Support for Diverse Analytic Techniques nSpace2 and GeoTime Visual Analytics

Lynn Chien, Annie Tat, Pascale Proulx, Adeel Khamisa, William Wright

Oculus Info Inc.
The Tools

GeoTime

nSpace2

VAST08

VIS • INFOVIS • VAST
What is GeoTime?

- Visualization and analysis of entities and events in time and space.
What is GeoTime ... and Configurable Spaces Extension?

- Add multiple diagrammatic perspectives to support relationship analysis and understanding of behaviors in time over a diagrammatic context.
What is nSpace2?

- New web browser and server based version of nSpace analysis tool
- Two main components: **TRIST** and Sandbox
What is nSpace2?

- New web browser and server based version of nSpace analysis tool
- Two main components: TRIST and Sandbox
Multiple People Working Together
Multiple People Working Together

1. Two analysts assigned to work on the mini challenges.

2. Uploaded all the information to nSpace2.

3. A third analyst gathered the information to make an analysis for the Grand Challenge.

4. Reviews and discussions involved all three analysts.
Mini Challenge 1 – Wikipedia Editing

Evolution of the factions overtime.
Ground plane shows final positions within factions.

Factions using circular layout algorithm
Mini Challenge 2 - Migration

Blue = Landing
Red = interdiction

Yellow = Rustic Boats
Orange = Rafts
Green = Go Fast
Mini Challenge 3 - Cell Phone Calls

Calls were mapped geo-temporally onto the Isla del Sueo map.

Circular layout shows the cell organization of the Paraiso Network.

Focal actors are central nodes of their own networks.
Mini Challenge 4
Mini Challenge 4

Zooming in to area of interest

Isolating characters of interest.
Grand Challenge

Saving Relevant Information from other analysts.

Creating own Sandbox of Hypotheses for how challenges are connected.
Lessons Learned

• GeoTime = effective for the data distributed by the VAST contest committee this year.

• Capturing the results is not as strong
  – Reporting aspects.
Lessons Learned

• The browser-based nSpace2 is useful in a team-oriented analytical environment.

• Many aspects of the analysis require manual layout.
  - Automatic ways to extract social networks
  - Work with geographical data
2008 VAST Challenge

The contest data is getting more varied, complicated and challenging!

(But no less enjoyable!!)
Thank you!!