

# COMPUTING FOR HUMANITIES ON XSEDE:

## Getting started and advanced resources

Funded by the NSF, XSEDE gives scholars access to resources that help them solve society's biggest problems. An integrated system of supercomputers and help services can allow you to dive into your humanities studies; it's not just for traditional, hard sciences.

### Extended Collaborative Support Service (ECSS):

XSEDE's massive, diverse team of supercomputer experts can take care of computational science specifics allowing you to focus on the details of your research methods and purpose.

### Novel and Innovative Projects (NIP):

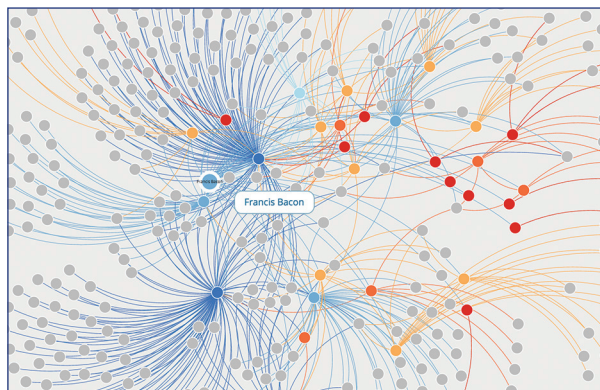
A project within ECSS, NIP is made up of experts who reach out to and assist communities that have not commonly used advanced digital compute resources. This may include scholars in the arts and humanities or social, behavioral and economic sciences.

### Science Gateways:

Science Gateways (Web based portals) allow scholars to apply extant tools to their data in a friendly way. For example, the XSEDE Text Analytics Gateway provides some basic tools for doing text analysis.



By processing massive quantities of historic NASDAQ market data, researchers used XSEDE to help expose the common use of "odd-lot trades" (trades of fewer than 100 shares each) and even have laws changed by the Financial Industry Regulatory Authority.



Researchers used XSEDE help resources to fully examine the social networks of 16th and 17th century England. The research group used machine learning, graph inferences and web development techniques on big historical data to understand how literary and artistic works and ideas emerged in that 200-year period, including Hamlet, calculus and the microscope.



A big data approach allowed a team of researchers to examine hundreds of thousands of documents using topic modeling and data visualization to find keywords that would form tree maps and network graphs that lead to deeper understanding.