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PLEXED ARTISTRY:
THE POETICS OF DATA IN “THE VANE SISTERS”

In 1735, in what was then known as Königsberg, Prussia, two islands were connected by seven bridges. The townspeople wondered if it were possible to cross all seven bridges only once and set about on foot to discover if this were possible. The mathematician Leonhard Euler was living in the city and taking a mathematical approach; he decided to represent each of the four land areas separated by the river with the letters A, B, C, and D. He called the bridges ‘edges’ and the land masses ‘vertices’ and connected with lines those pieces of land that had a bridge between them. By abstracting the map into a graph of vertices and edges, he was then able to mathematically prove that there was no path where a townsman could walk through the town, cross all seven bridges but never have to cross a bridge twice because vertices or nodes with an odd number of edges have to be either the starting or ending point of a path. Thus, as the story goes, was born the discipline of graph theory.¹

Fast forward to modern times—and graphs are everywhere. Maybe they always were. But now technology allows us to code the relationships between data points and create a set of nodes (vertices) and links (edges) between them. We can then manipulate and ask questions of this

¹ Barabási, Albert-László. “The Random Universe,” in *Linked: How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life* (New York: Basic, 2014), 9-13.

coding. Social networks like Facebook use graph theory to connect their users to each other and bring home the reality that the ‘six degrees of separation’ paradigm may actually be true. Scientists can now study the properties of networks and graphs in previously inconceivable ways because we have, in a few short years, generated so much interwoven data.²

The humanities too are awash in data though we often do not think of data applying to this domain. Libraries are essentially vast data sets whose relationships have been controlled by hierarchical Aristotelian mechanisms as that has been the only scalable tool we have had for centuries. With the advent of computers and the ability to code linkages between data points, we can now discover associations between objects and domains that would have taken a scholar a lifetime to investigate. A recent project at Vanderbilt University allowed us to code a set of letters written by and to the Southern writer Flannery O’Connor for date, broad subject and recipient. From this graph of relationships, we could make inquiries that help inform how her correspondence related to her life and work.³



Figure 1. A graph of “The Vane Sisters” created using graphing software Neo4j.

² Barabási, 65–78

³ Lasagna, Molly. “The Epistolary Correspondence of Flannery O’Connor: Neo4j GraphGist,” *Neo4j GraphGist*, Neo4J, April 28, 2015. Accessed June 1, 2015, <http://gist.neo4j.org/?2d0c49d816987ba58c5b>.

Nabokov was a writer who understood well the relationships between things rather than just the things themselves. “Plexed artistry, <...> link-and-bobolink, not text but texture”⁴ are a few of the lines from *Pale Fire* that point to what might loosely be called ‘linked data.’ His short story “The Vane Sisters” in particular lends itself to an investigation of the interconnections between words, places, people, works, and other elements that help create the underlying fabric of the story. Scholars have long used annotation to amplify and illuminate a text. Using the graphing software Neo4j I created a graph of “The Vane Sisters,” taking as a premise that Nabokov devised the story on three ‘stages,’ (four if you count the reader),—the stage of the story itself, the stage of the world as we know it and as it is recorded in various works, and the Nabokovian concept of the otherworld which is ultimately imaginary but, like many works of fiction, not necessarily untrue (see **Figure 1**). Nabokov uses the interplay of these stages to create a multidimensional universe within the boundaries of the short narrative. By both ridiculing and yet resolving the story around the idea of an ‘otherworld,’ the rational and irrational perform in a house of mirrors to haunting effect. As these elements are coded and run through a data visualization program, the resulting graph represents *a* root structure of the story. I say *a* root structure rather than *the* root structure because a graph is not definitive. As mentioned earlier, the fourth stage of the story is where the reader’s mind exists, and it is on that stage that we find the graph, a link to which is posted at the end of this introduction.

Taking the graphing technology one step further, we can now run ‘queries’ using the query language Cypher, to ask questions of the graph. What creates the three stages of the story? What other writings are mentioned or implied in the story? Where do these works exist outside the story? Once an annotator creates a set of relationships between ‘data points,’ the list of questions that can be asked is unlimited. And a graph is malleable. It can be morphed, cloned, appended to and otherwise manipulated in a multitude of ways. Look closely and the more you will see, Nabokov reminds us. “Reality is an infinite succession of steps, levels of perception, false bottoms.”⁵ The set of relationships in this graph reflect a singular reading of the story. There are no doubt a myriad of other ways to represent this elegant composition. And ultimately,

⁴ Nabokov, Vladimir. “Canto Three.” In *Pale Fire*, 63. New York, New York: G.P. Putnam’s Sons, 1962. The entire stanza from Shade’s poem is a musing on the motifs created when things are in a relationship to one another and assigns artistry to the forces at work creating those patterns.

⁵ Nabokov, Vladimir. “BBC Television (1962),” in *Strong Opinions*, 11. New York: McGraw-Hill, 1973.

the measurable grades into the subtle unmeasurable and no one can calculate the pure magic of Nabokov's prose.

WORKS CITED

Barabási, Albert-László. "The Random Universe." In *Linked: How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life*, 9-13. New York: Basic, 2014.

Lasagna, Molly. "The Epistolary Correspondence of Flannery O'Connor: Neo4j GraphGist." *Neo4j GraphGist*, Neo4J, (April 28, 2015). Accessed June 1, 2015. <http://gist.neo4j.org/?2d0c49d816987ba58c5b>.

Neo4j Graphgist link: <http://heardlibrary.github.io/graphgist/?3b209f033ab19c0bd876>

