Digital Tools for Digital Humanists: Information Design and Data Visualization

Glauco Mantegari
“Information design is defined as the art and science of preparing information so that it can be used by human beings with efficiency and effectiveness”.

–Robert E. Horn, 2000
Source: re-drawn from Cairo (2013), The Functional Art, fig. 1.9, p. 18
Analysis

Data Visualization

- Raw data
- No editing
- Science

Information Graphics

- Interpreted data
- Editorial processes
- Media

Source: re-drawn from a presentation by Paolo Ciuccarelli
to visualize data and information
to make complex phenomena (visually) accessible and “usable”

—Paolo Ciuccarelli
Su Song, 1092

Playfair, 1786

Playfair, 1805

Snow, 1854

Minard, 1858

Minard, 1869

Source: images from the Web
- No strict rules exist to create effective visualizations -
One dataset visualized 25 ways

Source: https://flowingdata.com/2017/01/24/one-dataset-visualized-25-ways/
Practically speaking ...
Hartlieb’s correspondence: 4833 letters (sent/received)

Source: http://emlo.bodleian.ox.ac.uk/
Source: sketches from a Design Sprint in the COST Action “Reassembling the Republic of Letters.”
Geographical data

Historical vs modern perspective
Boundaries change over time
Different granularities and hierarchies
Show letters from all to all

Source: mockup from a Design Sprint in the COST Action “Reassembling the Republic of Letters”
show letters from upper rhenish imperial circle to all
Temporal data

Dates missing
Dates inferred
Co-existence of three calendars
Dates uncertain or vague
Timeline with degrees of fuzziness

Include date ranges that can be inferred together with their probability
Different levels of likelihood when drilling down to a more detailed view

Source: mockup from a Design Sprint in the COST Action “Reassembling the Republic of Letters”
Data on people’s lives and activities

Multidimensional data
Overviews vs drill-downs
Gantt-like charts and dispersion plots

Color coding: main topic, main language, …

Source: mockup from a Design Sprint in the COST Action “Reassembling the Republic of Letters”
Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"
Hartlib

Louis de Geer

John Dury

Frederick Withmarius

Constantine Schaum

Johann Raue

John Evelyn

Ralph Austen

Source: mockup from a Design Sprint in the COST Action "Reassembling the Republic of Letters"
Conversation threads

Source: mockup from a Design Sprint in the COST Action “Reassembling the Republic of Letters”
Individual activity and reciprocity of exchange

Source: mockup from a Design Sprint in the COST Action “Reassembling the Republic of Letters”
### 100 Best Novels

<table>
<thead>
<tr>
<th>THE BOARD’S LIST</th>
<th>THE READER’S LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>ULYSSES</strong></td>
<td>1. <strong>ATLAS SHRUGGED</strong></td>
</tr>
<tr>
<td>by James Joyce</td>
<td>by Ayn Rand</td>
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<tr>
<td>2. <strong>THE GREAT GATSBY</strong></td>
<td>2. <strong>THE FOUNTAINHEAD</strong></td>
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<tr>
<td>by F. Scott Fitzgerald</td>
<td>by Ayn Rand</td>
</tr>
<tr>
<td>3. <strong>A PORTRAIT OF THE ARTIST AS A YOUNG MAN</strong></td>
<td>3. <strong>BATTLEFIELD EARTH</strong></td>
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<tr>
<td>by James Joyce</td>
<td>by L. Ron Hubbard</td>
</tr>
<tr>
<td>4. <strong>LOLITA</strong></td>
<td>4. <strong>THE LORD OF THE RINGS</strong></td>
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<tr>
<td>by Vladimir Nabokov</td>
<td>by J.R.R. Tolkien</td>
</tr>
<tr>
<td>5. <strong>BRAVE NEW WORLD</strong></td>
<td>5. <strong>TO KILL A MOCKINGBIRD</strong></td>
</tr>
<tr>
<td>by Aldous Huxley</td>
<td>by Harper Lee</td>
</tr>
<tr>
<td>by William Faulkner</td>
<td>by George Orwell</td>
</tr>
<tr>
<td>7. <strong>CATCH-22</strong></td>
<td>7. <strong>ANTHEM</strong></td>
</tr>
<tr>
<td>by Joseph Heller</td>
<td>by Ayn Rand</td>
</tr>
<tr>
<td>8. <strong>DARKNESS AT NOON</strong></td>
<td>8. <strong>WE THE LIVING</strong></td>
</tr>
<tr>
<td></td>
<td>by Ayn Rand</td>
</tr>
</tbody>
</table>

Source: [http://www.modernlibrary.com/](http://www.modernlibrary.com/)
Immediate and early success, small production

Late success, small production

Early success, high production

Source: extracts from https://flic.kr/p/hQE6aJ
Courtesy of https://www.accurat.it/
From first published to masterpieces

Visualized are the authors of the top six best English novels of each year according to the Modern Library ranking. Authors are represented through circles showing their place in their debut novel, their masterpieces, and the timeline in between. Their order is determined by the gap between the debut novel and the first published novel selected from the Modern Library ranking: masterpiece.

Debut novels such as masterpieces correspond to the circle's size and stroke. Information about authors' hometowns and novels' naming are reported as well.

Source: biography.com, britannica.com, modernlibrary.com

How to read it?

Authors are ordered from the earlier novels to the latest ones.

- The size of the circle is proportional to the gap between the debut novel and the first published novel.
- The color of the circle is a shade of the author's hometown.
- The stroke width of the circle is directly proportional to the number of books written by the author.

The visualization has been designed and produced by Accurat (www.accurat.it), and was originally published in Nash Sheskin’s supplement of Cartamondo Italia.
Mapping the Republic of Letters
Navigating big data from the early modern period.

Source: http://republicofletters.stanford.edu/
Source: mockup from a Design Sprint in the COST Action “Reassembling the Republic of Letters”
Source: Masud et al. (2010), From Data to Knowledge, fig. 1, p. 446
opportunities and challenges

domain questions