



There be Dragons:
Navigating the
uncharted
data territories
of creative practice





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Introduction

The **There Be Dragons** project starts from the premise that data can empower creative businesses to do more and to do it better. Data can be used for creative practice, with creative practice, and to tell us about creative practice. However, coping with data is not a simple or straightforward activity. It has to be collected, analysed, visualised, understood and communicated. There are ethical and privacy issues to consider. The project aimed to investigate and untangle some of these messy issues in order to build a representative picture of the role that data plays in the life of the creative practitioner. The work was funded under the Creative Horizon strand of the Creative Informatics project, with the goal of supporting blue sky research on the creative industries.

A key objective was that the project should speak to and for the creative community, so it was critical to harness the creative and artistic skills of the community itself in a collaborative design and exploration process.

Through an open call, five creative practitioners were selected to work with the Creative Informatics academic team to develop creative and artistic responses around the issue of data and creative practice, with the aim of producing an informative, provocative and engaging exhibition and showcase of the outputs.

As a starting point a symposium was organised that brought together the selected artists with creative industries policymakers and researchers to discuss and explore the issue of data on, for and about the creative sector.

As a source of inspiration the artists were encouraged to consider “Design Fiction” and related concepts as a technique to decouple from many of the practical issues associated with data and to give a freedom to their imagination as they explored the relationship between data and creative practice. This approach can reveal insights for further discourse and create outputs that engage a wider public audience in an accessible way.

The project concluded with a public exhibition entitled *There Be Dragons* that was hosted by Inspace at the University of Edinburgh. The exhibition ran for four days and was visited by over 200 people. Each of the artists’ responses provided an insight to their complex and sometimes very personal relationships with data and how it was seen to reflect their practice. But behind each response is a personal story, so the writer Jules Horne was commissioned to reflect on the *There Be Dragons* exhibition and to talk with the participating artists about their reflections on the project.

A *short film* was made of the exhibition, produced by *Edinburgh Video Productions*, which encapsulates the visual and audio qualities of the exhibition and the diverse creative responses to the data question. Finally, graphic designer Alix Lunn has brought all this data about data to life with smart layout and graphics, with thanks to Chris Scott for the photography that illustrates the exhibition and artists responses.

We hope you enjoy these creative responses and provocations which bring to the fore playful and critical responses to data collection for, with and about creative practice.

Dr. Inge Panneels

Dr. Ingi Helgason

Dr. Michael Smyth, co-director Creative Informatics

January 2023



Artists Do Data

Exhibition showcases artists' work at the interface of data and creativity



Dr. Ingi Helgason
Dr. Michael Smyth, co-director
Creative Informatics
January 2023

Creative Horizon 4 There be Dragons!

Navigating the uncharted data territory



Artists Do Data

Exhibition showcases artists' work at the interface of data and creativity



There Be Dragons! said the sign. Not many exhibitions begin with a direct call to adventure, so I was delighted to go along to Inspace in Edinburgh, and find out how the selected artists have been wrangling with the slippery, shapeshifting material that is data. The five pieces, commissioned by Creative Informatics and curated by Mark Daniels of New Media Scotland, showed artists working at the frontline of data experimentation. Over 200 people turned up to join in the quest which, it turned out, took us out into the rainy streets of Edinburgh, inside our own bodies, and through a dizzying brain space of the future.

On first glance, **There Be Dragons** threw a few surprises. No data dystopia, no impenetrable code, hardly a number in sight. The atmosphere was buzzing and friendly. People were touching walls, handling objects, scribbling notes, following maps, venturing forth into hidden parts of the city. What was going on?

Inspace is a big, bright room with white walls, vast windows and a tech vibe. It's on Crichton Street, in the

heart of Edinburgh University's creative technology quarter, and is home to events and installations at the cutting edge of design and innovation.

The artists had responded to an open call to create work using data **for**, **with** and **about** creative practice. This was part of the Creative Horizon 4 project, looking at data collection on and by the creative industries. Implicit was a question about how data can be better understood and used, and how this might empower creatives. The artists were also invited to think about speculative "design fiction", a critical process for "anticipating the future as a way to re-think the present".

The resulting exhibition showcased a fascinating range of work that surfaced different preoccupations around data, different forms they can take, and a sense of real and imaginary futures inspired by data thinking. **There Be Dragons** felt like the start of a welcome public-facing discussion about data literacy, interaction, representation and agency by a sector whose contribution to the UK economic picture isn't enough seen.

It was also fun and thought-provoking about what data is, can be and do, its limitations and concepts, including analogue data, cleaning, gathering, data gaps, physicalisation and sonification. If you're intrigued and interested in an entry point to learning more, I can highly recommend the new cross-disciplinary course Representing Data from Edinburgh Futures Institute. It's not for the faint-hearted, but it'll blow your mind!

Jules Horne

Course Catalogue -
Representing Data (fusion online)
(EFIE11001) (ed.ac.uk)

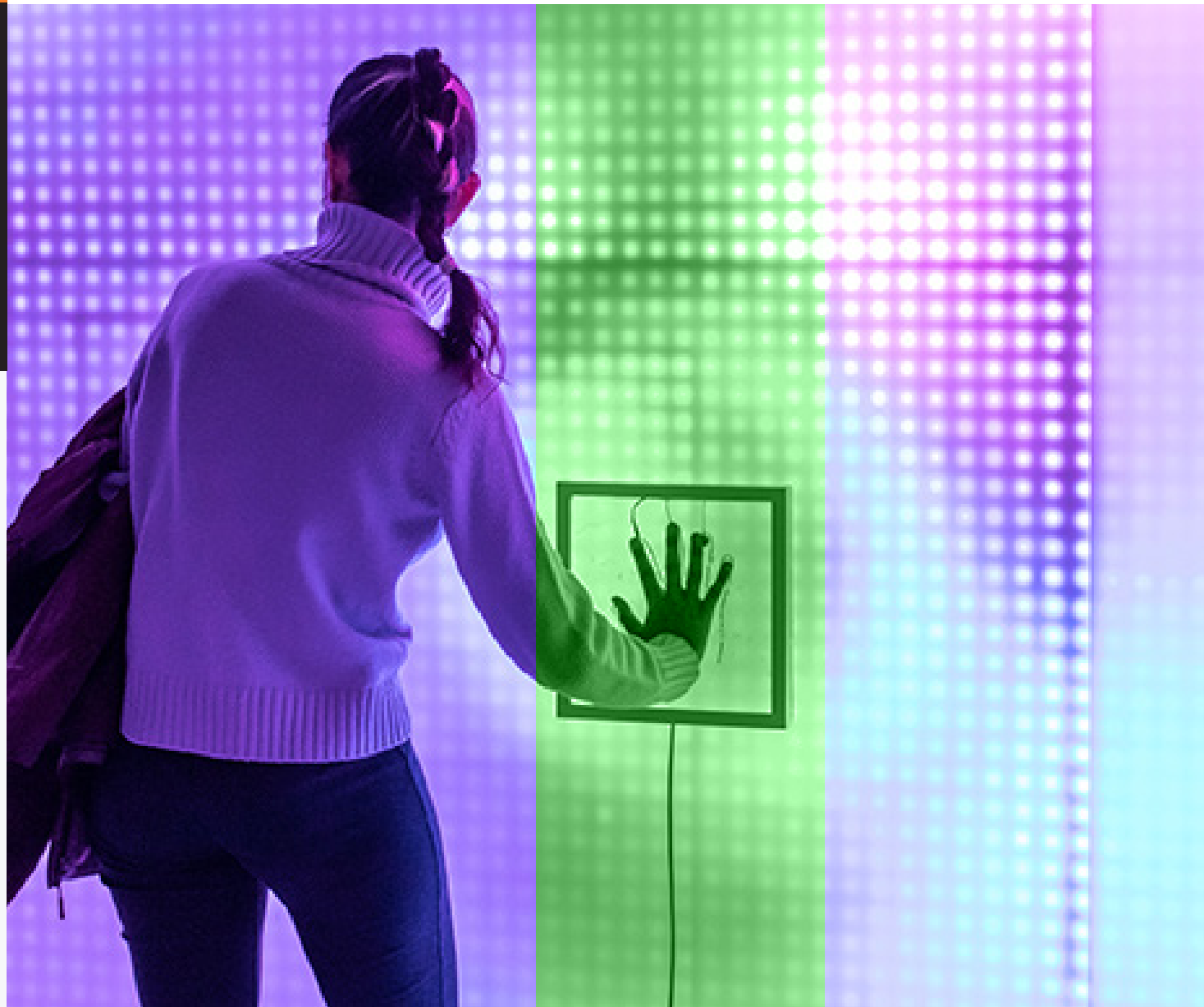


When Do You Give Yourself Away?

Koterwas is an artist and musician working with data, perception, physical phenomena, and the body, to examine aspects of daily experience that often go unnoticed.

His installation at Inspace is a giant screen pulsating with shimmering colours created by you and your heartbeat. Below your feet, the floor pounds with the rumble of deep knocking, also triggered by your body data in real time. You've "given away" the data, and your inner life, by placing your hands on two pads of medical gel linked to sensors that measure pulse and galvanic skin response. So intimate personal data coming from your body is being magnified and displayed on full view. And if you find the experience stressful or exciting, that too, will show up in the screen and soundscape.

Koterwas says he positioned his response to be from the future looking back, inspired by Creative Informatics' briefing on design fiction – the creation of speculative or provocative scenarios to foster debate.



Theodore Koterwas



“Right now, we’re really concerned about personal data, and personally identifiable data, and we’re starting to pull bodily data from people. Not everyone has a Fitbit or smartwatch, but you could think of a time in the future where everybody has these sorts of devices. What if that data gets added to our browsing behaviour, and how might it be used, for example, to sell us things? How do current trends play out?”

As Koterwas explains, “I’m really interested in drawing people’s attention to small things and making them big for them – big either conceptually, or in that a tiny thing that I’ve never noticed has this huge impact on the world, my life or my relationship with other people.” His work has increasingly focused on the feedback loop of mind-body-environment and using data to visualize aspects of this.

At Inspace, visitors of all ages had fun projecting their inner life on the giant screen, making subwoofer noises through the floor, trying experiments using feedback from the installation.

Koterwas was intrigued by people’s interpretations and responses. “People want to put their own spin on it. So the sense of, “oh, I must be aroused when I see this, or the colour’s turned green, so I must be peaceful. There have been lots of different interpretations. I watched a child use the sensors, getting enough of a response that he thought it was like a kind of synthesizer, so was playing like it was a music-making thing.”

Amid the playfulness, the piece raises more ominous tones. The subterranean knocking creates a sonic backdrop to the exhibition, almost like an alien presence trapped underfoot and in the walls. Koterwas says the sci-fi films *Bladerunner* and *Arrival* played a part in his sonic and visual choices.

“I thought a lot about the biometric door openers seen in science fiction and in the future. I wanted to give it this feel of being slightly futuristic, almost retro futuristic, and wanted it to feel clinical, so used ultrasound gel in the hand interface. I wanted you to feel the piece kind of touching you back as if it was an organism, as if it was

alive. And when someone wasn’t using it, having that presence in the room with an occasional thrum, almost machine gun-like: ‘I’m here’.”

Koterwas was interested to see that while people engaged enthusiastically with the installation, and were happy to show their bodily data on a huge screen, they didn’t ask about data collection and use.

“It was a concern for me when we started, and we had a meeting to look over the ethics of it, and consider what consents were needed, say, for storing the data. It turned out that heartbeat and GSR are impersonal in the sense of identification. It would be very difficult to identify a person from the data that was being collected, so it was felt that upfront consent wasn’t needed, and I wasn’t storing it long-term. But if it was somehow gathered with names, it could potentially be interpreted in a medical way, which would be quite dangerous.



Theodore Koterwas

Seeing people respond to the feedback loop of data interaction also fed into Koterwas' research on the interplay between mind, body and environment.

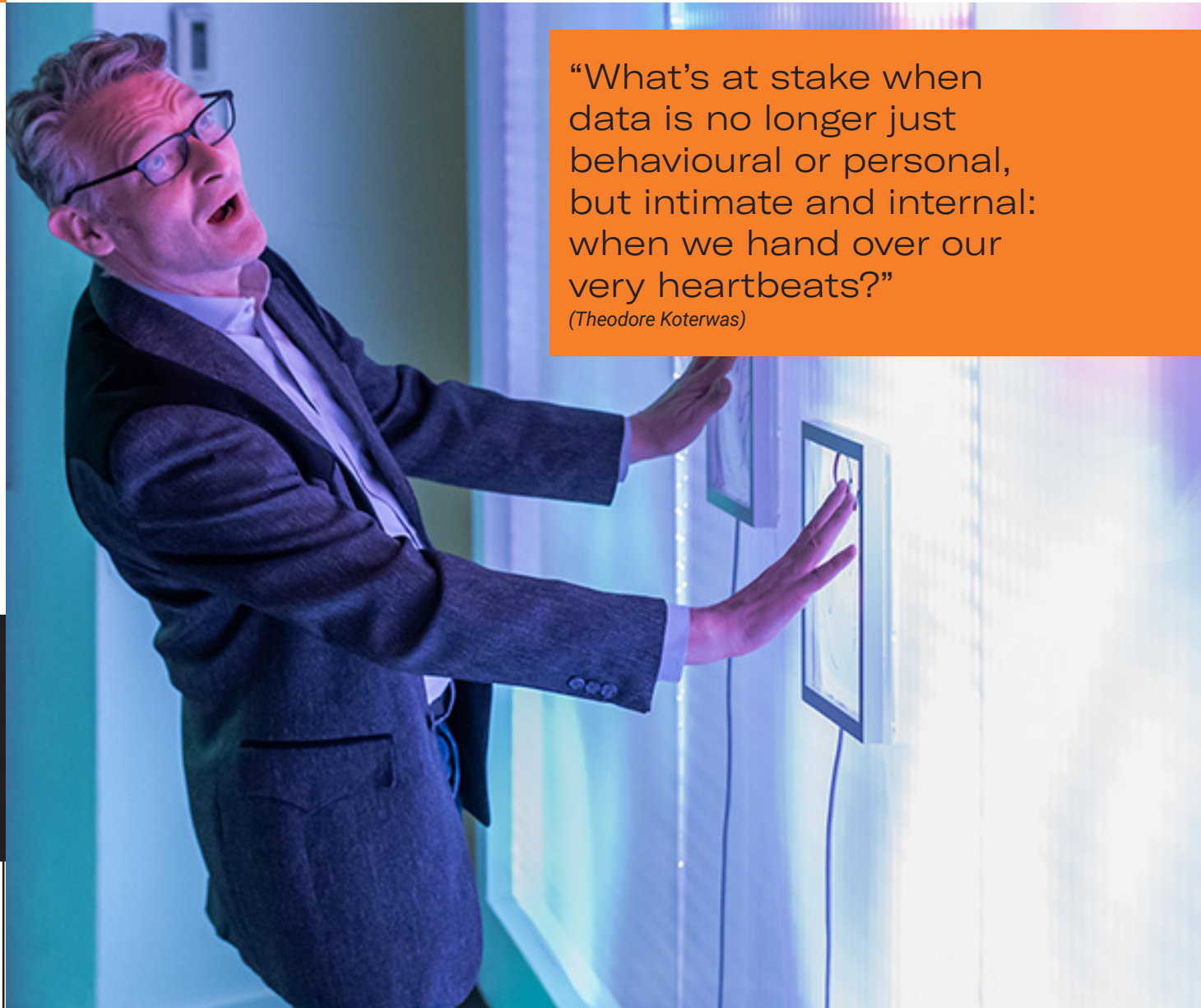
"My practice recently has turned towards our experience over our bodies within an increasingly virtualized world. So much of what we're doing now with technology seems to be focused on this model of existence located in the brain. And yet so much research now is about how our experience is of three different things working together – our body, our environment, and our brain. So I'm interested in looking at how our body is not just a set of sensors for the brain, but actually thinks in its own way." This in turn is inspiring future work around artificial intelligence as a body.

Meanwhile, on the creative industries' relationship with data, Koterwas raised concerns about the role of audience metrics in measuring creative work, and suggests policymakers can benefit from gathering qualitative data that is more typical of the creative industries.

What does data mean?

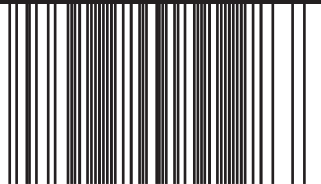
"To give it an essentialist view, it's information. The meaning of data is functionally determined. And it's determined by what the original purpose of collecting it is. And then by what's projected onto it by people who have access to it, and might use it or misuse it."

(Theodore Koterwas)



"What's at stake when data is no longer just behavioural or personal, but intimate and internal: when we hand over our very heartbeats?"

(Theodore Koterwas)



Doing Data

Finkenauer is a visual artist and former data analyst. Her series of experimental sculptures, *Doing Data*, use strategies inspired by data analysis to create physical forms, exploring parallels between the worlds of making and data. In essence, they're a metaphor for data gaps, and ways to handle what slips between the cracks of data analysis.

Perched on mismatched stools on the mezzanine at Inspace, Finkenauer's sculptures look like a wayward family. A higgledy-piggledy wooden staircase climbs into the air and back down again. Coils of wire spring from crumpled wax. Lumps of foam strain inside colourful plastic net, clipped by improvised pegs.

The sculptures seem playful, provisional and precarious. I was reminded of found object assemblages, Beuys, Klee's puppets, abandoned makeshift toys. Even the plinths are contrary, with mismatched legs and heights. Yet each piece is underpinned by data-driven processes.



Elke Finkenauer

Inspiration for Doing Data came from a Creative Informatics workshop where artists and policymakers met to discuss the creative economy. It emerged that many people in the creative sector are missing from official economic data.

Finkenauer says: "I had identified these data gaps from the workshop meeting, and the idea of data gaps really stuck with me. I wondered if there was a different way to look at it, think of it as a space, reframe it and give it potential. I was thinking about data that gets left out of things, that falls in the gap or through the gap. And often that's outliers."

To create the sculptures, Finkenauer used a database she'd created of materials from her studio. One of the categories was "material scraps".

"For me, the things in this category were like material outliers", she says. "Offcuts, small fragments, say a piece of wood that I had kept when making something, instead of putting it into the bin. Things that I could easily have gotten rid of, but for some reason, decided to hold onto. They were all quite abstract and fragmentary. They didn't suggest any particular thing that should be made from them. I saw them as good things to prompt experimentation."



Elke Finkenauer



She drew up a list of experimental strategies. “I chose strategies that I thought could embody an action I could use as a sculptural strategy. So they were deliberately chosen for their double meanings. Offer help, add something, recognise divergence, disassemble and adjust, translate, transpose, turn it inside out... They’re all different ways that I thought you could use to approach data gaps, to maybe think about them differently”.

The material scraps were selected for 15 experiments, using a randomizer. The processes and materials were documented in infographic sheets as part of the exhibit. Finkenauer also used paint colours inspired by palettes for effective infographics, and jesmonite to create positive imprints of negative spaces. Not every experiment worked, or was included in the exhibition.

“In a sense, the sculptures are documents of an iterative process. And the infographics explain the process in different terms. Something underlying this project is the idea of using one thing as a means to understand another, with metaphor being one approach to that. So I almost use the words and ideas in data and making interchangeable. It’s assuming they’re the same, in some ways.”

The wayward plinths are also part of her thinking around

systems, categorisation and outliers. “One thing that interests me about art, but also systems generally, is that each artwork is considered to be extremely unique, yet they’ll often get displayed on white plinths. For all the huge differences, the support structure for them can often be similar. And that’s interesting. I think the same thing applies to systems. People often need different and unique things from a system, whereas a system often assumes an average or uniform type of person.”

At the core of Finkenauer’s work is an exploration of tension between data-driven systems and structures, and things that don’t fit.

“I’m interested in what I see as incongruities,” she says. “Discrepancies or disconnects within structures that frame experience. So social, professional, institutional, familial, and the ways people navigate them. Often, this comes from something where I’ve identified a disconnect between what’s said and what’s not said, in a given situation or system, and how people are navigating that.”

“I was also thinking about how data gets cleansed. Often data points get removed because, in theory, they contain errors. But sometimes, it can also be just because they don’t match the idea of what should be there.”





Finkenauer's piece helps to physicalise the idea of data gaps, processes and hidden potentials, linking to the Creative Horizon 4 theme of creative industries' visibility.

"It was a way of understanding that data could always have been put together differently, for a different outcome. I feel that's often lost in analysis and presentation of data, or maybe in the reception of data. There can be a tendency to think that the data has spoken. And a lot of the time, it could have spoken differently."

What does data mean?

"Data is usually plural and is always an abstraction. I think of it as information that has had something done to it. It may have been collated or summarised, or analysed or compared or presented, at a remove from actual "real life", and experience, people and things. It could always have been put together and understood differently."

(Elke Finkenauer)

Doing Data

106 material scraps were selected from a database of **5,279 things** in my studio.

54 strategies were identified as possible solution to **16(data) gaps**.

Materials and strategies were randomly allocated to **15 experiments**.

19 unplanned materials were introduced, each in **1.83** experiments, on average.

This doesn't include paint, which was used in every experiment.

Of the 15 experiments **7** were **attempted** **6** are **shown** here.



Does the structure fit the thing, or does the thing conform to the structure?

(Elke Finkenauer)

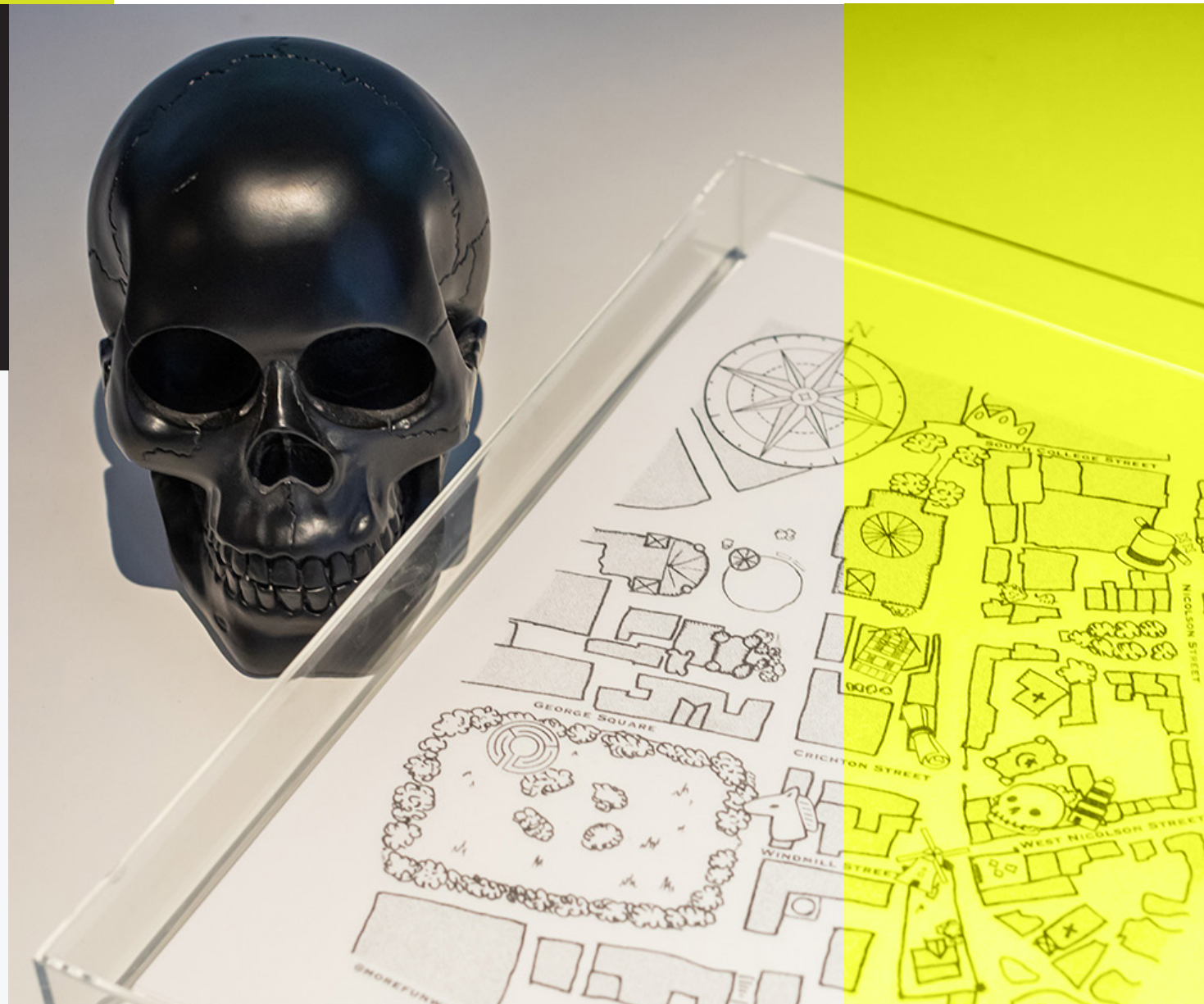


Privacy Wizards or Data Thieves?

More Fun With Games (MFWG) is an immersive storytelling company based in Edinburgh that creates visitor tour experiences combining history, mystery and psychogeography.

For **There Be Dragons**, Inspace became the starting point for **Unveiled Edinburgh**, an interactive walking adventure into the city. Tour host ABS was on duty as part of the exhibition, dressed in dark steampunk costume as a mysterious beak-masked character.

In **Unveiled Edinburgh**, walkers discover a “voracious entity, The Veil, which is gobbling up the most intimate portrait of you, to bind you and drain you of all you can give.” The premise is based on the idea of a “shadow self” created by your digital data online. By drawing attention to how people feed their digital shadow self, and providing alternatives, the games team were hoping to encourage discussion of data, privacy and manipulation, and also spark face-to-face social connection.



More Fun With Games, in partnership with Ray Interactive, Cameron Hall and Two Rats Press

Unveiled Edinburgh was a prototype built on the AtmosphereOS toolkit developed by New Media Scotland, which people can use to design multisensory experiences. The tour included story nodes with audio retellings of local “history and mystery”, including the scientist Mary Somerville, the Dundas Riots, the Festival Theatre death of illusionist The Great Lafayette, and Edinburgh University alumna Dr Agnes Yewande Savage, the first West African woman to train in orthodox medicine.

The story nodes were placed in a small area around George Square, Nicolson Street and South College Street, encouraging visitors to explore what was on the doorstep. The nodes could be found either by smartphone and QR codes, or by using a printed adventure map created by Two Rats Press.

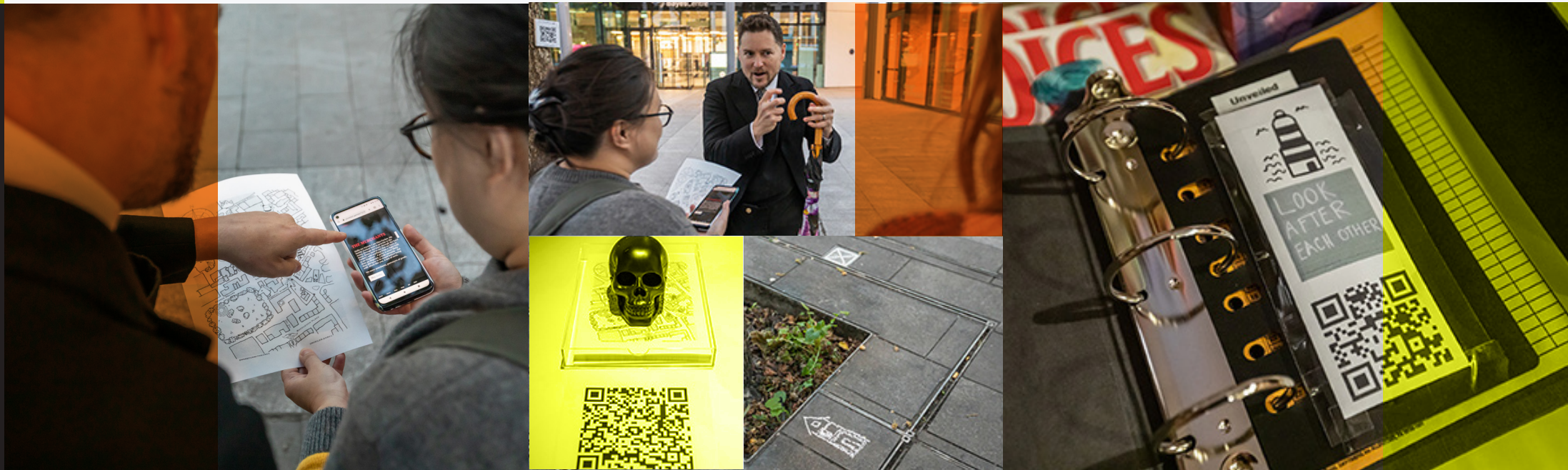
As ABS explained, it was important to keep it simple. “With, say, a treasure hunt, you could scale up and have a harder version for people who really like puzzles, and an easier, maybe family-friendly version. We tried to make it so that if you didn’t have time or budget, or maybe accessibility issues, then you could go to just one or two nodes, and find something cool.”

Also on the team was actor Cameron Hall, who played various characters in the audio monologues, and gave a live pop-up promenade performance as Silas Parker, a local merchant. “For this prototype, part of the idea was experimenting with flexible work for performers,” said ABS. “So you could run a local interactive experience where people can perform, depending on availability. The web app was able to handle Cameron not being there,

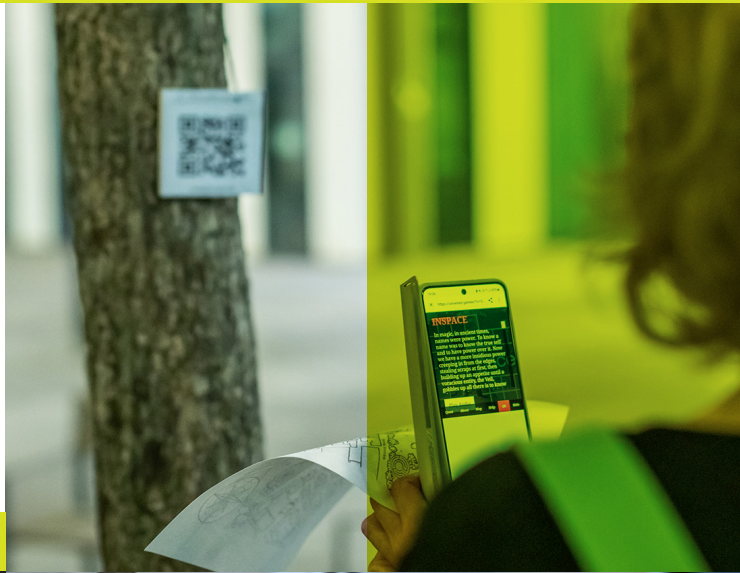
and assign you a different path, so you’d be funnelled to a different place and have a different experience.”

ABS says Unveiled Edinburgh was designed “to get people engaging in their local area, and discovering something, or seeing something a bit differently.” At the same time, visitors were invited to engage with data and discuss its use through some playful tricks embedded in the experience.

“To get started, people had to sign up in Eventbrite. We asked them to provide a character name, and they were assigned to a character class, either Privacy Wizards – people with relatively data-secure habits – Everyday Rangers in the middle, or Data Thieves – people using services that might detect a lot of their data.



More Fun With Games, in partnership with Ray Interactive, Cameron Hall and Two Rats Press



In using the phone app, game players were asked questions about their data use, what kind of browser they used, whether they used location services or a VPN. They also had to sign terms and conditions containing the entire text of the 1714 Riot Act. ABS says this was a kind of playful interrogation designed to start conversations.

“We found that a lot of people gave their real names, even if they didn’t have to, and we put a lot of funny stuff in the terms and conditions, which were fully available on the desk. This led to discussion about giving away data and signing up to things you don’t know everything about. One woman we spoke to was struggling to get our web app to work – it turned her screen white, which we’d never seen before. It turned out that her phone’s QR scanner was trying to hijack our web app and overlay adverts. So that was quite scary. Some people wondered if we were tracking their data, which we weren’t. Everything was only on their local browser.”

The survey data was used to assign participants to different journeys. Following the map, I set out for West Nicholson Street and soon found myself in the Lighthouse Bookshop – somewhere I hadn’t been before, as a visitor to the city. Looking for clues on the bookshelves, I got into conversation with the staff. Hidden on a shelf was a QR which I scanned to hear the audio:

“Here you are at a beacon – a symbol of guidance, hope, community and trust. Communities have long looked to lighthouses to shine the way, to return family and friends safely from the storm-tossed seas. Seek to sustain and grow whilst not giving away that which sustains you – your identity.”

I ended up buying a book and vowing to return to a lovely shop, which ABS says was part of the thinking behind the tour.

“One of the inciting incidents for this project was walking around the Royal Mile, where people would be queuing at Starbucks, and I knew there was a really good community café around the corner. And I thought, ‘if only there was a cool way to let people know about it’. Part of the discussion with Creative Informatics was about freelancers and small local businesses. And we got feedback that people had come in and played the game, bought some stuff and talked to the staff. So that was really pleasing. It was a lightbulb moment.”

What does data mean?

“It’s everything and nothing. Sometimes, with data, there’s so much that you can’t see anything. Or it’s very financially heavy, which might make sense for some people, but maybe not creatives. Who gets to decide, who puts a window on data? It’s something that everyone should think about.” (*Fun with Games*)

“Modern tech creates this shadow self, like a second self based around your data. Have a look at the web comic *Contra Chrome*.”



Enough Is Enough

Amy Dunnachie, Lorna Brown and Lynne Hocking are members of Applied Arts Scotland who specialise respectively in jewellery, textile design and hand weaving. They each share an interest in socially engaged practice and, since they live in different parts of Scotland, spent some residential project time together at Dunnachie's home base on the Isle of Jura. Hocking's background as a scientist helped the group to find an entry point to the world of data, which was new to the others.

Enough Is Enough was a collaborative, participatory installation laid out as a tabletop grid of tasks and tactile tokens capturing the daily work of creative practitioners. The tasks were categories of creative work, some of them revealing for anyone without a creative practice background: E.g. "Research new materials", "share skills", "go for a walk", "read for fun", do the "tax return", "meet clients", "research exhibition venues." The piece formed a lively meeting-point on the ground floor at Inspace, inviting visitors to play with the tokens, and opening discussion about creative work and livelihoods.



The 15 tokens were hand-made on Jura from a variety of found objects including stone, twine and bone, materials from each artist's practice, and familiar and newly shared skills, including cyanotype. Visitors could place the tokens on the grid of tasks, signalling their affinities and priorities, and creating a shifting picture of contemporary creative practice.

Dunnachie says: "We had 60 components with a mix of core life tasks – sleep well, enjoy food, spend time with friends and family – and others which were more specific and business-like: do your tax return, organise materials, set up exhibition space, go on an artist day, visit exhibitions. We thought this would be an individual's task, but what happened was it created a big conversation between everybody around that table. So everybody was working on it together and talking about it. We spotted patterns – for example, core tasks tended to stay put, whereas others shifted around."

Inspiration for the work came from a Creative Horizon workshop on the creative economy, and the artists' recognition that as craft makers, they used their practices to sustain their livelihoods. Says Hocking: "We thought through what that meant in terms of financial flow, but also about how what we do is incredibly values driven. So we wondered how we could articulate craft business models as more values driven, and feed into a degrowth mindset, rather than the perpetual growth business models that so much of the capitalist economy depends on".

Dunnachie says: "We came up with a colour palette based on work Lorna (Brown) did with us on cyanotype, which is photosensitive paint that exposes as a deep blue. It played really nicely with the idea of time and how you spend it. We worked with each other's materials and came away with different understandings of how to work with materials, how to do things differently. It was very collective."

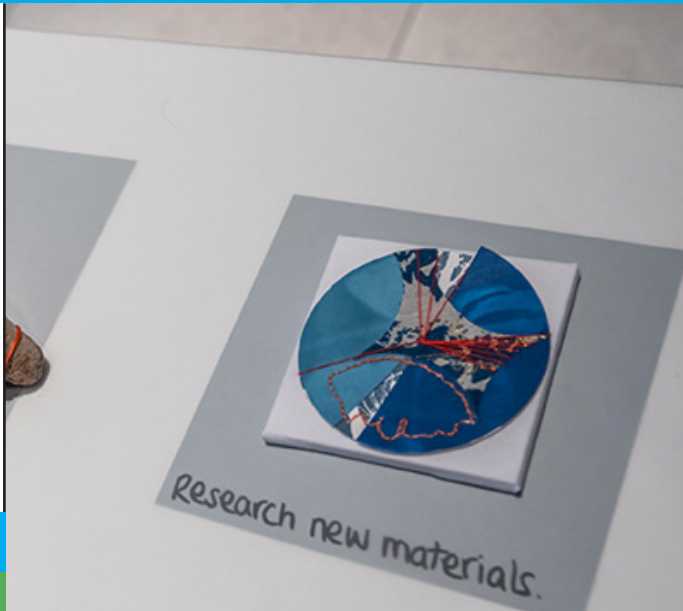
Brown agrees: "We went home carrying a bit of each other with us. I wanted to keep hold of the essence of being on Jura."

Hocking adds: "It was an interesting exercise in collage – of materials as well as skills. It got me thinking about the community of makers and the creative development that comes from spending time with other people and learning from them, challenging my preconceptions."

"Living where I live,
there's hardly any
data on islanders,
never mind creative
islanders. I can never
put an accurate thing
in a form – they don't
capture the nuances.
My tax returns are so
complex because
I do 15 jobs a year."

(Amy Dunnachie)





“Forms like the census don’t allow me to define what I do within the creative industries particularly well. They don’t have the detail that informs day-to-day decision-making within our practice, or an understanding of values-based decision-making.”

(Lynne Hocking)

“The word ‘data’ would just automatically make me sweat. So this different way of working just opened my eyes. It gave me an access point to understanding it.”

(Amy Dunnachie)



As well as giving a current snapshot of making practice, the installation invited people to think about how creative practice might be different, drawing on the idea of design fiction, says Brown. “Say you didn’t have to think about financial values or income streams, how would your creative choices change? What would be made? How would the values change? People could add their own tasks and ideas to the grid, so it was a way to gather data on other people’s value systems around being a creative practitioner, or running a creative business.”

While on Jura, Hocking introduced the team to data concepts with an experiment from Georgia Lupi’s book on data journaling, **Observe, Collect, Draw**, which involved heading out into the local community to gather a dataset of smiles. Brown explains: “We created symbols for data points, and went out and smiled at different people around the village. We had different symbols for whether it was a man or woman, or child, and whether it was a big smile, a little smile or not a smile at all. Then we looked at our gatherings, the patterns that were created and the information held in the data symbols.”

Hocking says: “The purpose of the exercise was to get our heads into that data space, and particularly into data visualization. We were mindful of discussions we’d had with Inge Panneels and the Creative Informatics team, that our role wasn’t to become data scientists, but we still needed an understanding of how data could be visualized, so we could take it into a visual and applied arts-based practice.”



Brown says working with data concepts has made her much more aware of it in everyday life. “I had never worked with data before. And I didn’t really understand how I could work with it within my own creative practice. Now, I’ll suddenly think – oh, that’s data, or that’s data being gathered. I’m much more aware of it, since doing this project. And it’s definitely given an extra layer to the meaning withing my own work, and pushed me in a new direction.”

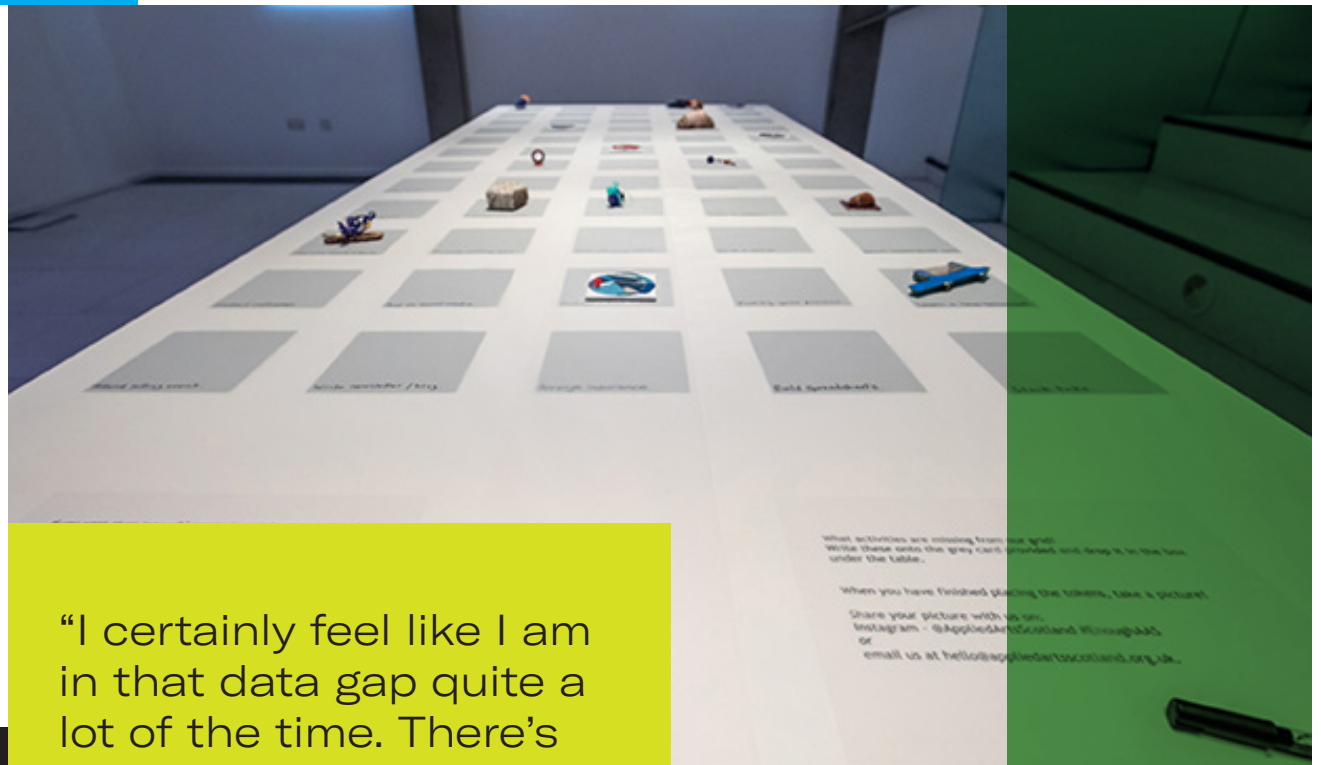
Coming from a science background, Hocking says she’s gained new understanding, too. “I’ve been so used to coming from a context where discussing data was just a routine part of the day, and people were starting from the same position of understanding what data was. With this project, the three of us came to a point of having a shared language that allowed us to move forwards, and really play with data and what data is, and how we can understand it, make sense with it. It was such a great experience.”

What does data mean?

“The gathering of information, so that it makes sense to you, visually and in other ways. *Lorna Brown*

A collection of information, and how you decide to work with it. It’s about how you interact with it, and what do you do with it. *Amy Dunnachie*

Data’s very much a way of telling stories. And it’s about what the story is, for who, in what way. Data exists for me in a benign form, in its native state. But it can have a motive, it can be dangerous, depending on what you do with it.” (*Lynne Hocking*)



“I certainly feel like I am in that data gap quite a lot of the time. There’s never the right category for me, when discussing what I do. Even my job title is never there. All the nuances of being a creative practitioner are just not captured.”

(*Lorna Brown*)

“I don’t really use social media data, because I’m not trying to sell through social media. It’s about a quality of interaction, rather than quantity.

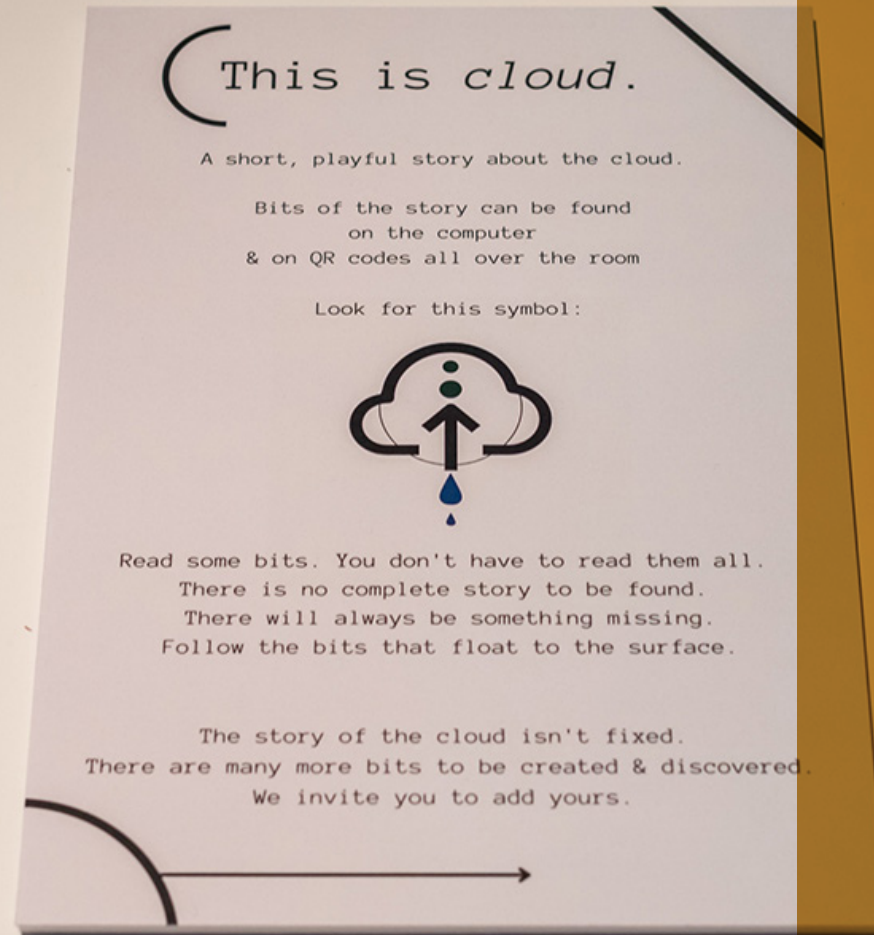
(*Lynne Hocking*)

Cloud

Mel Frances is a game designer, digital storyteller and creative mathematician who makes interactive multimedia experiences with storytelling at their heart. She's also Joint Artistic Director of Produced Moon, a digital interactive arts organisation.

Frances describes her piece at Inspace as "a playful interactive experience about a cloud. Each fragment tells a part of the story of this cloud," she says. "It occurs in a fictional future, and is set in 2032, when a new cloud has appeared in the sky."

Cloud is an interactive installation that presents fragments from a story world which you're invited to piece together. It's framed as a quest or mystery where you read and listen to data 'bits' from unseen people's lives. "Some bits were pieces of audio, some were text exchanges, and they were primarily relatively everyday forms of content. So a graph or a text or an email, or some little bit of material that you might interact with. And they were also dotted around the exhibition space on QR codes."



Sitting at the terminal, I found a mysterious news announcement: *There is a new cloud in the sky. This is the data that tries to tell its story.* Followed by an invitation: *Read some bits, don't read them all.*

Follow what floats to the surface. Inside, there's no linear journey, but lots of choices – the seeded cloud, field recordings, sky watching...

Everyone's experience of interacting with cloud is different. I found some audio recordings of thudding machinery and ear-piercing high electronic noise, with captions suggesting a military presence. There's a forum thread of speculation about the cloud: "I swear to all of you this cloud is not natural." "For one it rains SILVER." Voice recordings, redacted letters, meteorological information, journal fragments, texts, advice, journal entries: "Line the inside of an umbrella with foil, and then the chemicals can't reach you." "Spare us, when the floods come... We want so much to be saved."

The bits feel part sci-fi, part documentary, with recent dates suggesting urgency. I find a story of impending apocalypse, an ominous presence, climate anxiety, and an impotent population. But coming from a different way in, you might find a poetic meditation, or a story of Lu, the cloud god.

Frances says this multiplicity of viewpoints is part of the design. "Different people tell different stories of what that cloud is, and understand that cloud to be different things. Some people thought it was a god. Other people thought the cloud was a data store put into the sky, or a kind of cloud climate outcome, or a weapon created by a government or the military."

As part of her participatory practice, Frances enjoys experiencing and making pieces where there isn't a central



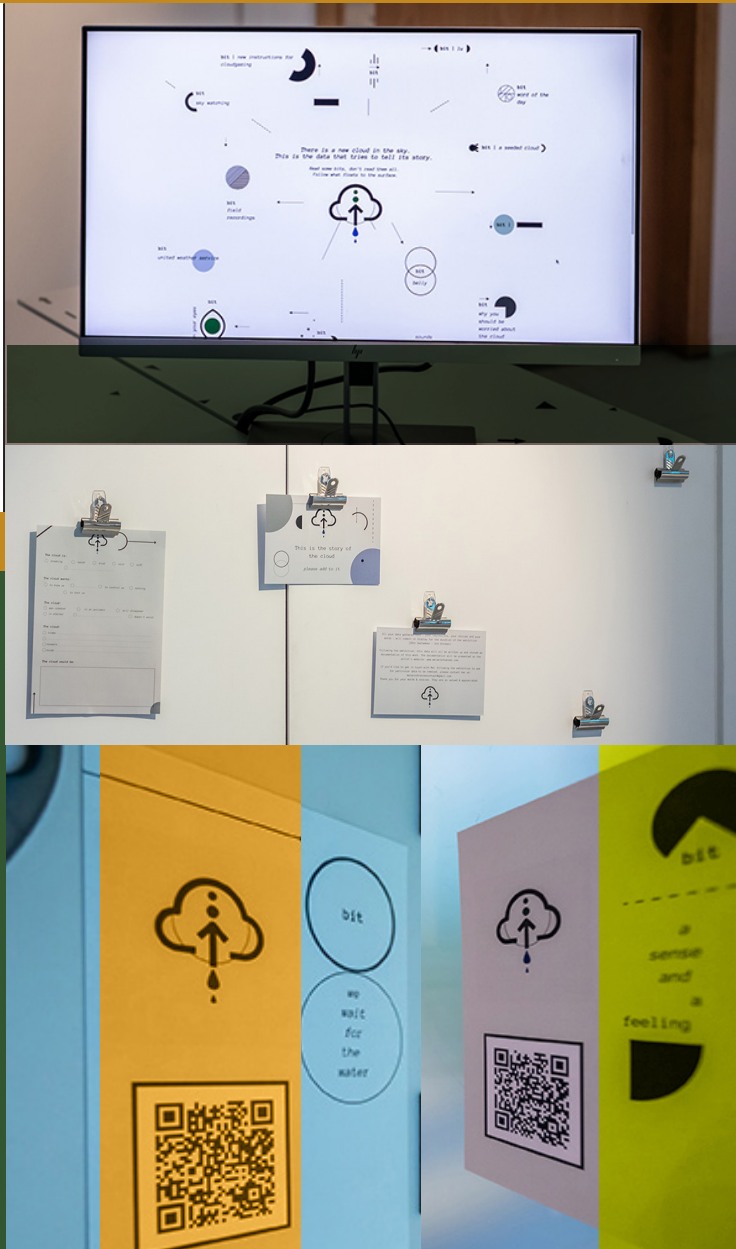
story, but lots of threads – "a fragment-based, plural perspective-based story structure," she explains. "There is space for people to position themselves somewhere. I'm really interested in work that illuminates the variation of perspective and position that people can take."

Her practice has previously explored conspiratorial approaches to thinking, and how different groups of people looking at the same information tell completely different stories about it. "With cloud, I wanted to see how I can move beyond a critique, to something where we're having a dialogue about what could be, or an alternative versions of things". Design fiction's potential for imaginative gaps also chimed with her interest in plural narratives. "Design fiction similarly is: 'We're not going to tell you what a flying car is going to look like. We're going to write a manual.' It can point to loads of stuff and suggest loads of stuff, but it's much more malleable and responsive, rather than being so rigid."

Through the project, Frances has explored her changing relationship to data. "It feels so rigid and structured. We analyse data and the data tells us things, and they are explicit and clear. And actually, data, like everything, is slippery, and means different things to different people, and can be read in different ways by different people. I was interested in trying to find ways of exploring that diversity of viewpoint and the plural nature of data. And within the story framework, the art of looking at story bits and crafting our own story is very similar to what we do when we look at a set of data."

cloud was developed in collaboration with sound artist Michael-Jon Mizra and associate artist Vaishnavi Singh, who also wrote a contextual [essay for the work.](#)





“Working on the piece has really broadened my definition of what data is, and what is captured by that word. There’s a specific shorthand when we speak about datasets, maybe within a social context, or work context. But now, I think: data is huge. Data encompasses so many different things. So that’s a mindset shift that I’ve had. “

Melanie Frances

An interactive story about a cloud.

A creative exploration of the process of data analysis, cloud offers fragments of daily life - texts, phone recordings, reddit threads - as pieces of data. You’re invited to take on the role of analyser - to consider them, find insights and foresights and tell us the story you find within.

Cloud considers both how we find narratives in and how we place narratives onto data sets, and, with a focus on the mundane, how the fragments of our day-to-day - emails, phone calls, scribbled notes - become the narratives of our lives and work.

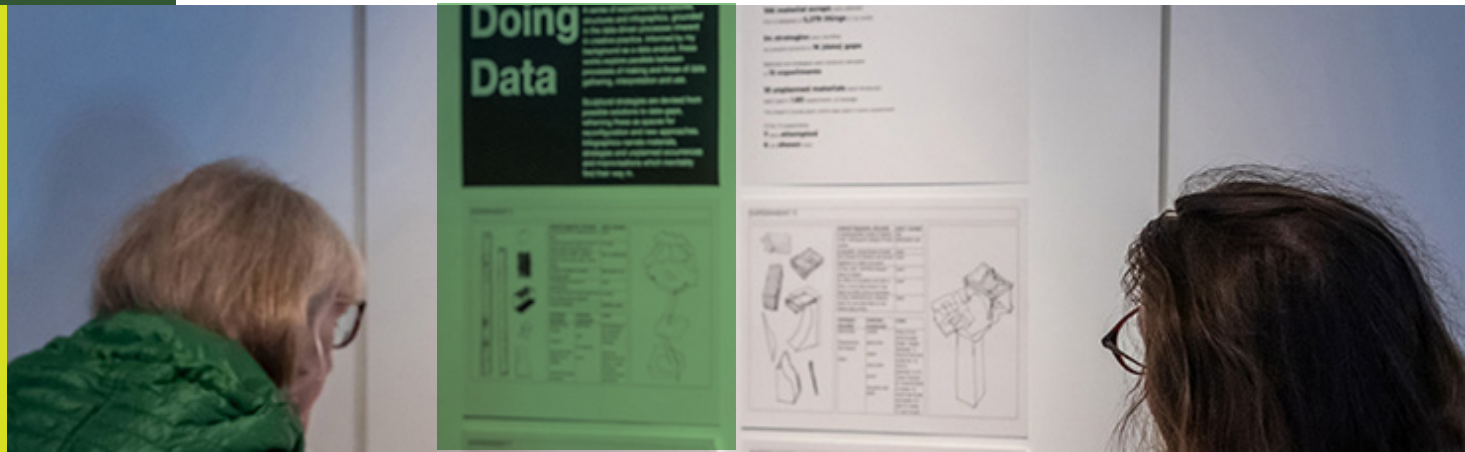
Sound Artist: Michael-Jon Mizra
Associate Artist - Vaishnavi Singh

What does data mean?

“I’m terrified of getting this wrong! It’s like a bit of information that sits on its own rather than in the context of something else. And I connect it to being useful, to it being something that someone can use to say something.” *(Melanie Frances)*



Doing data literacy



The questions below are a synthesis of the ideas and approaches that emerged from the interviews with the artists. They are provided here as provocations to help other artists 'think through data' and for considering data from a more grounded and humane perspective.

Is the data complete? Or does it have gaps? What do you do with the gaps? What can you find in the gaps?

Is the data quantitative (numerical) or qualitative (descriptive)? When might you use each?

Data is organised by putting it categories. Who decides the categories? How? What are the implications?

Data is gathered by framing a context and questions. Who decides the frame? Who decides the questions?

Data can be analogue and playful. Try Georgia Lupi's Observe, Collect, Draw.

Data isn't always abstract. It can be physicalised, sonified, tactile and kinetic.

When do you provide data? When do you withhold? What's the impact of each?

Data is increasingly becoming a currency with financial value.

If you're a data outlier, where are you?

What data do you find empowering or interesting? What data have you created?

How might data be used in creative industries activism? See Culture Counts for inspiration: <https://culturecounts.scot/>



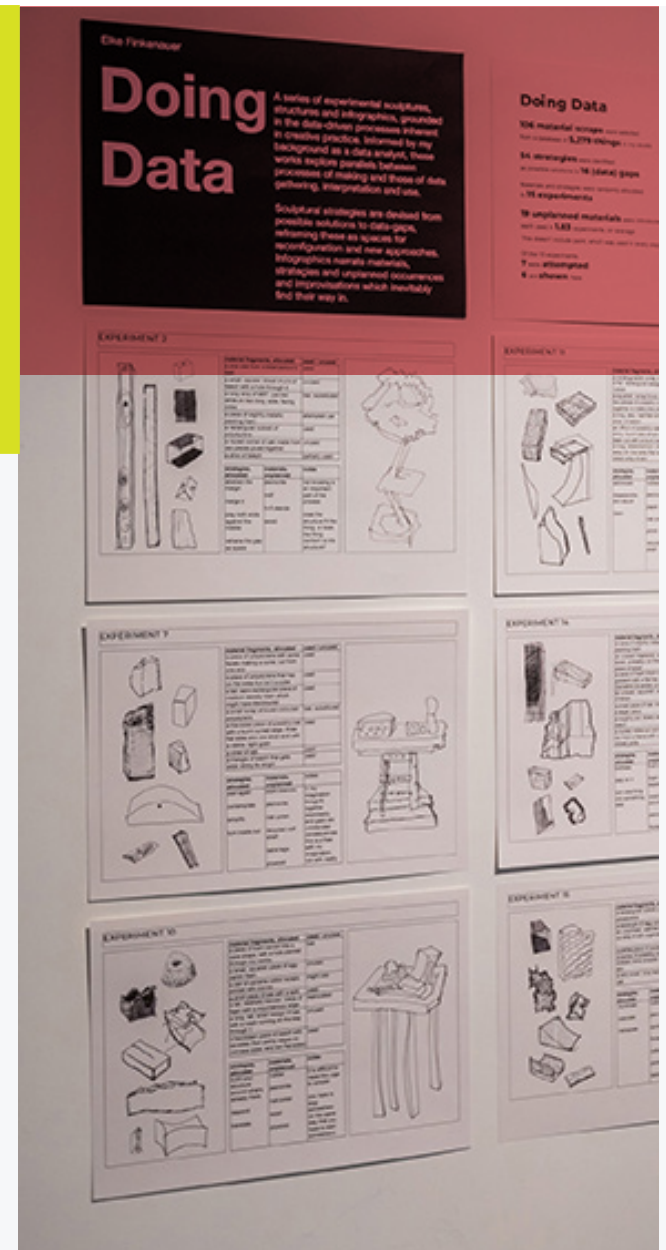
Creative industries doing data better

What can policymakers do to gather better data about the creative industries and recognise their contribution and values?

What can people in the creative industries do about the relative data-invisibility of the freelance workforce?

How can people in the creative industries take active ownership of data-driven narratives about their sector, to drive positive change?

How can the communication gap be bridged between people using the power of data and people providing data?

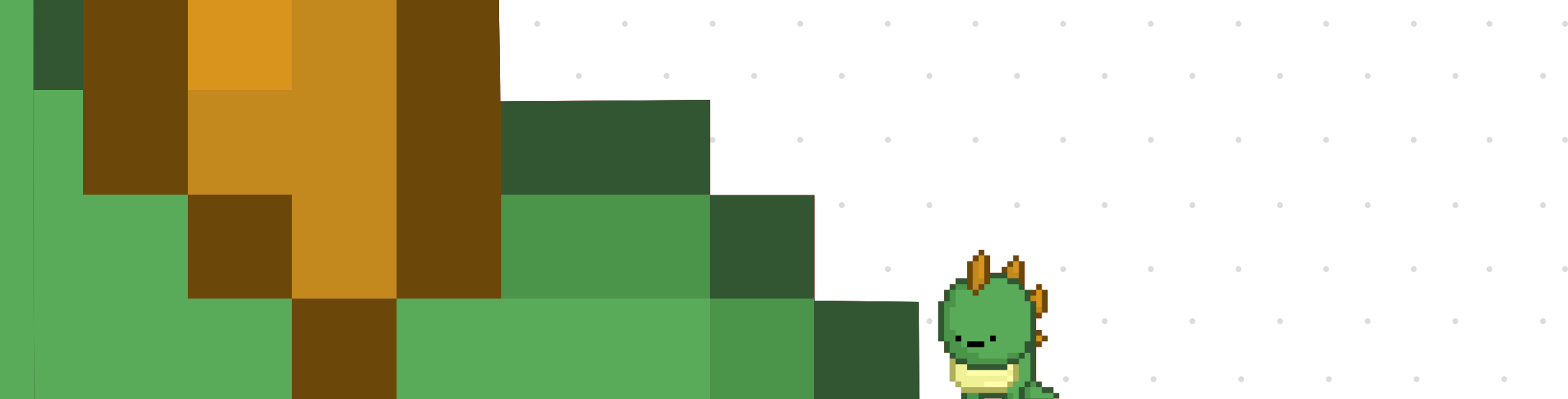


Resources

Lupi, G. & Posavec, S. (2018) *Observe, Collect, Draw! Journal: A Visual Journal, Discover the Patterns in Your Everyday Life*, Princeton Architectural Press, USA.

See also follow up project *Horizon 5: Detecting Dark Matter Data: data gaps for innovation and R&D activity in the creative industries*. <https://doi.org/10.5281/zenodo.7418481>





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