

AiDLab

Laboratory for
Artificial Intelligence in Design

人工智能設計研究所



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



Royal College of Art
Postgraduate Art & Design

Artificial and Distributed Intelligence for a better Lifestyle

Prof. Johnny Golding, Director proto-Centre for Radical Matter:
Art. Philosophy. Wild Science.

Royal College of Art, London, UK

AiDLab Innovation in Design Summit
19 April 2023

Key task:

Preparing for a disruptive future by adopting AI and advanced technologies

- Emphasising: the relation between and amongst Human-Machine-Interspecies co-evolution
- Impact of the 4th / 5th Industrial Revolution within culture, imagination, and creative industry.

The Essentials: method as model

→ emphasis: 'radical matter'

- based on emergence \Leftrightarrow entanglement / encounter
- the logics of sense: a different 'reward' system

→ AI re-configured: as 'distributed intelligence'

- collective self-assemblage as a 'single agent'
- importance of 'noise', 'dither', 'flaking', 'asemic' poetics

→ impact – from pedagogy to co-evolutionary ethics

- research & development
- commercialisation

ESSENTIAL NO. 1: UNDERSTANDING RADICAL MATTER AS A FUNCTION OF 'EMERGENCE'

Proliferation of Data requires a knowledge system that can adapt to the wild exponential explosion of data.

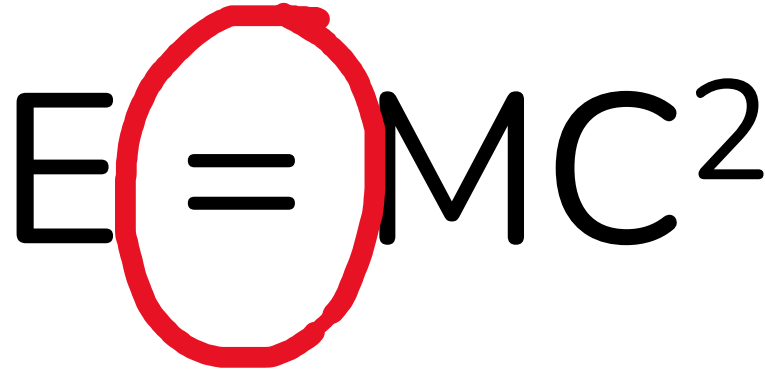
- This means, in part: getting beyond 'indexing' and 'exclusion' in LLM
- It means, also: to focus on 'unknowing', 'undecidability' (Gödel's meta-mathematics) and fractals (sliced repetitions via scale – Mandelbrot)
- It means finally: foregrounding 'topological surface structures'

A familiar equation

$$E = MC^2$$

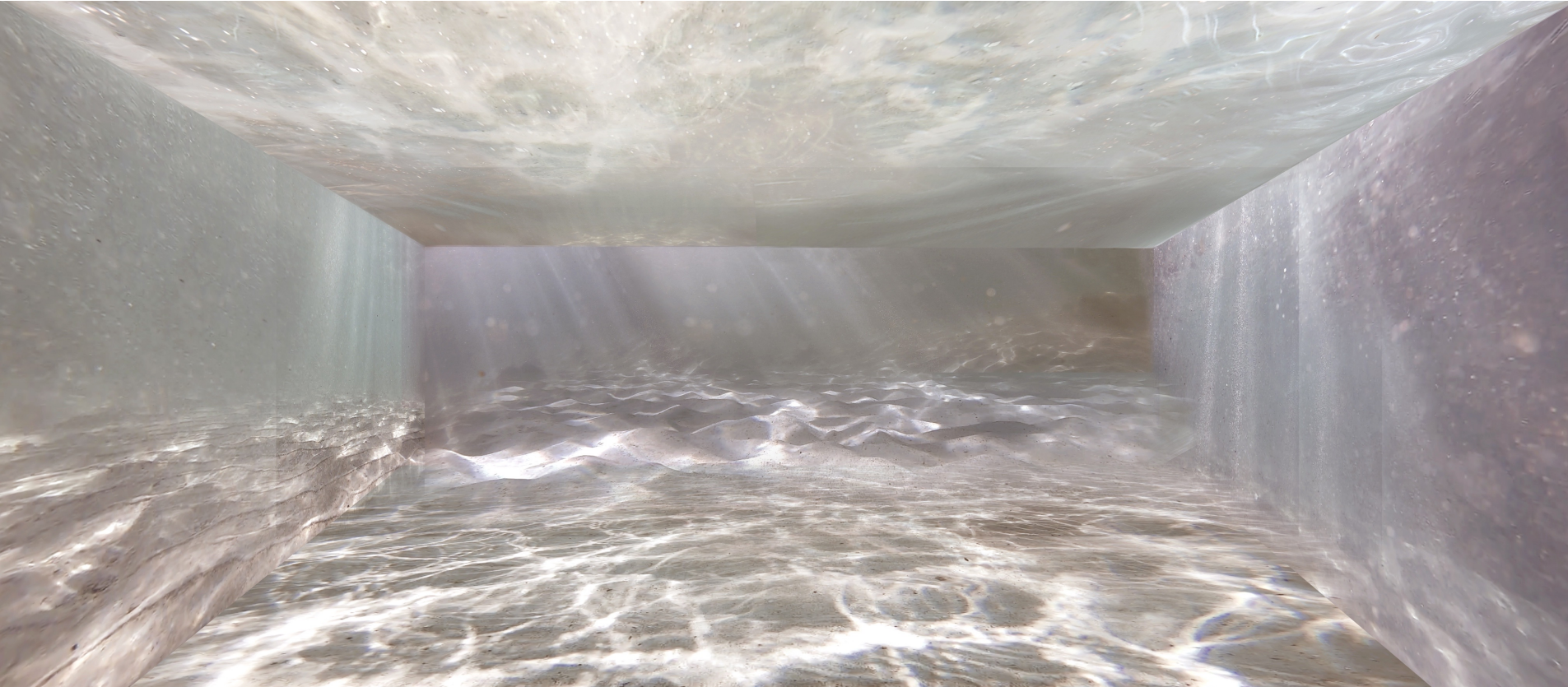
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ESSENTIAL NO. 1:
THE TOPOLOGICAL SURFACE IS THE = SIGN



The image shows the equation $E=MC^2$ in a large, black, sans-serif font. The equals sign (=) is highlighted with a thick, hand-drawn red circle, emphasizing its topological significance as a surface.

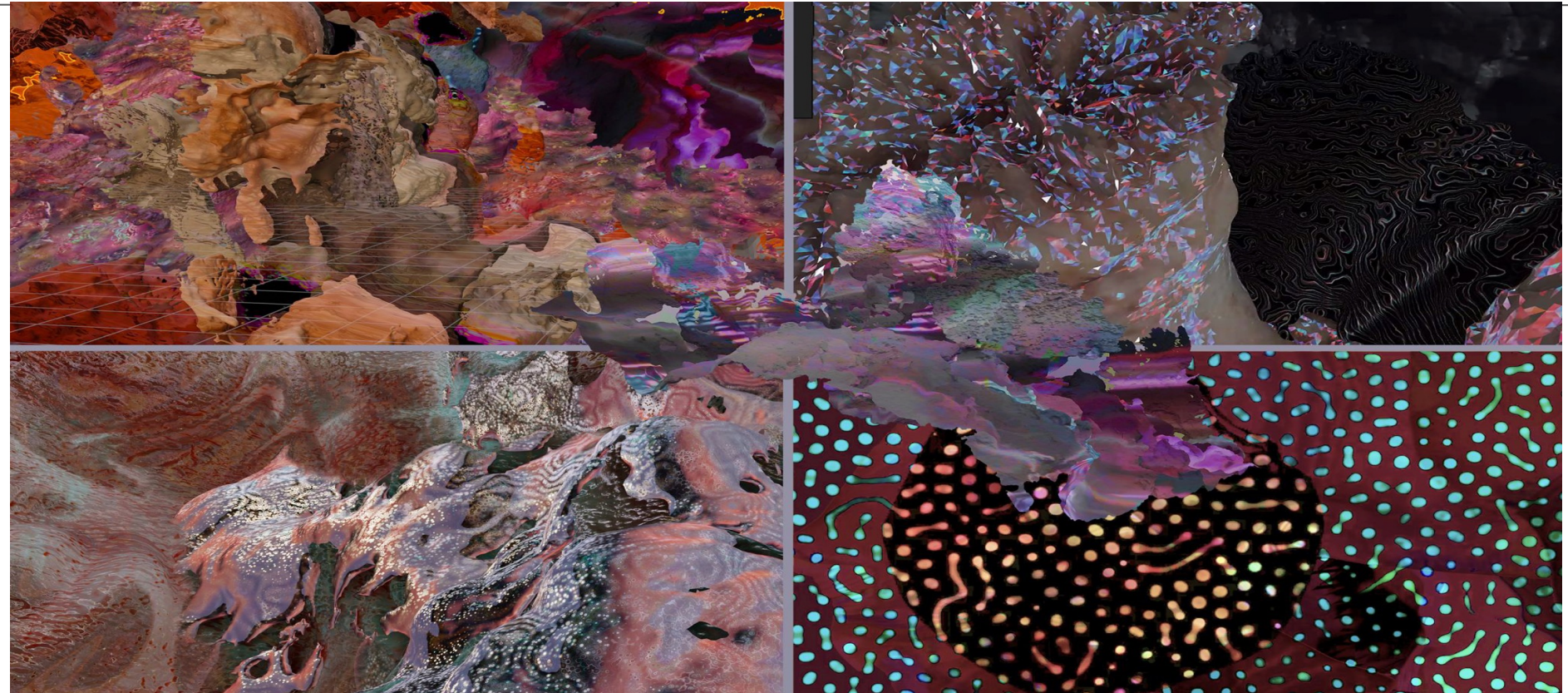
TANK – LIGHT / WAVES PATTERN REPETITIONS



THE COMMON OCTOPUS – REPETITION/ PATTERN /CAMOUFLAGE

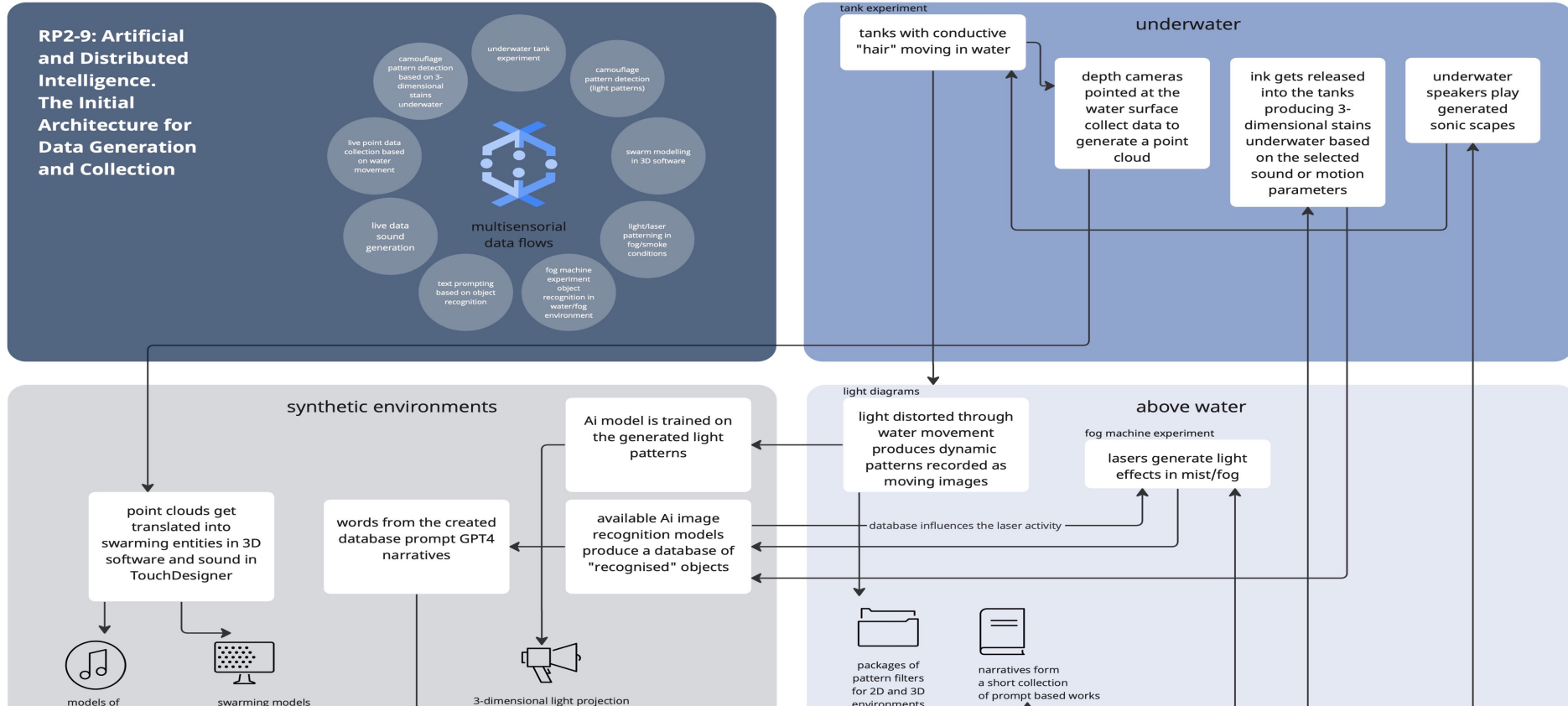






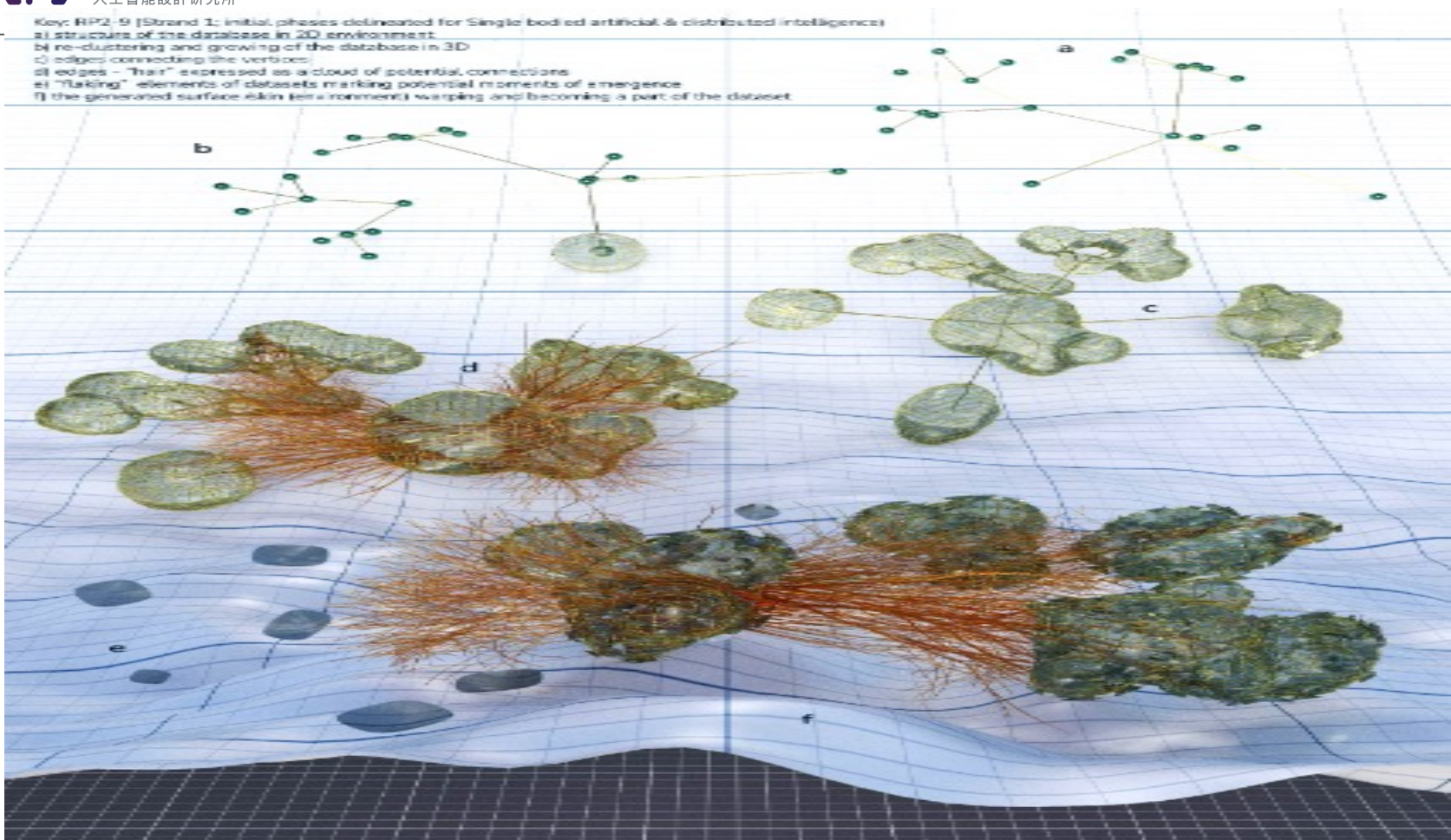
COMMON OCTOPUS / CAMOUFLAGE IMAGE CREDIT: ORPHAN DRIFT & MAGGIE ROBERTS

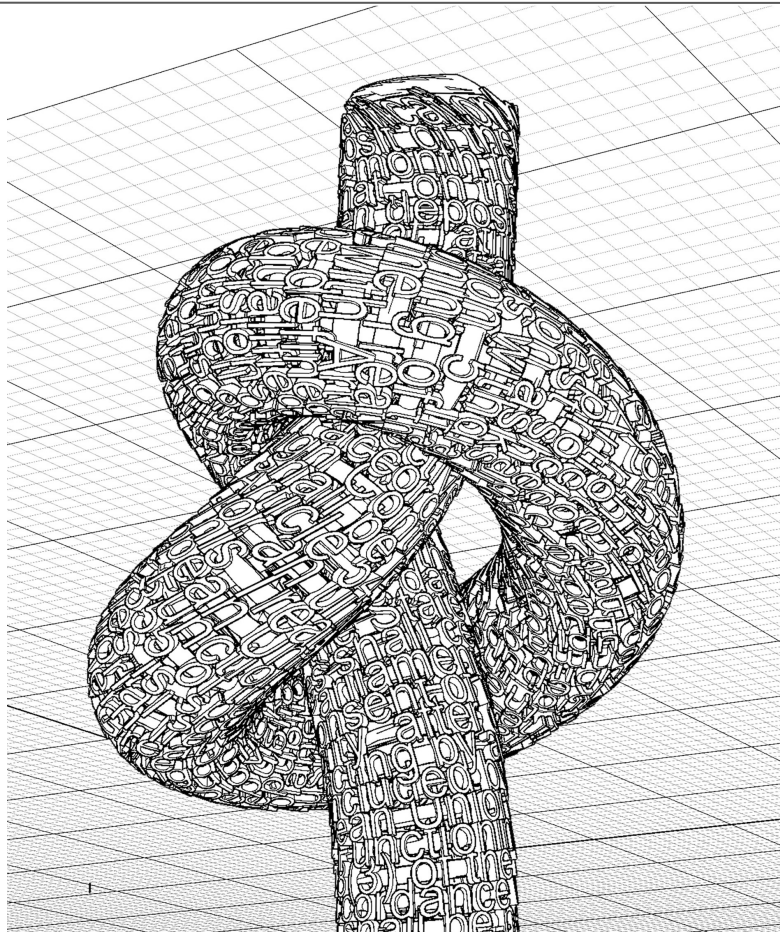
ESSENTIAL NO. 2: OUR EMERGENT-COMPLEX ADAPTIVE SYSTEM



Key: RP2-9 (Strand 1: Initial phases delineated for Single bodied artificial, & distributed intelligences)

a) structure of the database in 2D environment
 b) re-clustering and growing of the database in 3D
 c) edges connecting the vertices
 d) edges - "Train" expressed as a cloud of potential connections
 e) "flaking" elements of datasets marking moments of emergence
 f) the generated surface skin (environment) warping and becoming a part of the dataset

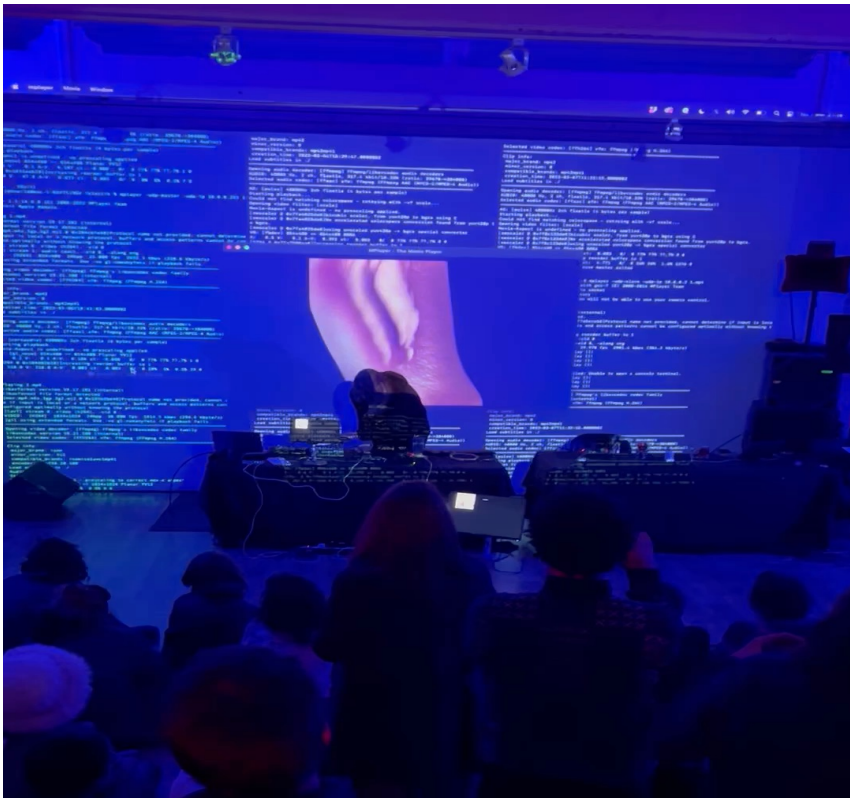




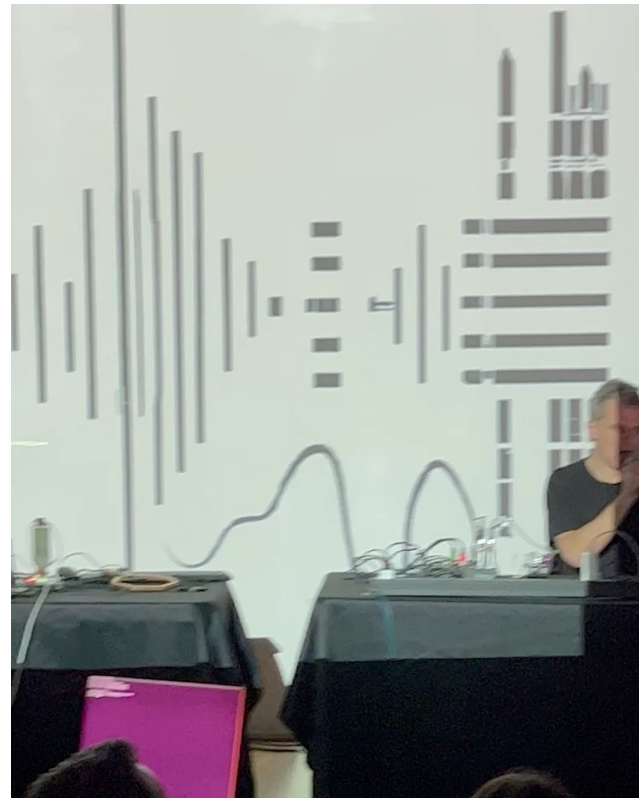
Knotted Narratives

Jonathan
Boyd

SONIC COLLECTIVE INTELLIGENCE NARRATIVES. JOHN WILD



MATT LEWIS



ESSENTIALS: NO. 3. COMMERCIALISATION

- **Web platforms:** offering an educational resource with access to cutting edge / critical insight and a showcase for our work within the AI sector.
- **Consultancy:** working with the AI industry to develop new social imaginaries that concentrate on the new topologies of the 5th Industrial Revolution.
- **Critical product insight** and analysis for the AI sector, from story telling to gaming to new forms of moving image production, offering critical perspectives on new AI systems before deployment.

THANK YOU.