Chapter 11
Creating "(Social) Network Art" with NodeXL

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ABSTRACT

If human-created objects of art are historically contingent, then the emergence of (social) network art may be seen as a product of several trends: the broad self-expression and social sharing on Web 2.0; the application of network analysis and data visualization to understand big data, and an appreciation for online machine art. Social network art is a form of cyborg art: it melds data from both humans and machines; the sensibilities of humans and machines; and the pleasures and interests of people. This chapter will highlight some of the types of (social) network art that may be created with Network Overview, Discovery and Exploration for Excel (NodeXL Basic) and provide an overview of the process. The network graph artwork presented here were all built from datasets extracted from popular social media platforms (Twitter, Flickr, YouTube, Wikipedia, and others). This chapter proposes some early aesthetics for this type of electronic artwork.

INTRODUCTION

In the same way that human eyes are pre-attentively drawn towards color, movement, novelty, and threat, so too, they are drawn towards objects of beauty. Evolutionary biologists suggest that this appreciation for beauty is part of biological instinct and evolutionary advantage—to select for health and biological survival. Beauty seduces; it captures human attention and draws them in. Brain research has suggested a specialized neural network to process visual stimuli related to erotic content and suggests selectivity for such contents (Anokhin, Golosheykin, Sirevaag, Kristjansson, Rohrbaugh, & Heath, 2006). The gravitation towards pleasure is not only an ancient brain or unthinking sort of function; it is also something pursued consciously and cognitively. Jeremy Bentham (1789) suggested that people pursue the greatest happiness possible (through his idea of utility) and said that humans served "two sovereign masters, pain and pleasure."

The concept of "panhedonism" (all + pleasure-seeking) suggests that people pursue pleasure universally; this concept is backed up by the more modern concept of "psychological hedonism" which asserts that pleasure is prized. All human endeavors are "directed towards pleasure; others do not exist" (Tatarkiewicz, 1947, 1950-51, p. 409). This pursuit of pleasure does not have to be a blatant one but masked in layers of complexity, based on one iteration of this theory:

It asserts instead that it is their original object. Originally man strives only for pleasure, but having once learnt by experience that certain things give him pleasure, he associates them with it and indirectly makes it also the object of his desires and actions. These associations become stabilized, inherited, (and) mechanical. Different things which attract us, do so in consequence of their associative connexion with pleasure. Pleasure may sometimes vanish from our consciousness, replaced by things associated with it, but nevertheless does not cease being the original and real aim of our desires. (Tatarkiewicz, 1947, 1950-51, p. 414)

The sense of pleasure is not a purely selfish (psychologically egoistic) one but may be social—with a desire for the pleasure of others. Emile Durkheim (1912) alluded to this in his classic work *Elementary Forms of the Religious Life* in which he described the sense of exaltation that may occur of people in the presence of others that may lead to a heady religiosity and ultimately a shared understanding of socially normed values. An idea of pleasure as "the basic ethical or normative value" still is defensible into the present even as it has resonated for centuries (Mendola, 2006, pp. 441 - 442).

One pleasure-giving artifact that has been a "cultural universal" through all known human societies and cultures is art, which both entrances the senses and the mind. Art is thought to inspire people to creativity. "High-quality, beautiful physical objects act as an ongoing, stimulating background against which intellectual growth can take place," particularly with the enablements of computers (Eisenberg & Buechley, 2008, p. 3). Aesthetics refers to concepts of beauty and art. According to various philosophical concepts, aesthetics comes in part from biology, from acculturation, and (individually and collectively) lived experiences. Modern aesthetics draw in yet other features of "art" such as a diversity of philosophies, sensibilities, cognitive and sensory evocations, and language (Koren, 2010, as cited in McCormack, 2013, pp. 7 – 8). Aesthetics is experiential and comes from an attentively and appreciatively lived life.

If art is a universal, it is also comprised of some universal features. Dutton (2002) lists some features of art that appear cross-culturally: expertise or virtuosity (of craft), non-utilitarian pleasure (enjoyment beyond its usefulness), style (some following of rules of form and composition), criticism (some context of appreciation and critique), imitation (albeit with "notable exceptions being abstract painting and music"), "special" focus of the art separate from "ordinary life", and appeal to the "imaginative experience" (Dutton, 2002). People through time have had an appreciation for novelty (Dutton, 2002, p. 5/13). Other thinkers have taken exception to Dutton's conceptualization of art and its universal features, with debate over artworks that prove to be exceptions to the concepts (such as artworks that do not fit a particular style or those that purposefully disavow any technical virtuosity), and debate over societies that did not apparently have a critical stance towards art (and in some, not even the apparent conceptualization of "art"). Dutton writes:

Art is not a technical field governed and explained by a theory, but a rich, scattered, and variegated realm of human practice and experience that existed before philosophers and theorists. It is a natural, evolved category, which means that it should not surprise anyone that it can have such a wide-ranging and comparatively open definition. (Dutton, 2006, p. 376)

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