The Supreme Court Mapping Project ("the Project") is a software-driven initiative that applies principles of network theory, data visualization, and legal informatics to the study of Supreme Court doctrine. For the Law and Big Data Workshop, I would like to demonstrate the software behind the Project and to discuss its theoretical and practical underpinnings.

The Project initially grew out of my research into the effect of dissents on Supreme Court doctrine. In an effort to visualize the genealogy of dissents, I worked with my longtime friend Darren Kumasawa (a professional software developer living in California) to create a basic Java-based application. Eventually, I realized the tool we had created had potentially broader applications. After applying for modest funding, we were able to further develop the tool. The latest version of the software permits users to create maps automatically using an algorithm that leverages information from two excellent public resources.

First, the software now connects with the CourtListener API. Users select two Supreme Court cases and the software quizzes CourtListener’s citation network to connect the two cases to N degrees. A 1-degree map shows the direct connection (if it exists) between Case A and Case B (i.e., Case B cites Case A). A 2-degree map shows all the cases Case B cites that in turn cite Case A. A 3-degree map shows all the cases that the 2-degree cases cite that in turn cite Case A. And so on.

![Figure 1](image-url)

In *Figure 1* above, the yellow circles represent the 1 degree cases, the magenta circles represent the 2-cases, and the green circles represent the 3-degree cases.
The second public resource leveraged by the software is the Supreme Court Database (“Spaeth”). This is the leading political science database tracking SCOTUS cases. The database codes every decision handed down by the Court since 1948 according to a number of criteria. The SCOTUS mapping software specifically uses the Outcome Vote (9-0, 8-1, etc) and Outcome Direction (liberal/conservative) variables to break down the data gathered from CourtListener. The “Spaeth Visualization” of Figure 1 above looks like this:

At the Workshop, I would discuss how these maps are created and how they can be interpreted. I can also report on initial research findings I have made using the maps. This would include a discussion of how a network’s Degree of Dissent (DoD)—a network of cases where all the decisions were 9-0 has a 0 DoD whereas a network in which every decision was a 5-4 would have a 1.0 DoD—can predict doctrinal dialectics.

For more information and background, please see
- Project website http://law.ubalt.edu/faculty/scotus-mapping/
- Project library page http://law.ubalt.libguides.com/content.php?pid=627751&sid=5214001
- Project blog http://blogs.ubalt.edu/cstarger/

Finally, I would also like to discuss current development plans. I have a grant to convert the Java-based desktop app into a web-based application. This presents an interesting series of technical and design challenges that may be of interest to the Workshop.

Please do not hesitate to contact me if you have questions or concerns about my proposal. Colin Starger, Assistant Professor, University of Baltimore School of Law cstarger@ubalt.edu 917-749-7867.