ASSIGNMENT SUMMARY

Students will conduct individual research and analysis of best seller lists (possibly overlapping with prizing and/or banned books) on a topic relevant to their own interests or area of study. Students will amass quantitative data using best seller lists (and possibly other kinds of lists). Each student will formulate an argument based on the data and supporting qualitative research; this argument and evidence will be presented through a visualization of the data and a supporting statement. As a class, we will take part in a Data Visualization workshop with GA Tech Data Visualization librarian Ximin Mi on Thursday, November 9 during our regular class period to help you prepare.

UNIT 3
Best Seller Lists
Data Visualization

Final Artifact: Data Visualization (100 points) - Students will create and justify a data visualization about best seller lists. Students will compile data sets through original research, then curate the visualizations best fitted to convey the significance of their findings. This project will include the data set, 2-3 data visualizations, and a supporting statement that reflects on the student’s research process and findings. The final visualizations may be static or animated, depending on the student’s research topic, argument, and findings. **Due: 11:55pm November 30 to TSquare**

INSTRUCTIONS

For this assignment, each student will work individually to compose a research question about best seller lists. Using this research question as a framework, students will complete original research on the best seller list(s) of their choice, collecting and coding information into a data set, ideally using Google Sheets. Using this data set, you will create at least two visualizations that will help you to make arguments about the data you have collected. The final data visualization artifact will consist of two elements, **ideally submitted as one PDF:**

1. 2-3 visualizations of student collected data
2. A 2 page written statement (400-600 words) reflecting on your research process and findings
3. A link to the Google Sheet containing the student’s raw data
   OPTIONAL: Links to animated versions of visualizations

Each visualization must include:
1. A header
2. A legend
3. Appropriate source citations

The student’s written statement should reflect on the assignment and the student’s research process. The statement should clearly present the compelling, surprising, and/or significant findings in the data and how those findings relate to the social, political, historical, or cultural themes we have discussed this semester. Students are welcome to draw on class discussions, their Twitter research journal, in-class activities, and other sources in composing this statement but at a minimum, it should demonstrate the work behind the
A successful data visualization project will:

- Clearly communicate an argument visually in response to a research question about best seller lists
- Display data in a visually appealing manner, including considerations of color, size, balance, proximity, readability, and clarity
- Carefully consider and make use of the best possible visualization form for the data/question
- Provide viewers with a clear idea of the research question and answer/thesis
- Provide readers with a clear understanding of the research process, findings, and significance
- Provide viewers/readers with appropriate levels of context and background for clear communication
- Provide viewers/readers with sufficient data to justify the conclusions and establish ethos
- Engage viewers/readers through rhetorical appeals and effective communication
- Be mechanically correct, with appropriate labels, scales, and genre requirements on visualizations and appropriate grammar, academic style, and MLA citations in the statement
- Creatively engage with the data and different approaches to presenting information

Additional Tips:

- Make the design of your data visualization fit the data, not the other way around; that is, data has priority over design
- Don’t manipulate the data in order to make it fit your argument.
- Cite the sources of your data.
- Don’t try to cram all of your data into a visualization; streamline it, so that the important patterns and trends emerge.
- Your data (and visualization) will have most impact on your audience if you can show how it tells a story

Project Stage: Research Question and Twitter Research “Journal” (50 points) - Students will use their course Twitter account to pose a research question and solicit feedback/suggestions on their approach to the project. Students will tweet about the progress of their research, their findings, their initial conclusions and their revision process, as well as respond to peers and provide feedback on their research.

INSTRUCTIONS

At the start of Unit 3, students will begin to read and think about best seller lists. Each student will use their Twitter feed to reflect on what they are learning and to brainstorm ideas for their project. Between Thursday, November 9 and Tuesday, November 14, students will be expected to compose at minimum 5 brainstorming tweets about potential areas of research, culminating with a research question they hope to answer through original research. Each student should tweet their research question, adding #RQ to the standard #1101List. Students may refine or tweak that research question as they progress, each time adding the #RQ notation.

Over the course of their research, from November 7-November 30, students will be expected to send an additional 20 tweets documenting their research process. Tweets can be multimodal and informal. Tweets for this assignment may include (but are not limited to):

- Questions they hope to answer or would like help in answering
- Sources they have found to be useful, either for primary or secondary research
- Observations from research or from work with data visualization software
- Discoveries from the data, from data visualization software, or from their own research process
- Possible arguments or thesis statements drawn from the data
- Quotes, images, or charts from research they find useful
Students should also plan to respond to at least 10 tweets from peers who are also engaged in original research.

Therefore, by the end of Unit 3, students should have, at minimum, 35 tweets total dedicated to their research process. Students should aim to use Twitter as a research journal to both record and reflect on their research process as well as to provide feedback and learn from others’ progress.

As always with Twitter assignments, keep in mind the potential for a wider audience; students should strive to make Tweets understandable to those outside our course. Making use of additional (existing) hashtags or participating in online forums or discussions may provide you with additional feedback or advice from other scholars. Students should also consider also how to make use of Twitter genre conventions (like threads, group tweets, or tagging) to help communicate ideas to that wider public audience.

Project Stage: Data Set Blog Post and Peer Review (50 points total) - Students will turn in a draft of their data set to the course blog in order to share with classmates, consider visualization options, and give/receive feedback.

**Blog post due:** 11:55pm, Tuesday, November 21. (30 points)
**2 responses due:** 11:55pm, Tuesday, November 28 (10 points per response)

**INSTRUCTIONS**

Using Google Sheets, students will research and compile a data set to be used in their data visualizations. These data points should be drawn from primary sources like a best-seller list and should be an accurate representation of the original data set. Students will need to collect an appropriate amount of data so that their findings will be statistically significant and can be used to support the student’s argument.

Example: If the student is examining whether men or women are more likely to become a #1 bestselling author during the “summer blockbuster” season, the student’s Excel sheet would contain data for June, July and August best-seller lists for a set period of time, noting the #1 best seller on the Fiction list and the author’s gender.

On Nov. 21, each student will post a brief blog entry (300-500 words) on the course website that includes:
1. The research question
2. A link to data set with information on how the data was obtained
3. A brief reflection on research process to date
then EITHER
4. 1-2 concerns or questions the student is struggling with before completing the project*
   OR
4. A draft/preliminary data visualization with initial conclusions

No later than Nov. 28, each student will respond to 2 of these blog posts through the course website. Each brief response (100-200 words) should offer feedback, advice, information, tips, or ideas about how the poster can work with the data, improve the data set, or think through the visualization process. Students should consider these two responses an open-ended peer review and should strive to help fellow students improve their work through constructive criticism and concrete feedback.

*Questions should be content based (“How do I best to visualize this variable over time? Where can I find demographic data on authors?”) rather than procedural (“Do we turn this in on TSquare? When is it due?”)
Georgia Tech’s Communication Center is located in Clough Commons, Suite 447. It is an excellent resource for all students (undergraduate or graduate) who want help with a communication-related project, from their multimodal assignments for English 1101 and English 1102 to graduate school applications, from engineering and science reports to oral presentations, from storyboards for videos to poster designs, from grant proposals to job cover letters and resumes. The trained professional and peer tutors in the Communication Center help all students with their written, oral, visual, electronic, and nonverbal communication in every discipline. The staff includes professional tutors specially trained to assist non-native speakers. All services are free and confidential.

The Communication Center is happy to work with teams or individuals.

Website for Appointments: communicationcenter.gatech.edu/content/make-appointment
Phone: 404-385-3612
Visit: Clough Commons Suite 447

Data Visualization Librarian Ximin Mi will give a data visualization workshop in class on November 9 and can field questions about data sets, and various visualization software.

Georgia Tech librarians Karen Viars is available to our class by email or meetings to assist you in research or finding resources to help you with your projects. Her office hours are in Skiles 349A on Tuesdays from 10am-noon.

The Multimedia Instruction Librarian Alison Valk can help with tips on various software applications as well as visual design questions.

Links to Online Resources:

D3: (Data-Driven Documents or D3.js) is a JavaScript library for visualizing data using web standards. D3 helps you bring data to life using SVG, Canvas and HTML. D3 combines powerful visualization and interaction techniques with a data-driven approach to DOM manipulation, giving you the full capabilities of modern browsers and the freedom to design the right visual interface for your data.

Information is Beautiful: A website with the mission to distill the world’s data, information and knowledge into beautiful and useful graphics & diagrams. Our goal is always to help everyone make better, clearer, more informed decisions about the world.

Seeing Data: A group of research projects which aim to understand the place of data visualizations (like those in the examples below) in society. This website includes information about projects which have been completed, are currently underway, or are about to start. It also includes, in the first section, resources to help non-experts develop their ability to make sense of data visualizations

Periodic Table of Visualization Methods: A chart representing a broad overview of data visualization types
EXPECTED STUDENT OUTCOMES: ARTIFACT

The specific outcomes for the Data Visualization Project include:

- Hone written and visual communication skills through a clear, concise, visually appealing artifact
- Improve individual research skills and learn to support arguments with data and visual elements
- Practice translating data and arguments into visual representations accessible by a wide audience
- Use digital software to collect and organize data, then create visualizations that help detect patterns and tell a story

EXPECTED STUDENT OUTCOMES: STAGES

In addition to the outcomes for the final unit artifacts, the project stages are designed to include the following outcomes:

- Increase attention to pre-planning, including engaging with the research process through a public venue
- Carefully consider approaches to rhetoric and argumentation through the use of different visualization schemes and data organization
- Encourage collaborative problem solving approaches through public brainstorming, research journaling, and peer review
- Demonstrate problem solving and nuanced understanding of the specific affordances of digital technologies, statistical analysis, and visual rhetorics
<table>
<thead>
<tr>
<th>Scale</th>
<th>Basic</th>
<th>Beginning</th>
<th>Developing</th>
<th>Competent</th>
<th>Mature</th>
<th>Exemplary</th>
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</thead>
<tbody>
<tr>
<td><strong>Rhetorical Awareness</strong></td>
<td>Overlooks two or more aspects of the situation or assignment, and thus does not fulfill the task</td>
<td>Overlooks at least one aspect of the situation or assignment and thus compromises effectiveness</td>
<td>Attempts to respond to all aspects of the situation or assignment, but the attempt is incomplete</td>
<td>Addresses the situation or assignment in a complete but perfunctory or predictable way</td>
<td>Addresses the situation completely, with unexpected insight; could be presented to target audience with small changes</td>
<td>Addresses the situation in a sophisticated manner that could be presented to target audience as is.</td>
</tr>
<tr>
<td><strong>Stance</strong></td>
<td>Involved an unspecified or confusing argument; significance is not evident</td>
<td>Makes an overly general argument; significance is difficult to discern, or not appropriate to the rhetorical situation</td>
<td>Makes a simplistic or straightforward argument, or multiple arguments that have no clear connection to one another; gestures towards significance, but does not fully develop it</td>
<td>Makes an explicit and straightforward argument that does not oversimplify the problem or question; explores at least one implication of the argument in depth</td>
<td>Makes a complex, unified argument that clearly articulates a position or stance; explores multiple implications of the argument</td>
<td>Offers an inventive, expert-like argument that clearly articulates a sophisticated position/stance; explores multiple implications of the argument in a compelling manner.</td>
</tr>
<tr>
<td><strong>Development of Ideas</strong></td>
<td>Claims requiring support are not backed by necessary evidence; lacks analysis of major pieces of evidence; content is not substantive</td>
<td>Evidence and/or analysis is weak or contradictory; does not account for important evidence that could support or disprove the argument</td>
<td>Evidence provides minimal but necessary support to each point; attempted analysis is not sufficient to prove the argument</td>
<td>Evidence and analysis are substantive; they support the argument and related claims, but are mostly predictable</td>
<td>Evidence fully supports and proves the argument and all related claims; evidence is always paired with compelling analysis</td>
<td>Evidence and analysis are precise, nuanced, fully developed, and work together to enhance the argument,</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Lacks unity in constituent parts; fails to create coherence among constituent parts; contains major argumentative holes or fallacies. Organization impedes understanding.</td>
<td>Uses insufficient unifying statements; uses few effective connections; some logical moves necessary to prove the argument are absent. Organization does not improve understanding.</td>
<td>Uses some effective unifying claims, but a few are unclear; inconsistently makes connections between points and the argument; employs simplistic organization</td>
<td>States unifying claims with supporting points that relate clearly to the overall argument and employs an effective but mechanical scheme. Logical organization supports understanding.</td>
<td>Asserts and sustains a claim that develops logically and progressively; adapts typical organizational schemes for the context; achieves substantive coherence</td>
<td>Artifact is organized to achieve maximum coherence and momentum; connections are sophisticated and complex when required. Organization anticipates readers’ needs.</td>
</tr>
<tr>
<td><strong>Conventions</strong></td>
<td>Involves errors that risk making the overall message distorted or incomprehensible</td>
<td>Involves a major pattern of errors;</td>
<td>Involves some distracting errors</td>
<td>Meets expectations, with minor errors</td>
<td>Meets expectations in a virtually flawless manner</td>
<td>Exceeds expectations and manipulates conventions to advance the argument</td>
</tr>
<tr>
<td><strong>Design for Medium</strong></td>
<td>Lacks features necessary or significant for the genre; uses features that conflict with or ignore the argument</td>
<td>Omits some important features; distracting inconsistencies in features; uses features that don’t support argument</td>
<td>Uses features that support the argument, but some match imprecisely with content; involves minor omissions or inconsistencies.</td>
<td>Supports the argument with features that are generally suited to genre and content.</td>
<td>Promotes engagement and supports the argument with features that efficiently use affordances.</td>
<td>Persuades with careful, seamless integration of features and content and with innovative use of affordances.</td>
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