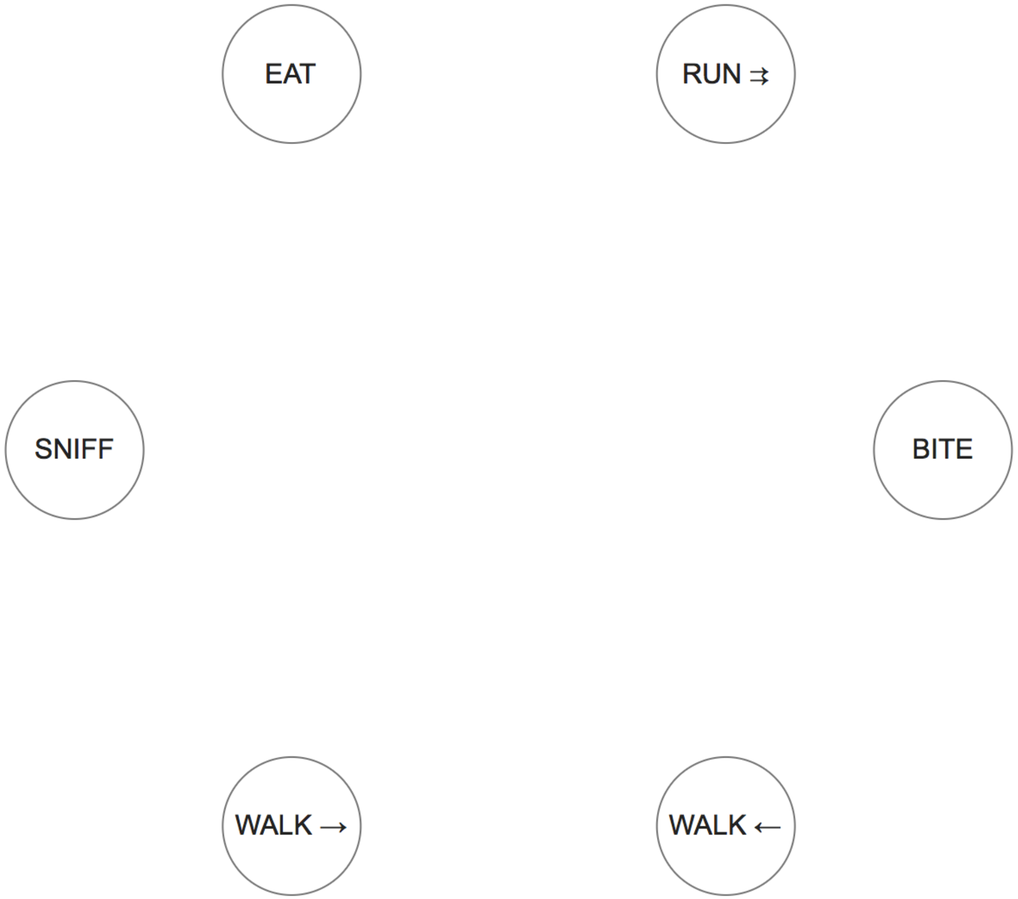
WALK →

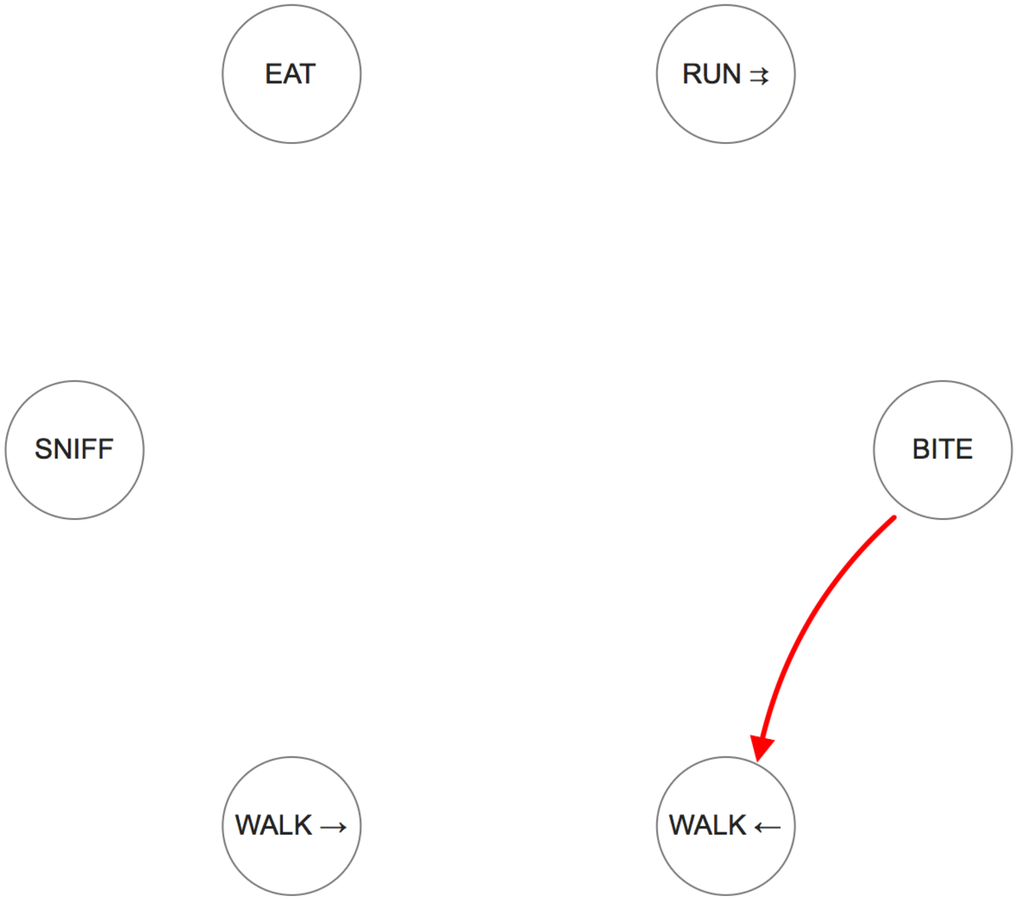
WALK →
WALK ←

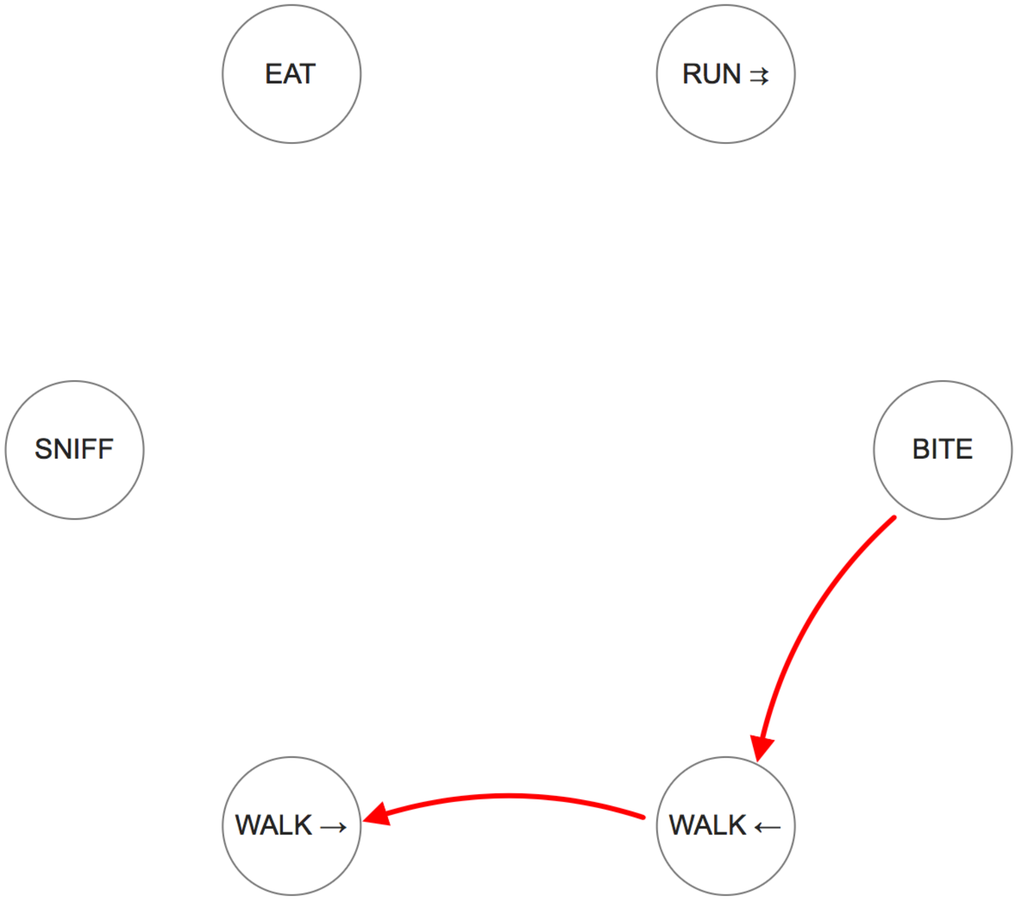
RUN ⇉
WALK →
WALK ←

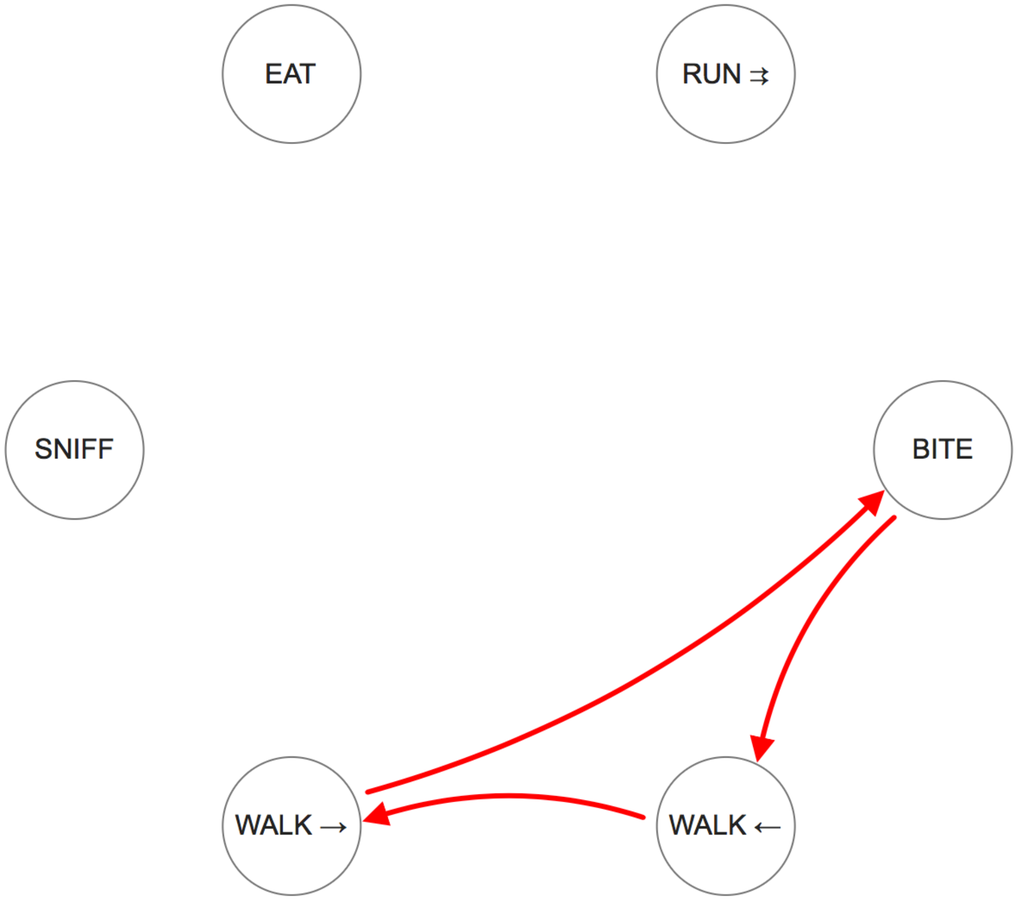

RUN ⇉
BITE
WALK →
WALK ←

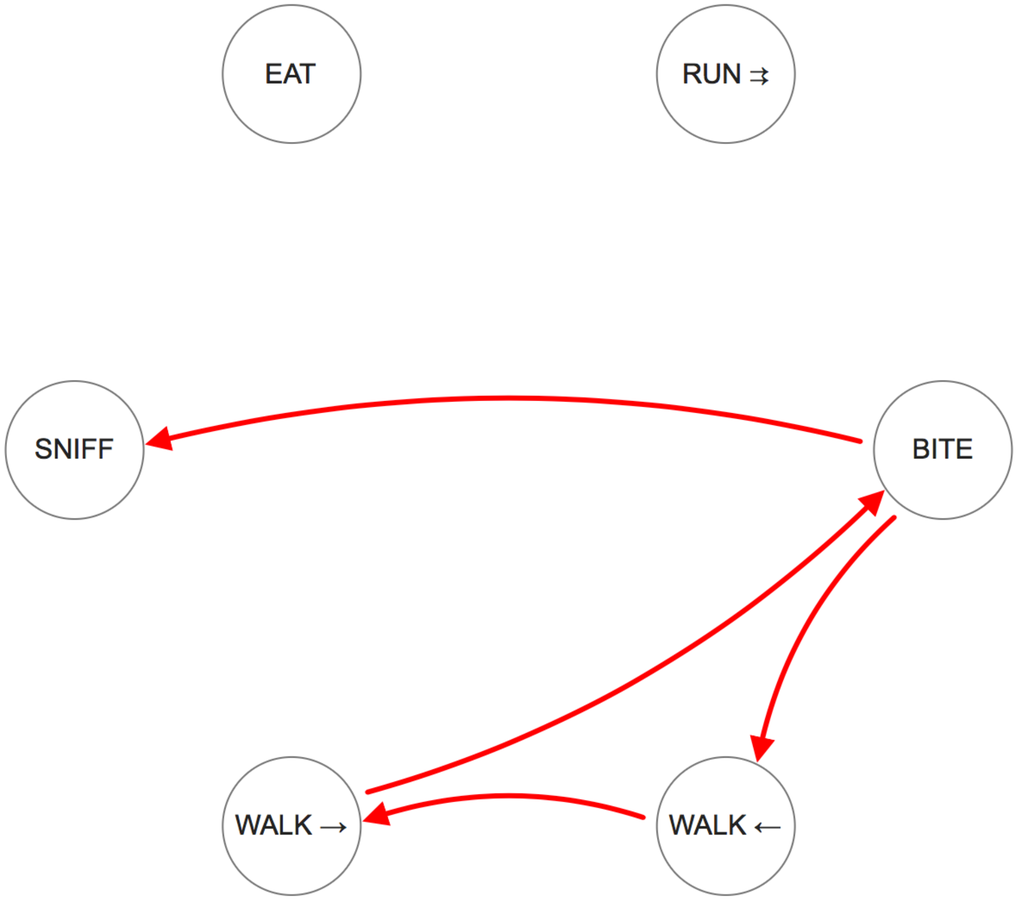
RUN ⇉
SNIFF
BITE
WALK →
WALK ←

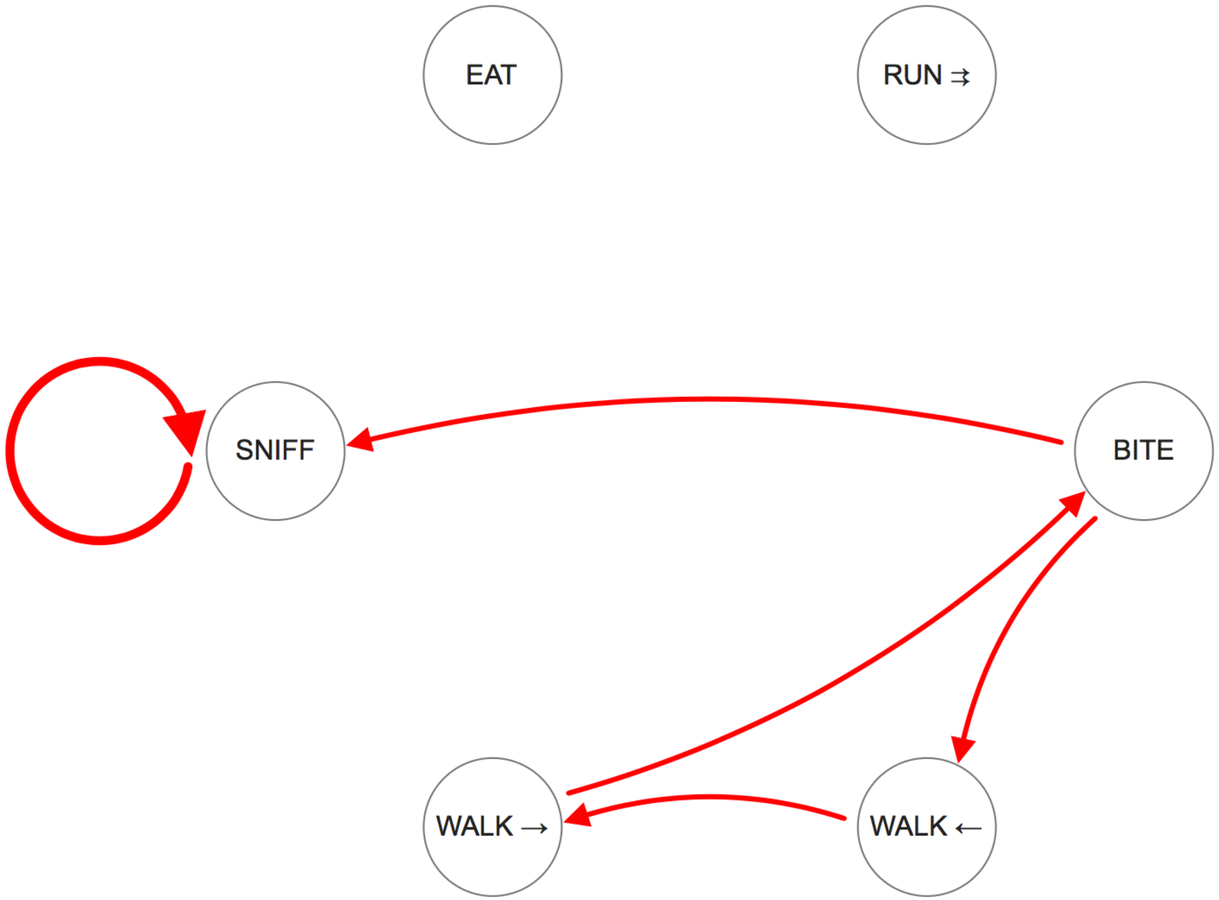

EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←

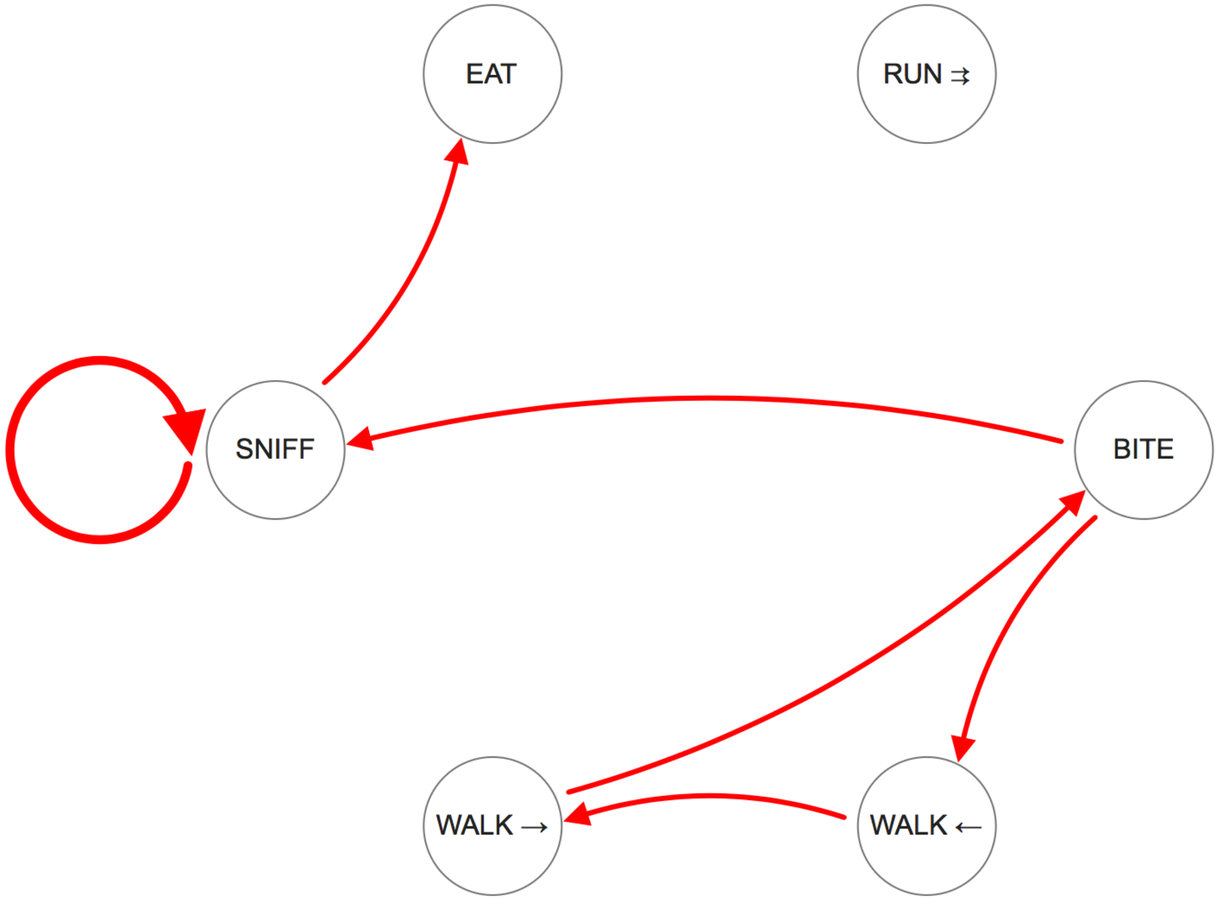

EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←


EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←


EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←

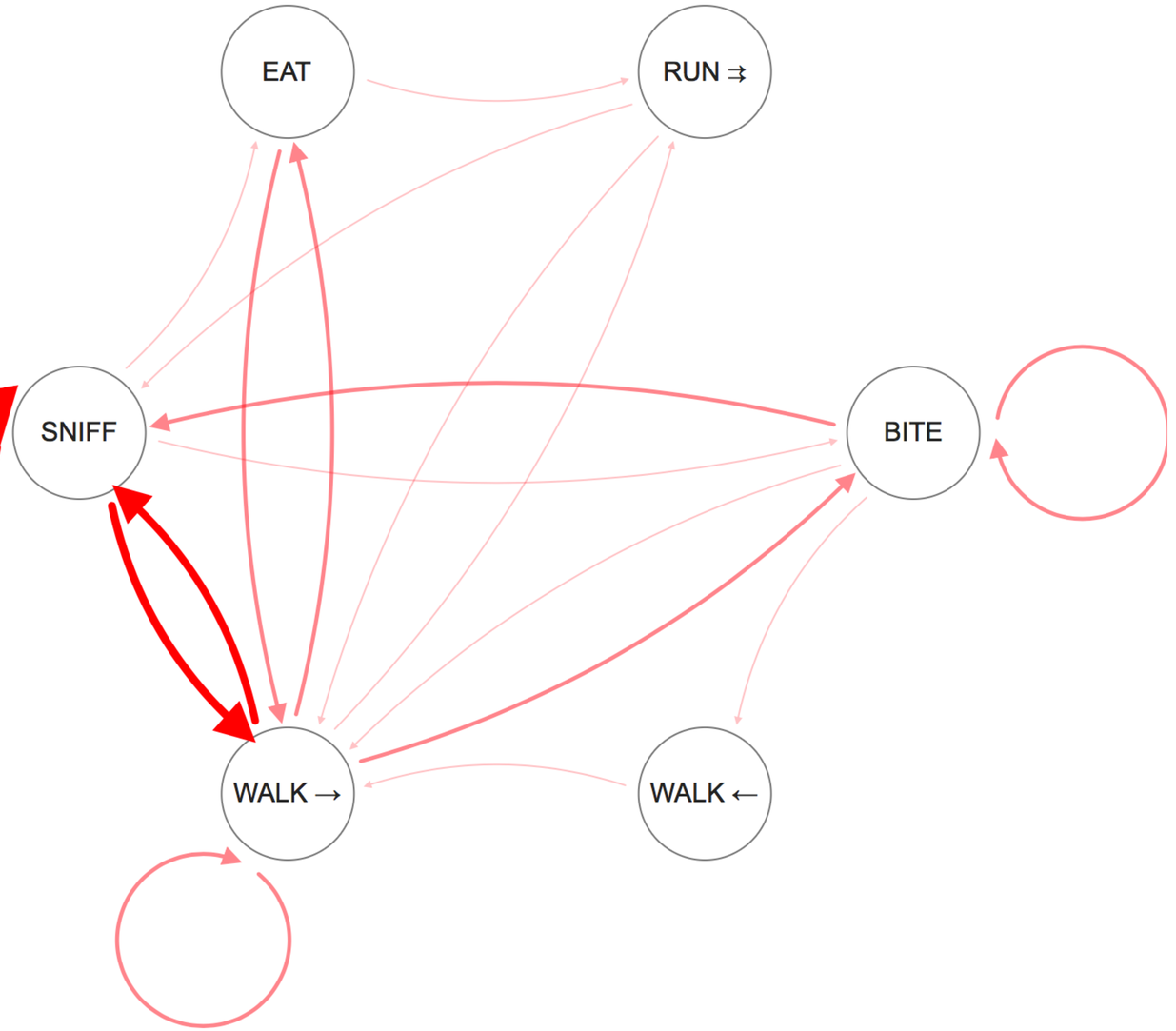

EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←

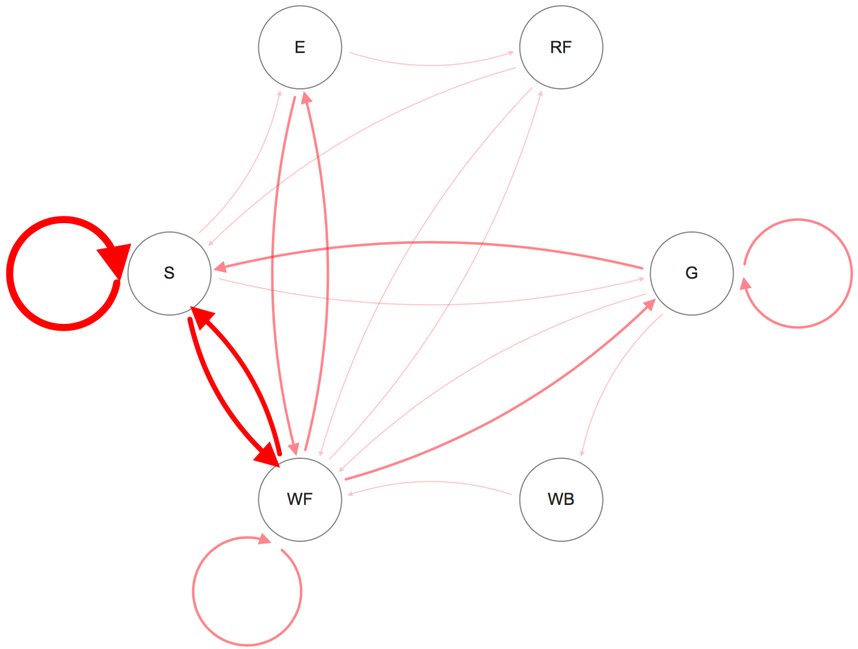

EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←


EAT
RUN ⇉
SNIFF
BITE
WALK →
WALK ←

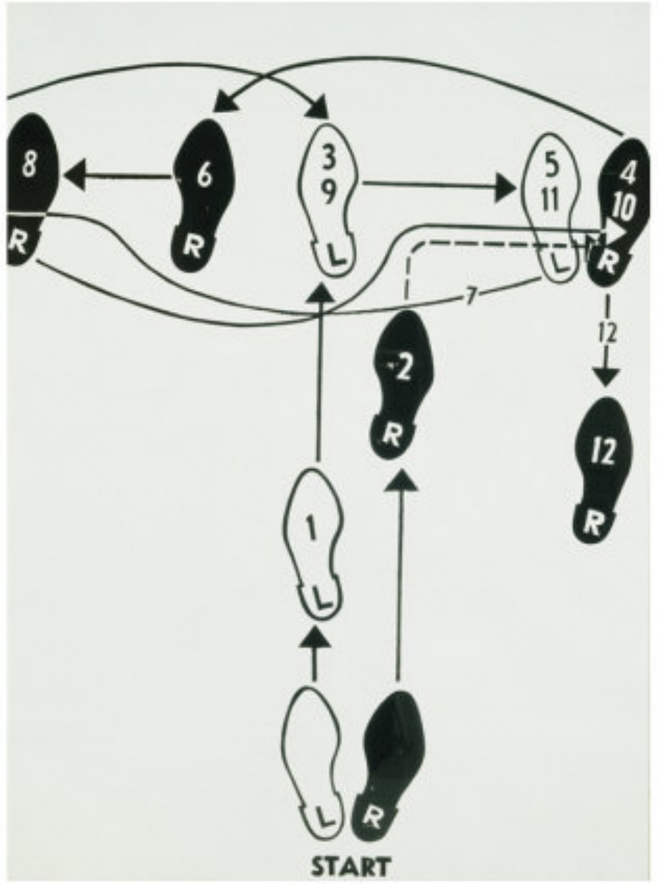
Naked Mole-Rats

Behaviour Graph





Naked Mole-rat Behaviour



Tango Dance Steps
Arthur Murray

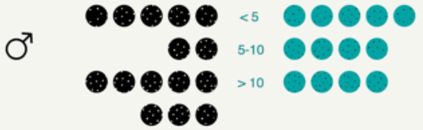
What's the gender distribution?

54% male vs 46% female

Fairly equal, a recent litter of pups contained all males.

Male / Female Distribution

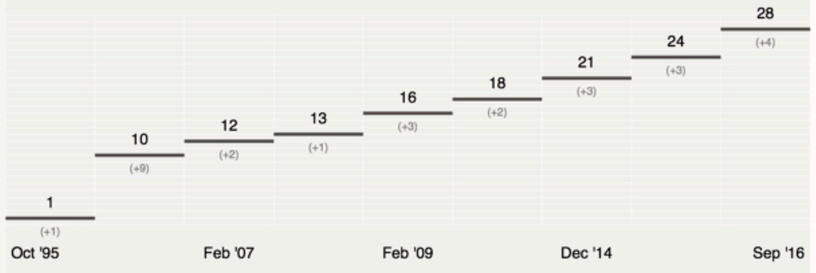
What is the age range?



The youngest is less than 12 months, the eldest is over 21 years old! Numbers above are in years. Blue dots represent females, black dots are males.

How do the generations evolve?

As far as we know, the record litter for a naked mole-rat colony is 27 pups! This graph shows the colony growth over time. Breeding began in 2006 when a Queen was introduced to a new community.



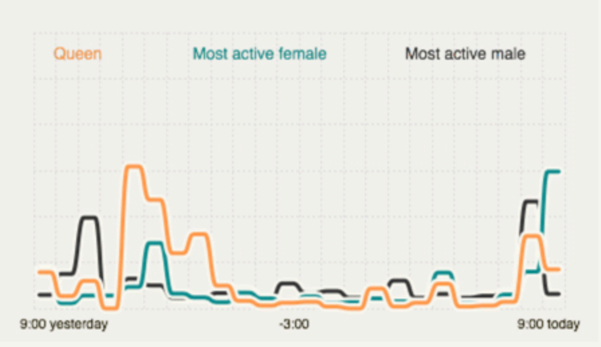
Do individuals have a regular route?

Rarely — Often

These "heat" maps show the last 24 hours of activity for each animal. Where the lines are darkest it shows where that animal hangs out most often. The patterns are different as members of the community have different roles, some maybe defending a certain area. The queen is marked orange, males are black and females blue.

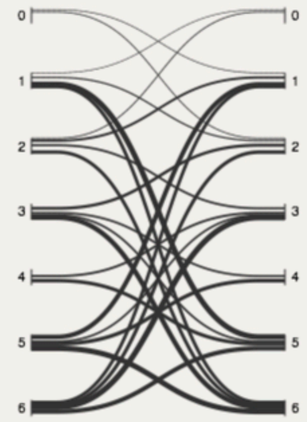
Which are the most active animals?

This plot shows activity over the past 24 hour period. Activity is based on how frequently animals pass the sensors around the burrow.



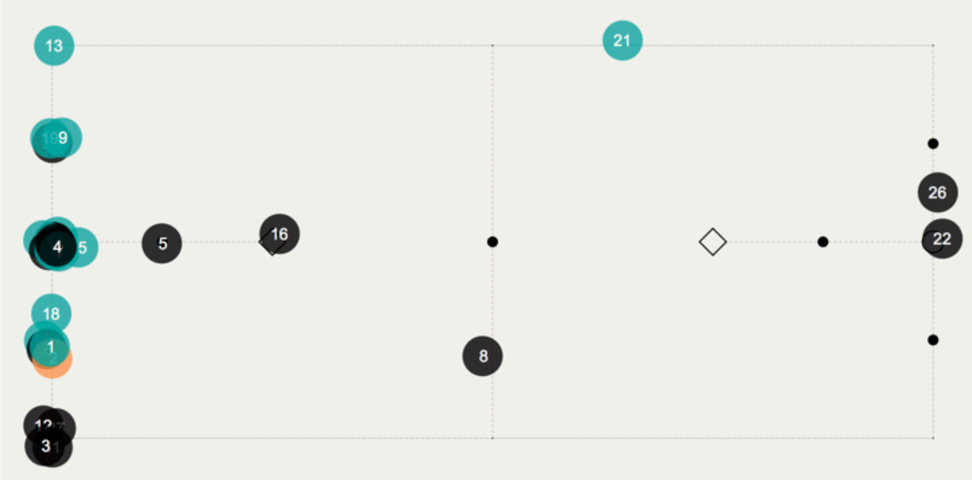
Most popular paths

This diagram shows which routes in the burrow are taken most often. For instance if route 4 to 5 is the thickest we know that the animals are visiting the toilet a lot!



Current naked mole-rat positions at 09:02 20 Apr 2017

This is a live data representation of the colony (updated every 5 min). The last known position of each animal is represented by a circle. The burrow we've drawn here is simplified, the real one is made of clear tubes with feeding, toilet and sleeping chambers.



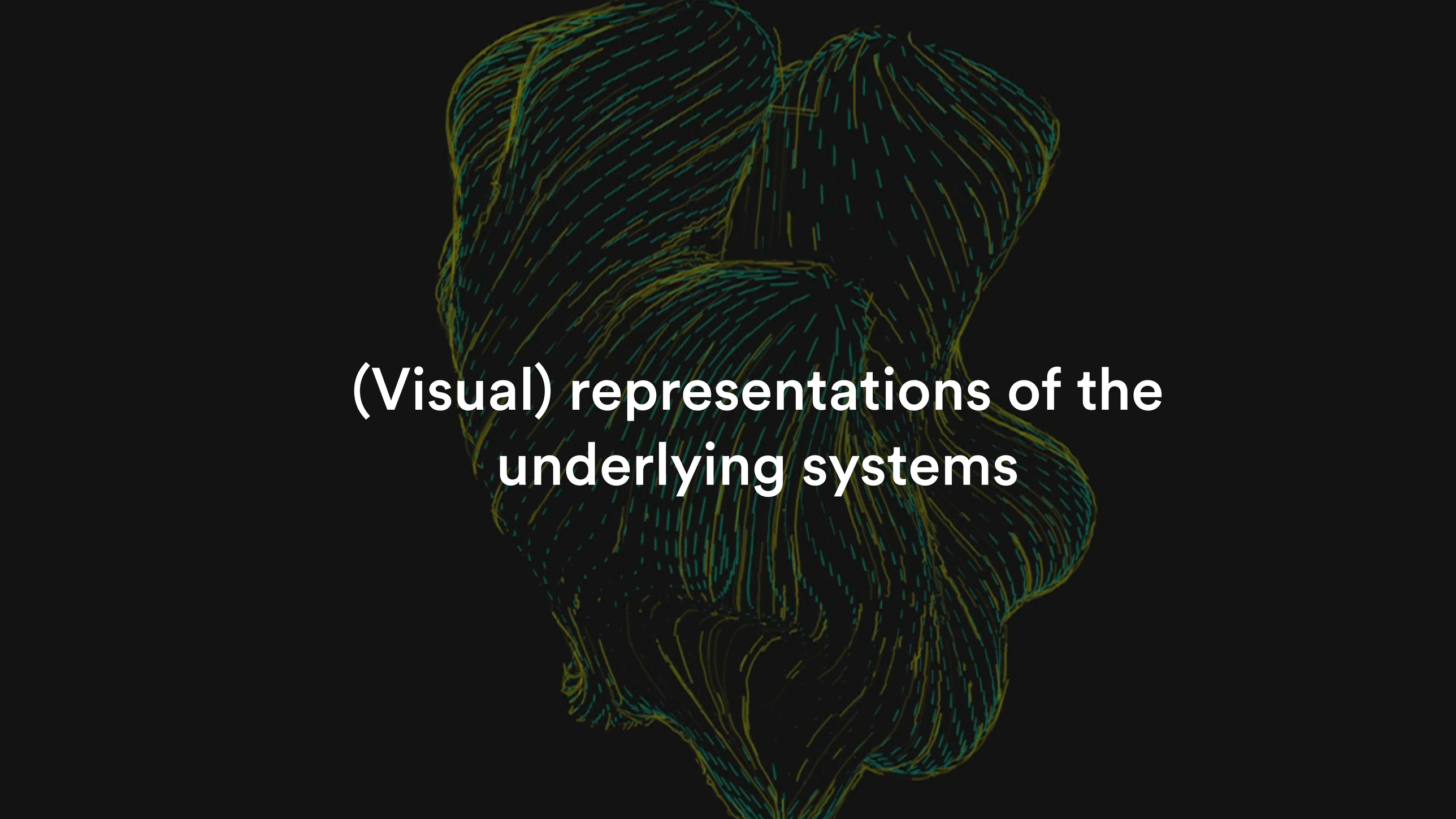
Data Art?

Liam Young, Memo Akten

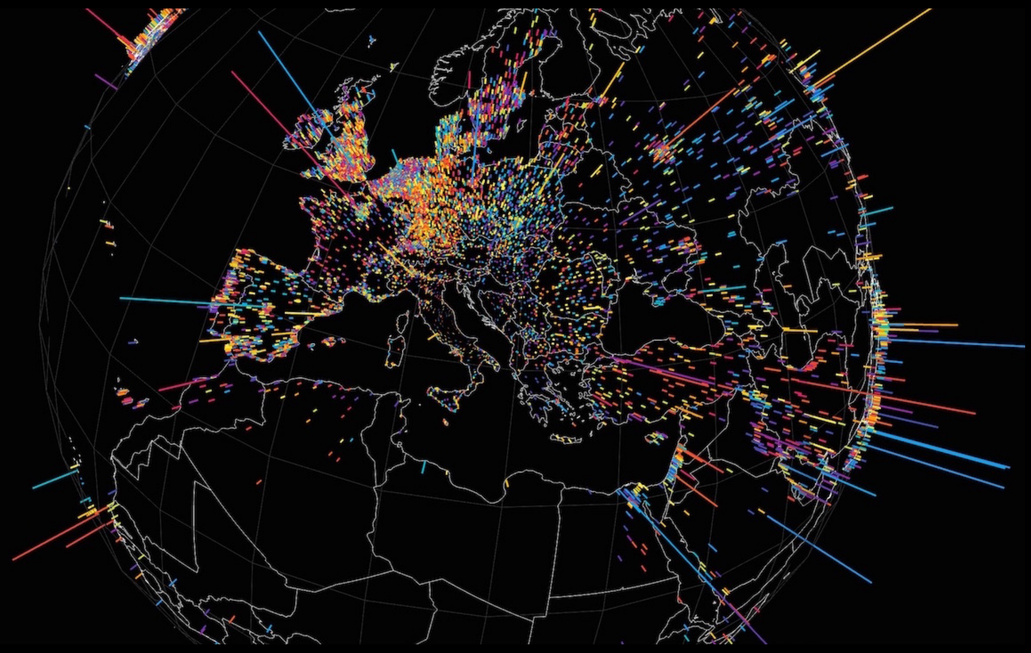
Data Dramatisation

Tom Corby

Un-visualization


(Visual) representations of the
underlying systems

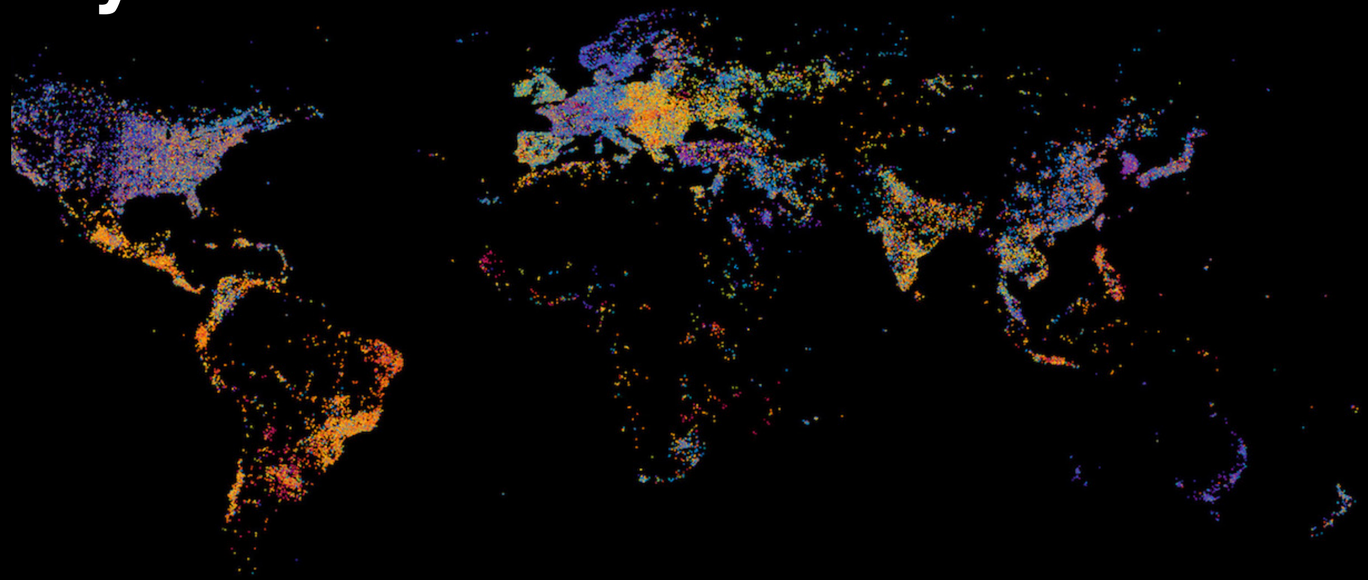
Building systems Deconstructing systems



Android Diversity

Google

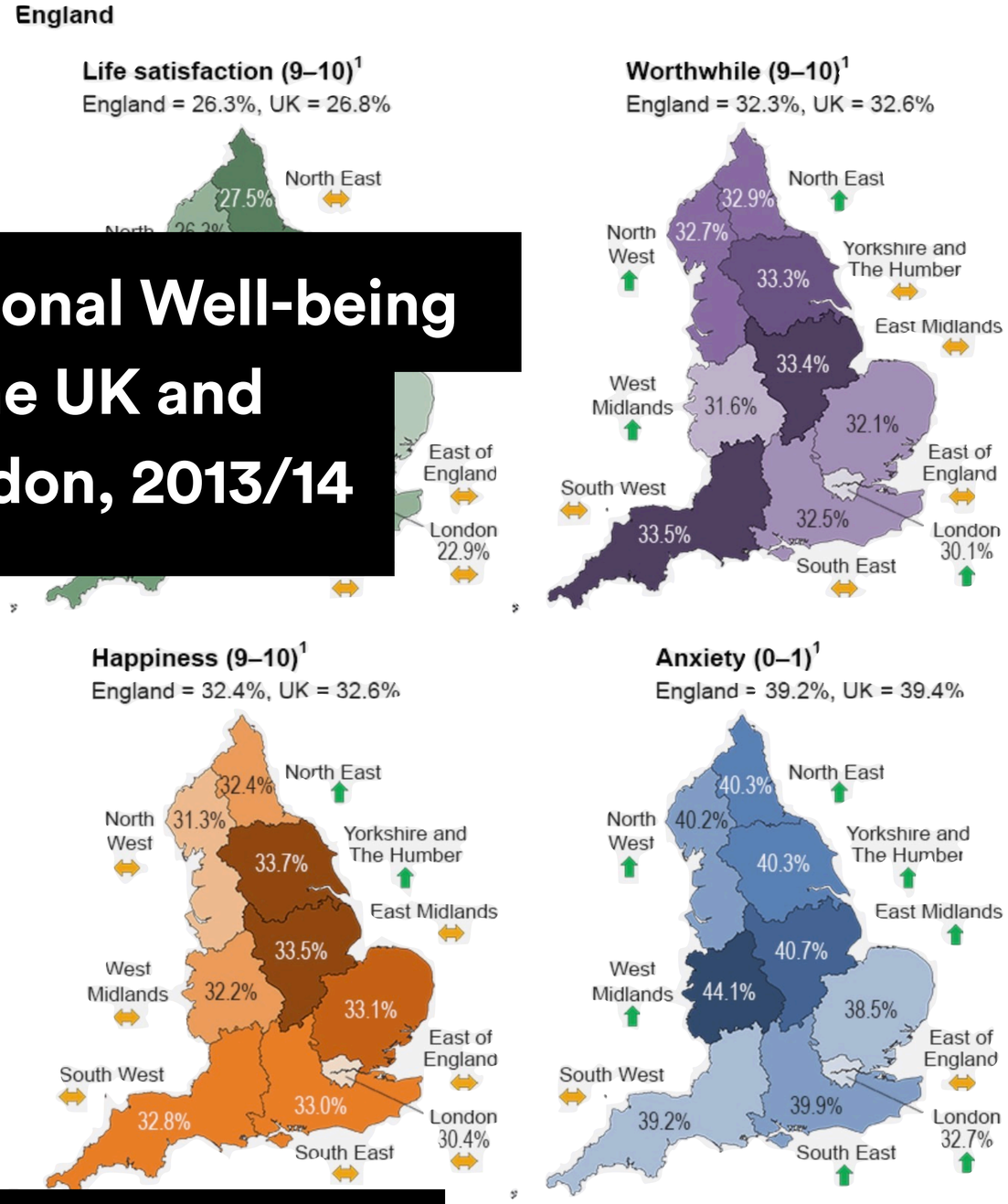
1B+ active Android users



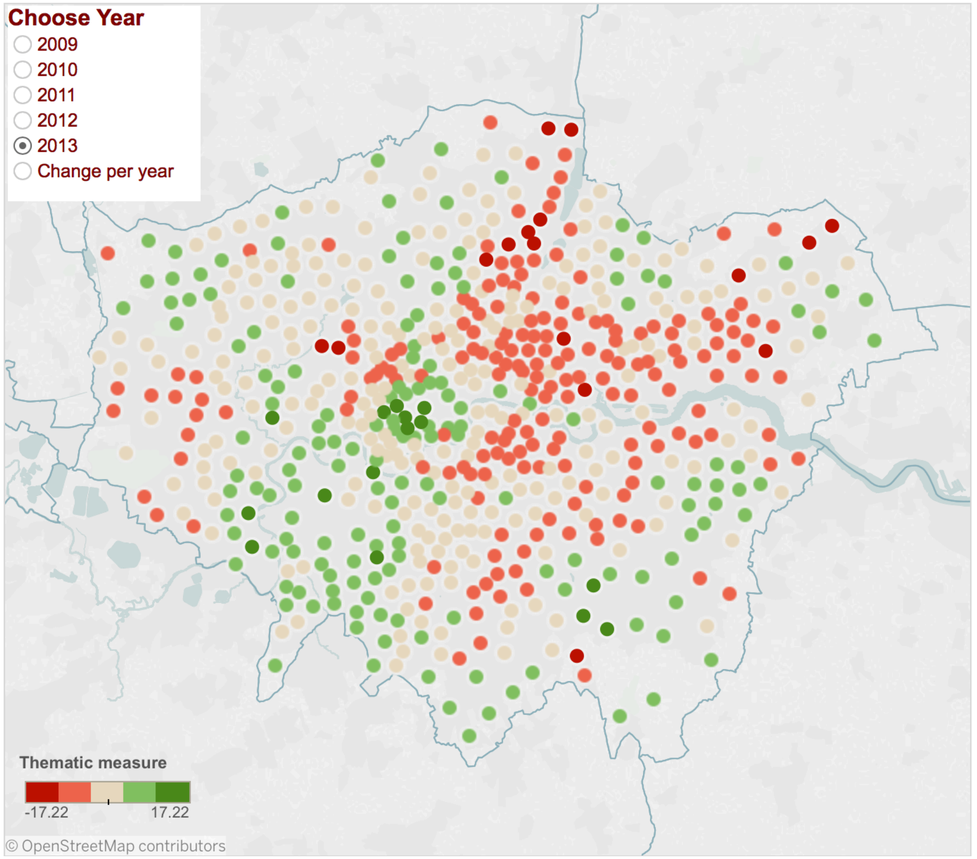
Android Diversity

Android Diversity

Personal Well-being in the UK and London, 2013/14



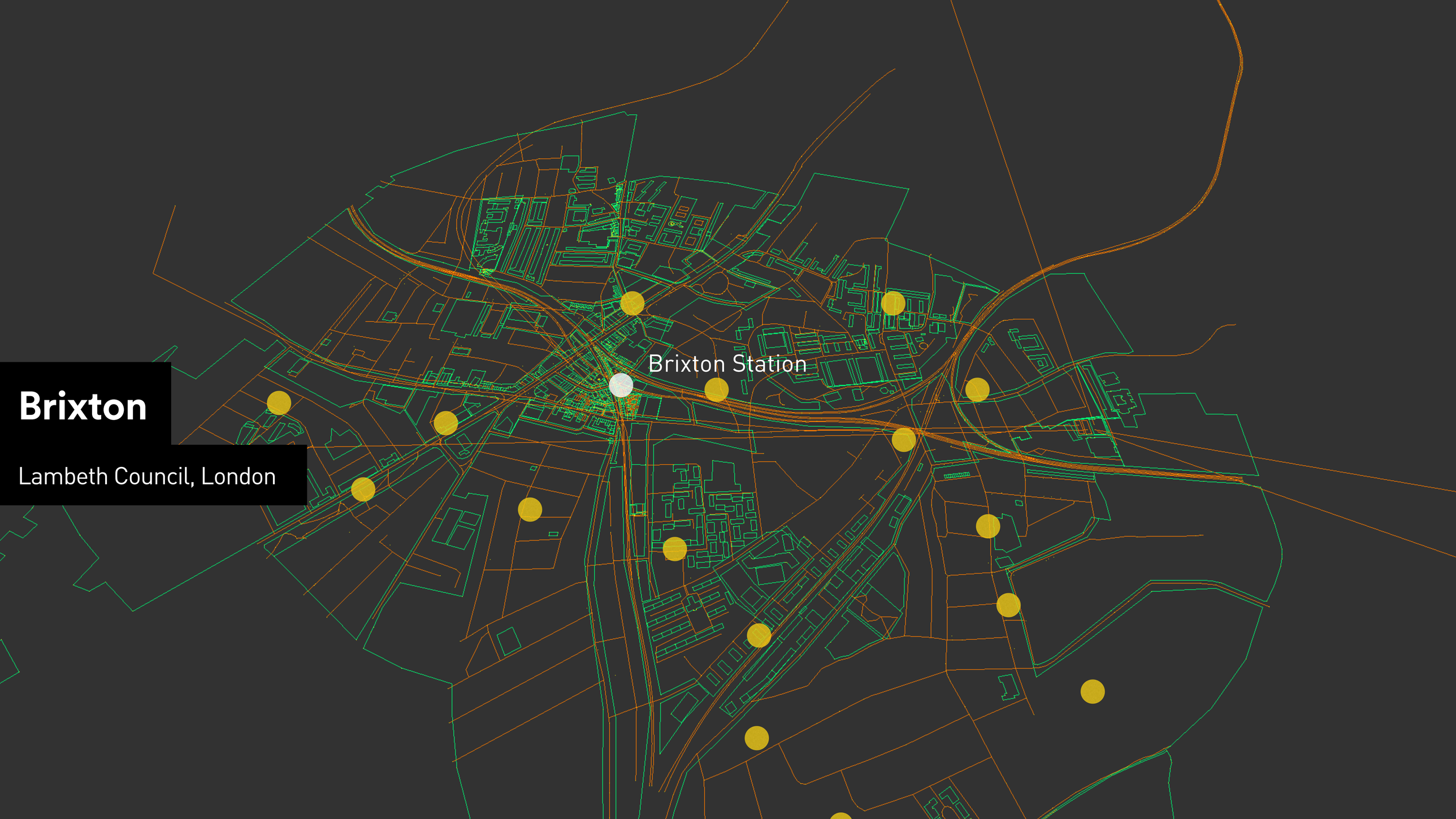
Well being ward map



Office for National Statistics

London Datastore

Photo by oatsy40 https://flic.kr/p/nP3Rob



Brixton

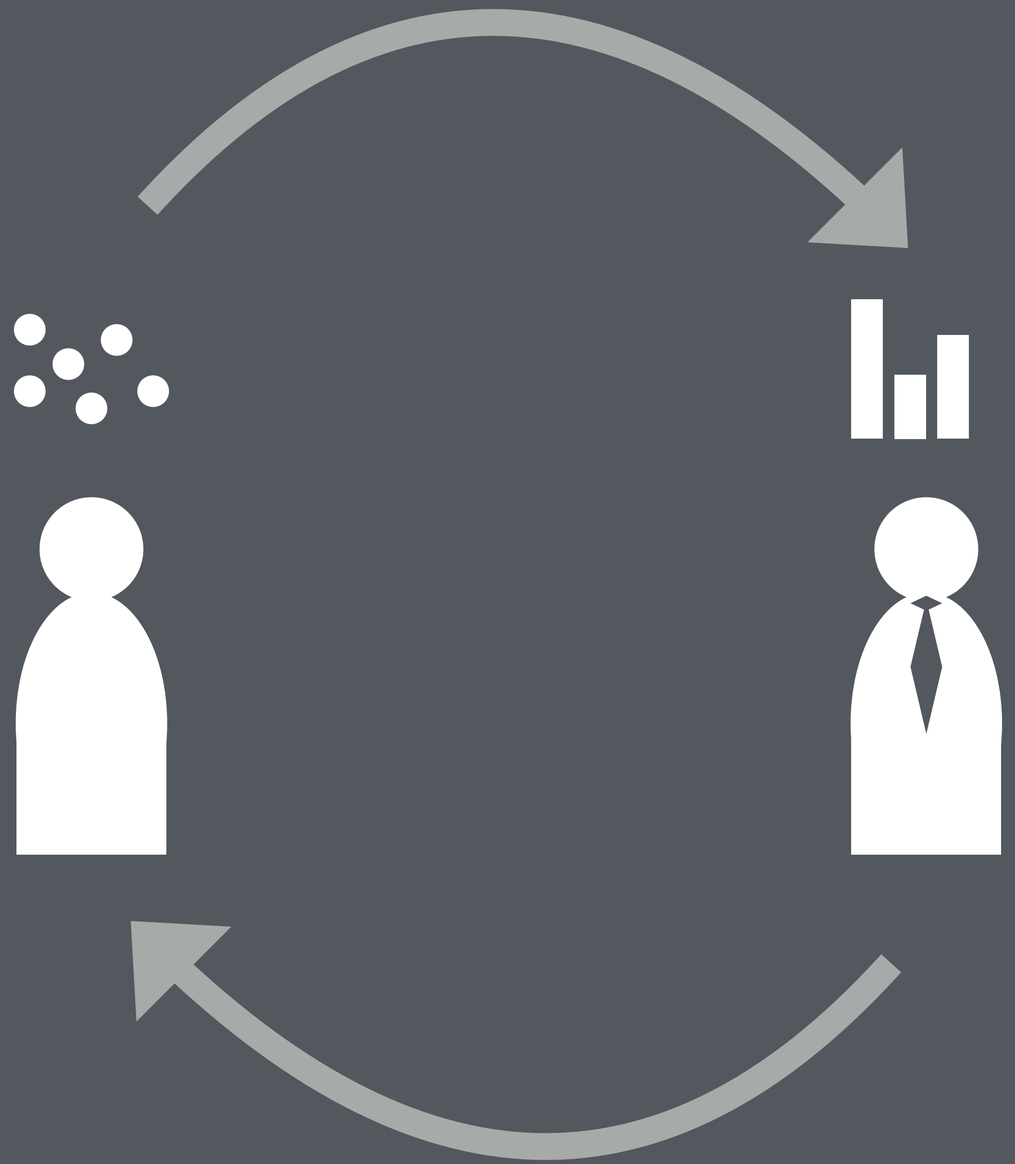
Lambeth Council, London

Understanding needs

of families living in overcrowded houses

Colour-in City

Reciprocity of data

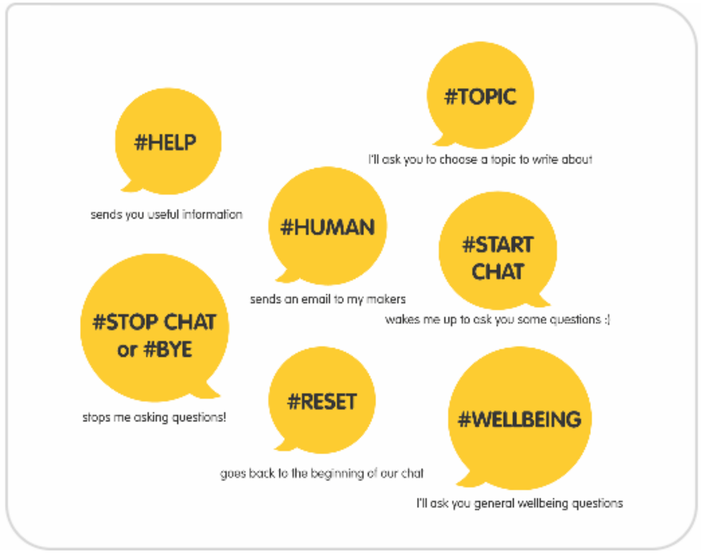


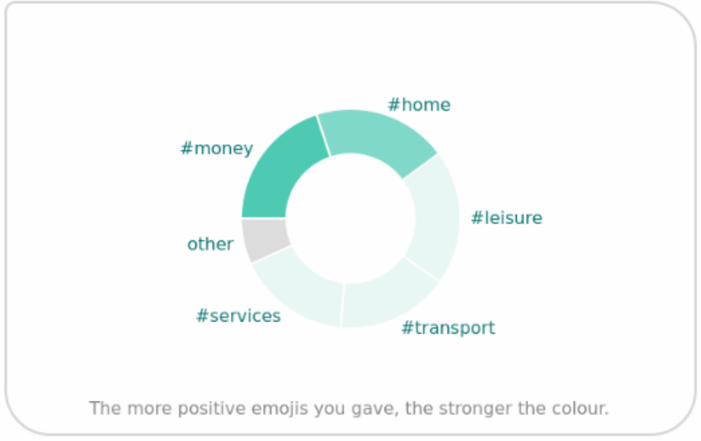
Hey Marcin! Hope you are having a nice day! Is this a good time for a chat? (if you want to chat later, it's OK to pick no now!)

yes

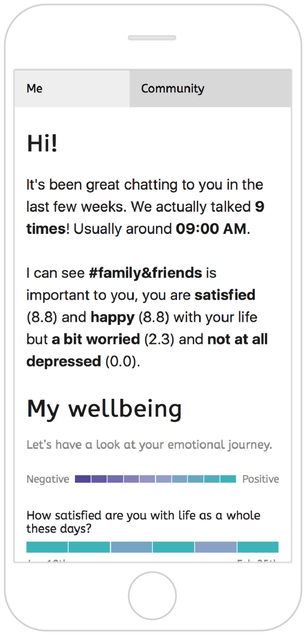
Thanks Marcin! Before we get started, how would you say you feel today overall? Please pick a number between 0 and 10, where 0 is terrible and 10 is amazing. #howareyoudoing

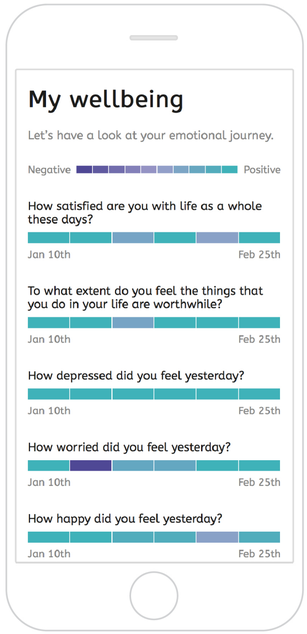
7

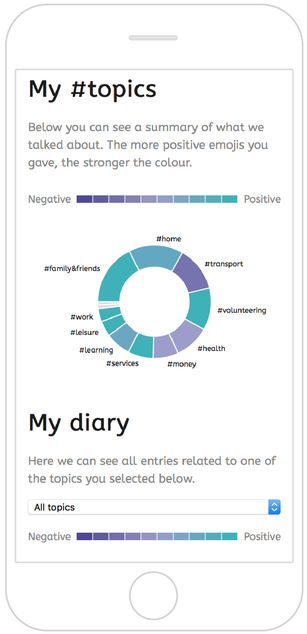


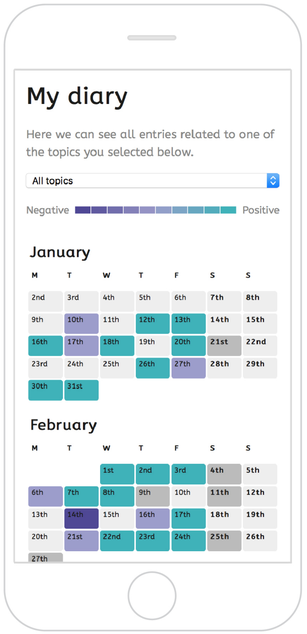


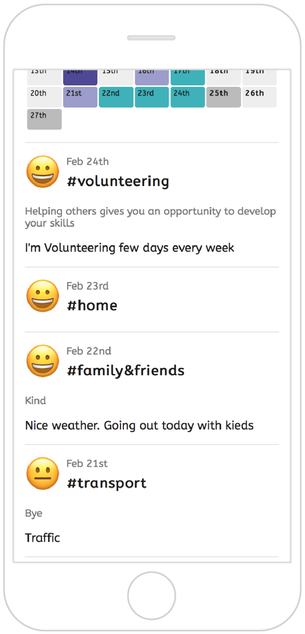
Your data diary



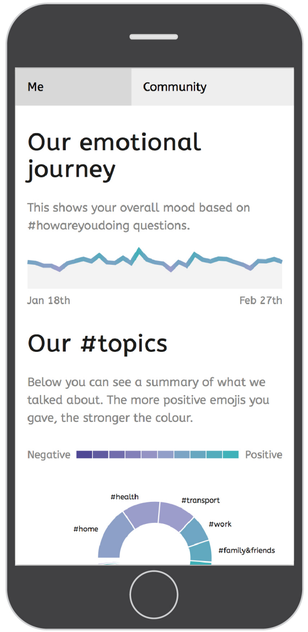


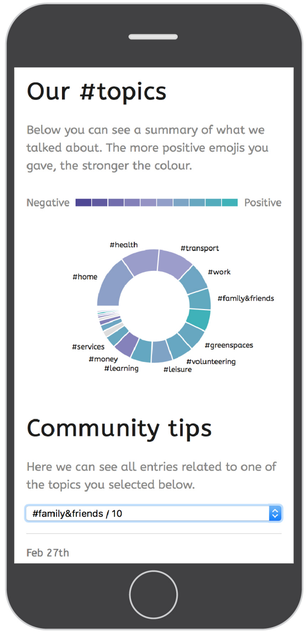


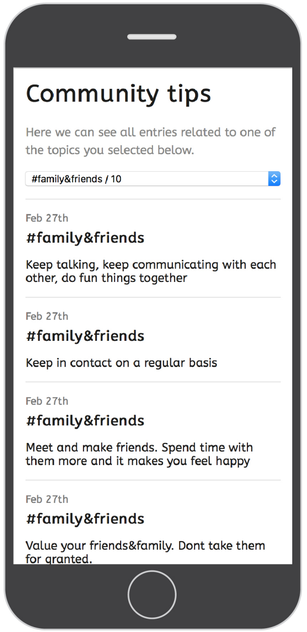




Collective local diary

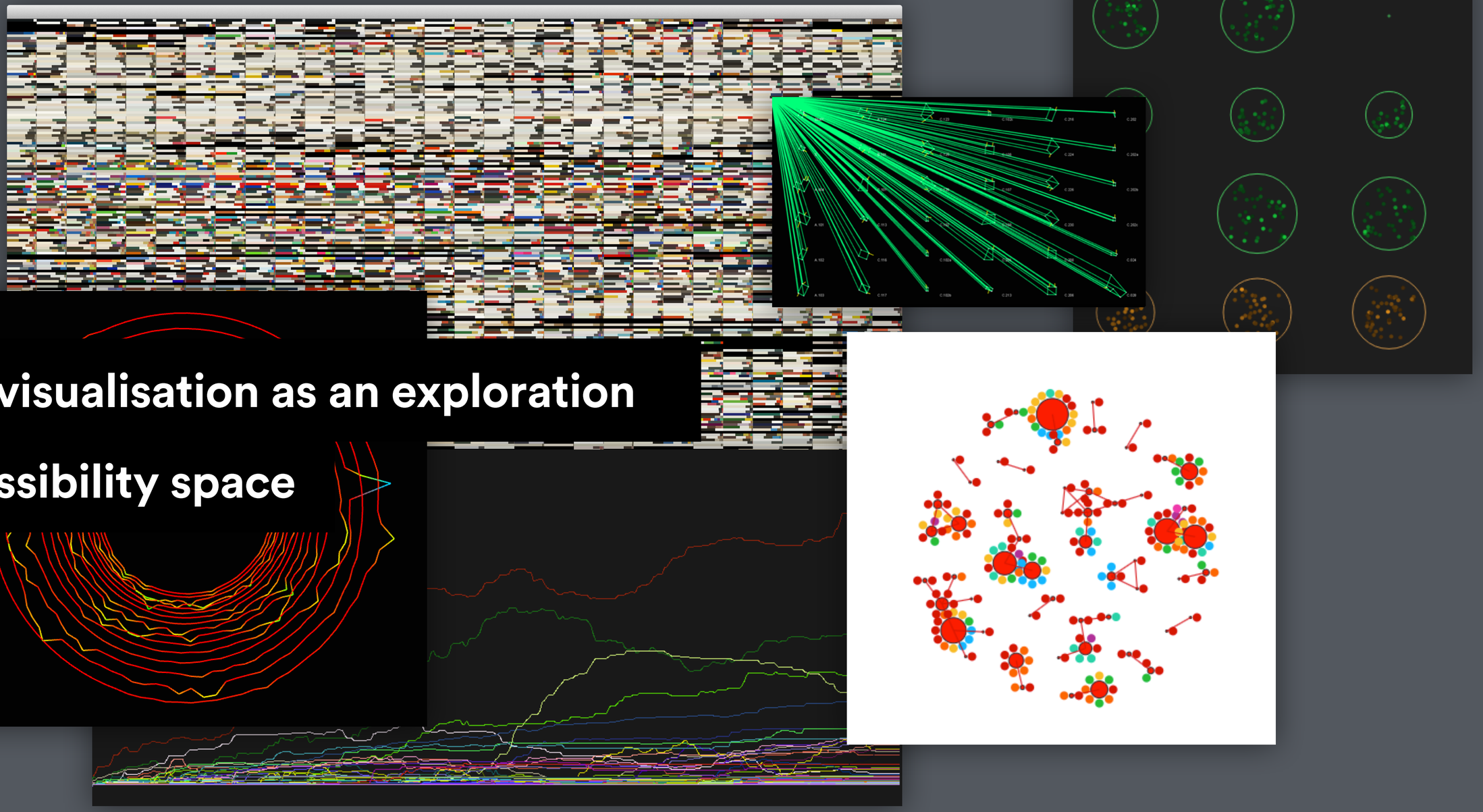




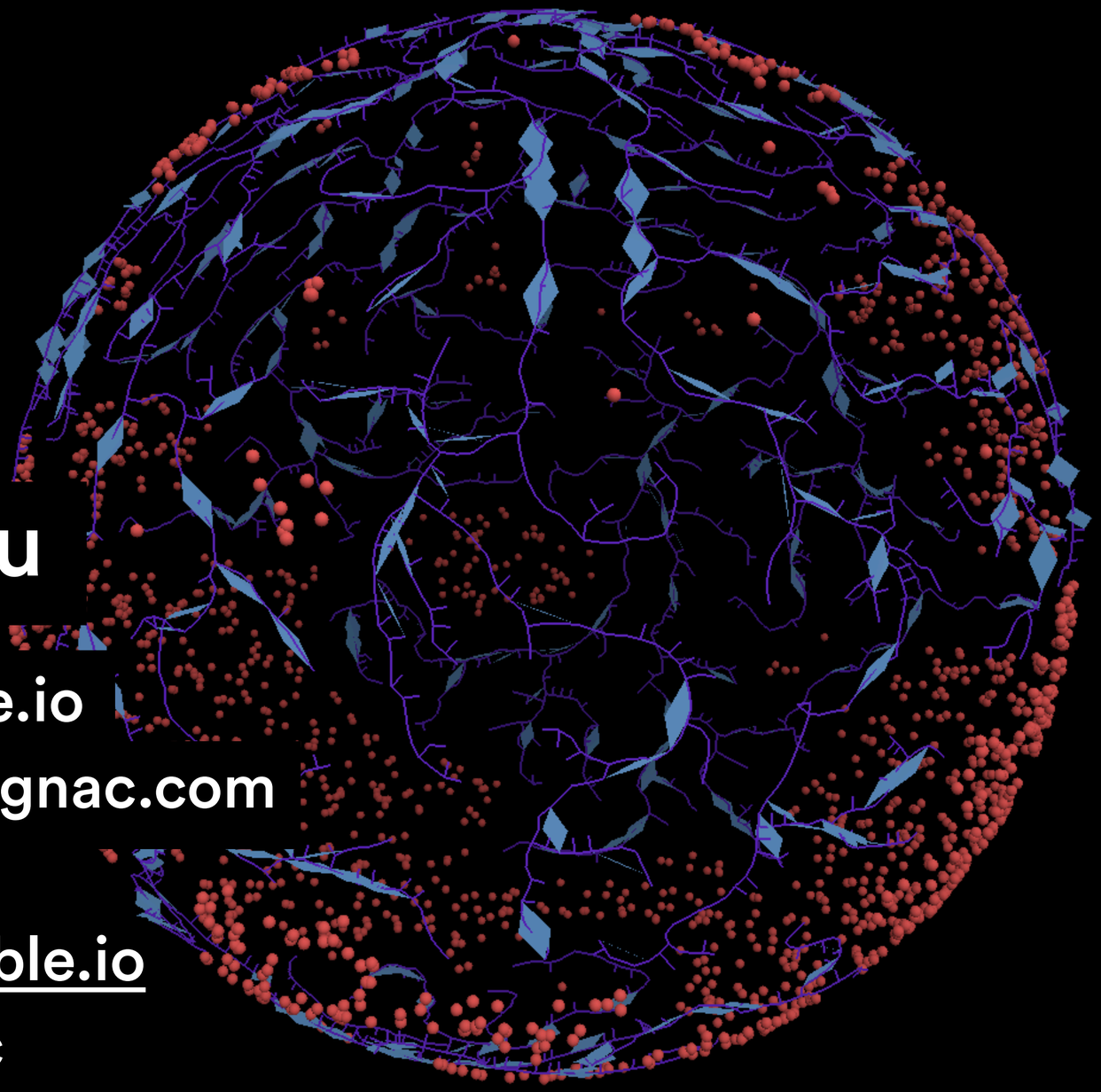


24 users, 2675 messages

Data visualisation as an exploration of possibility space



Understanding the world



Thank you

http://variable.io
http://marcinignac.com

marcin@variable.io
@marcinignac