

Informed Omnivore

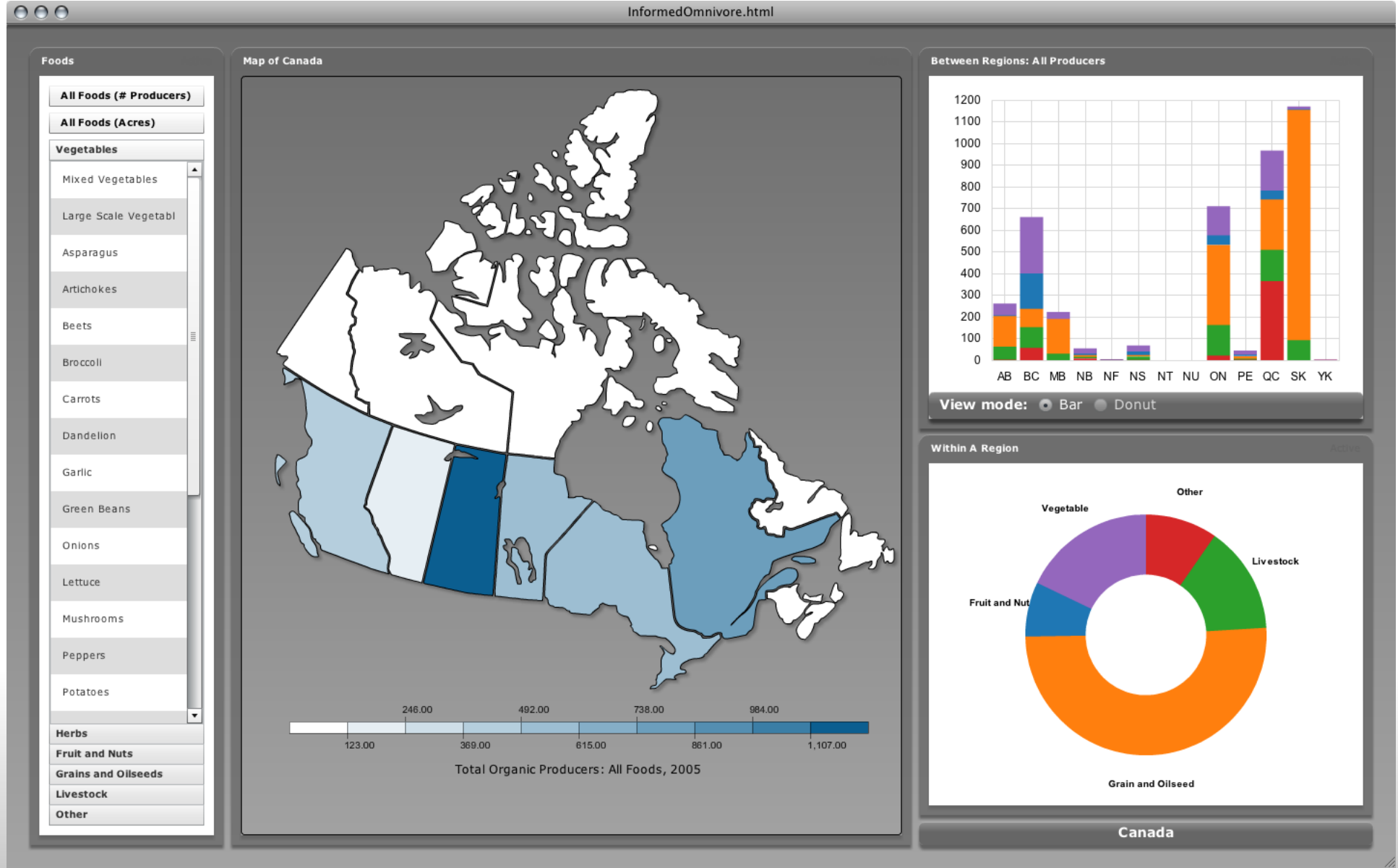
Exploring the Canadian
Organic Food Industry

Matthew Brehmer

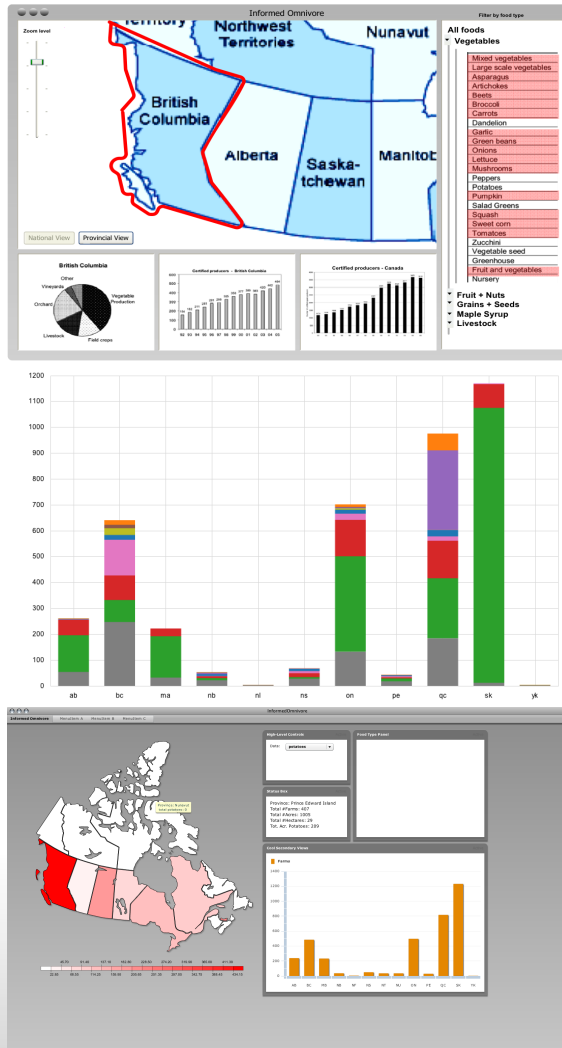
CPSC 533C Final Project Presentation

December 14, 2009

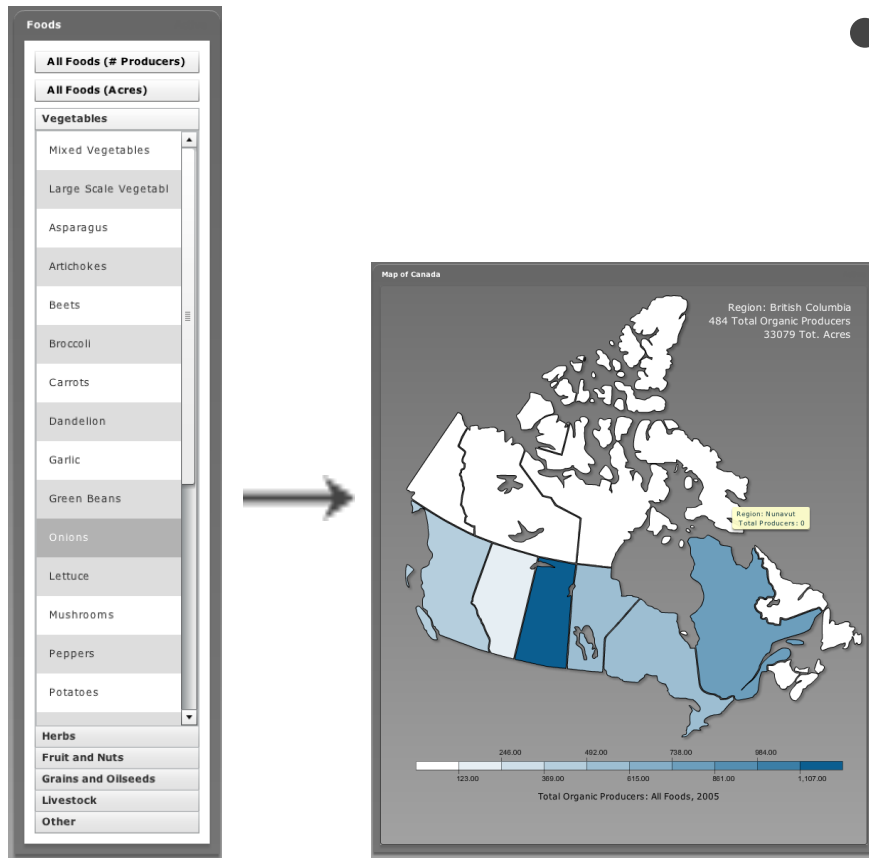
Demo / Results / Justification / Limitations / Future Work / Q + A



Informed Omnivore - [video demo](#)



- Where we left off... (11/18)
 - implemented geo-spatial display of organic food data in Canada
 - beginning to use Flare toolkit for secondary displays
 - multiple displays not yet linked



- What was done since...

- drill down on food type

- adding additional data for all food types

- categories and individual food types

- linked secondary views

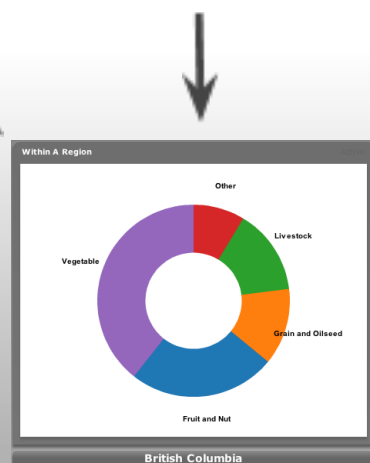
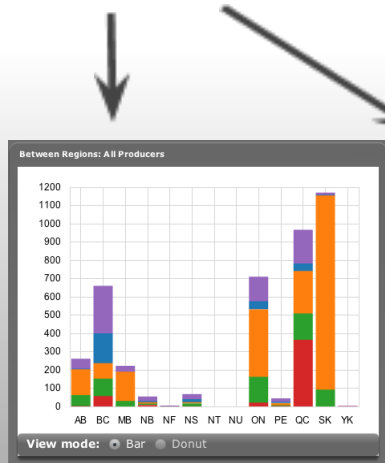
- between regions

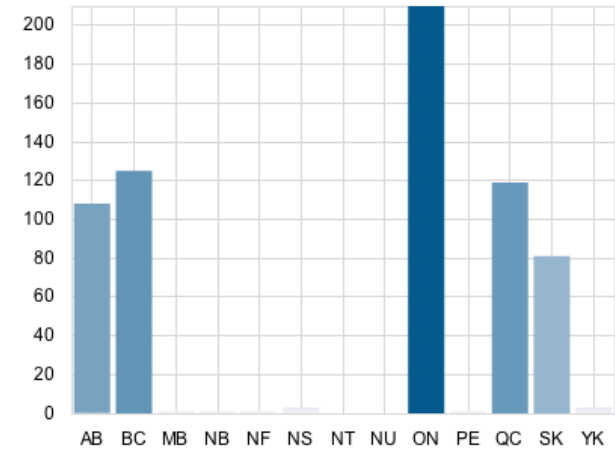
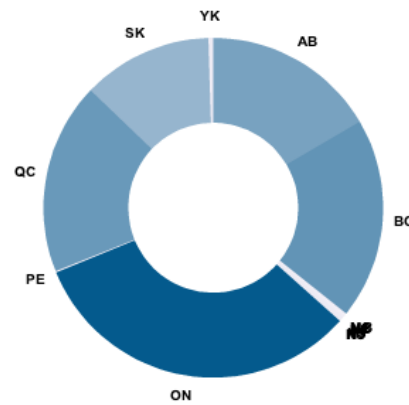
- within regions

- remains unfinished

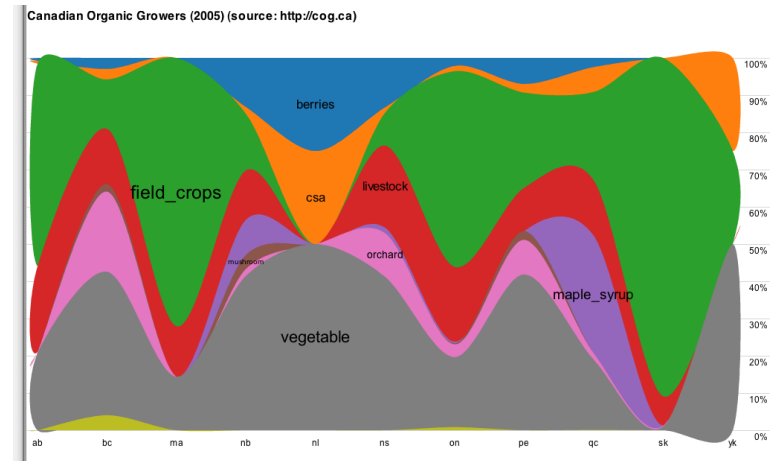
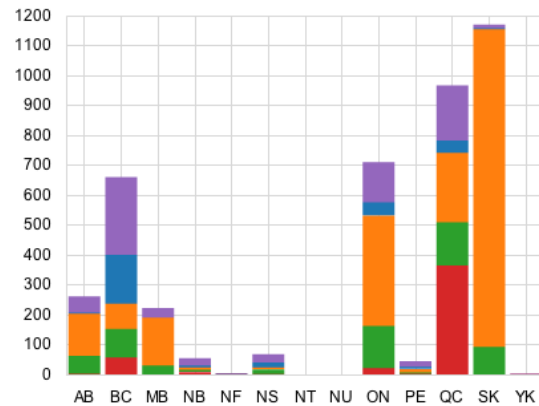
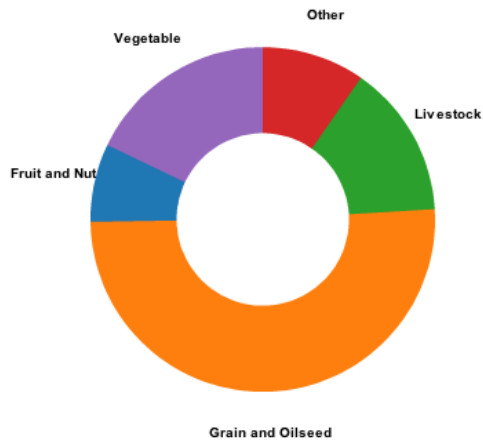
- bidirectional linking

- sub-provincial drill-down



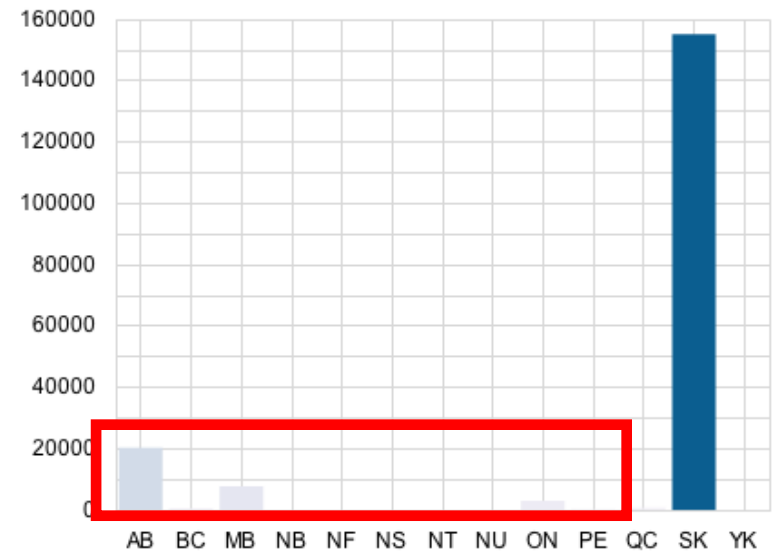
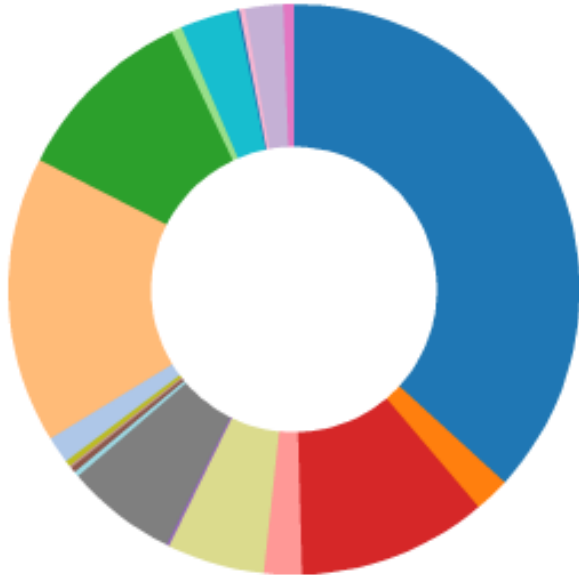


- Justification of visual encoding
 - colour saturation correspondence
 - reinforcement of linked displays
 - map display, between region display
 - linear colour saturation scale



- Justification of visual encoding

- colour correspondence, between and within regions
- stacked bar / donut charts versus poly-blob chart
- bars arranged alphabetically (versus quasi-geographically)

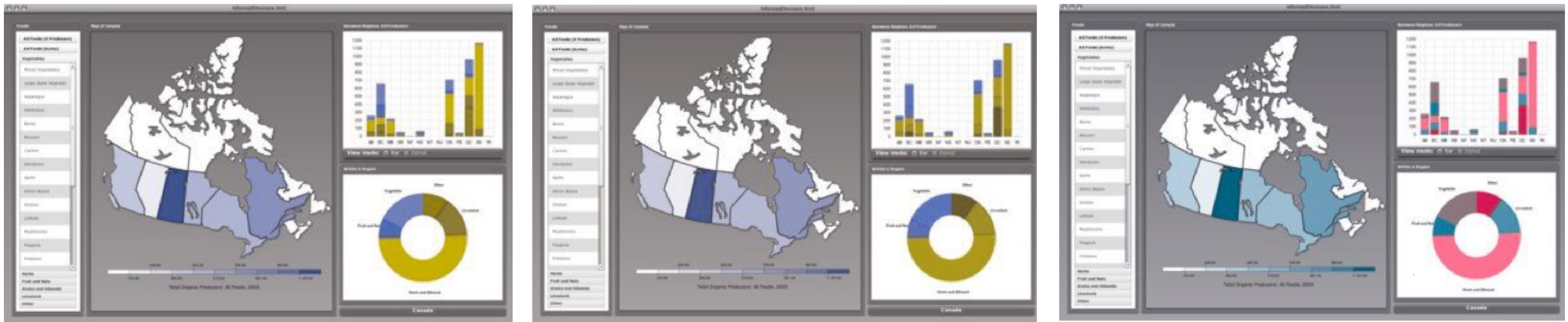


- Technical limitations
 - unfamiliar toolkits [3.2, 3.3]
 - radial labelling
 - control over colour choice
 - colour saturation scale
 - skewed or clustered distributions

- Data limitations
 - inconsistencies between metrics across food types
 - i.e. acres, # producers [2.1]
 - lack of detail with secondary data sources
 - StatsCan regional data [2.2]
- Personal expertise limitations
 - project scope
 - architectural issues

- pending data availability
 - accurate regional data with consistent metrics
 - locations of organic producers
- architectural restructuring
 - bidirectional linking between displays
- additional features / improvements
 - scented widgets in food type panel [4.2]
 - normalize map regions by population density
 - colour saturation encoding
 - statistical density function / locating clusters [4.1]

Demo / Results / Justification / Limitations / Future Work / Q + A



Vischeck: deuteranope / protanope / tritanope

Demo / Progress / Justification / Limitations / Future Work / **Q + A**

Questions

References

1. Inspiration

1. MacEachren, A. M., Dai, X., Hardistry, F., Guo, D., & Lengerich, G. (2003). Exploring high-d spaces with multiform matrices and small multiples. *Proc. InfoVis 2003* , 31-38.
2. Pollan, M. (2006). *The omnivore's dilemma: A natural history of four meals* . New York: the Penguin Press.
3. Weaver, C. (2004). Building highly-coordinated visualizations in improvise. *Proc. InfoVis 2004* .
4. Weaver, C., Fyfe, D., Robinson, A., Holdsworth, D. W., Peuquet, D. J., & MacEachren, A. M. (2007). Visual exploration and analysis of historic hotel visits. *Information Visualization* , 6, 89-103

2. Data

1. Macey, A. (2006). *Certified organic production in Canada 2005* . Canadian Organic Growers. Retrieved from http://www.cog.ca/documents/certifiedorganicproduction05E_000.pdf
2. Statistics Canada, 2006 Census of Agriculture (2007). *Farm data and farm operator data (Catalogue no. 95-629-XWE)* . Retrieved from <http://www.statcan.gc.ca/ca-ra2006/index-eng.htm> [not used in existing implementation]

References

3. Implementation

1. Adobe Flex 3 [Computer Software]. Adobe Systems Incorporated (2009). Retrieved from <http://www.adobe.com/products/flex/>
2. Mindset Geometrics. Retrieved from <http://www.mindset-geometrics.com.ar/>
3. UC Berkeley Visualization Lab (2009). Flare data visualization for the web. Retrieved from <http://flare.prefuse.org/>

4. Inspiration for Future Work

1. Herman, I. and M.S. Marshall, M. S., & Melancon, G. (2000). Density Functions for Visual Attributes and Effective Partitioning in Graph Visualization. *IEEE Information Visualization Symposium 2000*, IEEE CS Press, Salt Lake City, USA.
2. Willett, W., Heer, J., & Agrawala, M. (2007). Scented Widgets: Improving Navigation Cues with Embedded Visualizations. *Proc InfoVis 2007, IEEE TVCG 13* (6):1129-1136.

Informed Omnivore

<http://~brehmer/demo/omnivore/informedOmnivore.html>

video: <http://~brehmer/demo/omnivore.mov>