

OUT OF SIGHT

The Tyranny of the Eye in the Digital Era

Ariane Koek

We are becoming increasingly senseless. In the 21st century, sight is so overwhelmingly colonising our way of knowing our world, that we are losing connection with our other senses, of smell, touch, taste and hearing. In the digital age, image is all: “I see (and I am seen) therefore I am”. Every second around the world, 90,000 YouTube videos are watched, 200,000 text messages are received on our phones, 3 million emails are sent (1). Every day 300 million photographs are uploaded onto Facebook alone (2). We are bombarded by technologically mediated images and information every second of every day, so much so that what we see has become more important than ever before in human history. Even more so in the Covid-era, when our connection to others is increasingly mediated by technology – the smartphones we carry, the smartwatches we wear, our computers and tablets. Friends, families and strangers are seen at a distance for fear of transmitting the virus. The virus has also mounted its own attack on our senses, affecting the sense of taste and smell of many people who catch it. Real touch, including hugging and kissing, is avoided, except for people who live together. Seeing is what keeps us in touch metaphorically, but not literally.

Politics is also increasingly dominated by the sense of sight. Politicians care about what they call “optics” – how things look and how the public are seen to respond - a term borrowed from the science of the physics of light. Populist politics is as old as democracy itself, but in the 21st century populist politics driven by the feelings of the masses has gained bigger traction than ever before thanks to technology and the mass aggregation of responses in the digital realm. We are truly in the ultimate era of the eye – where sight is king and all other senses are increasingly being rendered senseless in every sense of the word.

However, there is nothing new in visuo-cultural dominance in Western culture: it is simply the sheer scale of the takeover today which is different. Looking back at Western history, with the invention of the commercial printing press in 1450 by the German goldsmith and inventor, Johannes Gutenberg, knowledge became mass distributed - and, crucially, seen. As a result of the Gutenberg revolution, the oral tradition of passing knowledge between people by speaking and listening to each other, was replaced by a potentially solipsistic way of gaining knowledge – by reading a printed book on one’s own, silently.

But the other senses also still had an important role in mediating and knowledge of the Western world. Smell up until the 16th century was a guiding force in medicine. Diseases were detected through smell, travellers carried pomanders full of herbs to combat pestilence and disease, and the smell of certain plants was associated with medical efficacy. There was a whole language of smell in the pre-modern West, with smell also associated with spiritual truth and purity – *osmogenesis* or the so-called odour of sanctity that Christian saints and even their dead bodies are said to produce. Sight was deemed to be a superficial sense which only focused on the appearance of the world, rather than its essence.

Touch also was a way of knowledge and cultural connection in the world. It was a crucial method of medical diagnosis, which today has been largely replaced by the hands-off approach of medical

imaging. In medieval times, sculptures were created not just to be seen, but to be cradled, fondled and touched (3), and up until the twentieth-century music was performed not only to be listened to and watched but to be experienced a multi-layered acoustic sensorium, which the audience clapped, talked, joined in and interacted with. It is a far cry from the way classical music is experienced today when it is bathed in watchful silence.

But in the practice of natural sciences and chemistry, the human eye has always been the unquestioned predominant way of knowing, right up until the modern era. Empirical discovery was made by observation and measurement. What was seen was considered to be truth to Nature – a natural truth - with the eye seeing what Nature chose to reveal. In the nineteenth century, sight became heralded as objective, leading to pure, unbiased knowledge, undistorted by subjectivity and enhanced by technology. This unquestioned idea of the eye as objective and unbiased however began to be eroded at the beginning of the twentieth century, with the rise of quantum physics and the idea that the observer changes the effect of the experiment, known as the “observer effect.”(4) This questioning of the objectivity of the eye by quantum physics is in direct contrast with its increasing ascendancy in all other aspects of our lives today.

Today scientific research into the senses is still dominated by sight, which may be partly due to an inherent bias in scientific methodology:

“According to the methodological-structural explanation, there is more research on vision because the available, present-day technology is better suited for studying vision than for studying other modalities – an advantage which most likely is the result of an initial bias toward vision, which reinforces itself.” (5)

While this methodology is a cause of sight coming to dominate scientific research, it may be also partly due to the fact that more than 50% of the cortex of the brain is devoted to processing visual information. The other senses take less processing power, thus occupy far smaller regions of the brain. Only 3% of the neocortex is dedicated to the auditory and 11% to somato-sensory processing - meaning sensations which occur on the surface or inside the body – such as pain, pressure and temperature.

However, even if sight seems to be more important due to its higher processing demands on the brain, it is not, for example, the most crucial sense at the beginning of life. Touch is the first sense to develop in a foetus in utero. In fact, sight is severely under-developed even when a child is born, and it has been demonstrated that newborn babies can actually determine the shape of an object by haptically exploring it. They then transfer this knowledge so that they are able to visually recognise the object in everyday life. Furthermore, smell, which is a form of chemoperception (the detection through sensory receptors of the presence of chemicals in our environment) is thought to have been the first sense to evolve in our early multicellular ancestors. It is also the only sense that bypasses our brain's sensory relay system – going straight to the cortex for processing. At the end of life, hearing is the last sense to go, with touch the second. (6)

The five senses are all brought together and examined in the French philosopher Michel Serre's work with the same name. He says that we have moved away from all our senses in modern society,

including even sight, and lays the blame on language. (7) He says language has contaminated us and our view of the world, and he goes on to say that technology and the sciences have also contributed to this decline due to their inherent nature of cataloguing and codifying. By holding language responsible for our senselessness, Michel Serres paradoxically uses the very tool he identifies as causing this desensitisation in asking us to see what he says.

But his argument regarding language as controlling and shaping our view of the world is restricted and over-deterministic. Language does not simply create cultural values: it reflects and reinforces them. Take a look at some of the words we use in the English language to denote forward-thinking – words such as visionary, foresight, insight, illumination, and speculation – a vocabulary which reflects the philosophy of seventeenth century Enlightenment, which is itself a term predicated on sight and luminosity. These terms are used to denote progress, and again show the inherent bias Western culture has towards sight as a way of knowing.

This idea of progress linked with sight also is deeply tied to a linear, directional notion of time, which includes the past behind us, the present with us, and an as yet unseen future before us. The promise is that a better future always lies ahead of us, seen in the mind's eye, and shortly to be visioned by the human eye. Some critics have tied this concept of the better future beyond sight to industrialisation and capitalism in the 18th century, which sold the idea of progress and labour to a newly formed working class with the promise of a better future, in order to encourage their productivity at all costs. (8) This concept also demonstrates the Eurocentrism of sight being linked to time in this way. In some cultures, for example, the Aymara people living in the Andes, the past lies ahead, and the future lies behind. The future is gesticulated as such, precisely because it cannot be seen and so it has not been experienced – yet. It is always beyond sight. There is nothing to look forward to because it has not yet happened. (9)

However, in the 21st century, thanks to technology enhancing the ability of the human eye, we are able to time travel back in time, into the past, seeing things we have never been able to see before. We can see a supernova exploding as it looked 930 million years ago, in a galaxy 930 million light years away across the vastness of the universe. We can also look at the present in incredible detail too. There is no corner of the human body which cannot be looked at and observed in extreme detail, including blood flow, now thanks to the development of MRI and ultrasound which are used as critical diagnostic tools. Investment and advances in technology still largely focus on sight-based innovations, although there is an increase in haptic technologies in particular. The historians of science Peter Galison and Lorraine Dalstan go as far as to say that with the increasing ability of scientists to look at objects on the tiniest of scales – the nano which is the width of 3 atoms – the role of sight as passive observation in science has been transformed. They argue that nanotechnology, which works on the level of atoms and molecules, has created a different set of relationships between sight and the image, altering sight, not just as a process of pure scientific observation, but as a process of creation too:

“ Nano technology is manipulation of quite a different kind – intervention by the scientist, through the image, to make things, to cut, to move, combine, weld or set in operation.... In this hybrid field at least, the scientist and the engineer as distinct personas have begun to lose their distinctiveness” (10)

However, in our era of fake images and fake news which are now part of the public sphere, what we see cannot be entirely trusted. Seeing is not believing; it is sensual seduction and obstruction. For example, a face can be easily 3D tracked and manipulated onto another. The company OpenAI released a preview of its latest GPT-3-based neural network in January 2021 which is a 12-billion-parameter model capable of automatically generating hundreds of fake images based on the data which is fed into it. (11) What is needed is a new sophisticated visual literacy which can be used by the public to decode and differentiate what we see with our own eyes. Today Finland is one of the few countries in the world which teaches pupils how to spot fake news and also how to evaluate the veracity of the information they are bombarded with. But we need this worldwide because, with the rise of the empire of the eye and our over-dependence on it, society is now locked in an endless deathly dance between truth and falsehood. We cannot smell danger from these images. We can't assess what is before us by touch, or feel a response in this world of the disembodied and hyper-real. We are truly in Jean Baudrillard's age of simulation and the simulacra, thanks to the tyranny of the human eye, which is the main accomplice to the technological revolution in the digital age. Even the prediction in 2030 of what is being called the Internet of the Senses - digital simulation of our senses via technology which will be communicated from our devices - is based on Virtual Reality and Augmented Reality - both sight-centred technologies. (12)

In her book *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (2013), Robin Wall Kimmerer, Professor of Environmental Biology in Syracuse New York, and a member of the Potawatomi Nation, embraces the notion that plants and animals are our oldest teachers and says that we should engage with them with all our senses. Drawing on her life as an indigenous scientist, Kimmerer shows how other living beings—asters and goldenrod, strawberries and squash, salamanders, algae, and sweetgrass— are sensuous, feeling things too, and this is reflected in language in the grammar of animacy used by the Potawatomi Nation. All beings are interconnected – an idea echoed in new materialist philosophy, but which in fact has been part of indigenous cultures, their teachings, and their lived wisdom all along, which up until now, Western societies have actively oppressed, discounted and at best actively ignored.

Thus, the title of this essay, "Out of Sight", is a deliberate provocation. It refers to the invisible and unseen. It refers to concepts and ideas which come from our notion of sight being so important. It also hints at the peoples and wisdoms which have been oppressed and colonised by the empire of the eye, and banished. The human eye is also the sense which is the most deeply implicated in colonisation, appropriation and oppression - driving ideas of difference, mapping, exploration and conquest.(13) All these factors have resulted in what David Abram calls "our abandonment of the sensuous material world" – our lack of full-bodied and sensuous entanglement with all life on Earth by all our senses. This abandonment has increased with Covid when we have been stuck to our screens and forced to view reality in two dimensions. It is more important than ever, says Laurie Anderson in her 2021 Norton Lectures at Harvard University, to train and even challenge our senses – to try to smell with our ears and to taste with our hands. By engaging and extending all the senses available to us, the imagination and new ways of being are released.

Without full-bodied sensuousness, using all of the senses we have available to us, our life and living loses coherence, meaning and connection to the environment and all other beings in our world. It renders our lives senseless.

FOOTNOTES

- 1 Tim Zettasphere, “Mind boggling stats for 1 second of internet activity” in *Zettasphere.com*, <https://www.zettasphere.com/mind-boggling-stats-for-1-second-of-internet-activity/> [accessed 01 June 2021]
- 2 Bernard Marr, “How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read” in *Forbes.com*, <https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/> [accessed 01 June 2021]
- 3 F. Griffiths and K. Starkey, “Sensing through objects,” in *Sensory Reflections: Traces of Experience in Medieval Artifacts*, eds F. Griffiths, K. Starkey (Berlin: de Gruyter, 2018), pp. 1–21.
- 4 Fabian Hutmacher, “Why Is There So Much More Research on Vision Than on Any Other Sensory Modality?” in *Frontiers in Psychology*, <DOI: <https://doi.org/10.3389/fpsyg.2019.02246>>
- 5 E. G. Blundon, R. E. Gallagher, & L. M. Ward, “Electrophysiological evidence of preserved hearing at the end of life” in *Sci Rep* 10, <DOI: <https://doi.org/10.1038/s41598-020-67234-9>>
- 6 Michel Serres *The Five Senses: A Philosophy of Mingled Bodies* (London: Continuum Books, 2009)
- 7 Jeremy Caradonna, “Is ‘Progress’ Good for Humanity?” in *theatlantic.com*, <<https://www.theatlantic.com/business/archive/2014/09/the-industrial-revolution-and-its-discontents/379781/>> [accessed 01 June 2021]
- 8 Laura Spinney, “How Time Flies” in *theguardian.com*, <<https://www.theguardian.com/science/2005/feb/24/4>> [accessed 01 June 2021]
- 9 Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books, 2021), p. 414
- 10 Katyanna Ouach, “OpenAI touts a new flavour of GPT-3 that can automatically create made-up images to go along with any text description” in *theregister.com*, https://www.theregister.com/2021/01/07/openai_dalle_impact/ [accessed 01 June 2021]
- 11 Roberto Saracco, “The Internet of Senses” in *cmte.ieee.org*, <https://cmte.ieee.org/futuredirections/2021/01/16/the-internet-of-senses/> [accessed 01 June 2021]
- 12 If I had more space, I would argue that colonialism and slavery are very closely tied to the privileging of the eye in European culture as the source of knowledge because it is based on distinguishing visual difference.
- 13 David Abrams, *The Spell of the Sensuous: Perception and Language in a More Than Human World* (London: Vintage, 1997)

AFTER WORDS/AFTERWARDS

The essay "Out of Sight - Tyranny of the Eye in the Digital Era" - ends with a deliberate experiment for the reader to use all of the senses you possess.

It asks you to memorise these steps or record them and play them back to yourself.

Then

Follow the steps.

Take your time.

Give each step 10 seconds.

Stacking the senses on top of each other - as if creating a tree from its roots, trunk to the branches reaching into the sky.

Close your eyes.

What do you see?

And then

Listen.

What do you hear?

And then

Feel.

What do you feel?

And then

Taste.

What do you taste?

And then

Smell.

What do you smell?

Now hold all the sensations you possess in your conscious awareness, each sense fully engaged at the same time.

How alive do you feel now?

Until we are able to hold all of the senses we have access to, simultaneously and fully, whilst we live and breathe in this world, we will continue to lose our connection to ourselves, each other, all beings and ultimately to the Earth itself.

There has never been a more urgent moment on the planet in which to overthrow the dominance of sight, and embrace all the senses we possess as the key way of meaning-making and relating in kinship with the world and all existences.