Eyeo Festival 2014: A Look at Selected Data Visualization Presentations

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Data visualization artists and coders assemble for the Eyeo Festival each year in Minneapolis. The 2014 festival included presentations of highly personal or personalized data sets by Sarah Groff-Palermo, Nathalie Meibach, and Aurelia Moser.

In Sarah Groff-Palermo's "Artisanal Data" presentation, she describes several projects in which the data is intensely personal. For her, artisanal data is focused on a small subject, often an individual person, and the data may be incomplete, fragmented, and unapologetically human. This stands in contrast to the work of many big data visualization artists. Golan Levin describes a genre of overview visualizations in which the artist works with large aggregates of data. In such pieces, we may try to 'find ourselves within the data' in order to understand our relationship to others. However, artisanal data projects are concerned with bodies of data generated by individuals in isolation. Stephanie Posavec's "First Chapters" uses a set of rules about sentence length to create simple graphs of the personal writing styles of various authors such as Faulkner, Salinger, and Kerouac. Laurie Frick's "Nightly Sleep Analyzed" graphs her sleep patterns over time together with social activity and geographic location. Lam Thuy Vo's "Quantified Breakup" is even more intensely personal, with emotional behavior taking center stage in otherwise mundane data visualizations. Groff-Palermo's argument is that data visualization can take on a literary quality in which we push boundaries of the medium in order to find compelling ways to express a narrative that we find compelling.

Nathalie Miebach is a data visualization artist who expresses data, usually weather data, in real-world sculptures. Her earlier work consisted of data presented as a woven basket. Using traditional techniques, Miebach created baskets that expressed weather information. Compared to algorithmic visualizations on a computer, this basket-weaving medium is rough, imprecise, low-resolution, and prone to distortion and decay. Unlike the computer, however, the resulting artifact is deeply rooted in thousands of years of tradition and our relationship with the natural world and materials. Baskets possess dimensionality and provide the possibility of manual, meat-space interactivity.

In her newer work, Miebach was motivated to explore the human relationship to the weather, beyond a faithful representation of data. She states, "Any kind of weather is never just numerical data. It's filled with human stories." In the aftermath of Hurricane Sandy, she took her inspiration from the flooding of amusement parks and began to explore the absurdity of humanity's relationship with the shoreline. In her newer sculptures, she adds non-numerical, purely creative elements that flesh out and reinforce the metaphor or the narrative she is telling. Expressing data as a real-world sculpture allows her to use the full array of traditional art techniques to enhance the data presentation. In contrast, the static nature of the materials prevent her from expressing data in the dimension of time.

Aurelia Moser is a librarian and radio show host interested in the connection between an original recording and 'covers' of the same song by other artists. Her talk "Stereo Signals: Connections, Spectrogrammar, + Cover Songs" demonstrates two approaches to exploring song data. In her radio show, she would create a set of songs based on a graph that linked recordings through Wikipedia connections. However, she found that it is difficult to visualize these connections for a radio audience. Her effort to illustrate the relationship between recordings led her to a new

approach – displaying spectrograms side by side. She found that covers were most often sparser in production/orchestration and more emotive than the originals and that these differences are easily discernible in the visuals. These visualizations are indeed far more clear to an audience than a graph of connections that would need to be built gradually in a listener's head over the course of a radio show.

Moser's spectrograms are the work that most closely relates to my own interests. As an artist at the crossroads of music and agile software development, I find the topic of cover songs compelling – composition meets iteration. In my own musical life, I've explored sparse, moody, emotive covers of popular songs, a trend that she identified in the data. In an interesting way, most covers do not work in isolation. Covers are compelling because they work in relationship to the listeners memory, like the song is playing in counterpoint to the invisible original.