**Brief Bio and (PR)$^2$: Problems & Pitches – Raves & Rants by John Burgoon**

**Biography**

My home page is located at [http://mypage.iu.edu/~jburgoon](http://mypage.iu.edu/~jburgoon)

My picture is located on that page, also.

I am an Indiana native who returned to school after 14 years in industry. I have worked in industrial ware washing, contract building maintenance, and internet consulting. My undergraduate work was completed in IU’s General Studies program, where I studied a broad range of interdisciplinary skills with an emphasis on physics, mathematics, philosophy, art, and linguistics. Over the years I discovered that I enjoy translating between professionals in widely disparate fields of work. I especially enjoy bridging the gap between scientists and those non-scientists who have sincere interest in the harnessing and adapting science to specific purposes. Collaboratively assisting project-oriented teams to accomplish specific information engineering goals is my favorite work. This currently ranges from applying geographic information system techniques to database visualizations to structural data mining of retail shopping behavior data.

**General Questions**

What is your main interest in attending the workshop?

I am eager to learn of new techniques in knowledge visualization.

What is your main interest in ‘mapping science’ and/or ‘knowledge management (KM) tools’?

Differentiating between data and information is an evolving problem and I have deep interest in specific methods for this. I especially focus my efforts on network-based structural data mining techniques and any geospatial methods which can reduce large quantities of data into useful information.

**Questions for Map Makers**

What opportunities/solutions do maps of science / KM tools offer for what stakeholders?

Maps of any kind allow the user to navigate according to waypoints. This means that maps harness human visual capabilities to allow rapid reduction of large quantities of data into useful, focused, contextual information. The decision support and creativity enhancements which arise from the power of maps are well-established in traditional cartography. I believe they apply equally well to information cartography.

What main challenges do you foresee for designing effective maps of science / KM tools?

Meaningful referential frameworks are still primitive in this field. Attempting to map or manage our total human knowledge without a solid referential framework is like operating a large library without any sort of catalogue.

Redundancy of effort remains another challenge. A survey of information visualization tools quickly reveals that many individuals work to create tools which already exist elsewhere. As our total knowledge and total number of available tools grows, so too grows the number of people who eagerly work toward building new tools without awareness that what they need already exists. Building and maintaining overall awareness of available tools should remain a key goal of information science. Good search services such as Google help, but certainly can be improved.

Please provide higher resolution images, a brief description, and if available citation references for up to three science maps you have created and are most proud of. Use one page per map.

See next page.
Science Paper City of Origin, mapped and labeled according to location of origin of papers. City name used as label.

Collaboratively designed map made during the creative process for the NYPL project by John Burgoon and Brad Paley. I am especially proud of this map and others in this series because, rather than a final product, this map was truly a visualization to assist Brad, our project designer in making his final map design choices. While the map itself does not resemble the final NYPL display map, many similar conceptual elements are here, and had a strong influence on our project design. Ref: Data points from Kevin Boyack at Sandia Nat’l Labs using his ISI data set. ESRI ArcMap 9.1 software. March 2006.