Introduction & Logistics: 8.30-9.00
Getting settled – internet connections working, Skype sessions connected, lightning talks loaded. Followed by an introduction – discussion of aims of the workshop and structure of the day.

Plenary White Paper Summaries: 9.00-10.30
Each group is allocated 30 minutes, with 3 x 5 minutes for lightning talks and 15 minutes for discussion. Audience members should please play the role of “devil’s advocate”, identifying gaps in the white papers, potential overlap (desirable or not) between topics, and overarching themes we should consider today.

Coffee break 10.30-11.00

Breakout Session #1, Generation: 11.00-12.30
In this session, we split into our three groups and perform a brainstorming activity. Our goal here is to characterize the “knowledge space” (and gaps therein) for the three ‘big questions’. This knowledge space can be described by concepts/trends/publications/projects that require attention. Each person should work for 30 minutes individually on this task, after which the group comes together to collect these concepts on index cards and discuss as a group whether a given card belongs to that research theme – establishing the boundaries of the knowledge space. Then for all cards that have been judged to belong to the group, code the card as “remaining problem”, “problem solved”, “emerging problem”, and any other categories the group deems useful.

Lunch 12.30-13.30

Breakout Session #2, Organization: 13.30-15.00
Again in the three groups, the next task is to try to organize the cards into a logical structure. Here we’ll try to use whiteboards to sketch out how the cards relate to each other. Each group should identify one leader to direct this discussion and one note-taker during this session to capture instances of priorities, confusions and disagreements from the discussion. Use CMAP (http://cmap.ihmc.us) to create a digital version of the final organization (if time allows) or capture and store all documents from the workshop digitally using cameras for later translation to a digital concept map. In the final 30 minutes of this session, use the structure to create a draft outline for an agenda paper on the ‘big question’.

Coffee break 15.00-15.30

Plenary #2, Progress Made: 15.30-17.00
Each group is again allocated 15 minutes to present their outputs from Breakout Session #2 (concept map and research agenda outline), with 15 minutes reserved for discussion of each group’s outputs. Presentations will go in reverse order from the morning sessions. Members of other groups should aim to provide critical feedback about the presented agenda outlines, with particular attention paid to areas of overlap.

Wrapup and next steps: 17.00-17.15
Workshop Milestones:
At the end of the day, we hope to have generated the following:

- Collect and characterize the emerging "knowledge space" for each "big question" (i.e., what should we be thinking about).
- Create an initial concept map organizing this knowledge space, and revealing gaps therein.
- Generate notes on priorities, confusions, and disagreements that should be noted as open areas of research.
- Create a research agenda outline to structure a follow-up workshop in 2016. This workshop is tentatively planned to be co-located with GIScience 2016 in Montréal in September.

Links to White Papers:

<table>
<thead>
<tr>
<th>Research Methods in Cartography and Geovisualization</th>
<th>Designing across Human Abilities and Map Use Contexts</th>
<th>Representing &amp; Interacting with Big Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the usability of user research techniques and methods (longstanding and emerging) in the context of cartographic user research questions?</td>
<td>2. How can we best develop a systematic understanding of the intersection between human abilities, cartographic design decisions, and map use context? Can we predict what will work?</td>
<td>3. Which cartographic designs are most suitable to provide an overview (summary) and support user interactions with large, heterogeneous, spatio-temporal data-sets?</td>
</tr>
</tbody>
</table>

- Arzu Coltekin: [http://personal.crocodoc.com/FAdByPJ](http://personal.crocodoc.com/FAdByPJ)  
- Sara Fabrikant: [non-editable paper link](http://personal.crocodoc.com/FAdByPJ)  
- Aileen Buckley

- Corné van Elzakker: [http://personal.crocodoc.com/wszdhfB](http://personal.crocodoc.com/wszdhfB)  
- Haosheng Huang: [http://personal.crocodoc.com/xCTdUQp](http://personal.crocodoc.com/xCTdUQp)  

- Amy Griffin: [http://personal.crocodoc.com/Cauweqj](http://personal.crocodoc.com/Cauweqj)  
- Menno-Jan Kraak: [http://personal.crocodoc.com/sAMwTCT](http://personal.crocodoc.com/sAMwTCT)

- Beate Weninger: [http://personal.crocodoc.com/eiKuVgm](http://personal.crocodoc.com/eiKuVgm)  

- Robert Roth: [http://personal.crocodoc.com/O1aWiNt](http://personal.crocodoc.com/O1aWiNt)  
- Travis White: [http://personal.crocodoc.com/RqYhGxg](http://personal.crocodoc.com/RqYhGxg)  
- Anthony Robinson: [http://personal.crocodoc.com/LqXnNub](http://personal.crocodoc.com/LqXnNub)

- Carolyn Fish: [http://personal.crocodoc.com/XwGnsrg](http://personal.crocodoc.com/XwGnsrg)

Links to information on getting to the venue:  
[http://www.cartografia.ufpr.br/home/?page_id=357](http://www.cartografia.ufpr.br/home/?page_id=357)

Organized by:  
ICA Commission on Cognitive Visualization  
ICA Commission on Geovisualization  
ICA Commission on Use and User Issues  
ICA Commission on Map Design  
With help from the local organizer, Luciene Stamato Delazari, UFPR