Thinkings:
How Computers Change the Way We See
By Altering the Way We Think

The Automation of Variation

Introduction

The purpose of this series of conversations is to try and **see ourselves seeing**. By this phrase, "see ourselves seeing," I mean that we can focus our attention not just on the object of our gaze, but on our gaze itself. We can come to assign a specificity to the qualities of vision and to the ways in which we construct meaning out of the sense data we take in through our eyes.

When I talk about the specificity of vision what I am referring to is the idea that vision is not simply a human or animal faculty with biological determinants – it is that of course – but it is also a cultural system that depends on a nexus of habits, institutions, philosophies, structures of meaning production and valuation. From that perspective, vision is neither transcendent, nor given and fixed – rather it varies with historical and cultural difference. Because vision is a social construction, we can look for ways that we see differently now from how we have seen in the past.

This way of thinking about seeing might be traced to Walter Benjamin's famous 1935 essay, "The Work of Art in the Age of Mechanical Reproduction" in which he recounts a history of technical image reproduction from lithography through cinema and describes the way that these technologies have social effects. According to Benjamin, the advent of the technical image has the effect of diminishing what he calls the "aura" of images– their connection with tradition, and the sense that they are unique, original, authentic, even sacred objects. Images had once been singular and tied to particular places because they were painted on caves and walls. Oil painting on boards and canvas – in Europe the practice caught on in the fifteenth century (though it originated much earlier somewhere in Afghanistan) – made images relatively mobile. But after lithography and photography, images on paper, were both mobile and multiple; moreover, they were personal, possess-able, and distributable. This change contributes, in his opinion, to the shattering of tradition that is characteristic of modernity. Modern aesthetics would abandon ritual and religiosity and instead be concerned with politics. The political collectivities of modern society would be constructed through their consumption of mass produced images.

The introduction of computer imaging technology is likely just as shattering as was photography. The working idea for our conversations is that there is likely some analogous change in our way of seeing and that at least some of the responsibility for this difference, for the specific way we see now, can be assigned to our relationship with computers. If we pay close attention, we can start to see how contemporary subjectivity is constructed within the viewing practices that our own situation imposes.

Lev Manovich in The Language of New Media put's it this way:

> New media in general can be thought of as consisting of two, distinct layers: the "cultural layer" and the "computer layer." … Since new media is created on

> computers, distributed via computers, stored and archived on computers, the logic of a computer can be expected to significantly influence the traditional cultural logic of media; that is, we may expect that the computer layer will affect the cultural layer. … what can be called computer's ontology, epistemology and pragmatics — influence the cultural layer of new media: its organization, its emerging genres, its contents.

At this point in time, it would not be much of an exaggeration to claim that computers insert themselves in some way between our eyes and everything we look at. Every image we see has been created, or captured, or manipulated, or transmitted by computational means. Every object we touch is designed with a computer, and manufactured using computer controlled machines. Even what we imagine as the "natural" or "made by hand" has often been shaped or mediated in some way using computers – or it will be. There are exceptions of course, but how long does it take us before we pull out a digital camera to capture those spontaneous moments where we confront the world "directly" and insert the image of that event into the usual circuits of electronic circulation. *We compulsively possess what we see through a virtual capture of its image.* We may even trade the experience of seeing for the virtual assurances of digital capture. The documentation of experience comes to have a priority over experience itself.

The way that the computer is constant in our lives and always, "at hand" is what is meant by computational ubiquity. And though there is an entire generation who have experienced life only under these circumstances, it is definitely a recent phenomenon. And it has changed us.

The ubiquity of computers is something almost uncontroversial in the developed world, at least – it's evidence is overwhelming. But the significance of computation is strangely something that there seems to be little attention paid to in popular media or in everyday life. It's not that we don't talk about computers and technology – we do almost obsessively. We discuss what we like, what we want, and what it might do for us or get for us. We typically relate to technology through feelings and desires. This is a relation that is modulated by the demands of the market place and mediated by the manipulations of marketing.

What I'd like to focus on instead is how technology might be changing the way we think. It may be that we have to think in a manner that accommodates the way computers work in order to live in a world dominated by computation. It may even be that this change already happened, and that we haven't even noticed it.

Just as vision can be understood as a social construct, so can thinking. While there is something about our brains and nervous systems that allows us to think, that is not the whole story. Languages, thought patterns, concepts, academic disciplines, popular media, that is, culture in general, forms a nexus of structures in which we come to be able to think. As culture, these structures are specific to times and places and even communities.

For this series, Thinkings, we are going to focus our attention on three specific domains in which I believe that the relationship between computation and a particular way of thinking, and a particular way of seeing, is evident: The Automation of Variation, The Automation of the Sublime, and The Automation of the Image itself.

The format of Thinkings is participatory. I will share some ideas with you and facilitate the discussion, but the important part of this experience will be for all of us to articulate our experience of a series of images and to discuss that experience in relation to the different perspectives that arise.

We each bring with us a rich and particular history of image consumption, production, circulation and interpretation. That is simply the consequence of living as a sighted person within our "society of the spectacle" – a culture immersed in and obsessed by image. So please participate in the discussion with the assurance that you come here with sufficient expertise.