

*Supplementary Information*

## **Geovisual Analytics Approach to Exploring Public Political Discourse on Twitter. *ISPRS Int. J. Geo-Inf.* 2015, 4, 337-366**

**Jonathan K. Nelson <sup>1,\*</sup>, Sterling Quinn <sup>1</sup>, Brian Swedberg <sup>1</sup>, Wanghuan Chu <sup>2</sup>  
and Alan M. MacEachren <sup>1</sup>**

<sup>1</sup> GeoVISTA Center, Department of Geography, Penn State University, State College, PA 16801, USA; E-Mails: quinn@psu.edu (S.Q.); bws180@psu.edu (B.S.); maceachren@psu.edu (A.M.M.)

<sup>2</sup> Department of Statistics, Penn State University, State College, PA 16801, USA;  
E-Mail: wxc228@psu.edu

\* Author to whom correspondence should be addressed; E-Mail: jkn128@psu.edu;  
Tel.: +1-505-604-5469.

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### **SPoTvis Assessment, Part 2**

Online Survey on the design, functionality and applicability of SPoTvis to other contexts:

SPoTvis is a geovisual analytics tool that allows users to explore spatial patterns in Twitter conversation surrounding the 2013 U.S. Government shutdown. A short video demonstrating SPoTvis can be found here: [http://www.personal.psu.edu/bws180/SPoTvis\\_Video/SPoTvis.mov](http://www.personal.psu.edu/bws180/SPoTvis_Video/SPoTvis.mov). SPoTvis can be found here: <http://www.personal.psu.edu/bws180/ProjectEnv/>.

The survey consists of general follow-up questions, as well as questions on the graphic design (the overall appearance of the views and their layout), interface functionality (in terms of both ease of use and ability to obtain information) and applicability of the tool to other contexts. We greatly value your insights. Feel free to contact me at any time with any questions.

### **Background and Initial Reactions**

#### **1. Briefly describe your background in using maps, data visualizations, visual analytics tools, etc.**

*Check all that apply.*

- I've taken one or more cartography courses.
- I've taken one or more GIS courses.
- I've taken one or more visualization courses (not focused on maps).
- I've taken one or more political science or sociology courses.
- I do research in cartography, GIScience and/or visualization.
- I do research in social sciences.
- Other

**2. Prior to using SPoTvis, did you read the help file? Mark only one square.**

Yes

No

**3. Prior to using SPoTvis, did you watch the video demonstration? Mark only one square.**

Yes

No

**4. Which browser(s) did you use SPoTvis in? Check all that apply.**

Internet Explorer

Safari

Chrome

Opera

Other

**5. During the first part of the SPoTvis assessment, how long would you estimate having spent using the tool? Mark only one square.**

less than 15 minutes

15–30 minutes

30–45 minutes

45–60 minutes

more than 60 minutes

**6. Briefly describe your initial experience using the tool (easy to use? confusing?). Mark only one square.**

1 2 3 4 5

Very confusing      Very easy

**7. How easy or difficult was the interface to use? Mark only one square.**

1 2 3 4 5

Very difficult      Very easy

**8. How did you feel toward this tool as you used it? Mark only one square.**

1 2 3 4 5

Don't like at all      Like it a lot

### SPoTvis Design

The following questions apply to the graphic design of SPoTvis (the overall appearance of the views and their layout).

**9. How effective was the overall design of the tool (layout, colors, visualization choices, etc.)? Mark only one square.**

1 2 3 4 5

Very ineffective      Very effective

**10. How aesthetically pleasing did you find the design of the tool? Mark only one square.**

1 2 3 4 5

Very not aesthetically pleasing      Very aesthetically pleasing

**11. How effective was the use of color in encoding information?** *Mark only one square.*

1 2 3 4 5

Very ineffective      Very effective

**12. What does the color of the bubbles in the term polarity plot (top window) represent?**

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**13. What does the font size of words in the term polarity plot (top window) represent?**

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**14. What aspect(s) of the tool’s design did you find most innovative?**

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**15. What aspect(s) of the tool’s design did you find most confusing?**

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**16. How would you improve the graphic design of the tool (the overall appearance of the views and their layout)?**

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**SPoTvis Functionality**

The following questions apply to the interface functionality of SPoTvis (in terms of both ease of use and ability to obtain information).

**17. How effective was the overall functionality of the tool (i.e. were interaction options obvious and useful)?** *Mark only one square.*

1 2 3 4 5

Very ineffective      Very effective

**18. How did interaction support data exploration and insight gathering?**

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**19. How did interaction detour or inhibit data exploration and insight gathering?**

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**20. To make spatial comparisons, did you use the dropdown menu, or did you click on states/districts? Mark only one square.**

- dropdown menus
- click on maps
- both

**21. How easy or difficult was spatial navigation using the map views? Mark only one square.**

1 2 3 4 5

Very difficult  Very easy

**22. What does bubble and text movement/placement in the term polarity plot (top window) represent?**

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**23. How often did you toggle off and on the Cook PVI layer on the maps? Mark only one square.**

1 2 3 4 5

Never  With every spatial comparison

**24. Did you use the “Similar” and “Different” functionality of the tool? Mark only one square.**

- Yes
- No

**25. What does the “Similar” and “Different” functionality in the tool perform?**

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**26. How would you improve the interface functionality of the tool (in terms of both ease of use and ability to obtain information)?**

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**Other Applications**

The final questions apply to future applications of SPoTvis, as well as concluding comments, suggestions, criticisms, *etc.*

**27. In what ways could you envision this tool being used in someone else’s work?**

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**28. Any other comments, suggestions, or criticisms you would like to share?**

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