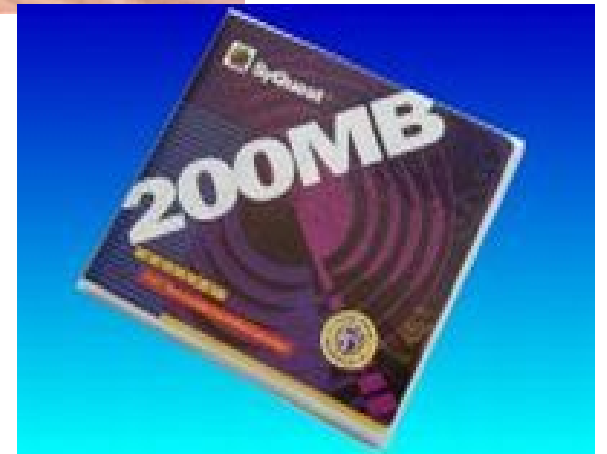
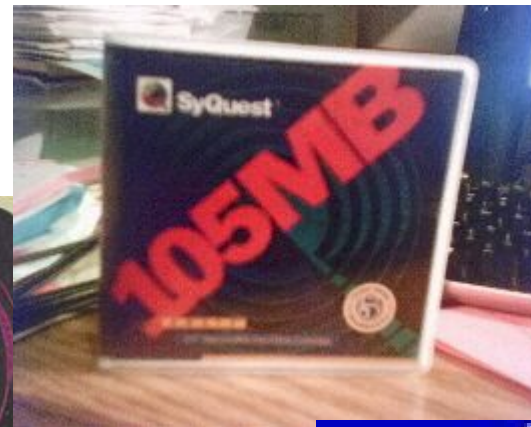


Subtlety and Softness in data-driven art

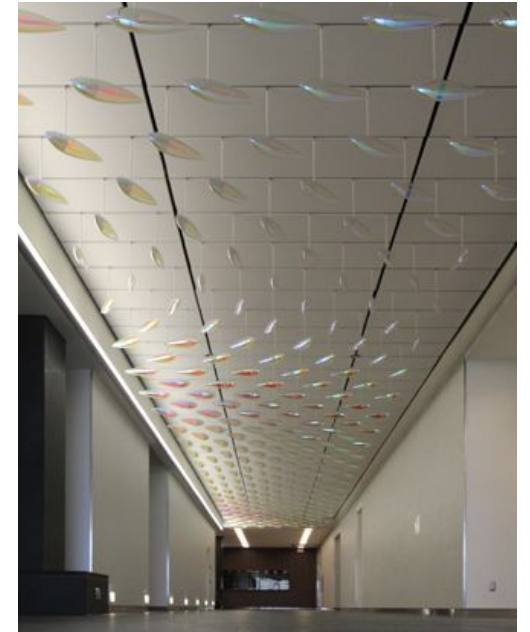




UVA



Mark Goulthorpe



Trokia



Christiane Keller



Bruce Munro



Julie Freeman



Philip Beasley

The Lake

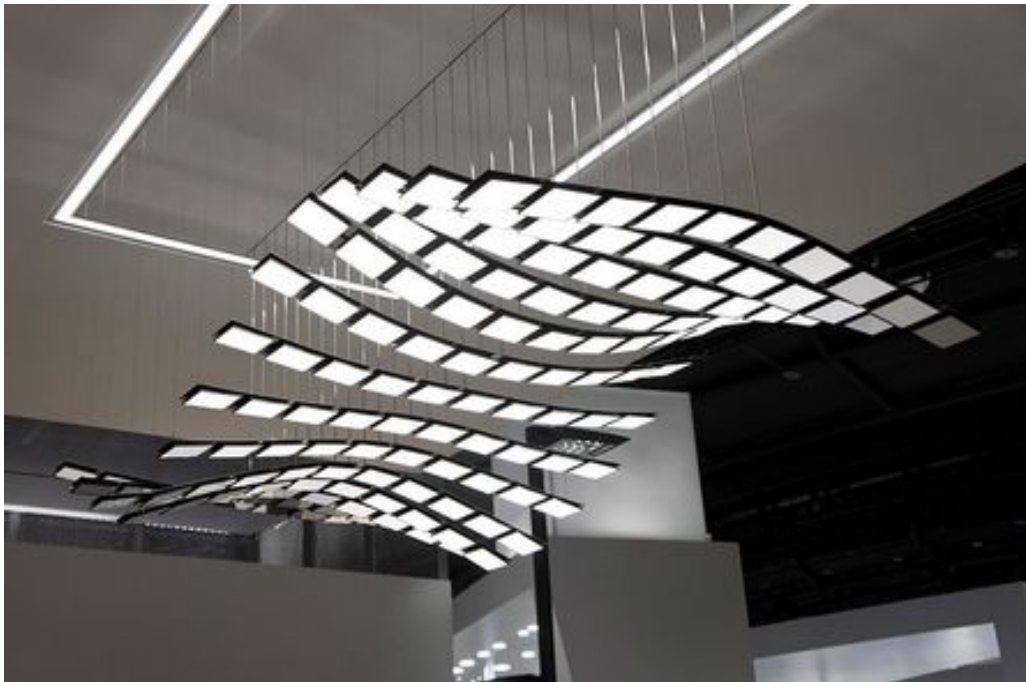
Video of an audio visual immersive installation that translates fish movement to audio and animation.

Data Definitions

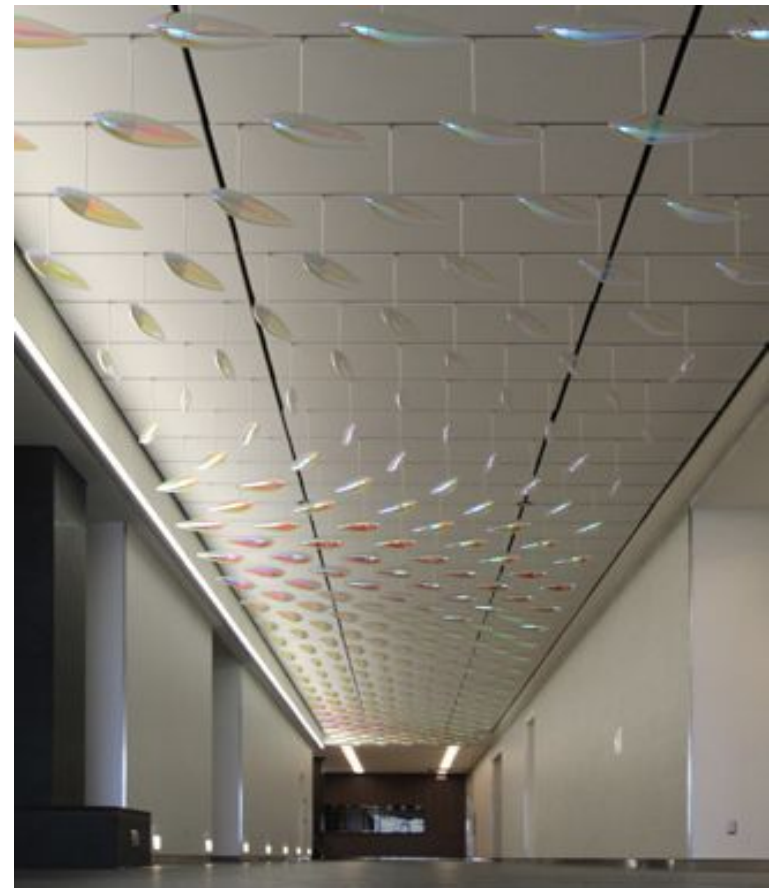
Data Type	Summary	Example
Real-time	data that is created, captured and disseminated in an "immediate" time-frame relative to the context of its use. Note that the time resolution may vary dramatically based on the use-case/relevance. This data changes over time	smart-meter reporting electricity usage every 30 seconds. Feeds from sensors
Streamed	the technical means of delivering real-time data as a continuous stream. The primary use-cases are where there is no requirement for data storage, or that the data-sets involved are too large to be manipulated in any other manner	live video or audio. Large data-sets that only shards are required of at any one time
Static	data which does not change once created	historical global population size
On-demand	data made available only on request (by machine or user)	weather data for the past 24 hours as a single CSV file
Temporal	a) data which is time-based in its nature b) data which is relevant to a specific time	a) the value of a grain of rice over time b) the average temperature during an eclipse
Spatial	a) data which describes or is derived from a space. b) data which is relevant to a space	a) GPS coordinates from a walk around a city b) the number of people visiting the Tate Modern
Transient	data which may only exist for a short period of time	the radio signals received from an exploding star
Live (natural)	data whose origin is directly linked to nature and without conscious origin.	species migration reported by a sensor, a heart-rate monitor tweeting its output, the temperature of the ocean, the sound of a bird-call
Personal	data produced by or about an individual	a) family photos b) Google's search analysis profile of an individual's interests
Social	data produced by or about a social group or society	the economy of the eurozone. Life expectancy in the UK
Commercial	data produced by or about a corporate entity	company financial information for the past 10 years
Causal	data in which it is (or is made) obvious to the observer what its origin is	a vocal recording
Processed	data which has been altered in some way (e.g. by an algorithm)	simulated model of a tornado
Generated	Data created by machine (e.g. code)	algorithmic music, Conway's Game of Life

Data Definitions

Data Type	Summary
Generated	Data created by machine (e.g. code)



Art+Com
Manta Rhei



Troika
Shoal

Data Definitions

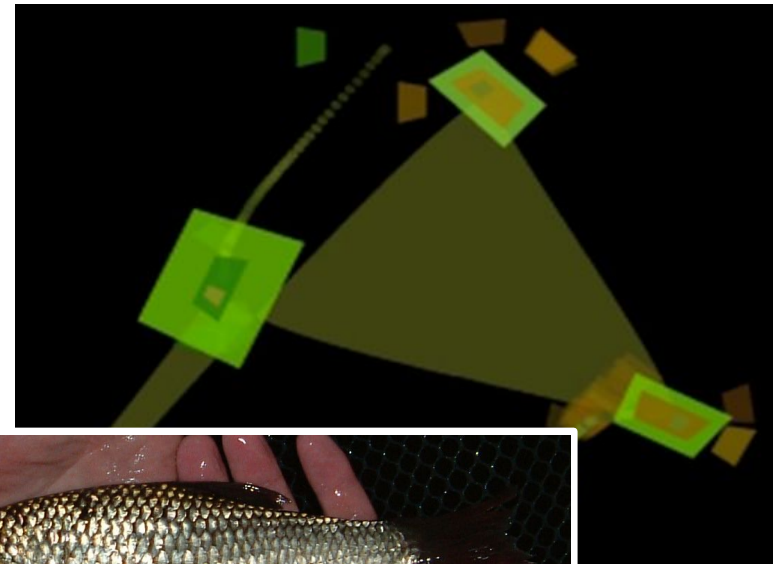
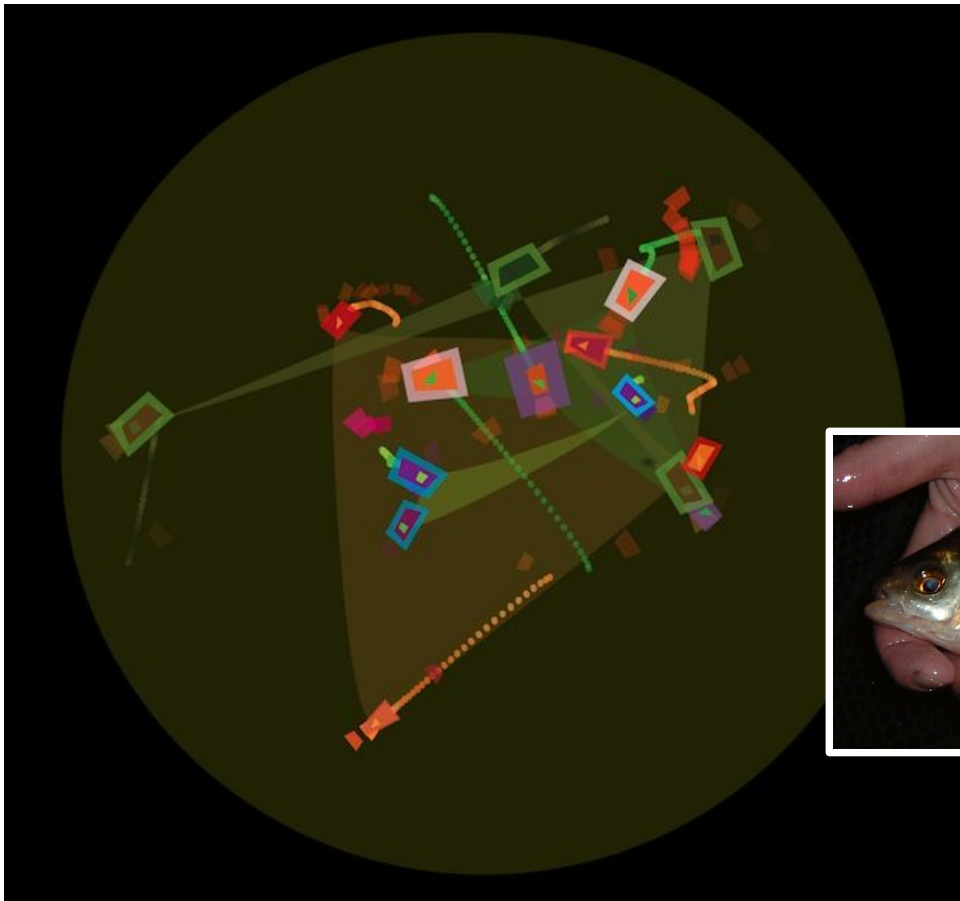
Data Type	Summary
Real-time	data that is created, captured and disseminated in an "immediate" time-frame relative to the context of its use. Note that the time resolution may vary dramatically based on the use-case/relevance. This data changes over time



Philip Beasley
Hylozoic Ground + detail

Data Definitions

Data Type	Summary
Live (natural)	data whose origin is directly linked to nature and without conscious origin.



Julie Freeman
The Lake + detail

Data Definitions

Data Type	Summary	Example
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Dataset Analysis

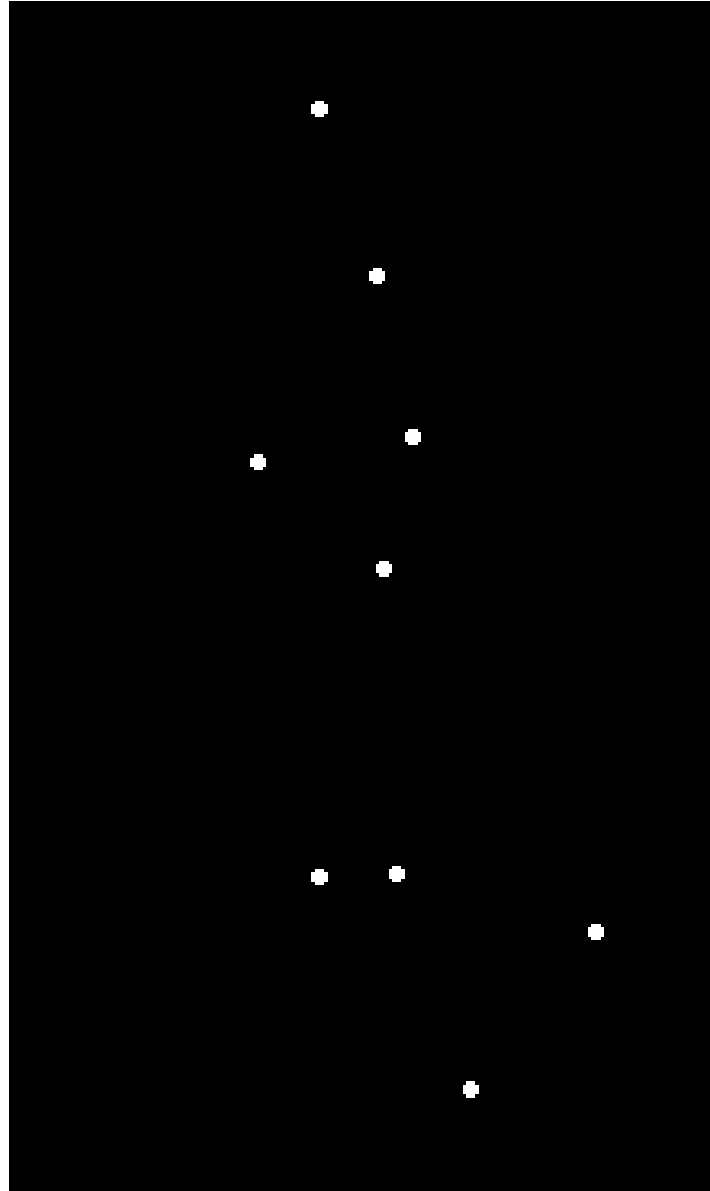
Datasets should have character assessed based on these parameters:

Accuracy	they hold direct, factual information as individual data points
Utility	they have potential to provide utility by providing new content or insight through their collective whole
Provenance	for scientific datasets they should be reproducible, others should be collated from, or by, reliable sources. All should be unbiased
Context	they provide meaning through their relationships to other datasets (for comparative interest, for ratification)
Relevancy	they hold data points that are relevant to each other, and to someone or something (a machine)
Accessibility	how and by whom can the dataset be accessed and used (licensing rights, availability)
Format	structure and format (technical data structure and/or data definition)
Dimensionality	how many dimensions are represented (e.g. a point against time, number of parameters).
Sample size	order of magnitude of the number of data points (e.g. 1, or 1 million)

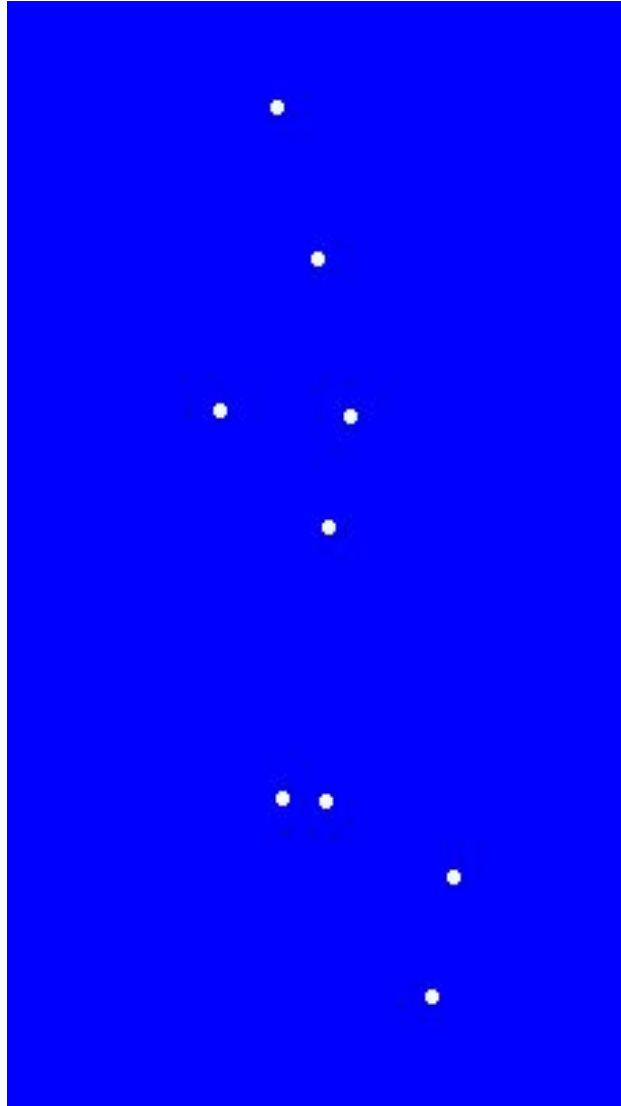
“After attempting to read 20,000 comma-separated lines of apparently open-data, we understood that power revealed itself through boredom.”

—from YoHa's *Invisible Airs* project <http://yoha.co.uk/invisible>

Biological Motion

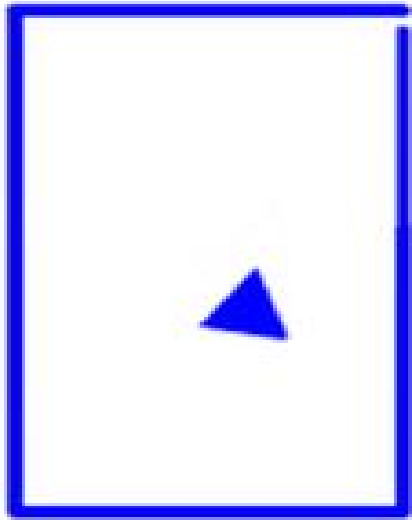


Biological Motion



Empathy

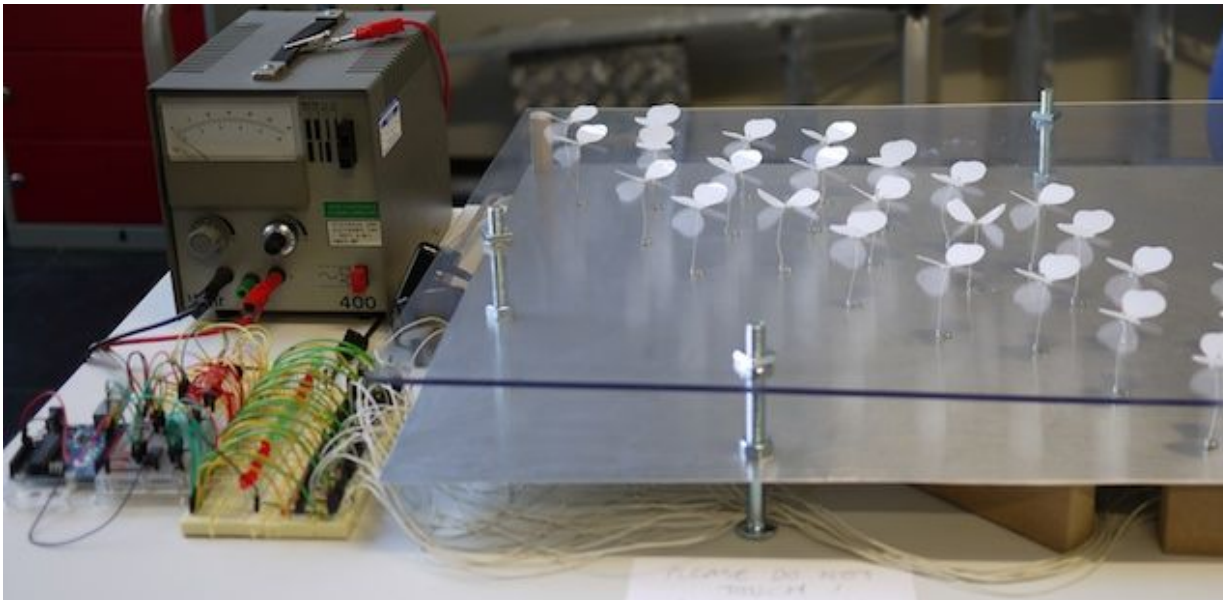
Can you feel for geometric shapes?



Biological Form



Julie Freeman
Bird & The Moon



**Julie Freeman
Lepidopteral**



julie@translatingnature.org

www.translatingnature.org

slides & future Ph.D. research at
www.translatingdata.org