

Reading with Machines

Digital culture requires new forms of reading and critical techniques. Computational approaches augment human practices, creating new structures and abstractions from algorithms with human thought mixed in and contextualised by the digital to be interpreted.

We need to read with *machines* to begin accessing this culture and understanding its new forms.

The Next Rembrandt is an algorithmically generated image by ING, Microsoft, TU Delft and the Mauritshuis. Using a close reading of Rembrandt's portraits, machine learning algorithms and mathematics are used to identify, create and set the proportions and the lighting effects through a network of machines. The computational aspects both hide themselves behind and are bound into the impression of paint.

Yet the work appears to capture human aspects, such as emotion.

The visual layer invites a human reading of the image and to infer the emotional states represented in the eyes and the wistful mouth. Within the given boundaries, the algorithms create an image but only imitate emotion. But emotional reactions may have alternative meanings in the technical world, seen as signs of engagement or a data point in a model. We need to consider the contexts they exist in. Emotional markers may be read through sentiment analysis or from a reaction on a page by a machine looking for engagement or a commercial opportunity. Or is it learning how to recreate our reality through a numeric system?

We begin to read *with* machines and to understand how both sides form and contribute to digital culture. By this, I mean that we need to consider not only the interface and how that creates a reality but how we can use the options, and even access to the algorithms to consider the logics at play. At the very least, we must admit that we need to read with the machine. Born digital culture, like the Next Rembrandt, cannot be read by a human; it requires computational remediation.

Taking an active stance in considering how the computational both reads and writes the data reveals not only different meanings but suggests new critical practice. What might it mean to iteratively test to see culture as digital and the location of cultural meaning as a joint human and technical one, set in the computational?

Using machines raises questions about culture. Are new cultural forms appearing: ones that can be appreciated by both machines and humans? What forms of culture may arise from this? Who owns the

created form? Is a new culture industry being created through the use of social media or infrastructure companies to create cultural forms?

From this we understand that computational structures of *feeling* become imperfect *structures* of feeling. We can intervene and understand our readings of this. Doing this, we begin to recontextualise the medium as a site of cognitive practice where readings combine and recombine.