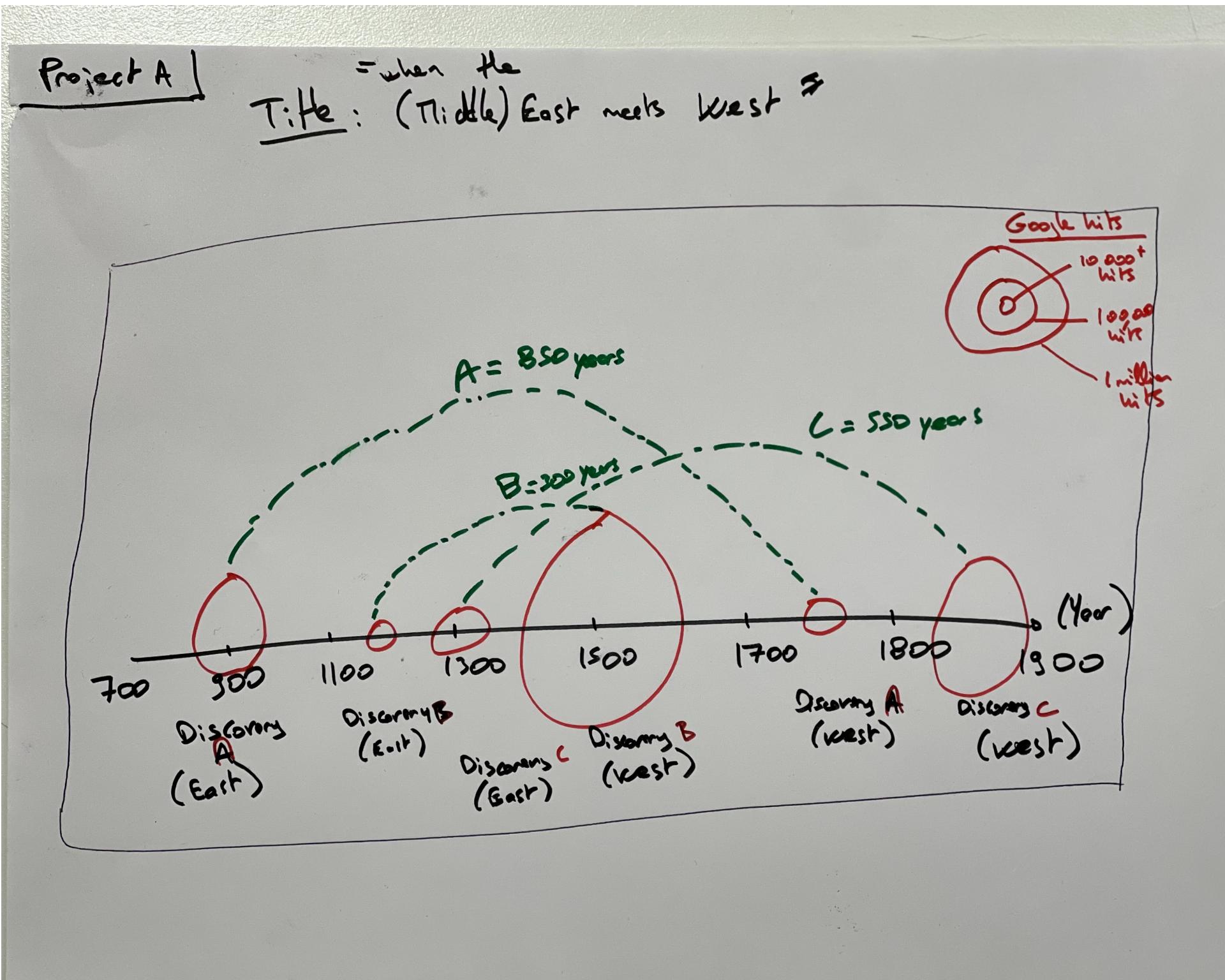


Project A : “Temporal Connections: When the (Middle) East Meets the West”

Subject:

The Middle East is a wealth of knowledge that is not always well known. Focusing on the scientific domain (inventions, discoveries, breakthroughs) during the Islamic Golden Age (and beyond), the data visualization will plot in parallel the discoveries of East versus West (by year). For this visualization, I'm interested in drawing parallel timelines and hope to see various levels of temporal disparity, but I'm also keen to calculate how the distance between List A and List B evolves overtime and how this may affect our perception of this topic. One objective is to debunk the myth (or the illusion) that the West has **first** made a significant number of important scientific 'discoveries'.



1. Choice of Chart

- a. An Arc Diagram which displays a layout of nodes to represent time gaps between discoveries/inventions in the East (Discovery A (East)) and discoveries in the West (Discovery A (West)). In this chart, nodes are placed alongside an X Axis which represent years of discovery, and arcs are used to display these temporal connections. I also intend to contrast these temporal connections with the size of google hits per inventor (another option would be to make use of the thickness of the lines to display high quantities of google hits per inventor).

2. Main question

- a. In addition to mapping out the different sizes of temporal connections, I'm interested in finding out if there is a positive/negative correlation between temporal connections and current levels of familiarity with a given inventor from the Middle East.

3. Design Elements & Principles

- a. In terms of color, I intend to use categorical colors to differentiate the nodes based on different subjects (engineering, maths, etc). To visualize the size of google hits, I intend to use either different levels of stroke thickness or different 'bubble sizes' (node level). Finally, when certain nodes are highlighted through hover (or click), different levels of glow-opacity will be displayed. I expect to see different levels of density (temporal clusters) and contrasts (thin/thick) in addition to some form of perspective (perceptions of temporal distances for example).

4. Target audience and questions vs. answers/solutions

- a. Anyone interested in science history and/or regional studies might find this interesting. This can raise new questions (temporal connections) while providing new insights (e.g. our level of familiarity with little known but influential inventors).

5. Minimum requirements

- a. All nodes and arcs will be displayed by default when the page loads. A tool tip will be added to provide more information about each temporal connection.

6. User Interaction

- a. Connections can be highlighted when the viewer hovers or clicks on a specific arc or node.

7. Enhancement options.

Ideally, a chronological scrolltelling feature could add more meaning. Georeferencing the temporal connections could also be helpful.