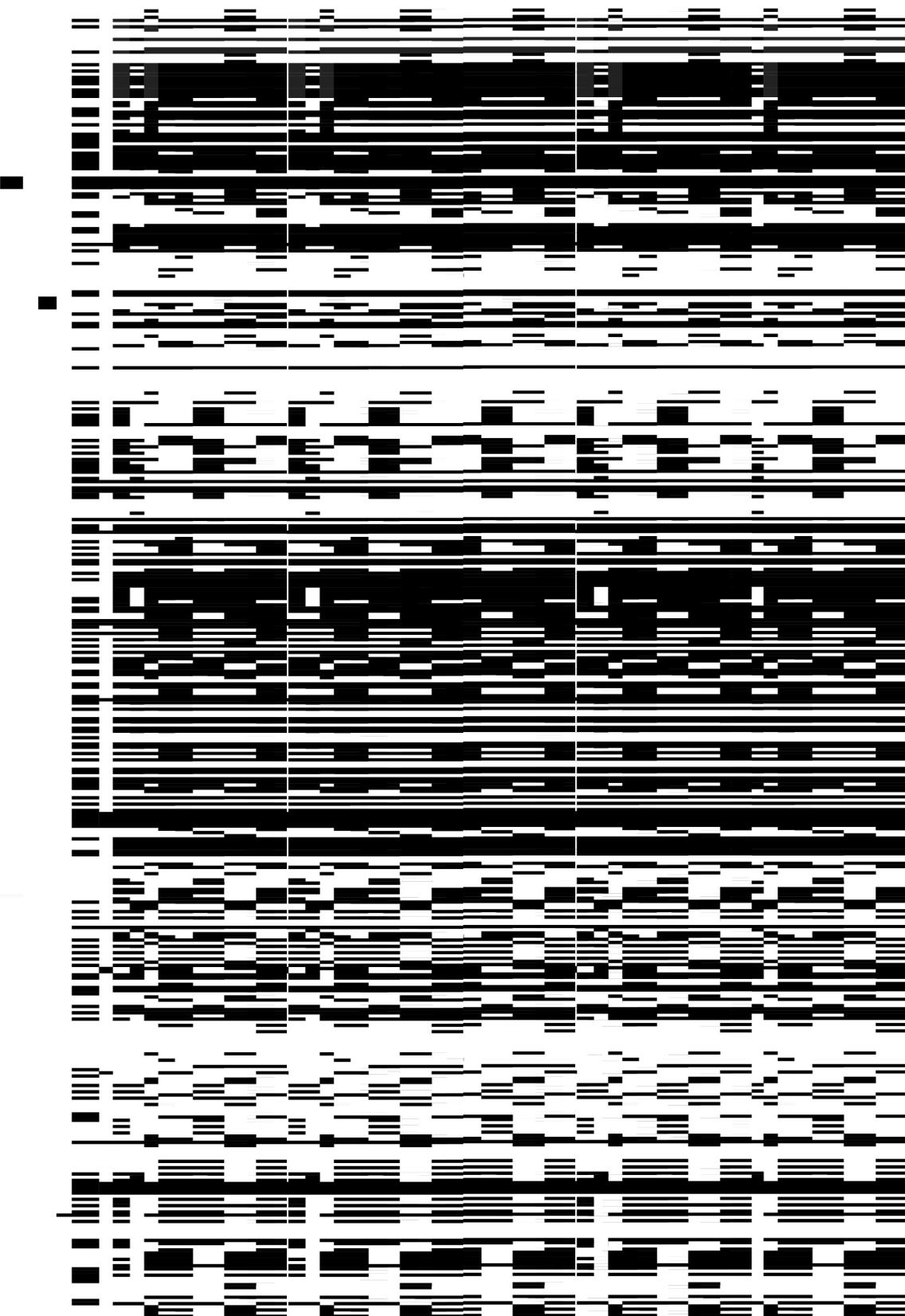


# 568 rows 18 columns

Out of Data Research Group

with Jayson Haebich

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## FOREWARD

In 2016, on the occasion of its twenty-fifth anniversary, Cubitt Gallery and Studios launched a partnership with the MFA Curating programme at Goldsmiths, University of London that provides students with the opportunity to conduct research into Cubitt's archive and curate an event based on this research.

The archive includes documentation and exhibition material that encompasses a huge range of documents, correspondence, publications, ephemera, images, videos and other material related to the history and activities since the organisation's founding in 1991. It covers the early period of the organisation at Kings Cross Studios, Goods Way, NW1 (1991-1993); Cubitt Street, WC1X (1993-1994); Caledonia Street, N1 (1994-1999) and Angel Mews, N1 (2001-present).

The historical archive is now complemented by an additional archive of digital-born material, which in recent years represents an ever-growing proportion of content.

For the third edition of this ongoing collaboration, Cubitt has invited Out of Data Research Group, comprised of Johanna Hardt, Ashley Janke and Katie Yook. Since September 2017, the collective has been collecting data from the past twenty-five years of exhibitions and events at Cubitt, focusing on variables such as gender, age, nationality and education of participating artists, curators and other contributors, as well as data on exhibition formats and themes.

Out of Data Research Group has commissioned computational artist Jayson Haebich to develop a series of works that translates the group's database of information into interactive visualisations, which is on view in Cubitt's studio space on 10th March 2018.

- Out of Data Research Group

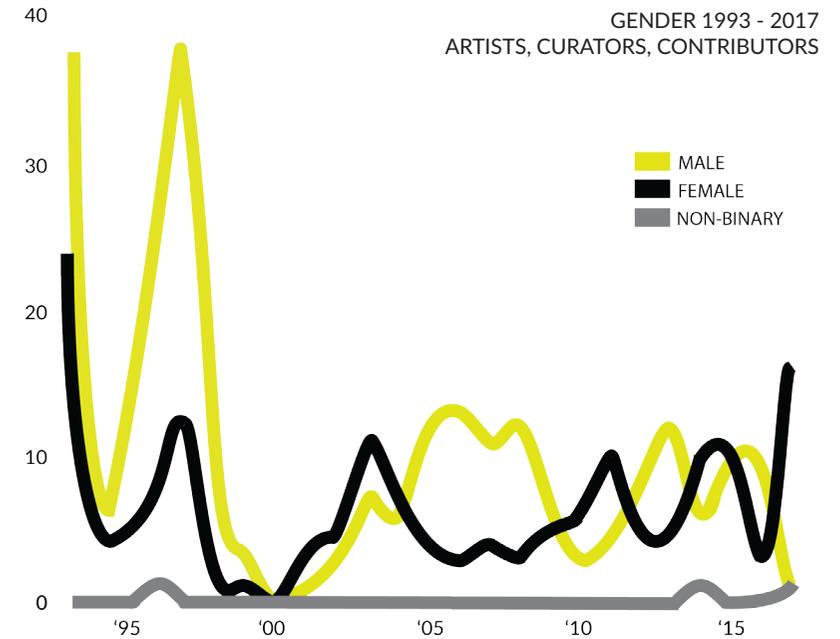
# INTRODUCTION

Our approach to archives stems from our interest in forgotten histories and works against the popular notion of the archive as entombment. Hence, the question of how archival material can and should be used is central to our involvement. How can material that belongs to the past, now existing only as traces that remain hidden from the public eye, be made visible in a way that is interesting and relevant to the contemporary visitor?

Instead of focusing on particular exhibitions or events from Cubitt's history, we were interested in ways of making visible the archive's identity as a whole and its evolution over the span of its existence. Cubitt's Archive proved especially interesting to us in that regard, as its existence has emerged without a particular authority overseeing its development. What does that mean in terms of the collected material? In what ways does the archive inform the institutions identity? How can the institution learn about itself through rediscovering its own unfolding? From these questions, *568 rows 18 columns* became an investigation into how an archive informs the identity of a cultural institution.

Through a quantitative approach we sought to offer audiences the opportunity to navigate Cubitt's comprehensive history that spans 1991 to the present. We decided to use data collection as a way to achieve such an ambitious undertaking. While the practices of data collection and analysis today come with ominous connotations relating to unstable financial markets and technological surveillance, we wanted to appropriate these practices in a creative and critical way.

Rather than creating graphs that present clear conclusions and correlations for an audience, we wanted to work with an artist who could complicate the information from the spreadsheets in a way that made them less linear and more open to different interpretations.



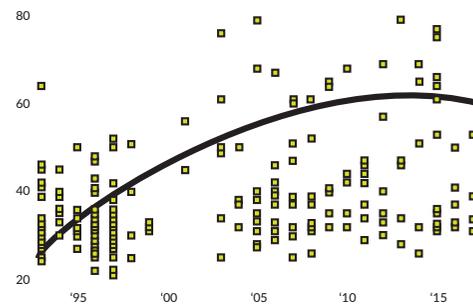
Creative coding and interactive data visualisation techniques allowed for multiple points of view. We were inspired by the work of coders, such as Josh On's [www.theyrule.net](http://www.theyrule.net), a site that aggregates a large amount of data to reveal large-scale corporate connections.

To evaluate the evolution of Cubitt's past and better engage its present as well as its future, *568 rows 18 columns* collects data from the archive and transforms it into a visual snapshot that holds the ability to be updated with each new exhibition. We began by collecting data based on the following variables: Gender, age, education background, education location, cities and countries of origin of exhibited artists, mediums used, as well as formats and themes of exhibitions. These columns became our foundation, a starting point of assumptions from which data was built on top of and from which we hoped to suggest a narrative. According to these categories we searched the archive,

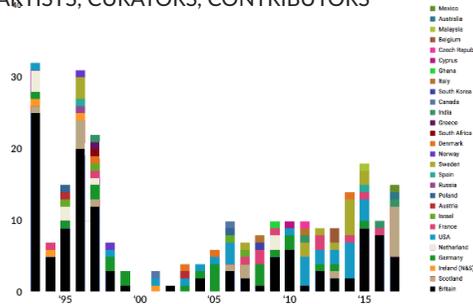
dissecting and picking the information we needed. By this means, it became apparent what kind of information was regarded as important enough to keep as a physical document within the archive and what was not. The Internet was our second source that we had to rely on when the archive failed to provide us with the information we were looking for.

Despite the painstaking work, we collected as much information as we could, reinforcing the idea of curators as bureaucrats whose admin tasks take away from creative work, as discussed by Matthew Ward in his article "Spreadsheet Realism" (Medium, 2018). In the case of our project, our admin work laid the foundation for the critical engagement that ensued. We remained cautious about the implications of categorising and organising information that would then be perceived as a) factual and b) able to be analysed. Data, perceived as absolutely necessary to validate findings in the research community, is commonly used as a primary source for research. Anticipating these issues we hoped to be able to give them some transparency, while at the same time acknowledging general issues relating to how data and its visualisation is shared, used and perceived.

AGE AT THE TIME OF PARTICIPATION 1993 - 2017  
ARTISTS, CURATORS, CONTRIBUTORS



NATIONALITY 1993 - 2017  
ARTISTS, CURATORS, CONTRIBUTORS



For example, we made visible the instances of missing information with the empty black cells marking our spreadsheet. Highlighting this lack was a way to undermine the perceived authority and truth of data collection. Another challenge came from the ethical issue of reducing humans to categories and labels. Curating data adds an element of automated storytelling, far removed from subjective realities. Through ongoing conversations with Jayson, the project slowly took shape and formulated the common goal to appropriate data visualisation as a tactic to investigate faults in numerical systems and to place data analysis in the context of widespread corporate data collection practices today.

568 rows 18 columns allows visitors to examine the ways in which Cubitt has adapted to change throughout the years. Cubitt has demonstrated the ability of an artist-run space to survive and adapt through decades of radical change. This is revealed by the dips in collected data during the demolishing of the Kings Cross culture-scape, and the progress towards equal representation of genders in the art world.

Our work as archivists is imaginative, leaving it to the public to form their own hypotheses. The commissioned works question the methods of framing, analysing and communicating information to a public: What kind of public is imagined when reducing something complex into straightforward information through data and code? How can data be transformed into artistic practices that critically comment on a digital age increasingly dependent on abstractions? How is memory shaped by new tools of technological reproduction?

# PROGRAMME SCHEDULE

Workshop and Website Launch  
10 March 2018  
3:00-6:30pm

*568 rows 18 columns* is a workshop and website launch that investigates how an archive informs the identity of a cultural institution while exploring the possibilities and limits of visual data representations such as graphs and maps.

The event marks the end of Out of Data Research Group's six-month archival research inquiry at Cubitt. The research group – comprised of Goldsmiths MFA Curating students Johanna Hardt, Ashley Janke and Katie Yook – has brought about the datafication and digitisation of Cubitt's Archive. Their research is driven by their interest in challenging the apparent face value of data as a medium of knowledge transfer by attempting to incorporate more fluid notions of identity.

## 1/ WORKSHOP: Methods of Data Analysis in Creative Fields

3:00-4:30pm

Data analysis has accelerated rapidly during the past five years and is being applied to new areas such as the visual arts. In this workshop, computational artist Jayson Haebich will discuss new ways of thinking about data and information. This will include the use of data analysis and machine learning within the creative fields, how it can be used and what technologies are currently available. Jayson will introduce some easy use tools that participants can apply to their own data.

## 2/ WEBSITE LAUNCH + drinks reception

4:30-6:30pm

Website launch of Jayson Haebich's data visualisations that use code to translate Out of Data Research Group's database of information collected from Cubitt's archive, which dates back to 1991. Visitors are invited to interact with the works and engage with the reading materials provided.

# INTERVIEW WITH JAYSON HAEBICH

**OUT OF DATA:** What first led you to work with computational arts and when did you first experiment with data visualization?

**JAYSON HAEBICH:** I have always been into computers and electronics. When I was a child, I loved taking apart old radios and hacking electronic devices. I got into programming from a really early age and started making 3d graphics using code when I was younger. I've always been fascinated by mathematics, hacker culture and the internet, so programming was always the natural way to explore these spaces.

I started making data visualisations for commercial clients, but as I explored the field more I found the tools and techniques really interesting. This made me want to apply them to more abstract fields such as curatorial data.

**OOD:** What limits do you see in presenting data as facts?

**JH:** Typically in data visualisation there is a clear message or result that is being shown, often with some kind bias from the author or those commissioning the work. I prefer the idea of showing the links between different kinds of information and letting people form their own opinions or facts from this, rather than providing a strict narrative on what the data is showing.

Another limit is the tools being used. One algorithm I use is called TSNE that reduces higher dimensionality data down into two or three dimensions that can be presented visually. While this provides a way to make sense of large data sets, it can be problematic because the nuances of the real world can be squashed out of the data.

These tools also can have a lack of objectivity, which is caused by the way the algorithms have been trained. It's also important to check what data the algorithms have been trained on initially as these algorithms are very complicated and can have the biases of the person who trained or designed them. As machine learning becomes more ubiquitous in our lives this (lack of) objectivity in algorithms is something that needs to be explored more.

**OOD:** How have you navigated the problematic aspects of data analysis and representation?

**JH:** Trying not to define a strict narrative when showing the data by keeping the abstract nature of the information visible and allow people to make their own conclusions from it.

**OOD:** What is the role of data in constructing algorithms for machine learning?

**JH:** They exist in a kind of symbiotic relationship. The algorithms themselves would be of no use, if there was no data to run them on and the algorithms become a kind of mathematical representation or approximation of the data.

**OOD:** What tools and processes did you use to develop the work for *568 rows 18 columns*?

**JH:** One of the main tools I used is the TSNE algorithm, which is a dimensionality reduction technique. Since we had many data points, we needed to reduce this into a simpler form.

I also used the word2vec algorithm which is a way of comparing and finding similar terms. Words are deconstructed into mathematical representations from which similarities can be deduced, for example to find words similar to "kitten" gives the result:

[[1 kitten], [0.78 puppy], [0.77 kittens], [0.75 cat], [0.74 pup], [0.72 puppies], [0.67 dog], [0.66 tabby], [0.65 chihuahua], [0.65 cats]]

This technique was applied to the image classifications such that they can be compared in a meaningful way. These image classifications were done using the ImageNet classifier. This is a machine learning algorithm, which looks at an image and can automatically tag features or objects in it.

The final visualisations were built using three.js, a 3d in browser graphics rendering engine.

**OOD: What obstacles did you come across in the exhibition and how did you navigate them?**

**JH:** Trying to decide what to show and how to quantify and link this data together. There was a really wide range of data available to us. Since the history of Cubitt goes back to 1991 it was hard to track down information on some of the artists who were involved early on with the gallery, especially in the pre-Internet period. It was much easier to work with the more recent data as most artists now have websites and information online that we can find. It's interesting to think about artists in the '90s whose work only exists as physical documentation and there is a case to be made for the importance of digitally archiving physical copies of artists work.

Following from this we had to be careful with regards to privacy issues about the artists information. This was one of the main challenges as there are ethical issues with directly putting the personal information of artists online.

Also trying to make sure we didn't simplify the data too much. I really wanted to avoid something like a bar chart showing a neat breakdown of the artist and exhibition metrics.

**OOD: What do you have coming up that you are looking forward to?**

**JH:** I'm continuing my project on data crystallisation, looking at the emergent properties of data and how artificial data can be grown organically using this process.

Also I teach creative coding in Shanghai. I find it interesting teaching these computational based art practices in a place where the idea of art and technology coming together is very new. Shanghai is such a tech-centric place where almost everything is based around phone apps and millennials there have grown up completely saturated in the Internet and tech culture. The nature of the Internet and technology in China is that it has been designed to be isolated from the rest of the world which gives it a unique internet culture.

http://  
www.568  
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## WORK DESCRIPTIONS



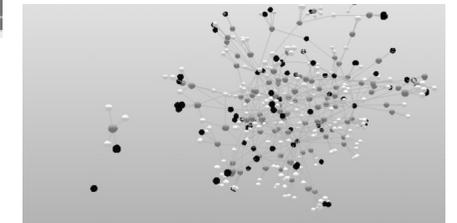
### 1/ MAP

This interactive map shows the geographic movement of artists who have exhibited at Cubitt since 1993. It visualises the way in which people who are spread throughout the world are drawn towards the London art circuit. The map further depicts where each artist studied, their place of birth and where they currently live – all of it linking back to London.



### 2/ IMAGE CLUSTERS

Several machine learning algorithms group visually similar images from Cubitt's archive. The images cluster together depending upon their visual style and content resulting in the algorithm recognising and forming a mosaic of images.



### 3/ NETWORK

This interactive, three-dimensional graph uses information about the mediums and themes of every exhibition at Cubitt and applies machine learning algorithms to find connections between them. By analysing information about each show, new links and connections can be made between the types of shows that have occurred at Cubitt over each year.

## KEY PARTICIPANTS

**Jayson Haebich** is a London-based new media artist and programmer who uses his skills as a computer programmer to create diverse and innovative works ranging from light sculptures, digital artworks, club visuals, site specific installations, data visualisations, film clips and much more. Constantly evolving, Jayson's work takes the latest innovations in technology and aims to use these within an artistic context. Jayson received his MFA in Computational Arts from Goldsmiths in 2017.

**Johanna Hardt** is currently studying in the MFA Curating program at Goldsmiths. Her curatorial practice focuses on auditory culture, is informed by an interest in relational and participatory aspects of process oriented research practices and follows feminist ethics. She received her undergraduate degree in Cultural Studies at Leuphana Universität Lüneburg and assisted at Kunstverein Hamburg, Museum Ludwig, Cologne and kulturreich, Hamburg. More recently, she has organised events at the Institute of Contemporary Arts, Corsica Studios, Chalton Gallery, EnclaveLab and Azkuna Zentroa.

**Ashley Janke** is a curator and writer currently working towards her Masters at Goldsmiths. Her writing has been published in 'this is tomorrow,' Temporary Art Review and Open View. In the past year, she has curated exhibitions and developed programming at After School Special, EnclaveLab, the Institute of Contemporary Arts, and Azkuna Zentroa. She has previously developed and curated self-organized arts spaces including nAbr gallery, BORDERLINE, and Imagination Giants and is the co-founder of the annual 00000 GHOOST \$HOW.

**Katie Yook** is a curator and writer currently studying in the MFA Curating program at Goldsmiths. Katie received her undergraduate degree in Contemporary Art as a Medium for Social Engagement at New York University. She has held positions at Creative Time, Art in General, Joshua Liner Gallery and Suzanne Randolph Fine Arts and has recently curated exhibitions, performances, screenings and events at Res., EnclaveLab and Arts in Perpetuity Trust. She has contributed writing to 'this is tomorrow', the Institute of Contemporary Arts, and the Goldsmiths MA Digital Culture Degree Show Catalogue.

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# THANK YOU

A very special thank you to the entire Cubitt Team, especially Fabio Altamura, Rena Strati, Chris Evans and Ben Deakin, for their support and mentorship.

Thank you Res. for providing seating for the event and Old Blue Last Beer for providing drinks.



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