

AGAINST TRANSPARENCY

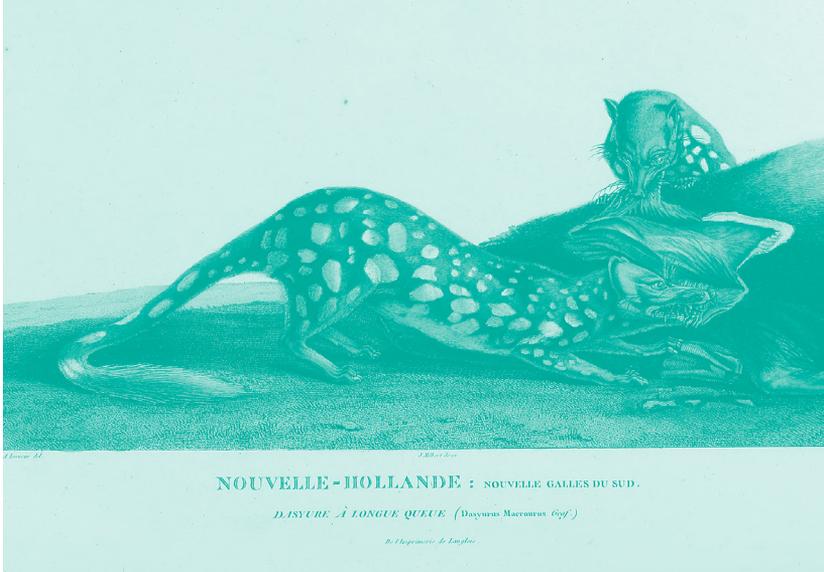
WESLEY GOATLEY

When data is confused with an objective view of the world, free of the biases and subjectivity of humans, it can become a tool of exploitation. New forms of data-dependent governance, such as the “smart city” projects emerging across the world, are predicated on the understanding that data gathered from a city is a mechanically precise and unbiased account of the city in which it is gathered, and that this data can be used to make better decisions in government. The faith in data’s infallibility and objectivity endows it with the authority to drive decision-making processes and “smart city” logics. However, this same faith may place the individuals and communities of the city’s population at risk by devaluing their subjective voices in relation to the “objective” voice of data.^{1,2}

Similarly, data scraped from human online interactions and behaviours is deemed valuable because it claims to be an accurate depiction of the complex, contradictory, or hidden desires of consumers, satisfying the long-held goal of advertisers to know more about you than you know about yourself. Beyond its exploitative potential in a consumerist system, such data has life-changing ramifications when it is used to make “predictive assessments”, based on its supposed accuracy, about the right of an individual to cross a country’s borders.³ Given these stakes, can the notion of objectivity be challenged by examining how data is perceived? And how can critical artistic practice further explore this subject?

This investigation begins with the belief that technology allows us to surpass the “limitation” of our subjective perception and grants access to an objective view of the world. In their 2007 book *Objectivity*, Lorraine Daston and Peter Galison call this “mechanical objectivity” and examine the belief through

scientific atlases. These atlases were often heavy tomes of encyclopaedic intent; one typical format coupled images of flora and fauna drawn by artists with descriptions written by scientists. Daston and Galison chart the tensions between artist and scientist in the field of atlas production, where many scientists felt that the artists' interpretations of how to best represent the flora or fauna introduced an undesirable subjectivity to a process intended to be as objective as possible.⁴



Page from *Voyage de découvertes aux terres australes* (1807-1816) by François Péron.

In the eyes of some scientists, the advent of photography resolved the conflict between the “subjectivity” of the artist and the objectivity desired by the scientists. Early adopters of this technology in the scientific atlas community saw the camera as “exactly representing the objects as they appear, and independently of all interpretation...without the least contribution of the hand of man”. In other words, the exchange of the artist for the device removed the “hand of man”,⁵ finally realising an impartial view through the mechanism of the camera. The camera was seen as a transparent and objective component of the process, neither adding to, subtracting from, nor altering the scientists’ view of the world.

To a contemporary photographer, this may seem like an incredibly naive understanding of photography. Photography combines technical and material components such as the camera body, lens, and film/image processor with the skill, experience, and “eye” of the photographer, each layer involving subjective interpretation and decision-making. Far from

being transparent or objective, photography is irrevocably bound to multiple forms of human subjectivity—the decisions made by the creator of the device, which define what it can and cannot capture, and the unavoidable judgement of the photographer themselves.

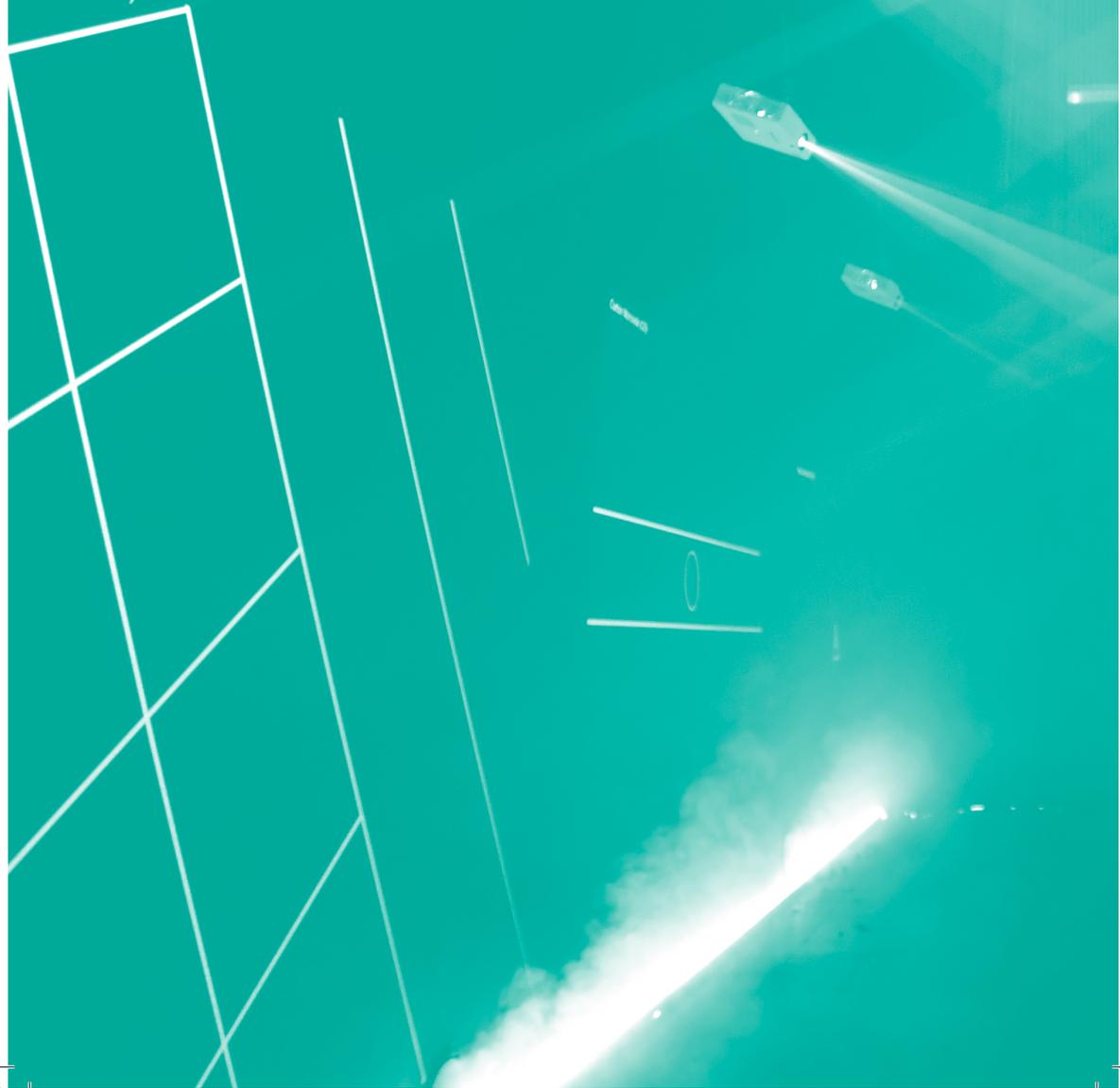
This same logic can be used to identify subjectivity in the collection of data and to unravel its claims to objectivity. The data gathered by a given sensor is determined by the decisions made in its material construction, placement, activation, units and precision, amongst other factors. Further judgements are made about how the data is stored, arranged, “cleaned”, and otherwise processed, even before it is applied or published. These judgements constitute the layers of data’s subjectivity, each step requiring the subjective judgement of human decision-making (perhaps from more than one person). In the same way that a single event can be captured in many different guises by different photographers with different cameras, data produced in the world is not the objective “truth” but just one possible view of it, constructed through subjective decisions.

The subjectivities inherent in data collection, analysis, and storage also carry over into the practice of data aestheticisation—an umbrella term for methods of making data perceptible, such as visualisation, sonification, etc. Data can only be perceived by being aestheticised, whether visualised in an Excel spreadsheet or plotted in the coloured panels of a stained glass window.⁶ The necessity of aestheticisation grants it a substantial role in perpetuating and influencing our cultural understanding of data.^{7,8}

When the process of creation is broken down, the subjectivity of aestheticisation becomes evident: even in its most simple and common forms, such as the line graph, decisions are made about what data to include, how much of it, in what format, in what visual language, where to present or publish it, and for which audiences. Much like the collection of data itself, there are no “innocent” or impartial decisions in the process of data aestheticisation; these decisions enact the values and ideologies of their authors. Neither data nor its aestheticisation represent an *a priori* truth, but rather a constructed, fallible, and subjective view on the world.

Nevertheless, the previously mentioned belief in “mechanical objectivity” attempts to reassert in itself in the work of data aestheticisation through the declared goal of “transparency”. In this context, transparency implies that aestheticisations can and should be objective representations of data that do not “distract” from or misrepresent the underlying “truth” (much like the scientists’ ideology in the history of scientific atlases). In this way ironically, by claiming to be “transparent”, subjective methods in the process of data aestheticisation masquerade as objectivity.

en Dioxide (NO₂)



Atmospheric Disturbances,
installation view.
Wesley Goatley, 2018



In his influential 2001 book *The Visual Display of Quantitative Information*, Edward Tufte sets transparency as a central goal in data visualisation when he calls for their authors to employ “graphical excellence” that tells “the truth about data”⁹. Telling the truth, from his perspective, is not to foreground data’s subjectivity but to visualise data “truthfully”, and therefore without the personal bias of the author.

Tufte’s claim that “graphics reveal data” implies a transparency and innocence of aestheticisation, framing it as a practice that merely shows what is already there.¹⁰ In fact, aestheticisation creates a representation of data which is phenomenologically distinct to the data itself, in much the same way that data is not equivalent to the phenomena in the world that it measures. Aestheticisation is something new; it has left the data behind through the act of representation. The underlying issue is a matter of ontology, not aesthetics: graphics do not transparently reveal data—they create a new subjective interpretation of data.

Given the inescapably partial nature of data aestheticisation, “transparency” is thus an unachievable aim — one that promotes the discourse of data’s objectivity through the sublimation its layers of subjectivity. Striving for transparency also misses the most potent affordance of data aestheticisation—that it can express far more than the data alone.

Aesthetic forms have their own cultural contexts, their own narratives of how and where they are experienced in the world.¹¹ When these forms are applied to data, their contexts become entangled with it, producing something far more than just the sum of the data. Rather, they generate hybrids of different modes of knowledge and aesthetic experience overlaid with data’s epistemological claims. Aesthetic interactions with art have no defined result, no preconceived form of consequent knowledge. This capacity for “unfinished thinking” in artistic practice, to use the terminology of Henk Borgdorff, produces open-ended interactions between the artist, the work, and the audience.¹² This resonates with Immanuel Kant’s account of aesthetic experience as inducing thought without defining it, and therefore eluding resolution—an interaction defined by the subjectivity of the perceiver.¹³ Situating data within the interpretative framework of artistic practice is a fundamental challenge to the notion of data as a form of empirical objectivity, of data as the “answer” to problems of a complexity beyond the capacities of human rationality according to other logics (from ethics and economics to religion and nationalism) that are more explicitly entangled with human subjectivity.

Deconstructing the premise of transparency in this way repositions aesthetics: it is no longer in the service of data but rather coupled with data to engage with the world through a greater multivalence of forms and methods

and a broader scope. An experimental and expressive practice of aestheticisation highlights data's subjective and interpretative character; if used conscientiously, it can draw out the politically and ideologically contentious nature of data, its situatedness and shifting relationships. When these affordances of practice are explored rather than vilified and (rather hypocritically) denied, they can provoke new perceptions and interactions with data. Using aesthetics *with* data places it in dialogue with the wider world.

This repositioning is something I pursue in my own works of data aestheticisation. In my 2018 installation *Atmospheric Disturbances*¹⁴, air pollution data collected in Milan was sonified using voices from Giuseppe Verdi's 1848 opera *La battaglia di Legnano*: as the measured pollution increased or decreased, the voices rose and fell in volume. *La battaglia di Legnano* was an explicitly political revolutionary opera that dramatised the twelfth-century victory of the Lombards over the Holy Roman Empire, set in and first performed in Milan at a time when the Italian states were struggling for independence against the Austrian Empire.

In the context of *Atmospheric Disturbances*, Verdi's work acts as a paradigm that exemplifies the critical and political capacities of creative practice. From Tufte's perspective, aestheticising the data through such an allegorical and metaphorical language embodying a particular political agenda would be contradictory to a nominal goal of "transparency". But my work entangles this historical political narrative with the contemporary process of reading air pollution data. As the staging of Verdi's opera used a historical war to make a political statement about ongoing events, *Atmospheric Disturbances* reflects on the collection of air pollution data in the age of anthropocentric climate change as an explicitly political act. No data on this subject cannot be understood as neutral, objective, truthful, or complete—and neither can any aestheticisation of that data.

Rather than "reveal" the data, the aestheticisation in this installation is implicated in a much wider political narrative and a much longer historical chronology.

When data can be measured or created about almost any phenomena, when so many different aestheticisation methods are available, aestheticisation has the potential to be a socially critical, politically engaged, and aesthetically potent creative practice. To expose the notion of "transparency" as a trap, to untangle the mutually reinforcing claims of objectivity in aestheticisation and truth in data, is to interrogate the subjectivities of both data and aestheticisation and to make their affordances more apparent and more powerful. This line of enquiry extends deep into the critical study of data: it investigates how it manifests in the world, where its effects are felt, and who wields it as a source of power.

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- 2 Shannon Mattern (2015) Mission control: A history of the urban dashboard. *Places Journal*. Available at: <https://placesjournal.org/article/mission-control-a-history-of-the-urban-dashboard/> (Accessed: 19th August 2018).
- 3 Spencer Ackerman (2015) No-fly list uses 'predictive assessments' instead of hard evidence, US admits, Available at: <https://www.theguardian.com/us-news/2015/aug/10/us-no-fly-list-predictive-assessments> (Accessed: 19th August 2018).
- 4 Lorraine Daston, Peter Galison (2007) *Objectivity*, New York: Zone Books.
- 5 *ibid.* Donn e 1844-45, quoted on p.131
- 6 Crystal Bennes (2014) ATLAS Experiment event of 14 September, 2014 in stained glass, Available at: <http://crystalbennes.com/portfolio/atlas-experiment-event-of-14-september-2014-in-stained-glass/> (Accessed: 19th August 2018).
- 7 David Beer (2017) 'Envisioning the power of data analytics', *Information, Communication & Society*, 21(3), pp. 465-479.
- 8 Johanna Drucker (2014) *Graphesis*, Cambridge, MA: Harvard University Press.
- 9 Edward Tufte (2001) *The Visual Display of Quantitative Information*, Cheshire, CT: Graphics Press. p. 53
- 10 *ibid.*, p. 13
- 11 Nelson Goodman (1968) *Languages of Art: An Approach to a Theory of Symbols*, Indianapolis: Hackett Publishing.
- 12 Henk Borgdorff (2011) 'The Production of Knowledge in Artistic Research', in Michael Biggs, Henrik Karlsson (ed.) *The Routledge Companion to Research In The Arts*. New York: Routledge, pp. 44-63.
- 13 Immanuel Kant (1790) *Critique of Judgement*, Trans: Werner S Pluhar edn., Indianapolis: Hackett Publishing.
- 14 Wesley Goatley (2018) *Atmospheric Disturbances*, Available at: <http://www.wesleygoatley.com/atmospheric-disturbances/> (Accessed: 19th August 2018).