Artistic Data: Rise of data-driven call to action in climate change and sustainable futures

Climate change and sustainable futures are eminent phenomena that are well documented. The changes such phenomena bring to our socio-economic reality is permanent and irreversible. Yet there is a lack of alignment in the intensity of discoveries within scientific, academic communities and its communication to the public. Mass social and economic change will not occur if we are all not engaged in unison to mitigate and adapt to climate change and invest in sustainable futures. Collecting and analysing data for predictions and forecasting is an accepted way of documenting changes in our environment, climate, and social structures. But commitment comes through shared experiences. For a cause such as climate change, the most pressing and prominent socio-political issue of our time.

But just raw numbers and words may not make sense or have impact for everyone. Information seeking models have established that human-centric information seeking, and information provision is best done visually, involving the senses. Data visualisation, and recently data-driven art has become a powerful medium to educate, explore and call to action on climate change and sustainable futures. It is vivid, creates awareness, brings uncomplicated focus and is effective in creating public, educational opportunities, and awareness.

Climate change art can be either data and information based or not. This chapter focuses on the climate change art that are calls to action and are based on data. In its essence, climate change art is seen as being eco-didactic and pedagogical in nature. This creates the expectation that climate change art should provoke dialogue, raise awareness, and encourage climate resilient actions. This set of expectations of the didacticism and pedagogy of climate change art summons the need for accurate and agile data. Climate change artists also bring to focus on their work the past, present, and future of the climate. The variable changes in landscapes, sea levels, air quality, and other climate variables are best seen over the years to get an informed idea of the devastation and decay our actions have caused on the climate we depend on.

This chapter begins with an introduction to the sensory side of human agency. This is important to understand in the context of data-driven climate change art, as this is the dimension of human agency that art evokes a reaction from. This is also the side of agency that environmental psychology needs to access and bring about consensus and clarity to a global community. A community of human beings that perhaps need to share a common frame of mind, in terms of understanding, using, and acting on the climate change information available. This is followed by an overview of climate change data, its nature, and some examples of its use. This section also covers what motivates the move from collecting climate change data to using the same to create artworks that speak to the three spaces: public, social, and everyday; these are spaces where visitors and passers-by influence and get influenced. The chapter’s next section looks at data-driven calls to action and provides examples. The penultimate section covers impact and phenomenology of data-driven climate change artworks. It offers a matrix for classifying, understanding, and evaluating impact and phenomenology of data-driven climate change art. Finally, this chapter provides concluding remarks and a discussion of future research opportunities.